



The daily spillover and crossover of emotional labor: Faking emotions at work and at home

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ABSTRACT

This diary study among 75 Spanish dual earner couples investigates whether emotional labor performed by employees at work has implications for themselves and for their partner at home. On the basis of the Spillover-Crossover model, we hypothesized that individuals' surface acting at work would spill over to the home domain, and that surface acting at home, in turn, would reduce individuals' levels of well-being. Moreover, we predicted crossover of experiences lived at home between the members of the couple. Participants filled in a diary booklet during five consecutive working days ($N = 150$ participants and $N = 750$ occasions). The results of multilevel analyses show that daily surface acting at work has an indirect relationship with daily well-being through daily surface acting at home. In addition, we found a bi-directional crossover of surface acting at home and well-being between both members of the couple. These findings indicate that emotional labor has implications not only for employees themselves, but also for their partner at home – on a daily basis.

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1. Introduction

Emotions play an important role in our daily lives, including the work domain. Traditionally, researchers on emotions in working life have focused their attention on jobs requiring emotional expression as part of the work role (e.g., the service sector). “Emotional labor” is considered as the core variable in the study of emotions in organizations (Fisher & Ashkanasy, 2000). Emotional labor at work requires expressing specific emotions in order to conform to organizational expectations (Grandey, 2003). However, the workplace is not an island in employees' lives: attitudes, stress, emotions and behaviors spill over between work and family domains (Greenhaus & Beutell, 1985). For instance, Yanchus, Eby, Lance, and Drollinger (2010) examined emotional labor also in the family domain, arguing that there are also expected behaviours in the family which may create another form of emotional labor. However, despite the growing interest in analyzing emotional labor at work, there are only a few studies that have examined emotional labor at home. Moreover, there is a lack of research on how the work environment affects those with whom employees interact outside the work domain, such as their partners (Bakker & Demerouti, 2012). The latter authors propose the Spillover-Crossover Model (SCM) as a framework that integrates work and non-work domains, analyzing first how work characteristics or strain spill over from work to home, and in turn, how it affects partner's well-being. Based on the SCM (Bakker & Demerouti, 2012), we analyze the spillover and crossover of emotional labor in dual-earner couples.

Our study contributes to the field in several ways. First, to the best of our knowledge, this is the first study investigating the spillover and crossover of emotional labor. The design of the present study is also unique in the field of emotional labor. For instance, although Yanchus et al. (2010) focused on emotional labor both at work and at home, they related both types of

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emotional labor to affective responses within each respective domain. We address this gap by examining the spillover of emotional labor at work to the home domain, and in turn, how it affects indicators of well-being. Second, we use a daily diary design with dual-earner couples. This design allows us to capture dynamic aspects of marital experiences, including the crossover of experiences, that might be lost when using traditional designs (Laurenceau & Bolger, 2005). We measure emotional labor at work in the afternoon, and emotional labor at home in the evening for both partners simultaneously (i.e. on the same day), which reduces retrospective bias because employees report their feelings and cognitions just after they have occurred (Ohly, Sonnentag, Niessen, & Zapf, 2010). Third, the strategy of analyses that we follow in this study, called actor-partner interdependence model (APIM; Kenny, Kashy, & Cook, 2008), is innovative. This strategy allows us to explore (a) how specific work characteristics affect not only employees but also their partner's well-being, and (b) mutual effects between the members of the dyad.

2. Theoretical background and development of hypotheses

The SCM (Bakker & Demerouti, 2012) provides a useful general framework for our study. This model takes into account experiences in work and non-work domains, integrating two important lines of research. Accordingly, experiences built up at work first spill over to the home domain in the form of negative strain, influencing behavior at home, and then cross-over to one's partner's well-being through social interaction. Evidence for such a process has been found in several between-persons survey studies conducted in different countries, including The Netherlands, Greece, and Japan. For instance, Bakker, Demerouti, and Dollard (2008) found that for both genders job demands were positively related to actor's own work-family conflict, which led to their partner's home demands and exhaustion.

Moreover, Bakker, Demerouti, and Burke (2009) in a study about workaholism showed that employees who worked excessively hard had higher levels of work-family conflict and in turn, offered less support to their partner. This lack of support had a negative impact on partner's relationship satisfaction. Both studies have been replicated in Japanese dual-earner couples (Shimazu, Bakker, & Demerouti, 2009; Shimazu, Demerouti, Bakker, Shimada, & Kawakami, 2011). Recently, the SCM has been extended including aspects such as the impact of exchange in interpersonal relationships (Bakker, Petrou, & Tsaousis, 2012), and work-self facilitation (Demerouti, 2012).

In the present daily diary study, we examine first the spillover of surface acting at work to the home domain, and in turn, how surface acting at home reduces individual's levels of well-being. Second, we analyze the crossover of experiences lived at home between the members of the couple (i.e., surface acting at home and well-being).

2.1. Emotional labor: the concept of surface acting at work and at home

The study of emotions in organizations has its roots in the concept of emotional labor. This concept was developed by Hochschild (1979), who referred first to "emotion work" as "the act of evoking or shaping", as well as "suppressing feelings in oneself" (p. 561). Later, she used the concept of "emotional labor" defining it as "the management of feeling to create a publicly observable facial and bodily display" (Hochschild, 1983, p. 7).

Hochschild classified emotional labor into two categories: *surface acting and deep acting*. Whereas the first category involves simulating emotions not actually felt, the second category implies trying to actually feel the appropriate emotions for a given situation. Whereas deep acting has traditionally been linked to positive outcomes such as better service performance (Grandey, 2003; Totterdell & Holman, 2003), the negative effects of surface acting are clearer in the literature (Martínez-Iñigo, Totterdell, Alcover, & Holman, 2007). The negative effects of surface acting may be explained by the fact that it is more effortful because one needs to actively change the public display while the internal experience remains the same (Grandey, 2000). Kanfer and Kantrowitz (2002) point out that surface acting involves more effort than deep acting because in surface acting, the emotion is under way. This means that the individuals have already felt a specific emotion but they cannot reveal it. They can only change the observable signs, which may have costs. However, in deep acting, the individual regulates the antecedents of the emotions so that when the emotion is felt, the inner feelings are aligned with the observable behavior.

In the present study, we are interested in surface acting, which implies faking emotions. First, we examine surface acting at work and after that, we examine surface acting at home as a strategy to manage emotions in the non-work domain. Based on Yanchus et al. (2010), we define this concept as the display of emotions (e.g., joy, enthusiasm) that are not felt but expected in the family domain, even when individuals are cognitively, emotionally or physically drained. Taking into account these two types of surface acting, we try to answer these questions: If individuals fake emotions at work, will they do the same at home to conform to family expectations? Consequently, if individuals fake emotions at home, will their partners be more inclined to use the same strategy? What are the implications of faking emotions at work and at home for well-being?

2.2. The daily spillover of surface acting and its effects on well-being

Spillover refers to a process in which "reactions experienced in the work domain are transferred to and interfere with the non-work domain" (Demerouti, Bakker, & Schaufeli, 2005, p.267). The literature about work and family has provided considerable empirical evidence for this process. For instance, job characteristics such as long work hours or low job control have been related to higher levels of work-family conflict (Grzywacz & Butler, 2005; Kinnunen, Feldt, Geurts, & Pulkkinen, 2006).

To explain why negative spillover may occur, researchers have often focused on models about the consequences of engaging in different roles. For instance, according to the role scarcity hypothesis (Edwards & Rothbard, 2000) managing multiple roles at

work and at home involve a loss of time and energy resources. Along the same lines, Grandey and Cropanzano (1999) argued that resources are lost in the process of juggling with job and family roles. In general terms, the literature on work-family conflict supports the idea that investing resources at work leaves people with fewer resources at home (e.g., Frone, Yardley, & Markel, 1997; Greenhaus & Beutell, 1985). According to conservation of resources theory (Hobfoll, 1998) people under prolonged stress tend to reduce the investment of extra resources. In our study, it may be plausible that after displaying surface acting at work people have already drained their resources and cannot make an extra effort to really feel specific emotions (i.e. deep acting). Thus, instead of investing extra resources, they continue using surface acting at home to conform to family expectations.

Moreover, according to Ashforth, Kreiner, and Fugate's (2000) model about boundaries and micro-role transitions, every day, people have to engage in role transitions not only within the same domain (e.g., between one's roles of subordinate and peer), but also between the work and home domain (e.g., between one's role of supervisor and spouse). Because physically and psychologically disengaging from one role and re-engaging in another role implies effort (Burr, 1972), people generally prefer an easy transition between life domains. A high segmentation between work and home makes the transition more difficult (Ashforth et al., 2000), so it may be easier for employees to use the same strategies to deal with job and family demands. Greenhaus and Powell (2006) provided some examples of how individuals use consistent strategies across life domains to deal with work and family issues (e.g., being patient while dealing with difficult colleagues at work, as well as being patient while dealing with the children at home).

This leads us to consider that an emotion regulation strategy such as surface acting may be displayed not only at work but also at home, which following Edwards and Rothbard (2000) may be called a 'spillover' effect. For instance, it may be that during the working day, you have to express a specific emotion as part of your work (e.g., happiness), and you use the strategy of surface acting. When you arrive at home, you have an important family event and although you are tired, you are expected to be in a positive mood. Given that on that day you have already used the strategy of surface acting at work, you have it more "accessible", and you use it also in this new role, facilitating the micro-transition. To adjust to family expectations, instead of investing more resources trying to really feel the emotion of happiness, you just pretend to have that emotion. Based on these arguments, we hypothesize that:

Hypothesis 1. Daily surface acting at work (SAW) of each member will be positively related to their own daily surface acting at home (SAH) (*Spillover Hypothesis*).

According to Grandey (2000), surface acting corresponds to a response-focused strategy, which means modifying the physiological or observable signs of an emotion. It involves high levels of psychological effort, because the person doesn't really change the appraisal of the situation to adjust emotions. As a result, a feeling of inauthenticity may arise, reducing the levels of well-being (Brotheridge & Lee, 2003). There is empirical evidence showing that surface acting is related to reduced well-being. Using a daily diary design, Judge, Woolf, and Hurst (2009) found that surface acting during work was positively related to job-related negative affect and emotional exhaustion at the end of the working day. In that study, other experiences lived at home were not taken into account. Regarding surface acting at home, Yanchus et al. (2010) found that engaging in surface acting with the family led to negative affective responses in that domain. However, they did not explore paths where faking emotions in the family domain may be a consequence of regularly enacting such behavior in the workplace. To address this gap, we analyze whether surface acting's effects on well-being may be the result of a spillover from work to home. We propose that daily SAW of each member will have an impact on self-reported well-being through the mediation of SAH. We used the circumplex model of affect (Russell, 1980) to operationalize context-free well-being and focus on affective responses characterized by high pleasure (e.g., relaxed, satisfied, enthusiastic). Specifically, we hypothesize that:

Hypothesis 2. Daily SAW of each member will be negatively related to self-reported well-being through the mediation of daily SAH (*Mediation Hypothesis*).

2.3. The daily crossover of surface acting at home and well-being

Côte (2005) claimed that emotion regulation strategies have an effect not only on the sender but also on the receiver, so that it is important to focus on interpersonal mechanisms. The notion of 'crossover' refers to a process in which job stress and strain is transmitted from job incumbents to their partners and it occurs *within* a particular domain (Westman, 2001). According to the SCM (Bakker & Demerouti, 2012), once the spillover takes place, crossover between partners is particularly likely when they discuss their feelings at home and pay attention to each other. In the case of surface acting, an "emotional contagion process" may occur. Contagion has been defined as a reciprocal reaction toward the other person in closer relationships (Bakker & Schaufeli, 2000). What concerns the crossover of surface acting between partners in the home domain, we propose that a contagion process may occur because individuals perceive the lack of interest of the partner and react negatively. It has been shown that people are able to discriminate when a person is faking emotions (Ekman, Friesen, & O'Sullivan, 1988). If the individual realizes that his/her partner is faking an emotion, a reciprocal reaction may arise as a response. An alternative explanation may be that individuals just imitate their partner's behaviour automatically. When people interact frequently, as the case of partners, it has been suggested that a possible mechanism explaining the crossover process may include automatic imitation (Bakker, Demerouti, & Schaufeli, 2005).

Apart from that, in the home domain, there is ample empirical evidence of the contagion of negative and positive phenomena such as burnout (Westman & Etzion, 1995), depression (Westman & Vinokur, 1998), and marital satisfaction (Bakker et al., 2009;

Demerouti et al., 2005). Following these studies, we also propose a crossover of well-being on a daily basis. It is important to note that most studies on crossover have examined the path from husbands to wives or vice versa, instead of the bi-directional effects. This issue has raised some criticisms, such as the issue of gender. In general terms, it has been shown that stress and strain may be transmitted from one member to the other with no different processes for males or females (Westman & Etzion, 1995). Thus, in the present study we will focus on bi-directional crossover effects. In our final hypothesis, we propose that (see Fig. 1 for an overview):

Hypothesis 3. There is a bi-directional crossover of daily SAH and well-being between both members (*Crossover Hypothesis*).

3. Method

3.1. Procedure and sample

Employees from various organizations in Spain participated in the study. Participants were recruited using a snowball technique, using the social networks of the researchers and their students. Data collectors directly explained the objectives of the research to those couples that agreed to participate, and gave to each of the participants a package that included (a) a letter describing the purpose of the study and assuring the anonymity and confidentiality of all responses, (b) instructions about the completion of the questionnaires, (c) a general questionnaire, and (d) a diary booklet. Participants had to first fill in a general questionnaire, followed by a diary survey twice a day (at the end of the workday and before going to bed), during five consecutive working days (Monday–Friday). All of them received clear instructions to complete the questionnaire at these two times, and researchers insisted on the importance of following this procedure. It was further emphasized that both partners fill in the diaries on the same day. To guarantee confidentiality, responses of partners were linked by means of anonymous codes provided by the participants.

Of the 200 survey packages distributed, 150 were returned (75% response rate). Participants worked in a broad range of professional occupations, including financial institutions and business services, farming, construction, trade, industry, health and welfare, education, and media. Seventy-five couples ($N=150$ participants and $N=750$ occasions) who met the eligibility criterion (both members working and living together) participated in the study. The final study sample consisted of 75 men (50%) and 73 women (48.6%); information on the gender of 2 participants was missing. The average age of the participants was 39.46 years ($SD=10.8$) and their mean organizational tenure was 18.08 years ($SD=11.12$). On average, they worked 39.46 hours per week ($SD=10.80$). Most couples (58.3%) had at least one child, while 34.8% of the sample had a university degree or postgraduate studies, and the majority was salaried (90.8%). Finally, 32.6% of the sample had a supervisory position.

3.2. Measures

3.2.1. Surface acting at work and at home

The subscale from the Emotional Labor Scale (Brotheridge & Lee, 2003) was used. As the scale was originally designed to measure surface acting at work, we slightly modified the items to also measure surface acting at home (“Today at home” instead of “Today at work”). This procedure has been used in previous studies in the field of emotional labor (e.g., Yanchus et al., 2010).

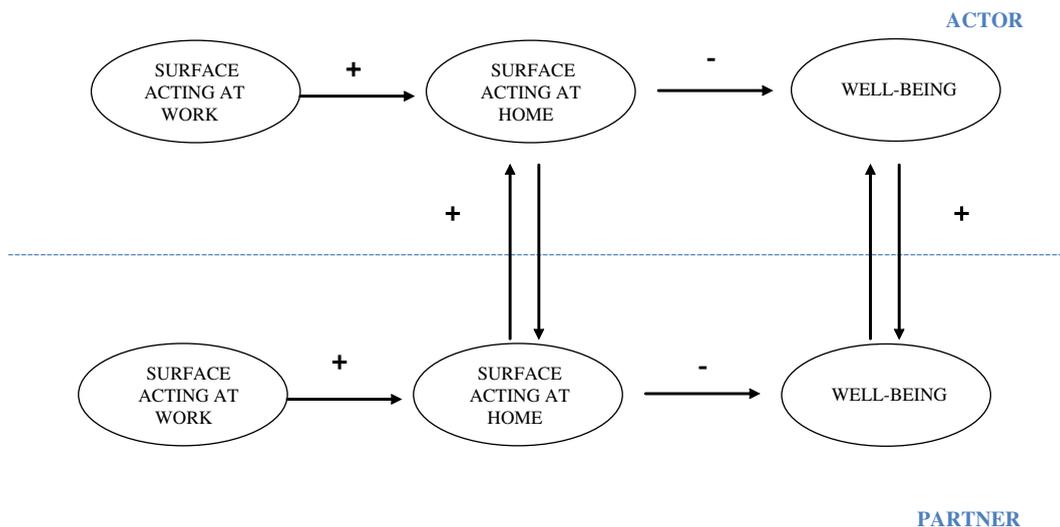


Fig. 1. Study design and hypotheses.

Specifically, we measured surface acting at work in the afternoon, and surface acting at home in the evening, before going to bed with three items each (e.g., “Today at work/home, did you pretend to have emotions that you don't really have?”). Items were rated on a 6-point scale, ranging from 1 = *not true at all* to 6 = *totally true*. The mean of Cronbach's alphas across the five occasions of surface acting was .83 and .84 for work and home, respectively.

3.2.2. Well-being

For assessing daily well-being, we used six items from the Job-related Affective Well-being Scale (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000). As the JAWS has items that reflect both pleasant and unpleasant emotions, we decided to include in the study only the positive emotions. Participants were requested to indicate if they experienced each of six positive distinct emotions (e.g., “At this moment, I feel... at ease, energetic, enthusiastic, inspired, satisfied and relaxed”). We focused on context-free emotions, given that we were interested in the level of well-being before going to bed. Items were rated on a 6-point scale, ranging from 1 = *not true at all* to 6 = *totally true*. High scores on this scale indicate high levels of affective well-being. The mean of Cronbach's alphas across the five occasions was .78.

3.2.3. Other variables

As additional control variables, we measured gender, age, marital status, number of children, organizational tenure, and number of work hours actually worked per week. In each analysis, we included only the demographic variables that were related to the dependent variable under consideration.

3.3. Data analysis

Our data set is composed of three levels. Specifically, repeated measurements at the day level consisted the first one (within-person), individual persons the second level (between person), and the dyad the third level (between-dyad). To test the hypotheses, we conducted multilevel analyses with the MLwiN program (Rasbash, Browne, Healy, Cameron, & Charlton, 2000) with three levels: day (Level 1; $N = 750$ observations), person (Level 2; $N = 150$ participants), and dyad (Level 3; $N = 75$ dyads). We centered predictor variables at the person level around the grand mean, and predictor variables at the day level around the respective person mean.

We analyzed our data following the actor–partner interdependence model (APIM; Kenny et al., 2008). This approach has been used in previous studies with a similar research design (e.g., Bakker & Xanthopoulou, 2009), considering the dyad as the highest unit of analysis, with individuals nested within the dyad. This model enables examining how an individual's predictor variable simultaneously and independently relates to his or her own criterion variable (actor effect) and to his or her partner's criterion variable (partner effect). In APIM models, the partner effect allows to test the mutual (i.e., reciprocal) influence between the members of the dyad (Kenny et al., 2008). In our study, the crossover of surface acting at home and well-being from the actor to the partner is tested simultaneously with the crossover from the partner to the actor (see Fig. 1).

4. Results

4.1. Preliminary analyses

First, we calculated means, standard deviations, and correlations among all the variables of the study. As can be seen in Table 1, the pattern of correlations was in the expected direction. Additionally, some demographic variables were related to the study variables, and we decided to control its effect in further analyses (see Model 1 in multilevel analyses). To provide statistical evidence for the use of a three-level (dyads, persons, days) model, we calculated whether our variables exhibited sufficient between and within persons variability. For each day-level variable, we calculated the intraclass correlations with the intercept-only model. Results showed that in all cases the three-level models explained a significant amount of the variance. Specifically, regarding surface acting at work, 44.6% of the variance could be attributed to within-person variations, 43.9% of the variance was attributable to between-person variations, and 11.5% of the variance was attributable to between-dyad variations. Results concerning surface acting at home showed that 50.2% of the variance could be attributed to within-person variations,

Table 1
Mean, standard deviations, and correlations.

	M	SD	1	2	3	4	5	6
1. Daily surface acting at work, actor	2.15	1.39	–					
2. Daily surface acting at work, partner	2.19	1.41	.07	–				
3. Daily surface acting at home, actor	1.57	1.03	.40**	.05	–			
4. Daily surface acting at home, partner	1.55	1.02	.05	.39**	.16**	–		
5. Daily well-being, actor	3.63	1.06	–.12**	–.04	–.19**	–.03	–	
6. Daily well-being, partner	3.62	1.05	–.04	–.13**	–.04	–.20**	.24**	–

** $p < .01$.

34.3% of the variance was attributable to between-person variations, and 15.5% of the variance was attributable to between-dyad variations. Regarding well-being, 48.5% of the variance could be attributed to within-person variations, 32.1% of the variance was attributable to between-person variations, and 19.4% of the variance was attributable to between-dyad variations. These results clearly support the use of multilevel modeling with the three levels of analysis, because the variance attributed to the dyad was in all cases significant.

4.2. Hypothesis testing

Hypothesis 1 stated that individuals' daily SAW would be positively related to their own daily SAH. Please note that APIM models include information of the two members of the dyad simultaneously. To refer to how a person's independent variable relates to his/her own dependent variable, we will refer to how a *partner's* independent variable relates to a *partner's* dependent variable. To test the first hypothesis, we compared two nested models. In the Null Model, we included the intercept as the only predictor. In Model 1, we included person-level control variables (demographic information). In Model 2, we entered the predictor variables (SAW of both the actor and the partner, and SAH of the actor). Model 2 showed a better fit to the data than Model 1 (difference of $-2 \times \log = 43.24$, $df = 3$, $p < .001$), and the Null Model (difference of $-2 \times \log = 222.75$, $df = 8$, $p < .001$). Table 2 presents unstandardized estimates, standard errors, and t-values for all predictors in Model 2. The results support Hypothesis 1, since partner's daily SAW was positively related to partner's daily SAH ($t = 6.17$, $p < .001$).

Hypothesis 2 suggested that the SAW of each member would be related to self-reported well-being. The three conditions that should be met in order to support this mediation hypothesis are (a) daily SAW should be positively related to daily SAH; (b) daily SAH should be positively related to daily well-being, and (c) after the inclusion of the mediator (daily SAH), the previously significant relationship between daily SAW and daily well-being turns into non-significance (full mediation) or becomes significantly weaker (partial mediation; Mathieu & Taylor, 2006). The test of Hypothesis 1 already supported the first condition. As can be seen in Table 3, the second requirement for mediation was also met. Specifically, partner's daily SAH was negatively related to partner's daily well-being ($t = -4.51$, $p < .001$). Finally, analyses also supported the third condition. The effect of partner's daily SAW on partner's daily well-being became non-significant when partner's daily SAH was added to the model. The Sobel (1982) test showed that this reduction was significant ($z = -3.64$, $p < .001$). Therefore, full mediation exists.

Finally, Hypothesis 3 suggested that there would be bidirectional crossover of daily SAH and well-being between both members. Results showed that actor's daily SAH was positively related to partner's daily SAH ($t = 2.07$, $p < .05$). Similarly, the bidirectional crossover of daily well-being was significant ($t = 4.88$, $p < .001$). These findings provide support for Hypothesis 3.

5. Discussion

The aim of the present study was to analyze the daily spillover and crossover of surface acting among working couples, based on the SCM (Bakker & Demerouti, 2012). Previous between-person studies have offered evidence for this model, which proposes first a spillover from work to home, and second, a transmission of strain or well-being between couples (Bakker et al., 2008, 2009; Shimazu et al., 2009, 2011). The present study contributes to this literature by showing for the first time that the SCM also holds at the day-level, and that the model can be extended to the field of emotional labor.

Table 2
Multilevel estimates for models predicting surface acting at home of the partner (N = 75 dyads, N = 150 individuals, N = 750 observations).

Variable	Null model			Model 1			Model 2		
	Estimate	SE	t	Estimate	SE	t	Estimate	SE	t
Intercept	1.573	0.073	21.5***	1.619	0.071	22.8***	1.601	0.059	27.1***
Gender				0.274	0.127	2.15*	0.253	0.119	2.12*
Age				-0.001	0.009	-0.11	-0.001	0.008	-0.12
Marital status				-0.156	0.194	-0.80	-0.095	0.162	-0.58
Number of children				0.278	0.116	2.39*	0.231	0.098	2.35*
Educational level				-0.190	0.081	-2.34*	-0.174	0.070	-2.48*
Surface acting at work (partner)							0.173	0.028	6.17***
Surface acting at work (actor)							0.036	0.030	1.20
Surface acting at home (actor)							0.081	0.039	2.07*
-2 X Log (lh)	1911.099			1731.590			1688.341		
Difference of -2 X Log				79.50***			43.24***		
df				5			3		
Level 1 intercept variance (SE)	0.531 (0.031)			0.549 (0.033)			0.549 (0.034)		
Level 2 intercept variance (SE)	0.362 (0.077)			0.396 (0.089)			0.344 (0.056)		
Level 3 intercept variance (SE)	0.163 (0.075)			0.082 (0.075)			0.000 (0.000)		

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3

Multilevel estimates for models predicting well-being of the partner (N = 75 dyads, N = 150 individuals, N = 750 observations).

Variable	Null model			Model 1			Model 2			Model 3		
	Estimate	SE	t									
Intercept	3.635	0.078	46.6***	3.630	0.080	46.0***	3.640	0.079	46.0***	3.643	0.078	46.7***
Age				0.012	0.010	1.09	0.012	0.010	1.09	0.011	0.010	1.10
Marital status				0.133	0.219	0.50	0.110	0.217	0.50	0.097	0.213	0.45
Number of children				−0.066	0.130	−0.03	−0.051	0.128	−0.03	−0.004	0.126	−0.03
Educational level				0.107	0.084	0.39	0.107	0.084	0.39	0.086	0.084	1.02
Surface acting at work (partner)							−0.081	0.029	−2.79**	−0.055	0.029	−1.89
Surface acting at work (actor)							−0.016	0.031	−0.51	−0.011	0.032	−0.34
Surface acting at home (partner)										−0.176	0.039	−4.51***
Surface acting at home (actor)										−0.013	0.040	−0.32
−2 X Log (lh)	1937.580			1761.659			1750.147			1722.533		
Difference of −2 X Log				175.92***			11.51**			27.61***		
df				4			2			2		
Level 1 intercept variance (SE)	0.544 (0.031)			0.572 (0.035)			0.566 (0.035)			0.550 (0.034)		
Level 2 intercept variance (SE)	0.360 (0.077)			0.299 (0.074)			0.312 (0.076)			0.320 (0.077)		
Level 3 intercept variance (SE)	0.218 (0.083)			0.235 (0.086)			0.215 (0.084)			0.193 (0.081)		

*p < .05. **p < .01. ***p < .001.

5.1. Theoretical contributions

Overall, our findings support the SCM of surface acting among working couples. First, we proposed that surface acting at work would spill over to the home domain because people have fewer resources to invest when they arrive home. *The Spillover hypothesis* was supported, since we found that performing surface acting at work leads the person to behave in the same way when arriving home. This is in line with conservation of resources theory (Hobfoll, 1998); under prolonged stress, individuals tend to reduce the investment of extra resources, and engaging in surface acting may be a way to avoid investing more energy resources. Whereas it has been recognized that deep acting helps to restore resources (Goldberg & Grandey, 2007), surface acting drains emotional resources (Brotheridge & Lee, 2003). In a longitudinal study among teachers, Philipp and Schüpbach (2010) found that when people felt emotionally exhausted, they used more surface acting one year later. Our findings contribute to the field of emotional labor, given that previous studies analyzing emotional labor at work and at home explored their effects within the specific domain (Yanchus et al., 2010) but not the spillover from work to home.

Second, we found that effects of surface acting at work on self-reported well-being were fully mediated through surface acting at home (*Mediation hypothesis*). Our results are conceptually in line with Martínez-lñigo et al. (2007); although they found partial instead of full mediation between surface acting at work and work-related emotional exhaustion through psychological effort and satisfaction with patients. Also Van Dijk and Brown (2006) found a partial mediation for emotional dissonance in the relationship between surface acting at work and work-related emotional exhaustion. We contribute to these previous findings by adding a new path in the field of emotional labor, that is, the reduction of well-being occurs not only because of the effort made or because of the experience of emotional dissonance, but also because there is a spillover of surface acting from work to home. From a theoretical point of view, future studies should take into account that emotion regulation strategies used at work may trespass into the home domain.

Third, *the Crossover hypothesis* was supported. We found a crossover of daily well-being and daily surface acting at home. The crossover of well-being coincides with previous research showing a crossover of positive and negative experiences such as marital satisfaction (Bakker et al., 2009), marital dissatisfaction (Westman, Vinokur, Hamilton, & Roziner, 2004), burnout (Westman & Etzion, 1995), and anxiety (Westman, Etzion, & Horovitz, 2004). The most innovative finding is the positive relationship between actor's daily surface acting at home and partner's daily surface acting at home. We explain this crossover based on an "emotional contagion process" (Bakker & Schaufeli, 2000) so that if your partner engages in surface acting at home, it is more likely that you also perform this type of emotional labor as a negative reaction to the lack of authenticity or as an automatic imitation. In the work domain there is evidence for contagion processes, for instance, it has been shown that when people display anger, they create the same response in the receiver, resulting in a spiral of incivility (Andersson & Pearson, 1999).

From a theoretical perspective, it is important to note that not only stressors such as job demands spill over (Demerouti et al., 2005), but as we have shown, emotion regulation strategies can also be transferred to the home domain. Our findings provide support for the idea that emotion management occurs in the family (Wharton & Erickson, 1993), and can be transmitted between members of the couple.

5.2. Limitations and suggestions for future research

This study has some limitations. First, one possible limitation of this study is the sampling strategy. The employees who participated in our study were recruited on a voluntary basis through a snowball technique, implying that they may not be representative of the general population. We used a snowball strategy because the study design is complex (including dual-earner couples, two measurement points per day, five days). This design is very demanding for the couples, so we had to

apply this technique to find a sufficient number of participants. We have several reasons to believe that the snowball recruitment strategy used does not threaten the validity of the results. We compared the characteristics of our sample with other studies in the field of emotional labor. The mean scores for surface acting at work and at home found in our study can be considered relatively low or medium. The same pattern for both types of surface acting has been found among Greek employees (Montgomery, Panagopolou, & Benos, 2005). Martínez-Iñigo et al. (2007) also using a Spanish sample found medium scores for surface acting at work. This pattern of scores is also found with diary data (Judge et al., 2009). In the mentioned studies, the mean age was near 40 years old, as in our study. The average hours worked per week is also similar (between 35 and 39 h). We consider that despite using a snowball technique, the characteristics of our sample are similar to other studies in the field. Moreover, participants come from a wide range of professional backgrounds, which offers a broader perspective of emotional labor in different occupations, including financial institutions and business services, farming, construction, trade, industry, health and welfare, education, and media.

Second, although we focused on one of the main components of emotional labor, surface acting, there are other dimensions which may be transferred to the partner at home. Future research should explore the daily spillover of emotional labor including all the dimensions (i.e., deep acting, intensity, frequency, variety). Third, in our study we had three levels: days, members, and couples. The variance explained by each level supports the use of these three levels. However, we did not include specific variables at the couple's level. Examining the agreement between the members of each couple in different aspects (e.g., the frequency of positive interactions during the evening) could help us to achieve an even more complete picture of the crossover of emotional labor and other phenomena. For instance, it has been shown that sharing positive work events with the partner, which has been called “work-family interpersonal capitalization”, increased positive affect and in turn, job satisfaction (Ilies, Keeney, & Scott, 2011). Finally, we examine only well-being as the dependent variable. However, other outcomes including family satisfaction or job performance the next day could help us to increase our understanding of the impact of surface acting.

5.3. Practical implications

Our findings have implications for daily lives in work and non-work contexts. First, given the negative consequences of displaying surface acting, organizations should not constrain the employee to express emotions that they don't actually feel (Brotheridge & Lee, 2003, p.377). Training programs about emotion regulation strategies could help employees to distinguish between surface acting and deep acting, identifying which kind of strategy they use to cope with daily demands. It is essential that they understand the negative consequences of surface acting, so that they can learn other skills to manage emotions. A new conceptualization of the best practices that may help employees is needed, increasing competences that may be used both at work and at home. This is in line with the concept of “work-family enrichment”, which recognizes that abilities learnt at work may improve performance at home and vice versa (Greenhaus & Powell, 2006).

From an organizational point of view, it has been suggested that by explicating the emotional labor requirements during the selection process individuals may have a clear idea of what it is expected (Wanous, 1992). Along the same lines, other scholars have proposed an intervention not only at the organizational but also at the family level. These authors explain that renegotiating and redefining roles at work and/or at home may be useful tools to adjust expectations (Thoits, 1987; Wharton & Erickson, 1993).

Finally, in fixed social structures, where negotiation may be complicated, it is important to help people to engage in cognitive reappraisals to reduce the negative experiences associated with showing emotions that one does not really feel (Harmon-Jones & Mills, 1999). The objective is to reduce emotional dissonance and to help people understand that roles at work and at home may be renegotiated in order to improve our own and our partners' quality of life.

References

- Andersson, L., & Pearson, C. (1999). Tit-for-tat? The spiraling effect of incivility in the workplace. *Academy of Management Review*, 24, 452–471.
- Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a day's work: Boundaries and micro role transitions. *Academy of Management Journal*, 25, 472–491.
- Bakker, A. B., & Demerouti, E. (2012). The Spillover-Crossover model. In J. Grzywacz, & E. Demerouti (Eds.), *New Frontiers in Work and Family Research*. : Hove: Psychology Press.
- Bakker, A. B., Demerouti, E., & Burke, R. (2009). Workaholism and relationship quality: A spillover-crossover perspective. *Journal of Occupational Health Psychology*, 14, 23–33.
- Bakker, A. B., Demerouti, E., & Dollard, M. (2008). How job demands influence partners' experience of exhaustion: Integrating work-family conflict and crossover theory. *Journal of Applied Psychology*, 93, 901–911.
- Bakker, A., Demerouti, E., & Schaufeli, W. B. (2005). The crossover of burnout and work engagement among working couples. *Human Relations*, 58, 661–689.
- Bakker, A. B., Petrou, P., & Tsaousis, I. (2012). Inequity in work and intimate relationships: A Spillover-Crossover model. *Anxiety, Stress, and Coping*, 25, 491–506.
- Bakker, A. B., & Schaufeli, W. B. (2000). Burnout contagion processes among teachers. *Journal of Applied Social Psychology*, 30, 2289–2308.
- Bakker, A. B., & Xanthopoulou, D. (2009). The crossover of daily work engagement: Test of an actor-partner interdependence model. *Journal of Applied Psychology*, 94, 1562–1571.
- Brotheridge, C. M., & Lee, R. T. (2003). Development and validation of the emotional labour scale. *Journal of Occupational and Organizational Psychology*, 76, 365–379.
- Burr, W. R. (1972). Role transitions: A reformulation of theory. *Journal of Marriage and the Family*, 34, 407–416.
- Côte, S. (2005). A social interaction model of the effects of emotion regulation on work strain. *Academy of Management Review*, 30, 509–530.
- Demerouti, E. (2012). The spillover and crossover of resources among partners: The role of work-self and family-self facilitation. *Journal of Occupational Health Psychology*, 17, 184–195.
- Demerouti, E., Bakker, A. B., & Schaufeli, W. B. (2005). Spillover and crossover of exhaustion and life satisfaction among dual-earner parents. *Journal of Vocational Behavior*, 67, 266–289.
- Edwards, J. R., & Rothbard, N. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25, 178–200.

- Ekman, P., Friesen, W. V., & O'Sullivan, M. (1988). Smiles when lying. *Journal of Personality and Social Psychology*, 54, 414–420.
- Fisher, C. D., & Ashkanasy, N. M. (2000). The emerging role of emotions in work life: An introduction. *Journal of Organizational Behavior*, 21, 123–129.
- Frone, M. R., Yardley, J. K., & Markel, K. (1997). Developing and testing an integrative model of the work-family interface. *Journal of Vocational Behavior*, 50, 145–167.
- Goldberg, L. S., & Grandey, A. A. (2007). Display rules versus display autonomy: Emotion regulation, emotional exhaustion, and task performance in a call center simulation. *Journal of Occupational Health Psychology*, 12, 301–318.
- Grandey, A. A. (2000). Emotion regulation in the workplace: A new way to conceptualize emotional labor. *Journal of Occupational Health Psychology*, 5, 95–110.
- Grandey, A. A. (2003). When 'the show must go on': Surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery. *Academy of Management Journal*, 46, 86–96.
- Grandey, A. A., & Cropanzano, R. (1999). The conservation of resources model applied to work-family conflict and strain. *Journal of Vocational Behavior*, 54, 350–370.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10, 76–88.
- Greenhaus, J., & Powell, G. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of Management Review*, 31, 72–92.
- Grzywacz, J., & Butler, A. (2005). The impact of job characteristics on Work-to-Family Facilitation: Testing a theory and distinguishing a construct. *Journal of Occupational Health Psychology*, 10, 97–109.
- Harmon-Jones, E., & Mills, J. (Eds.). (1999). *Cognitive Dissonance: Progress on a Pivotal Theory in Social Psychology*. Washington, DC: American Psychological Association.
- Hobfoll, S. E. (1998). *Stress, culture, and community: The psychology and physiology of stress*. New York: Plenum Press.
- Hochschild, A. R. (1979). Emotion work, feeling rules, and social structure. *The American Journal of Sociology*, 85, 551–575.
- Hochschild, A. R. (1983). *The managed heart. The commercialization of human feeling*. Los Angeles, CA: University of California Press.
- Iliis, R., Keeney, J., & Scott, B. A. (2011). Work-family interpersonal capitalization: Sharing positive work events at home. *Organizational Behavior and Human Decision Processes*, 114, 115–126.
- Judge, T. A., Woolf, E. F., & Hurst, C. (2009). Is emotional labor more difficult for some than for others? A multilevel, experience-sampling study. *Personnel Psychology*, 62, 57–88.
- Kanfer, R., & Kantrowitz, T. M. (2002). Emotion regulation: Command and control of emotions in work life. In R. Lord, R. Klimoski, & R. Kanfer (Eds.), *Emotions in the workplace: Understanding the structure and role of emotions in organizational behavior* (pp. 443–472). San Francisco, CA: Jossey-Bass.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2008). *Dyadic data analysis*. New York: The Guilford Press.
- Kinnunen, U., Feldt, T., Geurts, S., & Pulkkinen, L. (2006). Types of work-family interface: Well-being correlates of negative and positive spillover between work and family. *Scandinavian Journal of Psychology*, 47, 149–162.
- Laurenceau, J. P., & Bolger, N. (2005). Using diary methods to study marital and family processes. *Journal of Family Psychology*, 19, 86–97.
- Martínez-Iñigo, D., Totterdell, P., Alcover, C. M., & Holman, D. (2007). Emotional labour and emotional exhaustion: Interpersonal and intrapersonal mechanisms. *Work and Stress*, 21, 30–47.
- Mathieu, J. E., & Taylor, S. R. (2006). Clarifying conditions and decision points for meditational type inferences in organizational behaviour. *Journal of Organizational Behavior*, 27, 1031–1056.
- Montgomery, A. J., Panagopoulou, E., & Benos, A. (2005). Emotional labour at work and at home among Greek health-care professionals. *Journal of Health and Organizational Management*, 19, 395–408.
- Ohly, S., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational research: An introduction and some practical recommendations. *Journal of Personnel Psychology*, 9, 79–93.
- Philipp, A., & Schüpbach, H. (2010). Longitudinal effects of emotional labour on emotional exhaustion and dedication of teachers. *Journal of Occupational Health Psychology*, 15, 494–504.
- Rasbash, J., Browne, W., Healy, M., Cameron, B., & Charlton, C. (2000). *MLwiN (Version 1.10.006): Interactive Software for Multilevel Analysis*. Centre for Multilevel Modelling, Institute of Education, University of London.
- Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology*, 6, 1161–1178.
- Shimazu, A., Bakker, A. B., & Demerouti, E. (2009). How job demands influence partners' well-being: A test of the Spillover-Crossover model in Japan. *Journal of Occupational Health*, 51, 239–248.
- Shimazu, A., Demerouti, E., Bakker, A. B., Shimada, K., & Kawakami, N. (2011). Workaholism and well-being among Japanese dual-earner couples: A spillover-crossover perspective. *Social Science & Medicine*, 73, 399–409.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological Methodology* (pp. 290–312). Washington, DC: American Sociological Association.
- Thoits, P. A. (1987). Negotiating roles. In F. J. Crosby (Ed.), *Spouse, parent, worker: On gender and multiple roles* (pp. 11–22). New Haven, CT: Yale University Press.
- Totterdell, P., & Holman, D. (2003). Emotion regulation in customer service roles: Testing a model of emotional labor. *Journal of Occupational Health Psychology*, 8, 55–73.
- Van Dijk, P. A., & Brown, A. K. (2006). Emotional labour and negative job outcomes: An evaluation of the mediating role of emotional dissonance. *Journal of Management & Organization*, 12(2), 101–115.
- Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000). Using the Job-related Affective Well-being Scale (JAWS) to investigate affective responses to work stressors. *Journal of Occupational Health Psychology*, 5, 219–230.
- Wanous, J. P. (1992). *Organizational entry: Recruitment, selection, orientation, and socialization*. Reading, MA: Addison-Wesley.
- Westman, M. (2001). Stress and strain crossover. *Human Relations*, 54, 557–591.
- Westman, M., & Etzion, D. (1995). Crossover of stress, strain and resources from one spouse to another. *Journal of Organizational Behavior*, 16, 169–181.
- Westman, M., Etzion, D., & Horovitz, S. (2004). The toll of unemployment does not stop with the unemployed. *Human Relations*, 57(7), 823–844.
- Westman, M., & Vinokur, A. (1998). Unraveling the relationship of distress levels within couples: Common stressors, emphatic reactions, or crossover via social interactions? *Human Relations*, 51, 137–156.
- Westman, M., Vinokur, A. D., Hamilton, V. L., & Roziner, I. (2004). Crossover of marital dissatisfaction during military downsizing among Russian army officers and their spouses. *Journal of Applied Psychology*, 89, 769–779.
- Wharton, A. S., & Erickson, R. J. (1993). Managing emotions on the job and at home: Understanding the consequences of multiple emotional roles. *Academy of Management Review*, 18, 457–486.
- Yanchus, N. J., Eby, L. T., Lance, C. E., & Drollinger, S. (2010). The impact of emotional labor on work-family outcomes. *Journal of Vocational Behavior*, 76, 105–117.