Cross-national validation of the resources depletion-recovery model: An empirical study of Spanish and British theme park employees

Dr Cristina Quinones[a]

Dr Raquel Rodríguez-Carvajal[b]

Professor Mark D. Griffiths[c]

Professor Nicholas Clarke[d]

[a]*Open University Business School, (UK)*

[b]*Autonoma University of Madrid (Spain)*

[c]*Nottingham Trent University (UK)*

[d]*School of Management, University of Southampton (UK)*

[a] Open University Business School, Open University, Walton Hall, Milton Keynes, MK7 6AA, United Kingdom. Email address: cristina.quinones @open.ac.uk. Telephone number +44 (0)1908 332763 (corresponding author)

[b]Biological & Health Psychology Department, Faculty of Psychology, Autonoma University of Madrid.

[c] School of Social Sciences, Nottingham Trent University

[d] School of Management, University of Southampton.

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Surface acting (SA) refers to the strategy whereby front-line employees hide their own emotions and fake those displayed by the role within customer service transactions. Although researchers have associated SA with burnout, evidence now suggests that this could be an indirect relationship. Building on the Conservation of Resources theory, it was hypothesised that the combined effect of emotional effort and lack of rewarding interactions with customers triggered by SA would explain the strong association between SA and burnout (Studies 1 and 2). Furthermore, building on psychological recovery literature, it was hypothesised that the effort invested in SA would be a weaker predictor of front-line employees' burnout under when they reported high levels of recovery ability as opposed to low levels (Study 2). A cross-national and cross-sectional design was used, and participants were theme park employees from UK (Study 1, N_{UK} =204) and Spain (Study 2, N_{Spain}=211). The explanatory role of emotional effort and rewarding interactions was supported, and the buffering effect of recovery ability was confirmed. Strategies aimed at minimising burnout risk for employees who deal with customers on a regular basis in these countries are discussed.

Keywords: surface acting; emotional effort; rewarding interactions; burnout; cross-national

Introduction

Appearing cheerful and remaining calm when dealing with a challenging customer, are just two examples of the emotionally laden work that front-line employees in the leisure and tourism industry engage in on a daily basis (e.g. Bozionelus & Kiamou, 2008). Since employees may not always feel the emotions they have to display, they either fake these emotions (i.e., Surface Acting [SA]), or attempt to feel the emotions they have to express in order to appear more genuine (i.e., Deep Acting [DA]). Whether employees engage in SA or DA appears to be critical with regards to how these strategies affect their psychological and physical wellbeing. Researchers usually associate DA with positive outcomes such as professional efficacy and job satisfaction (e.g., Hülshegera & Schewe, 2011). In contrast, SA is linked to burnout, a chronic stress syndrome comprised of emotional exhaustion, cynicism and low professional efficacy (e.g., Karatepe & Uludag, 2008). However, increasing evidence suggests that the relationship between SA and burnout may be indirect. Consequently, the mechanisms that contribute to burnout when individuals fake their emotions to meet role requirements should be identified and explained (Goodwin, 2001). Understanding these mechanisms is crucial to minimise the risk of burnout in front-line leisure employees who are particularly at risk of developing the syndrome (Karatepe & Uludag, 2008). In addition to the impairment of employee wellbeing, burnout is associated with a range of negative organisational outcomes including low productivity, absence from work, and desire to leave the organisation (Hobfoll & Shirom, 2001).

According to the Conservation of Resources Theory (COR) (Hobfoll & Shirom, 2001), individuals invest resources in response to environmental demands. If, over time, they do not recover these resources, there is a high likelihood burnout (Brotherdige & Lee, 2002). When demands consist of displaying appropriate emotions to customers (i.e., display rules), employees invest their resources to ensure that their emotions match those required by their

occupational role (Grandey, Fisk, & Steiner, 2005). In line with COR, it is expected that employees who fail to recover the effort they exert in managing their emotions through satisfactory interactions with customers will eventually experience burnout. Additionally, psychological recovery studies suggest that employees can also recover resources that they spend at work through unrelated and enjoyable activities outside work. For instance, if one spends too many hours in front of the computer for work-related purposes, it is unlikely that completing chores requiring the use of IT after work will lead to effective recovery (e.g., Sonnentag & Fritz, 2007). Instead, engaging in activities that do not involve the same psychological systems such as practising physical exercise, socialising or meditating are more likely to enable daily recovery. Thus, researchers have found that engaging in activities that help employees relax in their spare time along with their ability to detach from work restore their energy resources and prevent stress accumulation (Sonnentag & Fritz, 2007). In view of this, individuals' ability to engage in recovery experiences (as a potential moderator of the effort that occurs with meeting the job's emotional requirements) is also tested.

In short, with the resource depletion-recovery model developed in this study, the present authors aimed to clarify how burnout unfolds in individuals who frequently engage SA in order to cope with the emotional requirements of their job. These findings should contribute to developing focused interventions that minimise the resources depletion process that occurs with work-related emotion regulation**.** Since a cross-national validation approach using British and Spanish samples was adopted, the study's findings allow for greater level of generalisation than previous studies which have been either too reliant on Anglo-Saxon samples, and/or use a single-country for its model testing.

Theory and hypothesis

The Conservation of Resources (COR) theory builds on classic stress and motivational theory to offer a dynamic model that explains how burnout develops (Hobfoll & Shirom, 2001). According to COR, individuals strive to achieve a balance between the resources they invest and the resources they receive as a result of their effort. A state of energy depletion will eventually arise if, in response to environmental demands, individuals simultaneously maintain a high level of resource investment and fail to recover these resources. Displaying the emotions that the job requires is a specific work demand that researchers associate with burnout in customer service employees (e.g., Goldberg & Grandey, 2007). In particular, engaging in SA to meet display rules consistently correlates with burnout in both cross-sectional studies (e.g., Brotheridge & Lee, 2003) and experimental studies (e.g., Goldberg & Grandey, 2007). However, it should be noted that some studies report weaker associations between these variables. For example, Zammuner and Galli (2005) confirmed the negative impact of SA on burnout in an Italian sample of service employees, yet the effect was relatively small. Similarly, Zerbe (2000) did not find a significant correlation between SA and emotional exhaustion in a sample of flight attendants. Furthermore, Brotheridge and Grandey (2002) found that the effect of SA on emotional exhaustion disappeared once the effect of other job-related variables and negative affect were controlled for. In view of this, some researchers argue that there is an indirect correlation between SA and burnout (e.g., Goodwin, 2011; Hülshegera & Schewe, 2011). Since COR theory identified the general underlying processes that lead to burnout, the present study builds upon this framework to explore the intervening variables in order to explain the correlation between SA and burnout.

One of COR theory's key tenets is that repeated experience of objective and perceived loss, or threat of loss of resources in response to environmental demands, will result in energy depletion (Hobfoll & Shirom, 2001). Within customer service settings in the

leisure industry, these demands are often related to how the employee displays specific emotions to customers. The perceived effort that is associated with this activity may be fundamental in explaining the resource loss process that eventually leads to employee burnout. In line with this, from a classic stress theory perspective, Quinones-Garcia, Rodriguez-Carvajal, & Clarke (2013) developed a measure of the perceived effort that occurs with meeting display rules. In their validation study with a wide range of customer service employees, the authors found that perceived emotional effort explained the associations between SA and exhaustion, the key dimension of the burnout syndrome. Building upon COR, it is also expected that individuals who perceive high effort in faking emotions that their job requires are likely to distance themselves from the customer in an attempt to avoid further resource loss. Therefore, it is hypothesized that emotional effort strongly correlates with the overall burnout syndrome.

Hypothesis 1: Emotional effort is positively related to burnout.

According to COR theory, the other fundamental and complementary process leading to burnout is the lack of resources recovery following investment. Consequently, even when situations require high resources investment, individuals can avoid burnout through successfully recovering the resources. However, engaging in SA is unlikely to help in the recovery process since, according to Côté (2005), the negative reaction of customers to employees' fake emotional displays further increases employee stress levels. Brotheridge and Lee (2002) reported evidence on the negative impact of SA on customers' interactions in customer service settings. Martínez-Íñigo, Totterdell, Alcover & Holman (2007) have reported similar negative impact within a health service context. The Effort-Reward Imbalance (ERI) perspective (Siegrist, 1996) supports the negative impact of customer reactions to fake displays on employees' emotional depletion. Therefore, employees may perceive that customer recognition does not reciprocate the effort involved in meeting the

job's emotional requirements. In the context of front-line line employees within the leisure industry, where the management of customer emotions is seen as key for the success of the service transaction (Brunner-Sperdin & Peters, 2009), employees' perceptions of the fair exchange between their own efforts and customer positive reactions is likely to be highly salient for their psychological and physical wellbeing. In short, the present authors' believe that the combined process of high effort involvement and low rewarding interactions with customers may explain the correlation between SA and burnout.

Hypothesis 2: Emotional effort and rewarding interactions fully mediate the relationship between surface acting and burnout.

Another COR theory tenet is that an individual's available resources may buffer the negative consequences of excessive resource investment. The theory also predicts that when not experiencing stress, people invest resources to actively build reservoirs that help them cope with future demands. For example, practising yoga within a mindfulness program requires certain level of physical energy investment but in the long term, individuals can potentially develop better physical condition, learn to decrease adverse emotional reactions under high demands (i.e. high arousal) and learn to evoke a mindful mindset that allows them to deal more effectively with future demands (Van Gordon, Shonin, Zangeneh, & Griffiths, 2014). Building upon this, Sonnentag and Fritz's (2007) work on psychological recovery of work-related stress suggests that for effective recovery, individuals need to invest resources in non-related work activities that lead to experiences of mastery, relaxation and/or or effective detachment from work (Sonnentag & Fritz, 2007). Thus, it is expected that the ability to engage in recovery experiences to negatively relate to burnout.

Hypothesis 3: Recovery ability negatively correlates with burnout.

Based on the empirical evidence suggesting that recovery experiences improve wellbeing and allow for work-related stress recovery, it is argued that these experiences could

ameliorate the negative impact of emotional effort on burnout. Methodologically, some scholars consider this a moderated mediation effect (Muller, Judd & Yzerbyt, 2005). In view of this:

Hypothesis 4: Recovery ability moderates the mediation effect of emotional effort on the relationship between surface acting and burnout. Thus, at low recovery ability levels, the correlation between emotional effort and burnout will be higher than at high levels of recovery ability.

Two field studies were conducted to investigate the four hypotheses. It was important to conduct the research in an organisational context where work-related emotion is particularly salient. As such, data were collected from theme park employees, where such workers must actively participate with their emotions to create the fun atmosphere that is required within this environment. Although theme parks were selected in two different countries (UK and Spain), the organisations had an equivalent structure and both belong to large entertainment multinational chains. Study 1 tested Hypotheses 1 and 2 among UK employees, whilst Study 2 tested Hypotheses 1 to 4 with Spanish employees. The study took a cross-national validation approach to test the proposed theoretical model. This approach enabled the research team to test whether the proposed mechanisms across countries (irrespective of the potential differences in the involved variable levels) could be generalised.

Study 1

Method

Recruitment and participants. The research team contacted the participating organisation's HR teams to request collaboration on a project studying work-related emotion skills and employee wellbeing. The companies were offered free consultation services upon

completing the research project. A total of 203 employees working in a UK theme park chain participated in this study. Participants' ages ranged from 18 to 72 years with an average of 29 years. Of the sample, 36% were male and 64% were female. Participants had worked in customer services for an average of 8.3 years, and an average of 3.9 years in the current organisation. They spent an average of nearly 80% of their job time with customers.

[*Insert Table 1*]

Instruments. The surface acting subscale from Brotheridge and Lee (2003) was utilised to assess SA. Respondents were asked to rate the extent to which they engaged in each of the item statements when dealing with customers from 1= never to 5= always. A sample item included: "Hide my true feelings about a situation". Cronbach's alpha was .72. Burnout was assessed using Schaufeli, Leiter, Maslach and Jackson's (1996) Maslach Burnout Inventory (MBI) (1996). The scale comprises three subscales: emotional exhaustion (five items, e.g., "working all day is really a strain for me"); cynicism (five items, e.g., "I doubt the significance of my work), and professional efficacy (six items, e.g., "I have accomplished many worthwhile things in this job"). Respondents were asked to rate the extent to which they experienced each of the items in the statements from 1 = never to 5 = always. Cronbach's alpha was .89 for emotional exhaustion, .92 for cynicism, and .82 for professional efficacy.

To assess emotional effort, the Emotional Effort Scale (EES) (Quinones-Garcia et al., 2013) was utilised. This 7-item instrument measures the effort that occurs with meeting the job's emotional requirements. It has two correlated dimensions: explicit emotional effort (i.e., direct perceptions of the effort) and implicit effort (i.e., the degree of interference with other tasks). The scale employs a 5-point Likert scale with 1= never and 5= always. The instructions encouraged participants to think about the process whereby they meet their job's emotional display rules (e.g., smiling when greeting a customer) and asked them how often

they have felt the things in the item statements. A sample item for explicit effort was: “How often have you felt that this activity involves a great amount of effort?” A sample item for implicit effort was: “How often have you felt that meeting emotional display rules impairs your performance on other tasks?” The Cronbach’s alphas were .71 for explicit effort and 85 for implicit effort.

Rewarding interactions were assessed with Brotheridge and Lee’s 4-item scale (2002). The scale employs a 5-point Likert Scale with 1 = definitely true and 5 = definitely false. A sample item was: “I get very little thanks or recognition from my customers in return for my efforts”. Cronbach’s alpha was .85.

Since researchers have strongly associated short-term negative mood with burnout, and state negative affects appear to mediate the impact of SA on withdrawal (e.g., Scott & Barnes, 2011), state negative affect in the hypothesised relationships was statistically controlled for. Watson, Clark and Tellegen’s 10-item scale (1988) was utilised when asking respondents to rate the extent to which they were feeling each of the adjectives that described negative feelings and emotions at the present time. The responses are made on a five-point Likert scale from 1 = not at all to 5= extremely. Cronbach’s alpha was .86.

Data analysis. The goal of the study was to explain the relationships between the global constructs, therefore a latent variable model was used where each variable represented the global construct of study. The interest regarding the overall constructs over the sub-dimensions of this study also aligns with mainstream research in the work-related emotion literature (e.g., Goldberg & Grandey, 2007). Methodologically, this approach is warranted when the study’s focus is on the relationship among overall constructs, as opposed to an interest in the measurement space’s dimensionality at the item level (Little, Cunningham & Shahar, 2002). Each latent variable’s indicators were developed through the internal consistency item parcelling strategy. This strategy uses the mean of the items for each

construct's dimension as indicators of their corresponding global construct (Little et al., 2002). The latter has the advantage of preserving the constructs' multidimensional nature whilst keeping the main focus at the global level.

The measurement and structural model were tested using Structural Equation Modelling (SEM) and AMOS 20 software and model parameters were estimated with a maximum likelihood analysis. Various goodness of fit indices were used to assess the research model's fit: the χ^2 divided by the degrees of freedom (χ^2 / df), the Incremental Fit Index (IFI), Goodness of Fit Index (GFI), the Comparative Fit Index (CFI), the Standardised Root Mean Square Residual (SRMR) and the Root Mean Square Error of Approximation (RMSEA). The recommended thresholds to assess model fit were as follows: the χ^2 / *df* value should be lower than 3, the values of CFI, GFI and IFI should be above .9. Finally, SRMR and RMSEA values below .10 and .05 indicated reasonable and good fit respectively (e.g., Hair, Anderson, Tatham & Black, 1998). The mediation hypothesis was tested following James, Mulaik & Brett's (2006) procedure with SEM. This method involves comparing the fit of a model that has a path from the independent variable to the dependent variable in the mediator's presence (i.e., partial mediation model), to one where that path is deleted (i.e., full mediation). The full mediation model's fit was compared to a partial mediation model whilst controlling the influence of negative affectivity, which was modelled as an exogenous variable affecting all the latent variables (e.g., Markel & Frone, 1998). The most parsimonious model was retained (i.e., full mediation model) unless comparison of fit between the two nested models suggested that the model with the added path had a significantly better fit.

Results

The main diagonal in Table 2a illustrates the correlations, means, and standard deviations of the study's main variables. As expected, burnout positively correlated with

emotional effort, thus supporting Hypothesis 1 (r = .622, p < .001). Similarly, emotional effort also correlated with SA (r= .515, p < .001). This provided preliminary support for Hypothesis 2.

[*Insert Table 2a*]

Item parcels using the construct dimensions as indicators of the latent variables were developed. Subsequently, the measurement model's fit was tested including all study variables and the model achieved a good fit (CFI=.965, GFI=.939, IFI=.966, SRMR=.04, RMSEA=.06). All indicators loaded significantly in the intended latent factors (see Figure 1a). In order to test the latent constructs' internal consistency, factor loadings were used to estimate construct reliability. These values were above the recommended threshold of .6 (Fornell & Larcker, 1981).

[*Insert Figure 1a*]

Next, the structural model and the study's hypotheses were tested. Figure 1a highlights the standardised path coefficients. Hypothesis 1 was confirmed (β=.267, p<.001). Hypothesis 2 predicted that emotional effort and rewarding interactions mediated the relationship between SA and burnout. Following James et al.'s (2006) procedure, full mediation as a baseline model was tested. This model included four paths, two from the independent variable (i.e., SA) to the mediators (i.e., emotional effort and rewarding interactions) and two from the mediators to the outcome (i.e., burnout). Conversely, the partial mediation model had an additional path from SA to burnout. Table 2b presents the model fit indices. Although the partial mediation also showed acceptable fit, the differences between this and the mediation model were not statistically significant ($\Delta\chi^2$ (1) = 0.40, n.s.) and the AIC index of the full mediation model was lower than the partial one (AIC=147.8).

Consequently, the full mediation model that aligned with the parsimonious principle was preferred.

[*Insert Table 2b*]

Study 2

In Study 1 initial evidence was found that supports the hypothesis of the combined effect of the resources depletion-recovery process. Study 2 had two objectives. The first was to examine whether model could be replicated using a sample from a different country, thus cross-validating the findings (Hypothesis 1-3). The second was to test the extent to which the recovery ability moderated the emotional effort's mediation effect (Hypothesis 4).

Method

Recruitment and participants. The same procedure as in Study 1 was followed. A total of 208 employees working in the theme park industry in Spain participated in the study (female=48%, male=52%). Participants' ages ranged from 17 to 61 years (mean=30 years). Participants were recruited using the same procedure as in Study 1.

Instrument adaptation and measurement invariance. Because no Spanish version existed, one of the research team who is a native Spanish speaker with high proficiency in English translated the items from Study 1 from English into Spanish. Following this, another author who is a native English speaker translated and checked the items back into English (Grandey et al., 2005). Additionally, Measurement Invariance (MI) tests were conducted to ensure that the instruments were measuring the same constructs. In the context of cross-national research, lack of measurement invariance is as threatening to interpreting the finding's adequacy from hypothesis testing as is the instruments' lack of reliability and validity (Vandenberg & Lance, 2000). Although a latent variable approach with global

constructs was used, the research team initially tested measurement invariance at the item level to limit model misspecification at the aggregate level (Little et al., 2002).

Measurement Invariance tests with Multigroup Confirmatory Factor Analysis were conducted using AMOS 20. The first level of invariance (i.e., configural invariance) was demonstrated by fitting the model simultaneously with two groups and showing a good model fit. The next level assessed metric invariance, the most fundamental test of measurement invariance across groups. If invariance holds here, then items convey the same meaning across different groups and the latent constructs underlying these items are comparable across groups (Cheung & Rensvold, 2002). To support the invariance model with no constraints across groups (i.e., leaving factor loadings to vary freely across countries), it was compared to a model with the added constraint of equal factor loadings across samples. Since these are nested models, the χ^2-difference test can be computed. A non-significant difference supports metric invariance. It should also be noted that full metric invariance is very rare, and that partial measurement invariance is more common. Nevertheless, many researchers argue that provided that one actually keeps the latter to a minority of items, group comparisons are not affected (Cheung & Rensvold, 2002).

Lee and Brotherdige's SA subscale (2006) was translated into Spanish as no version existed. Cronbach's alpha was .76. A validated Spanish version of the Maslach Burnout Inventory (MBI) from Salanova, Schaufeli , Llorens, Peiro & Grau (2000) was utilised to assess burnout. Cronbach's alpha was .92 for emotional exhaustion, .90 for cynicism, and .88 for professional efficacy. The Spanish version of the EES was utilised to assess emotional effort (Quinones-García et al., 2013). Cronbach's alpha was .75 for explicit effort and .80 for implicit effort. Rewarding interactions was measured with Brotheridge and Lee's (2002) instrument. This was translated into Spanish and MI was tested. Cronbach's alpha was .88.

The already Spanish validated version of Watson et al.'s (1988) scale was utilised to assess negative affect. Cronbach's alpha was .84. Finally, recovery ability was assessed with a Spanish version of Sonnentag's scale (Moreno-Jiménez et al., 2009). This six-item scale includes items about relaxation, mastery and psychological detachment. A sample item was: "I'm able to switch off and relax after work". Respondents were asked to rate the extent to which they experienced each of the statements on a scale from *1=strongly disagree to 5=strongly agree.* In this study, Cronbach's alpha was .82.

Data analysis. Hypothesis 1 and 2 were tested following the same strategy as described in Study 1. Hypothesis 3 and 4 were tested with Muller et al.'s (2005) moderated mediation procedure. In order to achieve this, the following conditions had to be met:

1) There is a significant effect of the predictor variable (*X*) on the outcome variable (*Y*) and the non-significant interaction effect between moderator and predictor variable (*XMo*) with regards to the dependent variable (*Y*). ($Y = \beta_{11}X + \beta_{12}Mo + \beta_{13}Xmo$, where $\beta_{11} \neq 0$ and $\beta_{13} = 0$).

2) There is an interaction effect between the moderator and predictor variable (*MoX*) with the mediator variable as dependent variable (*Med*) or a significant effect between the predictor variable (*X*) and the mediator variable (*Med*), ($Med = \beta_{31}X + \beta_{32}\,Mo + \beta_{33}\,XMo + \beta_{34}Med + \beta_{35}MedMo$, where $\beta_{34}Med \neq 0$ or $\beta_{35}MedMo \neq 0$).

Depending on which betas were significant in the previous step, two conditions had to be met. First, if there was an interaction effect between the moderator and predictor (*MoX*) in relationship with the mediator from the previous step, there must also be a significant effect of the mediator variable (*Med*) in the relationship with the criterion variable. Conversely, if in Step 2 the predictor variable was significant, then there must also be a significant interaction

between the mediator and the moderator variable (*MedMo*) with the criterion variable (*Y*) ($Y = \beta_{31}X + \beta_{32}Mo + \beta_{33}XMo + \beta_{34}Med + \beta_{35}MedMo$, where $\beta_{34}\,Med \neq 0$ or $\beta_{35}\,MedMo \neq 0$).

Finally, it should also be noted that these are the minimum requirements, but it is also moderated mediation when all four conditions from Steps 2 and 3 hold. Although it is likely that the interaction between the mediator and moderator holds, this is not a necessary condition to establish moderated mediation (Muller et al., 2005, p. 856). The hypothesis with an integrated moderated mediation analysis (using the PROCESS macro) was also tested and which yielded similar results.

Results

Table 3 highlights the measurement invariance test results. The same internal consistency strategy was followed for item parcelling as in Study 1. The resulting measurement model achieved a good fit (CFI=.955, IFI=.956, GFI=.933, SRMR=.04, RMSEA=.08). Table 4a presents descriptive and bivariate correlations above the diagonal. The negative association between recovery ability and exhaustion confirms Hypothesis 3 (r =-.406, $p < .001$).

[*Insert Tables 3 & 4a*]

Subsequently, the structural model and the model fit indices were tested (see Table 4b). Figure 1b shows the standardised path coefficients. In line with the results that were obtained in Study 1, emotional effort significantly related to burnout (β=.302, p<.001), thus supporting Hypothesis 1. Furthermore, emotional effort and rewarding interactions fully mediated the relationship between SA and burnout, further supporting Hypothesis 2. As shown in Tables 4a and 5, Hypothesis 3 was also confirmed, hence recovery ability was negatively related burnout.

[*Insert Table 4b & Figure 1b*]

The moderated mediation effects were initially tested with the study's global constructs and no significant effects were found. Since the global constructs (burnout and emotional effort) were multidimensional, moderated mediation tests were conducted independently for each dimension of the constructs in order to rule out any unique effects at this level. It was found that recovery ability significantly moderated the mediation effect of implicit effort on the relationship between surface acting and emotional exhaustion (see Table 5). Therefore, initially, the relationship between SA and exhaustion was significant, and there was a lack of significant correlation of the interaction between the predictor and moderator variables. Surface acting significantly correlated with the mediator variable when it was introduced to the latter as a dependent variable. Finally, the interaction between the mediator and the moderator was significant and the Sobel test confirmed a reduced in the significant coefficient for surface acting, therefore, partial moderated mediation was confirmed (z = 2.54; $p < .001$).

In order to aid the interpretation of this moderated mediation effect, Cohen et al' simple slope test (2003) was applied. At high levels of recovery ability, the correlation between implicit emotional effort and exhaustion was not significant (b = .125; t = 1.745; p = .085). However, at low levels of recovery ability, the correlation was positive and significant (b = .299; t = 4.197; $p < .001$). With regards to explicit emotional effort, all conditions were met except for the last one as the interaction between the mediator and the moderator was not significant at .05 (b = .098; p = .068). Therefore, moderated mediation with the explicit effort dimension was not supported. In view of this, Hypothesis 4 was only confirmed for the implicit effort dimension (i.e., only partial support was found).

[*Insert Table 5 and Figure 2*]

General Discussion

The objectives of the present study were twofold: (i) to develop and test the resources depletion-recovery process, and (ii) to cross-nationally validate this model across two countries (UK and Spain) with different traditions regarding "service with a smile". Building on COR theory, the mechanisms were identified that ultimately explain the emotional depletion process that occurs when the occupational role requires faking emotions (i.e., emotional effort and unrewarding customer interactions). Furthermore, it was found that individuals' ability to engage with recovery experiences after work were able to buffer the impact of the effort that occurs with faking emotions. Since measurement invariance confirmed that the instruments were measuring equivalent constructs both in the UK and Spain, the cross-national validation process results offer strong support that the identified mechanisms are key to understanding the correlation between SA and burnout in these two countries.

Initially, Anglo-Saxon studies dominated the work-related emotion literature in the leisure industry and in other service sectors. However, in recent years, there have been increasing numbers of studies from Europe and Asia. Examples include Grandey et al.'s French study (2005); and Bozionelos and Kiamou's Greek study (2008). By incorporating a Spanish sample, this study also contributes to understanding how work-related emotion affects employees' psychological and physical wellbeing in a national context where the "service with a smile" concept has a shorter lifespan than in the Anglo-Saxon culture. In spite of these differences, and in line with the other Latin-European studies, the study also confirmed that faking emotions is equally costly for individuals in these countries (e.g., Zammuner & Galli, 2005). Cross-national studies that explicitly address the underlying psychological mechanisms across different countries are scarce. Within a globalised service-based economy with a high level of multinational employment, understanding the impact that

specific job demands have on employees' productivity and health across different national backgrounds is of paramount importance. The cross-national model testing approach in the present study led to the conclusion that regardless of differences in levels of use of EL across countries, the psychological mechanisms underlying the link between SA and burnout may be the same in both Spanish and British employees in the leisure industry. Thus, the study provides preliminary evidence that in both countries, faking the emotions that the job requires can result in a dangerous net resource loss due to a combined mechanism of high effort investment and the lack of customer's recognition, and that impedes the resources recovery process.

Findings from the present study also provide some support for the positive impact of distal resources recovery processes, to lessen burnout symptoms. Following COR, recovery experiences were conceptualised as resource investment activities to the extent to which they could alleviate the negative impact of resources depletion on burnout. More specifically, it was found that recovery experiences moderated the negative impact that implicit effort had on emotional exhaustion. Consequently, the higher the recovery ability individuals reported, the lower the interference with other tasks they would perceive when performing work-related emotion via SA. These findings are in line with other phenomena that others have presented in the recovery literature (e.g., Sonnentag & Fritz, 2007). However, it should be noted that the study's results show that the moderated mediation was only significant for implicit effort and not for explicit effort. One potential explanation for these differences may be to do with the direct appraisal of these processes. Unlike explicit effort, implicit effort refers to a less consciously appraised effort that can be estimated by the degree of interference that work-related emotion has with other tasks. Similarly, the result of a successful recovery process may not necessarily be a consciously appraised event, yet one that provides employees with the resources to face a hard working day. This merits further

study, ideally from a time-series design that incorporates the assessing the effect of recovery on daily levels of emotional effort and strain. Nevertheless, the present study identified alternative routes to buffer the impact of effort should other means be unable to reduce the latter.

Among the study's limitations is common method bias. Nevertheless, Conway and Lance's (2010) steps were followed to minimise this risk. For instance, no evidence was found for construct validity through the good fit of the measurement model. Furthermore, the research team tried to minimise common method bias problems in the study's design by minimising social desirability (e.g., highlighting that questionnaires were confidential and anonymous). Additionally, there are inherent limitations to the cross-sectional nature of the study. Nevertheless, the consistency of the mediation effects in two independent samples provides strong evidence for the sequential order that was proposed in the theoretical model.

Additionally, the choice of item parcel and global construct analyses could be a threat to model misspecification. Nevertheless, since the data were modelled at the item level when conducting multidimensional and measurement invariance tests prior to item parcelling, the risk was minimised (e.g., Little et al., 2002). Finally, Hypothesis 4 refers to global effects whereas moderated mediation tests were only significant for sub-dimensions that could be perceived as capitalization on chance. However, the results offer important insights that merit further study. Future investigation with time series and longitudinal methodology is also required to confirm the sequential development of the process. In particular, time series studies can help analyse the immediate (rather than the aggregate) effects of rewarding interactions with customers and emotional effort and to identify alternative strategies for resources recovery.

Given that the job role's emotional requirements can be difficult to avoid in customer interactions within the leisure, a number of practical implications can be derived from the

present study. First, Human Resources should assess individuals' differences to the extent to which they perceive high effort in meeting display rules at the recruitment stage. Second, in order to maintain work-life balance and in view of the positive consequences of recovery ability, there is a need for organizational intervention in breaking up resource loss cycles at work and encouraging resource gain. Correspondingly, it is the organization's responsibility to ensure that it distributes working hours in such a way that their employees still benefit from quality time off work, especially in the leisure sector where employees tend to work shifts. By doing this, organisations demonstrate concern for employees' physical and psychological health, and minimize the potentially harmful consequences of the so called "service with a smile".

The cross-nationally validated resources depletion-recovery model moves the attention beyond SA (which is a more distal correlate of burnout) and clearly identifies the variables that account for employees' exhaustion in roles where work-related emotion is highly salient. By having more accurate explanations of the exhaustion that occurs with meeting the job role's emotional requirements, managers are better equipped to develop sound interventions that help prevent these problems from occurring in the first place.

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Table 1

Sociodemographic variables of the two samples

	UK (N=203)	Spain (N=208)
Gender (% female)	64	48
Time spent with customers (%)	80	91
Age (M,SD)	29, 10.4	30, 9.6
Years in Customer Service (M,SD)	8.3, 7.6	8.4, 8
Years in Current Organization (M,SD)	3.9, 4.8	6.2, 7

Table 2a

Mean, Standard Deviation and Correlations of the Variables in Study 1 (British sample)

	M_{UK}	SD_{UK}	1	2	3	4	5
1 Surface Acting	2.12	.58	(.70)				
2 Effort	2.06	.63	.515***	(.74)			
3 Rewarding interactions	2.21	.89	-.507***	-.558***	(.85)		
4 Burnout	2.09	.73	.448***	.622***	-.691***	(.73)	
5 State Negative Affect	5.3	.21	.311***	.491***	-.367***	.539***	(.86)

Note: †$p < .10$, *$p < .050$,**$p < .010$,***$p < .001$. Construct reliabilities are presented into brackets

Table 2b

Measurement and Structural Models for the Resources Depletion-Recovery Model (Study 1: British Sample)

Model Specification	χ^2	***df***	χ^2/df	**CFI**	**GFI**	**IFI**	**SRMR**	**RMSEA**	$\Delta\chi^2$ **(*p*)**	**AIC**
Measurement Model	76.5	45	1.70	.965	.939	.966	.04	.06	---	---
Structural Model										
S1 Full Mediation	85.8	47	1.82	.957	.933	.958	.05	.06	---	147.8
S2 Partial Mediation	85.8	46	1.85	.956	.933	.957	.05	.06	.040 (N.S.)	149.8

Note: χ^2 _ Chi Square differences; *df*_Degrees of freedom; CFI_Comparative Fit Index; Goodness-of-Fit statistic (GFI); IFI_ Incremental Fit Index; SRMR Standardised Root mean Square Residual; RMSEA_Root Mean Square Error of Approximation. $\Delta\chi^2$ (*p*)_ Increment of Chi Square and probability; N.S. _ $p > .05$.

Table 3

Measurement Invariance of the Study Instruments for the British Sample (Study 1) and the Spanish Sample (Study 2)

Scale	Model Specification	$\chi 2$ (*df*, *p*)	CFI	IFI	SRMR	$\Delta\chi 2$	ΔCFI	Statistical differences
Surface acting	Configural Invariance	30.11 (15; p <.05)	.977	.978	.05	---	---	---
	Full Metric Invariance	47.04 (21;p < .05)	.961	.962	.05	16.93 (p<.05)	.01	Significant
	Partial Metric Invariance*	38.89 (19; p <.05)	.970	.971	.05	8.67 (p=.071)	.01	Not significant
Emotional effort	Configural Invariance	92 (24;p < .05)	.943	.944	.03	---	---	---
	Full Metric Invariance	102.4 (29;p < .05)	.939	.939	.04	10.41 (p=.060)	.00	Not significant
Rewarding interactions	Configural Invariance	12.10 (4;p < .05)	.990	.990	.01	---	---	---
	Full Metric Invariance	14.85 (7;p < .05)	.990	.990	.01	2.75 (p=.441)	.00	Not significant
Burnout	Configural Invariance	421.2 (192;p<.05)	.960	.960	.06	---	---	---
	Full Metric Invariance	461.7 (205;p<.05)	.960	.960	.06	.42 (p=.514)	.00	Not Significant
Negative Affect	Configural Invariance	184.1 (65,p < .05)	.929	.930	.06	---	---	---
	Full Metric Invariance	213.9 (71,p < .05)	.891	.892	.08	61.8 (p<.05)	.03	Significant
	Partial Metric Invariance*	169.9 (69,p < .05)	.927	.928	.05	7.3	.00	Not significant

Note: Partial Metric Invariance* most items were invariant. χ^2 _ Chi Square differences; *df*_Degrees of freedom; CFI_Comparative Fit Index; IFI_ Incremental Fit Index; SRMR_Standardised Root mean Square Residual; $\Delta\chi^2$ (*p*)_ Increment of Chi Square; ΔCFI_Increment Comparative Fit Index

Table 4a

Mean, Standard Deviation and Correlations of the Variables in Study 2 (Spanish sample)

	M_{Spain}	SD_{Spain}	1	2	3	4	5	6
1 Surface Acting	1.92	.53	(.81)					
2 Effort	2.50	.85	.553**	(.82)				
3 Rewarding interactions	2.75	1.11	-.420***	-.706***	(.82)			
4 Burnout	1.64	.92	428***	.691***	-.800***	(.78)		
5 State Negative Affect	5.19	0.20	.329***	.523***	-.600***	.655***	(.84)	
6 Recovery ability	4.26	.70	-.174*	-.215**	.350***	-.406***	-.248***	(.82)

Note: †$p < .10$, *$p < .050$,**$p < .010$,***$p < .001$. Construct reliabilities are presented into brackets

Table 4b

Measurement and Structural Models for the Resources Depletion-Recovery Model (Study 2: Spanish Sample)

Model Specification	χ^2	***df***	χ^2/df	**CFI**	**GFI**	**IFI**	**SRMR**	**RMSEA**	$\Delta\chi^2$ **(*p*)**	**AIC**
Measurement Model	95.8	41	2.33	.955	.933	.956	.04	.08	---	
Structural Model										
S1 Full Mediation	101.1	35	2.88	.945	.918	.946	.06	.09	---	163.1
S2 Partial Mediation	101.1	34	2.97	.944	.918	.945	.06	.09	.05 (N.S.)	165.1

Note: χ^2 _ Chi Square differences; *df*_Degrees of freedom; CFI_Comparative Fit Index; Goodness-of-Fit statistic (GFI); IFI_ Incremental Fit Index; SRMR Standardised Root mean Square Residual; RMSEA_Root Mean Square Error of Approximation. $\Delta\chi^2$ (*p*)_ Increment of Chi Square and probability; N.S. _ $p > .05$.

Table 5

Moderated mediation effect of Recovery Ability on the relationship between Surface Acting and Emotional Exhaustion (Burnout)

Model Summary	Dependent variables		
Standardised coefficients	Exhaustion	Effort (implicit)	Exhaustion (burnout)
Step 1: Control Vbs. (ΔR^2)	(.425***)	(.147***)	(.425***)
Age	.125	-.004	.126
Gender	.017	.010	.011
Negative Affectivity	.547	.304***	.483***
Step 2: *X* (ΔR^2)	(.035***)	(.077***)	(.035***)
Surface acting	.179***	.291***	.113*
Step 3: *Mo* (ΔR^2)	(.033***)	(.001)	(.033***)
Recovery ability	-.191**	.023	-.201**
Step 4: *XMo* (ΔR^2)	(.001)	(.001)	(.001)
Surface acting *Recovery ability	-.035	-.034	-.077
Step 5: *Med* and *MedMo* (ΔR^2)			(.047***)
Effort (implicit)			.210***
Effort (implicit)*recovery ability			.118*
Adjusted R^2			**.52**

Note: †$p < .10$. *$p < .050$.**$p < .010$.***$p < .001$. *X*_Independent variable; *Mo*_Moderator; *XMo*_Interaction between moderator and independent variable; *MedMo*_Interaction between Mediator and Moderator