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The differential impact of interactions outside the organization on employee well-being

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We examine two different perspectives of interactions outside the organization: the relational work design perspective and the emotional labour perspective. The relational work design perspective suggests that interactions outside the organization have favourable outcomes for employees, whereas the emotional labour perspective suggests that such interactions have adverse outcomes for employees. Our goal is to reconcile findings from these two research streams. In Study 1, using data from employees working in diverse occupations, we find that interactions outside the organization have a positive indirect effect on employee well-being via task significance, and a negative indirect effect on employee well-being via surface acting. In Study 2, using data collected across two time points, we replicate these findings. In Study 3, we further extend these results and illustrate that interactional autonomy and interactional complexity are influential moderators that shape the strength of the mediated relationships. Our results aid in reconciling and extending findings from two different research streams, and enhance our understanding of the role of interactions outside the organization.

Practitioner points

- Managers should consider that employees' interactions outside the organization have the potential to improve their well-being.
- Organizations could redesign jobs to enable employees in customer-facing roles to have greater discretion in how they interact with their customers and also increase the variety of these interactions.

Consider a typical job in a services-based economy: the job of a salesperson. A salesperson interacts with numerous customers in the course of a workday. Because these interactions are undertaken to fulfil job responsibilities, they also involve a set of rules and guidelines that the salesperson is expected to adhere to. What is the impact of engaging in interactions with customers for the salesperson? Is it emotionally draining for the salesperson to engage in such interactions? Or does the salesperson feel stimulated by the interpersonal connections formed during these interactions? Organizational scholarship

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does provide insight into these questions, but it appears that the answer depends on the specific question being posed.

One perspective – the emotional labour perspective – suggests that through these interactions, employees convey organizationally mandated or desired expressions, and in regulating their emotions to convey these expressions, they may be engaging in emotional labour (Hochschild, 1983). Accordingly, a stream of research has observed that emotional labour or, more specifically, response-focused emotion regulation (i.e., surface acting) is related to adverse job-related well-being for employees such as lower job satisfaction (Hülshager & Schewe, 2011).¹ However, a second perspective – the relational work design perspective – offers a different view of these interactions. This perspective considers that employees value interactions outside the organization because they play a motivational role and fulfil their relatedness needs (Ryan & Deci, 2017), thereby leading to greater employee well-being (see Humphrey, Nahrgang, & Morgeson, 2007). Interpreting these conflicting findings thus poses a challenge for researchers and, more importantly, for practitioners who work or manage employees in such boundary-spanning jobs.

Grant and Parker (2009) identified and elaborated upon the dichotomy between the emotional labour and relational work design perspectives. In calling upon researchers to reconcile these differing perspectives, they suggested multiple reasons why findings from the two research perspectives may differ. For instance, they suggested that relational work design researchers may have focused on jobs (e.g., lifeguards) where employees can understand how they have meaningfully impacted their customers (see Grant, 2007, 2008a); conversely, emotional labour researchers may not have considered such types of jobs. Similarly, they speculated that personality factors may be at play because the samples chosen may have been predisposed to experiencing certain outcomes (e.g., emotional labour researchers may have considered samples predisposed to experiencing higher burnout). Additionally, they emphasized that organizational constraints and opportunities may have also contributed to the divergent findings because emotional labour researchers have focused on jobs where employees face considerable hurdles (or ‘red tape’) in carrying out their duties – constraints that are relatively less onerous in jobs examined by relational work design researchers (Grant & Parker, 2009, p. 330). Building upon these arguments, Grandey and Diamond (2010) similarly called for bridging the divide between these two research perspectives by focusing on the structural factors of the interactions to clarify their impact on employee well-being (see also Grandey & Gabriel, 2015; Groth & Grandey, 2012).

In addition to bridging the theoretical gap and enhancing scholarly understanding, there are also practical imperatives to shed light on this issue. In many jobs, interactions outside the organization are not only likely to be ‘chronic, frequent, and intense’ (i.e., those examined in emotional labour research) or ‘brief and infrequent’ (i.e., those examined in relational work design research; Grant & Parker, 2009, p. 330), but may also span the continuums of chronicity, frequency, and intensity. This is particularly likely in organizational settings where there are a large number of different occupations. Consider, for example, the dilemma of a human resources manager who manages employees in jobs requiring interactions outside the organization and seeks to understand the effect of engaging in such interactions on employee attitudes. Should this manager adopt the

¹ We focus on response-focused emotion regulation (or surface acting) primarily because this form of emotion regulation has been consistently shown to have an adverse effect on job-related indicators of employee well-being, whereas antecedent-focused emotion regulation (or deep acting) could evince positive relationships with employee well-being (Hülshager & Schewe, 2011; Mesmer-Magnus, DeChurch, & Wax, 2011). Accordingly, in referring to response-focused emotion regulation, we employ the term *surface acting* for brevity.

prescriptions from emotional labour scholarship and ‘consider the costs and benefits of the explicit emotional demands on customer contact personnel’ (Grandey, Fisk, & Steiner, 2005, p. 902)? Or should the manager adopt the prescriptions from relational work design scholarship and ‘increase an employee’s contact with beneficiaries’ (Grant, 2007, p. 409)? Arguably, both prescriptions merit consideration, and identifying the relevant conditions that need to be in place to adopt one prescription over another matters (see Subramony & Pugh, 2015).

In responding to these calls for reconciliation and clarification, we develop an integrative model that encompasses both the emotional labour and the relational work design perspectives (see Figure 1 for the conceptual model). We test this model across three studies, whose designs address the limitations of samples that are focused on particular jobs or types of interactions, and thus may mask the reasons for the conflicting findings (Grant & Parker, 2009). In Study 1, we investigate whether interactions outside the organization affect employee well-being by simultaneously increasing employees’ surface acting (an adverse outcome as suggested by the emotional labour perspective) and task significance (a desirable outcome as suggested by the relational work design perspective). We test this in a sample of employees from a single organization who work across different occupations that require varying levels of interactions outside the organization. In Study 2, we constructively replicate the findings of Study 1 through a two-wave design in which focal constructs are temporally spaced. In Study 3, we again utilize a two-wave design to replicate these findings and also include two additional well-being outcomes: work engagement and emotional exhaustion. Furthermore, we consider critical boundary conditions that may be contributing to the competing pathways. We do so in response to Grant and Parker’s (2009) suggestion that the relational work design and emotional labour camps have likely focused on fundamentally different types of interactions. Grandey and Diamond (2010) echoed this assertion and further proposed that the two camps have focused on interactions that are either ‘motivating and beneficial [relational work design] versus draining and dysfunctional [emotional labor] to the employee’ (p. 339). We consider two customer service dimensions that they identified as having the potential to help ‘bridge the gap’ between the two camps: interactional autonomy (voluntary vs. role-prescribed interactions) and interactional complexity (customized vs. routinized interactions). Taken together, our three studies facilitate a reconciliation of findings from relational work design and emotional labour research to ultimately enhance our understanding of the effects of interactions outside the organization on employee well-being.

The competing perspectives of relational work design and emotional labour

In a services-based economy, social characteristics of work are increasingly important for both employee well-being (Humphrey *et al.*, 2007) and organizational effectiveness (see Subramony & Pugh, 2015). Interactions outside the organization are one such social characteristic embodied by jobs and reflect ‘the extent to which a job requires an incumbent to communicate with people (e.g., suppliers or customers) external to the organization’ (Humphrey *et al.*, 2007; p. 1336).² Interactions outside the organization

² Following Morgeson and Humphrey (2006), we employ the term “interactions outside the organization” for situations in which employees may interact with clients, patrons, customers, patients, and members of the community, among other members of the public (Grandey & Diamond, 2010). For ease of discussion, in some cases, we use a specific term (e.g., customers) when referring to these interactions outside the organization.

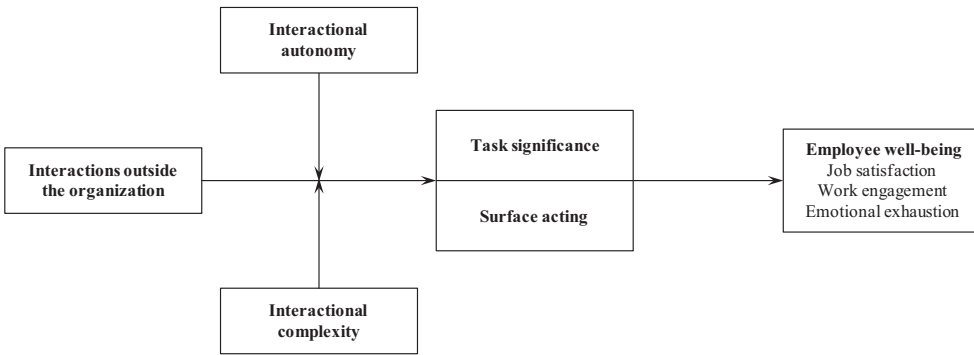


Figure 1. Conceptual model of the effect of interactions outside the organization on employee well-being.

encompass wide-ranging activities such as caring for patients, solving customer problems, selling a product or service, providing consulting services, and protecting the community (Grandey & Diamond, 2010). Therefore, given that interactions outside the organization occur across the occupational spectrum – auditors, call centre representatives, hairdressers, management consultants, police officers, registered nurses, and many others – understanding their effects on employee well-being is a critical question. As noted above, answering this question has been the focus of two distinct streams of research – relational work design and emotional labour – and has produced divergent findings.

The relational work design perspective

Work design theory identifies characteristics of jobs that are motivational for employees and result in desirable employee outcomes such as superior job performance, higher job satisfaction, and lower job stress (Hackman & Oldham, 1980). The shift to a services-based economy and the increase in the number of jobs that require direct interactions outside the organization have brought forth the salience of *relational* characteristics of jobs, which can also result in desirable behavioural and well-being outcomes (Humphrey *et al.*, 2007; Morgeson & Humphrey, 2006; Parker, Wall, & Cordery, 2001). For instance, Grant (2007) proposed that when interacting with people outside the organization, employees are able to understand how their work benefits other people, which enhances their prosocial motivation, and subsequently their effort and helping behaviours. Grant and Parker (2009) embellished these ideas in the relational work design model. In this model, they highlighted that social characteristics of work, such as interactions outside the organization, could trigger employees' perceptions of the impact of their work, which, in turn, could result in attitudinal (e.g., job satisfaction) and behavioural (e.g., performance) outcomes. According to this model, the degree to which employees believe that their work has a positive influence on other people – task significance – serves as a linking relational mechanism of why interactions outside the organization influence employees' job attitudes and performance (see also, Grant, 2007). In other words, as per the relational work design model, interactions outside the organization could spark task significance and thereby impact employee well-being and performance.

Empirical findings in relational work design research support the notion of task significance as a relational linking mechanism for the relationship between interactions outside the organization and employee well-being. Grant (2008a) showed that fund-raising callers who interacted with their customers (i.e., scholarship students who were the beneficiaries of the callers' work) showed greater levels of persistence and raised higher amounts of money than fund-raising callers in the control groups, who performed the same job but did not interact with their customers. Other experiments replicated these results and showed that interactions with people outside the organization who were the beneficiaries of the focal employees' work enhanced the degree to which those employees believed that their jobs were high in task significance (Grant, 2008a; Grant, Christianson, & Price, 2007). Importantly, this relational work design perspective suggests that employees perceive their work to be significant even if they receive adverse feedback from their customers as a consequence of their interactions. As Grant (2007, p. 400) observes, 'Both positive and negative feedback convey information to employees that their work has the potential to affect beneficiaries'. In other words, irrespective of the sign of the feedback, interactions outside the organization could provide employees with an opportunity to view how their jobs impact other people (i.e., they increase employees' perceptions of task significance).

This relational work design characteristic of task significance is motivational because it helps people fulfil their need to connect to other people (Baumeister & Leary, 1995; Deci & Ryan, 2000). The need of belonging or relatedness – central in many theories of work motivation (e.g., self-determination theory, Deci & Ryan, 2000) – is a critical psychological state in Hackman and Oldham's (1980) original work design model because it results in positive employee outcomes by enhancing employees' intrinsic motivation. Accordingly, meta-analytic findings have provided support for the motivational effects of task significance – task significance is associated with higher employee well-being and job performance (Fried & Ferris, 1987; Humphrey *et al.*, 2007).

To summarize, the relational work design perspective and related empirical findings suggest that interactions outside the organization provide employees with an opportunity to view their jobs as significant. Task significance, in turn, is helpful in increasing employees' well-being. Thus, the relational work design perspective highlights that task significance serves as a relational mechanism through which interactions outside the organization have a positive impact on job-related indicators of employee well-being.

Hypothesis 1: Task significance mediates the relationship between interactions outside the organization and employee well-being.

The emotional labour perspective

At approximately the same time that Hackman and Oldham (1980) proposed the job characteristics model, the sociologist Arlie Hochschild (1983) identified a parallel trend occurring in an increasingly services-based economy: the requirement for employees to manage their emotions when interacting outside the organization. Hochschild (1983) observed that an important part of employees' jobs is to adhere to the display rules (Goffman, 1959) specified by the organization. Examples of such emotional labour requirements abound in the modern economy: Flight attendants need to serve their passengers with a smile, bill collectors need to conduct themselves in an assertive manner when meeting their customers, and judges and therapists need to dampen their emotional responses when interacting with clients (Grandey, 2000; Grandey, Diefendorff, & Rupp,

2013). The emotional labour perspective highlights that interactions outside the organization are more effective (from the organization's standpoint) when employees have to regulate their emotions (Grandey, 2000). Employees regulate their emotions through two different processes: deep acting or antecedent-focused emotion regulation (the management of feelings), and surface acting or response-focused emotion regulation (the management of expressions) (Grandey, 2000; Gross, 1998). Scholars have also identified a third strategy – expressing naturally felt emotions – where no 'acting' is essential in order to adhere to organizational display rules (Dahling & Perez, 2010; Diefendorff, Croyle, & Gooseland, 2005). As noted previously, in line with prior research (e.g., Kim, Bhave, & Glomb, 2013; Pugh, Groth, & Hennig-Thurau, 2011; Rupp, McCance, Spencer, & Sonntag, 2008), and because Grant and Parker (2009) invoked this strategy in their call for reconciliation, we are specifically interested in response-focused emotion regulation or surface acting.

From the emotional labour perspective, interactions outside the organization are situational cues that trigger emotion regulation processes, which, in turn, are associated with employee well-being outcomes (Grandey, 2000; Gross, 1998); that is, interactions outside the organization are a situational antecedent of surface acting (Grandey, 2000). In accordance, research has revealed that employees perceive the requirement to manage emotions as an integral factor of their jobs (Diefendorff, Richard, & Croyle, 2006), and therefore engage in greater surface acting when interacting outside the organization (e.g., Diefendorff & Richard, 2003). Notably, research has also revealed that interactions outside the organization result in surface acting not only when employees have to use positive (e.g., smile at customers; Goldberg & Grandey, 2007) or negative (e.g., express anger; Diefendorff & Greguras, 2009) display rules, but also when they have to use neutral (e.g., showing minimal emotion; Trougakos, Jackson, & Beal, 2011) display rules. Thus, in general, the emotional labour perspective contends that when employees engage in interactions outside the organization, there is greater surface acting.

Primary studies and meta-analyses consistently illustrate that surface acting impairs employee well-being (e.g., Bhave & Glomb, 2016; Bono & Vey, 2005; Grandey, 2003; Grandey *et al.*, 2005; Kammeyer-Mueller *et al.*, 2013). When employees engage in surface acting, they need to suppress, amplify, or fake their emotions – an emotional response that is at odds with their internal affective state (Grandey, 2000; Gross, 1998). Accordingly, meta-analytic findings have shown that surface acting is associated with lower job satisfaction and greater emotional exhaustion (Hülshager & Schewe, 2011; Mesmer-Magnus *et al.*, 2011).

In sum, the emotional labour perspective highlights that surface acting serves as an affective mechanism through which interactions outside the organization have an adverse impact on job-related indicators of employee well-being.

Hypothesis 2: Surface acting mediates the relationship between interactions outside the organization and employee well-being.

Bridging the gap: Interactional autonomy and interactional complexity

Focusing on contextual factors arising from specific work settings may provide additional insight into the two competing pathways of how interactions outside the organization link to employee well-being (Grant & Parker, 2009). In that vein, Grandey and Diamond (2010) proposed that interactions outside the organization vary on

different customer service dimensions, and encouraged focusing on those dimensions as an avenue to bridge the gap. In accordance, we consider the role of two service dimensions – interactional autonomy and interactional complexity – that Grandey and Diamond (2010) identified as potential moderators of the effect of interactions outside the organization on employee well-being.

Grandey and Diamond (2010) conceptualized *interactional autonomy* to align with the job design characteristic of job autonomy (Hackman & Oldham, 1980). Specifically, interactional autonomy reflects employees' perceptions of the degree to which they view the customer service behaviours they need to engage in to be discretionary versus mandatory (Grandey & Diamond, 2010; Ryan & Ployhart, 2003). If employees consider that they have freedom and latitude when interacting with their customers, they are likely to be more intrinsically motivated and perform better; conversely, when they view that their interactions with customers are obligatory and role-dependent, they are likely to feel more depleted (Gagné & Deci, 2005; Hackman & Oldham, 1980).

This notion is reflected in relational work design research in occupational settings such as lifeguards (Grant, 2008a) and firefighters (Grant, 2008b) where employees possess relatively greater discretion in performing their work. This suggests that when employees perceive higher interactional autonomy during their interactions with customers, they feel more intrinsically motivated and experience greater significance in their work tasks; that is, greater interactional autonomy will strengthen the effect of interactions outside the organization on task significance. On the other hand, emotional labour research is often set in occupations (e.g., flight attendants, bill collectors, nurses) and lines of work (e.g., frontline customer service workers) where employees need to conform to role-prescribed emotional display rules that necessitate higher surface acting (Hochschild, 1983; Wharton, 2009). In these instances, too, if employees perceive higher interactional autonomy, they are likely to perceive greater control over their emotional displays, which should result in lower surface acting (see Grandey *et al.*, 2005; Groth & Grandey, 2012); that is, greater interactional autonomy will weaken the effect of interactions outside the organization on surface acting.

Grandey and Diamond (2010) identified *interactional complexity* as another important dimension of service behaviours, where service interactions vary based on the degree to which they are customized versus standardized. In customized interactions, there is a greater degree of interplay between employees and service recipients (Larsson & Bowen, 1989). Because of their variety and complexity, customized interactions offer greater intrinsic motivation, and so employees are more likely to be stimulated when enacting them (Grandey & Diamond, 2010). In customized interactions, employees need to glean information about unique customer needs and deploy different skills to fulfil them (Ryan & Ployhart, 2003). In the process of doing so, employees are also likely to receive feedback on their performance from service recipients, which has motivating potential (Humphrey *et al.*, 2007; Kim & Yoon, 2012). Put simply, when interactions are higher in complexity, employees are likely to perceive them to be more meaningful; that is, greater interactional complexity will strengthen the effect of interactions outside the organization on task significance. Conversely, standardized interactions involve employees adhering to specific scripts to ensure consistency in the service they provide (Ryan & Ployhart, 2003). On account of established routines, there is little opportunity for employees to exercise creativity or form meaningful connections with their service recipients (Hochschild, 1983; Groth, Hennig-Thurau, & Walsh, 2009). For instance, in a study of fast-food workers and insurance salespersons, Leidner (1993, p. 26) observed that organizations routinized employees' interactions outside the organization under the

assumption that they were ‘unable or unwilling to conduct the interactions appropriately on their own’. Such persistent adherence to a standardized process could become increasingly effortful and also intensify employees’ perceptions of their dispensability (see Groth *et al.*, 2009). When interactions are higher in complexity, however, they tend to be less script-bound and encompass a variety of emotional displays, thereby limiting the extent of employees’ surface acting; that is, greater interactional complexity will weaken the effect of interactions outside the organization on surface acting.

In sum, we propose that interactions outside the organization will elicit both task significance and surface acting, which, in turn, will affect employees’ well-being. Moreover, we expect that the levels of interactional autonomy and interactional complexity will alter the effects of interactions outside the organization on task significance and surface acting, thereby influencing both mediation paths. Specifically, we propose that when interactional autonomy and interactional complexity are high, the positive and negative indirect effects of interactions outside the organization on employee well-being via task significance and surface acting will be stronger and weaker, respectively. Therefore, we expect that interactional autonomy and interactional complexity will operate as first-stage moderators of the conditional indirect effects of interactions outside the organization on employee well-being.

Hypothesis 3: The conditional indirect effect of interactions outside the organization on employee well-being via task significance will be stronger when interactional autonomy is high.

Hypothesis 4: The conditional indirect effect of interactions outside the organization on employee well-being via surface acting will be weaker when interactional autonomy is high.

Hypothesis 5: The conditional indirect effect of interactions outside the organization on employee well-being via task significance will be stronger when interactional complexity is high.

Hypothesis 6: The conditional indirect effect of interactions outside the organization on employee well-being via surface acting will be weaker when interactional complexity is high.

Overview of studies

We tested our hypotheses by conducting three studies set in different contexts. In Study 1, we utilized data from a single organization with employees working across many different occupations. We tested Hypotheses 1 and 2, and considered one indicator of employee well-being: job satisfaction. In Study 2, we utilized a two-wave design in which the focal constructs were temporally spaced, and retested Hypotheses 1 and 2. In Study 3, we utilized a similar two-wave design to test all six hypotheses, and considered three indicators of employee well-being: job satisfaction, work engagement, and emotional exhaustion. We considered these three indicators of employee well-being in accordance with the employee well-being literature (e.g., Grant *et al.*, 2007; Schaufeli, Taris, & Van Rhenen, 2008), and also because these outcomes have been invoked in both the

emotional labour (e.g., Grandey, 2000) and work design (Humphrey *et al.*, 2007) literatures.

STUDY I: METHOD

Data and sample

We collected data from a large government organization in a North European country. We sent 1,419 surveys and received responses from 609 participants for a response rate of 43%. This response rate aligns with conventional norms for voluntary organizational surveys (Roth & BeVier, 1998). Because of missing data on relevant variables, the final sample included 593 employees. Survey items were translated following the guidelines outlined by Brislin (1990). The organization is one of the largest employers in the country and employs workers across a wide range of occupations. Seventy-four occupations were represented in our sample, providing significant variability across work settings (e.g., architects and town planners, archivists and curators, childcare workers, cooks, human resources professionals, legal professionals, medical assistants, protective service workers, receptionists, and social work professionals). The average age of the respondents in the sample was 44.64 years ($SD = 11.62$), their average tenure in the organization was 6.41 years ($SD = 6.71$), and approximately 77% of them were female.

Measures

Interactions outside the organization

We assessed interactions outside the organization using a 4-item measure on a 5-point scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*) from the Work Design Questionnaire (WDQ) developed by Morgeson and Humphrey (2006). An example item is 'The job involves a great deal of interaction with people outside my organization'. The coefficient alpha for this scale was .82.

Task significance

We assessed task significance through a 4-item measure on a 5-point scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*) also from the WDQ. An example item is 'The job has a large impact on people outside the organization'. The coefficient alpha for this scale was .81.

Surface acting

We assessed surface acting using a 7-item measure on a 5-point scale (1 = *Never*, 5 = *Always*) (Grandey *et al.*, 2005). An example item is 'I just pretend to have the emotions I need to display for my job'. The coefficient alpha for this scale was .90.

Job satisfaction

We assessed job satisfaction using a 3-item measure on a 5-point scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*) (Cammann, Fichman, Jenkins, & Kelsh, 1983). An example item is 'All in all, I am satisfied with my job'. The coefficient alpha for this scale was .80.

Table 1. Study 1: Descriptive statistics and bivariate correlations

		Mean	SD	1	2	3	4
1.	Interactions outside the organization	3.50	0.88	.82			
2.	Task significance	3.91	0.76	.44	.81		
3.	Surface acting	2.48	0.83	.12	.07	.90	
4.	Job satisfaction	4.08	0.78	.07	.18	-.29	.80

Notes. $n = 593$. Correlations greater than $|.08|$ are significant at $p < .05$; those greater than $|.11|$ are significant at $p < .01$. Reliabilities are on the diagonal in bold.

STUDY 1: RESULTS

The descriptive statistics and bivariate correlations are shown in Table 1. To evaluate the construct validity of our measures, we conducted a confirmatory factor analysis using Mplus (Version 6; Muthén & Muthén, 2010). Chi-square difference tests revealed that our default four-factor model provided a superior fit to the data than several alternative models (see Table 2). Therefore, we proceeded to our main analysis based on the four-factor model.

We tested the first two hypotheses using Mplus and following the path-analytic procedures outlined by Hayes (2013). More specifically, we estimated a mediation model that included both mediators simultaneously, and then derived the indirect effects and constructed their associated bias-corrected bootstrapped confidence intervals (CI). In Hypothesis 1, we proposed that task significance will mediate the relationship between interactions outside the organization and job satisfaction. The indirect effect of interactions outside the organization on job satisfaction via task significance was statistically significant (estimate = .082; 95% CI = [.038, .134]; see Table 3). In Hypothesis 2, we proposed that surface acting will mediate the relationship between interactions outside the organization and job satisfaction. The indirect effect of interactions outside the organization on job satisfaction via surface acting was also statistically significant (estimate = $-.038$; 95% CI = [$-.073$, $-.012$]; see Table 3). Thus, both Hypothesis 1 and Hypothesis 2 received support. In the next study, we reassessed these hypotheses using a two-wave design in which the focal constructs were temporally spaced.

STUDY 2: METHOD

Data and sample

Undergraduate students at a university in Singapore recruited participants to earn extra credit towards their courses. Students provided the organizational affiliation and contact information, including the work email address, of adult participants who were employed full-time in organizations in Singapore.³ All participants were sent survey invitations directly to their *work email* addresses. At Time 1, surveys were sent to 240 participants, and we received 236 completed surveys (98.33%). Ten days later, at Time 2, we sent

³ We followed a data collection procedure that has been used in many studies (e.g., Grandey et al., 2005; Greguras & Diefendorff, 2009; Liao, 2007) and resulted in data of comparable quality (e.g., Smith, Tisak, Hahn, & Schneider, 1997). Of note, we sent survey invitations directly to participants' work email addresses, which had the official domain names of their organizations. As an additional data quality check, we verified each participant's identity through an Internet search (e.g., company website, LinkedIn profile, etc.).

Table 2. Study 1: Confirmatory factor analysis results

Model	χ^2	df	$\Delta\chi^2$	Δdf	CFI	SRMR	RMSEA
Model 1: Four factors	460.74**	129			.91	.05	.07
Model 2: Three factors	1,164.05**	132	355.39**	3	.71	.14	.12
Model 3: Two factors	1,810.44**	134	661.24**	5	.53	.17	.15
Model 4: One factor	2,070.92**	135	563.87**	6	.45	.18	.16

Notes. $n = 593$. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; $\Delta\chi^2$ = Satorra–Bentler scaled chi-square difference; SRMR = standardized root-mean-square residual. Model 1: Default model with interactions outside the organization, task significance, surface acting, and job satisfaction loaded onto their intended factors. Model 2: Three-factor model with task significance and surface acting loaded onto one factor. Model 3: Two-factor model with interactions outside the organization, task significance, and surface acting loaded onto one factor. Model 4: One-factor model with all items loaded onto one factor.

** $p < .01$.

Table 3. Study 1: Path-analytic regression results for job satisfaction

Main effects	Task significance	Surface acting	Job satisfaction
	Model 1	Model 2	Model 3
Interactions outside the organization	.44**	.12**	.03
Task significance			.19**
Surface acting			-.31**
Indirect effects	Estimate	LLCI	ULCI
loO → JS (via TS)	.082	.038	.134
loO → JS (via SA)	-.038	-.073	-.012

Notes. $n = 593$. loO = interactions outside the organization; JS = job satisfaction; SA = surface acting; TS = task significance. All regression coefficients are standardized. Confidence intervals are bias-corrected bootstrapped confidence intervals. LLCI = lower level of the 95% confidence interval. ULCI = upper level of the 95% confidence interval.

** $p < .01$.

surveys to these 236 participants, and received 218 responses, for a final response rate of 90.83%. Because of missing data on relevant variables, the final sample included 212 employees. Approximately 64% of the participants included in the final sample were female, and around 93% of them had Chinese ethnicity. They had an average age of 36.07 years ($SD = 13.17$), and had worked in their organizations for an average of 6.47 years ($SD = 9.40$). We assessed the independent variable (interactions outside the organization) and the mediating variables (task significance and surface acting) at Time 1, and the dependent variable (job satisfaction) at Time 2.

Measures

We used the same scales as in Study 1 to measure interactions outside the organization ($\alpha = .92$), task significance ($\alpha = .90$), surface acting ($\alpha = .92$), and job satisfaction ($\alpha = .86$).

STUDY 2: RESULTS

The descriptive statistics and bivariate correlations are shown in Table 4. Again, to evaluate the construct validity of our measures, we conducted a confirmatory factor analysis using Mplus. Chi-square difference tests revealed that the default four-factor model provided a superior fit to the data than several alternative models (see Table 5). Therefore, we proceeded to our main analysis based on the four-factor model.

Similar to Study 1, we tested Hypotheses 1 and 2 in Mplus following the path-analytic procedures outlined by Hayes (2013). Both hypotheses received support: The indirect effects of interactions outside the organization on job satisfaction via task significance (estimate = .067; 95% CI = [.015, .147]) and via surface acting (estimate = $-.043$; 95% CI = [$-.098$, $-.001$]) were statistically significant (see Table 6). These results, which were consistent (and very similar in terms of effect sizes) with those reported in Study 1, provide a constructive replication (Lykken, 1968). In the next study, we assessed all our hypotheses and also considered work engagement and emotional exhaustion as additional indicators of employee well-being.

STUDY 3: METHOD

Data and sample

We collected data using Amazon's Mechanical Turk platform (Buhrmester, Kwang, & Gosling, 2011). We first conducted a short pre-screening survey to identify U.S. participants who worked full-time and whose jobs involved interacting with people outside the organization (for a similar procedure, see Pugh *et al.*, 2011). We invited 355 participants who met our sample selection criteria to participate in our study and received 315 (88.73%) valid responses at Time 1 (we excluded participants who missed attention checks, provided inconsistent responses, or had missing data on relevant variables; Meade & Craig, 2012). The following week, we sent a second survey and received complete responses from 253 participants (80.32% of the 315 participants with complete responses at Time 1). The average age of the respondents in the sample was 33.11 years ($SD = 8.47$), their average tenure in the organization was 5.13 years ($SD = 4.60$), and approximately 42% of them were female. We assessed the independent variable (interactions outside the organization) and the mediating variables (task significance and surface acting) at Time 1, and the dependent variables (job satisfaction, work engagement, and emotional exhaustion) at Time 2. To reduce common method bias, which can result in multicollinearity problems (Podsakoff, MacKenzie, & Podsakoff, 2012), and associated difficulties in detecting moderation effects (Moosbrugger, Schermelleh-Engel, Kelava, &

Table 4. Study 2: Descriptive statistics and bivariate correlations

	Mean	SD	1	2	3	4
1. Interactions outside the organization	3.51	1.04	.92			
2. Task significance	3.67	0.84	.36	.90		
3. Surface acting	2.75	0.79	.15	.22	.92	
4. Job satisfaction	3.85	0.70	.07	.14	-.25	.86

Notes. $n = 212$. Correlations greater than $|.13|$ are significant at $p < .05$; those greater than $|.17|$ are significant at $p < .01$. Reliabilities are on the diagonal in bold.

Table 5. Study 2: Confirmatory factor analysis results

Model	χ^2	df	$\Delta\chi^2$	Δdf	CFI	SRMR	RMSEA
Model 1: Four factors	227.54**	129			.95	.05	.06
Model 2: Three factors	777.93**	132	235.14**	3	.70	.15	.15
Model 3: Two factors	1,314.54**	134	452.13**	5	.44	.20	.20
Model 4: One factor	1,509.74**	135	485.61**	6	.35	.21	.22

Notes. $n = 212$. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; $\Delta\chi^2$ = Satorra–Bentler scaled chi-square difference; SRMR = standardized root-mean-square residual. Model 1: Default model with interactions outside the organization, task significance, surface acting, and job satisfaction loaded onto their intended factors. Model 2: Three-factor model with task significance and surface acting loaded onto one factor. Model 3: Two-factor model with interactions outside the organization, task significance, and surface acting loaded onto one factor. Model 4: One-factor model with all items loaded onto one factor.

** $p < .01$.

Table 6. Study 2: Path-analytic regression results for job satisfaction

Main effects	Task significance	Surface acting	Job satisfaction
	Model 1	Model 2	Model 3
Interactions outside the organization	.36**	.15*	.05
Task significance			.19**
Surface acting			-.30**
Indirect effects	Estimate	LLCI	ULCI
loO → JS (via TS)	.067	.015	.147
loO → JS (via SA)	-.043	-.098	-.001

Notes. $n = 212$. loO = interactions outside the organization; JS = job satisfaction; SA = surface acting; TS = task significance. All regression coefficients are standardized. Confidence intervals are bias-corrected bootstrapped confidence intervals. LLCI = lower level of the 95% confidence interval. ULCI = upper level of the 95% confidence interval.

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

Klein, 2009), we separated the assessment of moderators, and measured interactional autonomy at Time 1, and interactional complexity at Time 2.

Measures

We used the same scales as in Studies 1 and 2 to measure interactions outside the organization ($\alpha = .86$), task significance ($\alpha = .94$), surface acting ($\alpha = .95$), and job satisfaction ($\alpha = .92$).

Interactional autonomy

We assessed interactional autonomy using a 3-item measure on a 5-point scale (1 = *Never*, 5 = *All of the time*). Consistent with the arguments of Grandey and Diamond (2010), we

modified the original items from Karasek's (1979) scale to reflect a focus on the extent of latitude in service interactions. An example item is 'Do you have freedom to decide how you interact with customers?' The coefficient alpha for this scale was .89.

Interactional complexity

We assessed interactional complexity using a 4-item measure on a 5-point scale (1 = *Never*, 5 = *Always*). Again, in accordance with Grandey and Diamond (2010), we adapted the original items from Dean and Snell's (1991) scale to reflect a focus on the extent of variation in service interactions. An example item is 'I engage in different types of customer interactions every day'. The coefficient alpha for this scale was .89.

Work engagement

We assessed work engagement using the 9-item measure from Schaufeli, Bakker, and Salanova (2006) on a 7-point scale (1 = *Never*, 7 = *Always*). An example item is 'I am immersed in my work'. The coefficient alpha for this scale was .95.

Emotional exhaustion

We assessed emotional exhaustion using a set of five items from Pine and Aronson's (1988) measure on a 5-point scale (1 = *Never*, 5 = *All of the time*). An example item is 'Being wiped out'. The coefficient alpha for this scale was .91.

STUDY 3: RESULTS

The descriptive statistics and bivariate correlations are shown in Table 7. As before, to check the construct validity of our measures, we conducted a confirmatory factor analysis using Mplus. Chi-square difference tests revealed that the default eight-factor model provided a superior fit to the data than several alternative models (see Table 8). Therefore, we proceeded to our main analysis based on the eight-factor model.

We tested all our hypotheses in Mplus following the path-analytic procedures outlined by Edwards and Lambert (2007) and Hayes (2013). Similar to Studies 1 and 2, we first

Table 7. Study 3: Descriptive statistics and bivariate correlations

	Mean	SD	1	2	3	4	5	6	7	8
1. loO	4.26	0.61	.86							
2. Task significance	3.52	1.04	.18	.94						
3. Surface acting	3.09	0.84	.18	-.19	.95					
4. Job satisfaction	3.71	1.01	-.08	.33	-.40	.92				
5. Work engagement	4.51	1.19	.00	.35	-.38	.76	.95			
6. Emotional exhaustion	2.82	0.87	.07	-.11	.43	-.50	-.47	.91		
7. Interactional autonomy	3.57	0.89	.06	.29	-.28	.42	.46	-.36	.89	
8. Interactional complexity	3.68	0.77	.30	.32	.09	.24	.33	-.00	.22	.89

Notes. $n = 253$. loO = interactions outside the organization. Correlations greater than $|.12|$ are significant at $p < .05$; those greater than $|.16|$ are significant at $p < .01$. Reliabilities are on the diagonal in bold.

Table 8. Study 3: Confirmatory factor analysis results

Model	χ^2	df	$\Delta\chi^2$	Δdf	CFI	SRMR	RMSEA
Model 1: Eight factors	1,179.12**	674			.93	.06	.05
Model 2: Six factors	2,080.51**	687	602.64**	13	.81	.08	.09
Model 3: Four factors	3,343.07**	696	1,460.18**	22	.65	.15	.12
Model 4: One factor	5,157.54**	702	2,152.52**	28	.40	.16	.16

Notes. $n = 253$. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; $\Delta\chi^2$ = Satorra-Bentler scaled chi-square difference; SRMR = standardized root-mean-square residual. Model 1: Default model with interactions outside the organization, task significance, surface acting, job satisfaction, work engagement, emotional exhaustion, interactional autonomy, and interactional complexity loaded onto their intended factors. Model 2: Six-factor model with job satisfaction, work engagement, and emotional exhaustion loaded onto one factor. Model 3: Four-factor model with job satisfaction, work engagement, and emotional exhaustion loaded onto one factor, task significance and surface acting onto another factor, and interactional autonomy and interactional complexity onto another factor. Model 4: One-factor model with all items loaded onto one factor.

** $p < .01$.

estimated a mediation model that included the two mediators and the three dependent variables simultaneously. We then alternatively incorporated interactional autonomy and interactional complexity into the mediation model as moderators of the paths from the independent variable to the two mediators; therefore, our final model can be described as a first-stage moderation model with two mediators (Edwards & Lambert, 2007). We derived the indirect effects at low and high values of the moderators, and then constructed their associated bias-corrected bootstrapped confidence intervals.

We first retested Hypotheses 1 and 2 for the three indicators of employee well-being (job satisfaction, work engagement, and emotional exhaustion). The indirect effects of interactions outside the organization on job satisfaction via task significance (estimate = .050; 95% CI = [.019, .100]) and via surface acting (estimate = -.062; 95% CI = [-.117, -.019]) were both statistically significant (see Table 10). Furthermore, the indirect effects of interactions outside the organization on work engagement via task significance (estimate = .053; 95% CI = [.020, .104]) and via surface acting (estimate = -.060; 95% CI = [-.116, -.018]) were also statistically significant (see Table 10). Finally, the indirect effect of interactions outside the organization on emotional exhaustion via surface acting was statistically significant (estimate = .079; 95% CI = [.024, .146]; Table 10), whereas the indirect effect of interactions outside the organization on emotional exhaustion via task significance was not (estimate = -.005; 95% CI = [-.035, .015]; Table 10). Overall, Hypotheses 1 and 2 were largely supported.

In Hypothesis 3, we proposed that the conditional indirect effect of interactions outside the organization on employee well-being via task significance will be *stronger* at high levels of interactional autonomy. Results revealed that the interaction term between interactions outside the organization and interactional autonomy was statistically significant ($b = .16, p < .01$; Table 9, Model 1a). Furthermore, as Figure 2a and b shows, the conditional indirect effects of interactions outside the organization on job satisfaction and work engagement via task significance (see also Table 10) were stronger at high levels (+1 *SD*) of interactional autonomy than at low levels (-1 *SD*) of interactional autonomy. However, because the relationship between task significance and emotional exhaustion was not statistically significant ($b = -.03, ns$; Table 9, Model 5), the conditional indirect

Table 9. Study 3: Path-analytic regression results for job satisfaction, work engagement, and emotional exhaustion

	Task significance	Surface acting	Job satisfaction	Work engagement	Emotional exhaustion
<i>Main effects model</i>					
loO	.18**	.18**	-.07	.01	-.01
Task significance			.28**	.29**	-.03
Surface acting			-.34**	-.33**	.43**
<i>Moderated effects model</i>					
<i>Moderator: IA</i>					
loO	.17**	.20**	-.07	.01	-.01
Task significance			.28**	.29**	-.03
Surface acting			-.34**	-.33**	.43**
Interactional autonomy	.26**	-.28**			
loO × IA	.16**	-.07			
<i>Moderator: IC</i>					
loO	.13*	.14*	-.07	.01	-.01
Task significance			.28**	.29**	-.03
Surface acting			-.34**	-.33**	.43**
Interactional complexity	.24**	.09			
loO × IC	.17**	-.17**			

Notes. $n = 253$. IA = interactional autonomy; IC = interactional complexity; loO = interactions outside the organization. All regression coefficients are standardized.

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

effect of interactions outside the organization on emotional exhaustion via task significance remained non-significant (see Table 10). As such, Hypothesis 3 was supported for two of the three well-being indicators (i.e., for job satisfaction and for work engagement).

In Hypothesis 4, we proposed that the conditional indirect effect of interactions outside the organization on employee well-being via surface acting will be *weaker* at high levels of interactional autonomy. Results revealed that the interaction term between interactions outside the organization and interactional autonomy was not statistically significant ($b = -.07$, ns ; Table 9, Model 2a). For this reason, Hypothesis 4 did not receive support for any of the three well-being indicators.

In Hypothesis 5, we proposed that the conditional indirect effect of interactions outside the organization on employee well-being via task significance will be *stronger* when interactional complexity is high. Results revealed that the interaction term between interactions outside the organization and interactional complexity was statistically significant ($b = .17$, $p < .01$; Table 9, Model 1b). Furthermore, as Figure 3a and b shows, the conditional indirect effects of interactions outside the organization on job satisfaction and work engagement via task significance (see also Table 10) were stronger at high levels (+1 SD) of interactional complexity than at low levels (-1 SD) of interactional complexity. Again, because the relationship between task significance and emotional exhaustion was not significant, the conditional indirect effect of interactions outside the organization on emotional exhaustion via task significance remained non-significant (see Table 10). As

Table 10. Study 3: Indirect effects and moderated mediation tests

	Job satisfaction		Work engagement		Emotional exhaustion	
	IE via TS	95% CI	IE via TS	95% CI	IE via TS	95% CI
<i>Main effects model</i>						
	.050	[.019, .100]	.053	[.020, .104]	-.005	[-.035, .015]
	IE via SA	95% CI	IE via SA	95% CI	IE via SA	95% CI
	-.062	[-.117, -.019]	-.060	[-.116, -.018]	.079	[.024, .146]
<i>Moderated effects model</i>						
<i>Moderator: IA</i>						
High IA	IE via TS	95% CI	IE via TS	95% CI	IE via TS	95% CI
	.091	[.040, .171]	.096	[.047, .179]	-.008	[-.054, .030]
Low IA	.004	[-.040, .050]	.004	[-.042, .052]	.000	[-.016, .008]
Difference	.087	[.022, .189]	.092	[.026, .195]	-.008	[-.055, .028]
	IE via SA	95% CI	IE via SA	95% CI	IE via SA	95% CI
High IA	-.043	[-.126, .028]	-.042	[-.125, .025]	.055	[-.036, .159]
Low IA	-.091	[-.165, -.040]	-.089	[-.160, -.038]	.116	[.053, .201]
Difference	.048	[-.037, .168]	.047	[-.038, .161]	-.061	[-.202, .052]
<i>Moderator: IC</i>						
High IC	IE via TS	95% CI	IE via TS	95% CI	IE via TS	95% CI
	.081	[.029, .161]	.085	[.032, .166]	-.008	[-.055, .024]
Low IC	-.012	[-.056, .025]	-.013	[-.057, .026]	.001	[-.005, .019]
Difference	.093	[.033, .184]	.098	[.035, .190]	-.009	[-.062, .028]
	IE via SA	95% CI	IE via SA	95% CI	IE via SA	95% CI
High IC	.007	[-.065, .082]	.007	[-.066, .078]	-.009	[-.101, .090]
Low IC	-.105	[-.180, -.045]	-.102	[-.176, -.043]	.134	[.066, .216]
Difference	.112	[.028, .233]	.109	[.028, .221]	-.143	[-.273, -.037]

Notes. *n* = 253. IA = interactional autonomy; IC = interactional complexity; SA = surface acting; TS = task significance. All indirect effects are standardized. Confidence intervals are bias-corrected bootstrapped confidence intervals. IE = indirect effect of interactions outside the organization.

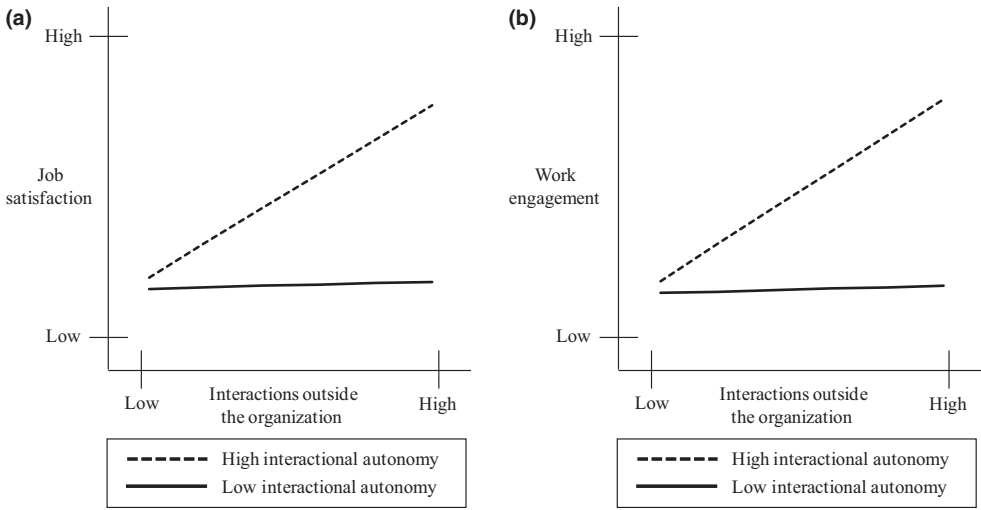


Figure 2. (a) Conditional indirect effect of interactions outside the organization on job satisfaction via task significance at low and high levels of interactional autonomy. (b) Conditional indirect effect of interactions outside the organization on work engagement via task significance at low and high levels of interactional autonomy.

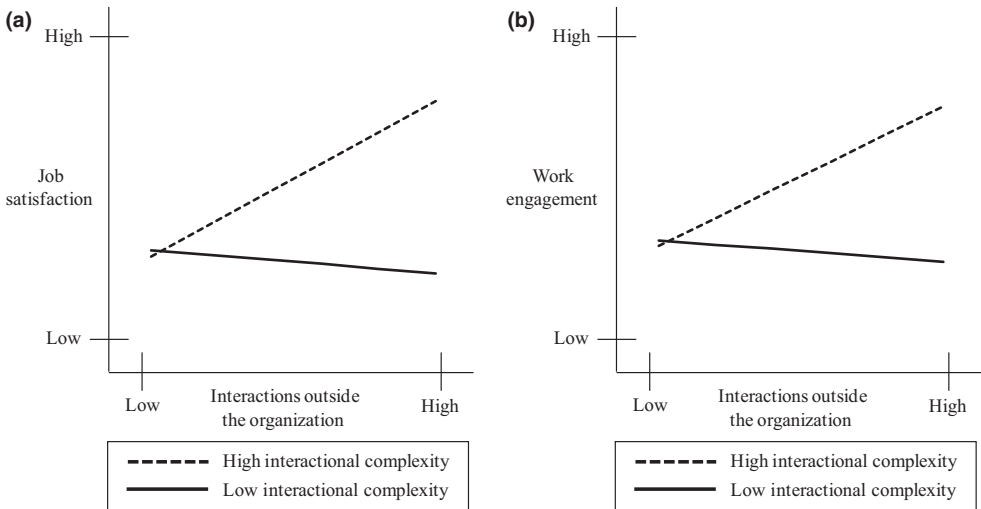


Figure 3. (a) Conditional indirect effect of interactions outside the organization on job satisfaction via task significance at low and high levels of interactional complexity. (b) Conditional indirect effect of interactions outside the organization on work engagement via task significance at low and high levels of interactional complexity.

such, similar to the results for Hypothesis 3, Hypothesis 5 was also supported for two of the three well-being indicators.

In Hypothesis 6, we proposed that the conditional indirect effect of interactions outside the organization on employee well-being via surface acting will be *weaker* when interactional complexity is high. Results indicated that the interaction term between

interactions outside the organization and interactional complexity was statistically significant ($b = -.17, p < .01$; Table 9, Model 2b). Furthermore, as Figure 4a–c shows, the conditional indirect effects of interactions outside the organization on job satisfaction, work engagement, and emotional exhaustion, respectively, via surface acting (see also Table 10) were weaker at high levels (+1 *SD*) of interactional complexity than at low levels (–1 *SD*) of interactional complexity. In conclusion, Hypothesis 6 received support for all three indicators of employee well-being.

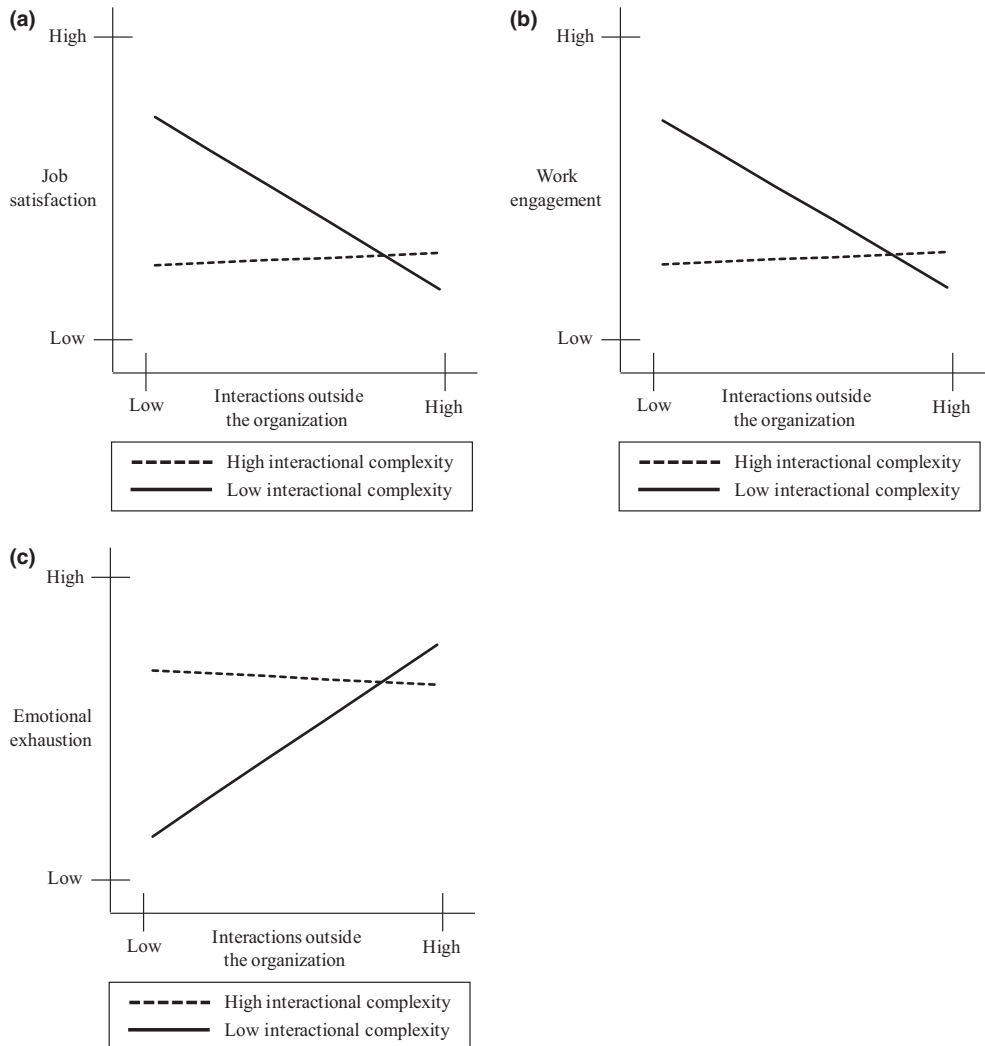


Figure 4. (a) Conditional indirect effect of interactions outside the organization on job satisfaction via surface acting at low and high levels of interactional complexity. (b) Conditional indirect effect of interactions outside the organization on work engagement via surface acting at low and high levels of interactional complexity. (c) Conditional indirect effect of interactions outside the organization on emotional exhaustion via surface acting at low and high levels of interactional complexity.

Supplemental analyses

As a check, in all studies, we included a set of control variables guided by prior research. Because employees' affective dispositions influence their views of their jobs, and therefore their subsequent evaluations of job attitudes (see Staw, Bell, & Clausen, 1986; Weiss & Cropanzano, 1996), we included negative affectivity (NA) as a control variable. Furthermore, given our focus on job characteristics that also influence employees' perceptions of their well-being (Miller, 1980; Xie & Johns, 1995), we included sex and organizational tenure as additional control variables. Across all three studies, the pattern of results remained very similar. Thus, in line with current recommendations regarding control variable use (e.g., Bernerth & Aguinis, 2016), we did not include the control variables in our final analyses.

Grant and Parker (2009) identified how the emotional labour perspective suggests that interactions outside the organization will adversely impact employee well-being. For that reason, and given that adverse effects on employee well-being have been consistently observed for surface acting (i.e., response-focused emotion regulation), we chose to focus on this emotion regulation strategy. On the other hand, meta-analytic results for deep acting (i.e., antecedent-focused emotion regulation) indicate that it is positively associated with outcomes such as personal accomplishment and customer satisfaction (Hülshager & Schewe, 2011), as well as job satisfaction and job performance (Kammeyer-Mueller *et al.*, 2013). Other results, however, also indicate that deep acting could be associated with adverse outcomes such as greater psychosomatic complaints (Hülshager & Schewe, 2011). Therefore, to assess the role of deep acting, in Study 3, we included it as an additional explanatory mechanism underlying the relationship between interactions outside the organization and employee well-being.⁴ We assessed deep acting ($\alpha = .91$) using Brotheridge and Lee's (2003) 3-item measure on a 5-point scale (1 = *Never*, 5 = *Always*).

Results indicated that deep acting did not mediate the relationships between interactions outside the organization and job satisfaction (estimate of the indirect effect = .017; 95% CI = [−.004, .053]), work engagement (estimate of the indirect effect = .024; 95% CI = [−.008, .070]), and emotional exhaustion (estimate of the indirect effect = −.007; 95% CI = [−.036, .003]). Furthermore, including deep acting as an additional mediator did not affect the indirect effects of interactions outside the organization on employee well-being via task significance and surface acting. These results are consistent with the broader pattern of findings associated with deep acting, particularly those set in between-persons contexts such as ours. We elaborate on this point in the discussion.

Finally, we also considered the possibility of a three-way interaction between interactions outside the organization, interactional autonomy, and interactional complexity. For these three-way interactions, the effects on both task significance ($b = -.03$, *ns*) and surface acting ($b = .02$, *ns*) were not statistically significant.

GENERAL DISCUSSION

We theorized and tested a model that sought to explain how interactions outside the organization are related to employee well-being through the two competing pathways of

⁴ We thank the review team for ideas related to the supplemental analyses and the discussion.

task significance and surface acting. We illustrated that interactions outside the organization can increase employees' task significance, thereby representing a desirable aspect of their jobs – a view consistent with the relational work design perspective. Yet, our results also indicated that when interacting outside the organization, employees need to regulate their emotions, which constitutes an adverse aspect of their jobs – a view consistent with the emotional labour perspective. Grant and Parker (2009) suggested that one reason for the divergence in findings across the emotional labour and relational work design literatures may be on account of focusing on specific samples (e.g., nursing, bill collectors). For this reason, we did not focus on occupation-specific samples, which may have a preponderance of one type of interactions (negative, positive, or neutral). Instead, we focused on samples of employees who need to interact with those outside the organization across the occupational spectrum. We replicated findings across three studies set in different cultural contexts (i.e., South-East Asia, Northern Europe, and North America), utilizing different study designs (i.e., cross-sectional and temporally lagged), and focusing on different organizational settings (i.e., a single large organization and multiple organizations). Furthermore, we extended these findings by illustrating the relevance of two service dimensions (interactional autonomy and interactional complexity) in shaping the indirect effects of interactions outside the organization on employee well-being via task significance and surface acting. We also considered three different indicators of employee well-being: job satisfaction, work engagement, and emotional exhaustion. Given the similarity in the pattern of relationships across these three indicators, particularly for job satisfaction and work engagement, in the discussion below we use the broader term of 'employee well-being' to elaborate on the findings.

A key contribution of our studies is that their findings facilitate a reconciliation of two different research streams – relational work design and emotional labour – and help identify interconnections between them. Additionally, our results challenge the dominant view in emotional labour research that interactions outside the organization are solely depleting, and speak to recent debates that encourage a broader consideration of the impact of workplace interactions on employee well-being (see Bhawe & Lefter, 2018; Grandey & Gabriel, 2015; Grandey, Rupp, & Brice, 2015; Humphrey, Ashforth, & Diefendorff, 2015). At the same time, our findings also caution against viewing interactions as a purely beneficial job attribute and provide evidence of 'the potential dark sides of relational work design' (Grant & Parker, 2009, p. 341). Put simply, our results show that interactions outside the organization can increase employees' well-being by increasing their perceptions of task significance, *and* – not *or* – can also decrease employees' well-being by increasing their perceptions of the surface acting that they need to undertake. In line with this, across all three studies, bivariate correlations indicated that there was a statistically significant positive relationship between interactions outside the organization and task significance ($r = .44, .36, \text{ and } .18$) as well as between interactions outside the organization and surface acting ($r = .12, .15, \text{ and } .18$). Furthermore, across the three studies, the indirect effect of interactions outside the organization on job satisfaction via task significance ranged from .05 to .08, whereas the indirect effect of interactions outside the organization on job satisfaction via surface acting ranged from $-.04$ to $-.06$. Because all variables were standardized before being included in the analyses, these estimates represent fully standardized indirect effects and capture the effect of a standard deviation increase in interactions outside the organization on standard deviation units of job satisfaction (Miočević, O'Rourke, MacKinnon, & Brown, 2018). Based on the effect size guidelines proposed by Bosco, Aguinis, Singh, Field, and Pierce (2015), these indirect effects can be described as having small effect sizes. However, small effect sizes can also

demonstrate the importance of a finding (Prentice & Miller, 1992). In addition, some of the conditional indirect effects at low and high levels of interactional autonomy and interactional complexity have larger magnitudes that qualify them as medium-sized effects (see Bosco *et al.*, 2015). All in all, these empirical results support the nuanced view of the impact of interactions outside the organizations, and suggest that there is a complementarity rather than a dichotomy between the emotional labour and the work design perspectives.

As a further step towards integration across the two research domains, we empirically demonstrated the role of the service dimensions of interactional autonomy and interactional complexity proposed by Grandey and Diamond (2010). We observed that interactional complexity is an influential moderator that weakened the indirect effect of interactions outside the organization on employee well-being via surface acting. Employees who experienced higher levels of interactions outside the organization and perceived lower levels of interactional complexity reported higher levels of surface acting. This result is consistent with the proposition of emotional labour scholars that employees who engage in high levels of interactions with people outside the organization and work in jobs that offer little variety in these interactions will have to regulate their emotions (Grandey *et al.*, 2015). However, employees who engaged in higher levels of interactions outside the organization and perceived higher levels of interactional complexity reported significantly lower levels of surface acting. Of note, at high levels (+1 *SD*) of interactional complexity, the indirect effect of interactions outside the organization via surface acting became non-significant for all three indicators of employee well-being. These results are consistent with theorizing by relational work design scholars, who argue that jobs that offer variety in interactions can be generative and intrinsically motivating (Grant, 2007), and suggest that interactional complexity acts as a neutralizer of the relationship between interactions outside the organization and surface acting.

For the indirect effect of interactions outside the organization on employee well-being via task significance, both interactional autonomy and interactional complexity proved to be influential moderators. Employees who experienced higher levels of interactions outside the organization and perceived lower levels of interactional autonomy or interactional complexity reported lower levels of task significance. Of note, at low levels (−1 *SD*) of interactional autonomy or interactional complexity, the indirect effects of interactions outside the organization on job satisfaction and work engagement via task significance became non-significant. However, employees who engaged in higher levels of interactions outside the organization and perceived higher levels of interactional autonomy or interactional complexity reported significantly higher levels of task significance. These results are congruent with relational work design theory (Grant & Parker, 2009) and the propositions of Grandey and Diamond (2010), and suggest that the service dimensions of interactional autonomy and interactional complexity boost task significance.

Limitations and future research

To begin with, in Study 1 we used a cross-sectional design in which all variables were assessed at a single point in time. Nevertheless, our data were drawn from a single organization and included a wide variety of occupations. Data from a single organization help account for differences in organizational norms and practices that could potentially influence the findings from multi-organizational settings (see Wharton, 2009). Additionally, in Studies 2 and 3, we employed a two-wave data collection design. Although we did

not measure the independent, the mediating, and the dependent variables at three different points in time (Maxwell & Cole, 2007), we temporally separated the assessment of our key constructs to minimize the possibility of common method bias effects. Finally, the three studies were set in different cultural contexts – South-East Asia, Northern Europe, and North America – and so the highly consistent pattern of results, including the similarity in the magnitudes of the indirect effects, is noteworthy.

In line with Grant and Parker (2009), we primarily focused on surface acting in our theorizing and analysis. However, we considered the role of deep acting in a supplemental analysis, where results revealed that it did not serve as an explanatory mechanism of the relationship between interactions outside the organization and employee well-being. Although consistent with past meta-analytic findings (Hülshéger & Schewe, 2011; Kammeyer-Mueller *et al.*, 2013), recent work suggests an interplay between surface acting and deep acting (Cossette & Hess, 2015; Gabriel, Daniels, Diefendorff, & Greguras, 2015) that has been illustrated in dynamic within-persons contexts (Gabriel & Diefendorff, 2015; Zhan, Wang, & Shi, 2016). Future work could consider this interplay between emotional regulation strategies, as well as potential differences in patterns of relationships that exist across within-persons and between-persons levels (Dalal, Bhawe, & Fiset, 2014), to further clarify the pathways of the effect of interactions outside the organization on employee well-being.

As regards the results, in accordance with Grandey and Diamond (2010), we expected that interactional autonomy would weaken the relationship between interactions outside the organization and surface acting. Results, however, were not supportive – interactional autonomy did not moderate the effect of interactions outside the organization on surface acting. Moderator effects, particularly if they are small, are difficult to detect in smaller samples (Stone-Romero & Anderson, 1994), and it is possible that we do not have enough statistical power. Another possibility is that only very large differences in interactional autonomy could neutralize the effect of interactions outside the organization, and the range of interactional autonomy in our data could be limited to detect such a moderation effect (McClelland & Judd, 1993). In a related vein, we also did not observe support for the relationship between task significance and emotional exhaustion. Our analysis is based on an occupationally diverse sample rather than a sample focused on a single occupation (e.g., nursing; Grant & Parker, 2009) where many employees are likely to experience high levels of emotional exhaustion. As such, it is possible that range restriction on the dependent variable (Sackett & Yang, 2000) is affecting our results.

Another limitation of our study is that we considered only two boundary conditions, and it will be necessary to examine the influence of other organizational constraints and opportunities to fully understand the effects of interactions outside the organization on employee well-being. For instance, Grandey and Diamond (2010) proposed that service dimensions also vary based on the content and mode of communication (i.e., whether the interactions involve communicating task information vs. affective information) and the temporal relationship (i.e., whether the interactions are one-off service encounters between employees and customers vs. ongoing interactions where employees and customers have a service relationship). Along similar lines, employees' personality factors such as their service orientation (Bettencourt, Gwinner, & Meuter, 2001) or their extraversion (e.g., Chi, Grandey, Diamond, & Krimek, 2011) could also serve as influential boundary conditions. Thus, examining other structural and temporal dimensions of customer service behaviours, along with personality factors, can provide additional insights.

Although we focused on interactions outside the organization at work, employees also interact with co-workers, supervisors, and subordinates. These interactions can also result in employees experiencing surface acting (Côté, 2005; Kim *et al.*, 2013) and task significance (Grant, 2007; Hackman & Oldham, 1980). The effects of such interactions with different targets deserve investigation in future studies. Also, we primarily focused on employee well-being outcomes, and another line of inquiry for future research is to consider behavioural outcomes such as job performance, or objective health outcomes such as sleep quality, weight loss/gain, or blood pressure. Investigating the impact of interactions outside the organization on different aspects of job performance (task, citizenship, counterproductive) or health outcomes will aid in understanding whether the task significance and surface acting pathways also extend to the behavioural and occupational health domains. Doing so will also aid in further bridging the gap between the relational work design and the emotional labour research streams, and will contribute to an enhanced scholarly understanding of the effects of interactions outside the organization, as well as to the development of associated managerial practices.

Practical implications

Our results contribute to the design and management of practices that connect employees with people outside their organizations. One key implication that emerges from our findings is that regarding interactions outside the organization as universally negative may be misleading. Managers should consider that interactions outside the organization have the potential to improve employees' well-being, and thus should focus on identifying ways for employees to experience the significance of their work. Grant (2008a,b) has shown that such increases in employees' perceptions of task significance can be accomplished through relatively low-cost and simple interventions that connect employees to the beneficiaries of their work (e.g., introducing a scholarship recipient to fund-raising callers).

We recognize that it may be difficult to design unique interventions in all customer-facing jobs to directly enhance their significance to employees, and also that the effects of such interventions, when possible, may wane over time. Our results suggest that another alternative is to redesign such jobs by increasing their levels of interactional autonomy and interactional complexity. Doing so may offer a more durable option for organizations that includes two benefits. First, because interactional complexity moderates the effect of interactions outside the organization on surface acting, the deleterious consequences of surface acting on employee well-being could be mitigated when service interactions permit greater complexity. Second, because interactional autonomy and interactional complexity moderate the effect of interactions outside the organization on task significance, the beneficial effects of task significance on employee well-being could be bolstered when service interactions permit greater autonomy or complexity.

Nevertheless, managers should also be sensitive to the fact that employees could experience increased surface acting if their interactions involve low levels of complexity. This suggests that to minimize adverse effects on employee well-being, organizational resources should be especially targeted to those customer service roles where the levels of interactional complexity are low. For instance, organizational practices (e.g., work breaks, leaves of absence) could be redesigned so that employees working in low-interactional complexity service roles have better access to benefits that help with recovery.

Conclusion

Most of the relational work design and emotional labour research offers two divergent viewpoints regarding the effects of interactions outside the organization on employee well-being. By theoretically integrating and empirically testing these divergent viewpoints within a unified model, we clearly show that interactions outside the organization can simultaneously have both favourable and unfavourable effects on employee well-being (through task significance and surface acting, respectively), and that interactional autonomy and interactional complexity function as boundary conditions of these results. Therefore, our study aids in reconciling and extending findings from two different research streams, and enhances our understanding of the role of customer service interactions.

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