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A diary study on the happy worker: How job resources relate to positive emotions and personal resources

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This diary study tests the broaden-and-build theory in the work context and expands it by examining job resources as potential antecedents of positive emotions on a daily basis. We hypothesized that general perceptions of job resources (autonomy, supervisory coaching, and the psychological climate of cooperation and warmth) relate indirectly to employees' daily personal resources (self-efficacy, self-esteem, and optimism) through daily manifestations of the job resources and daily positive emotions. Forty-two employees completed first a questionnaire and then a diary survey over 5 consecutive workdays. In line with predictions, results of multilevel analyses revealed that general perceptions of job resources related positively to daily job resources. In addition, positive emotions mediated the relationship between daily job resources (autonomy and psychological climate of cooperation and warmth) and daily personal resources. Finally, general perceptions of the three job resources had an indirect effect on daily personal resources through the respective daily job resources and daily positive emotions. These findings

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provide important insights for organizations aiming at happy and flourishing workforces.

Keywords: Broaden-and-build theory; Job resources; Personal resources; Positive emotions.

The propensity to frequently experience positive emotions has been associated with successes in everyday life (Lyubomirsky, King, & Diener, 2005). Fredrickson (2001) has argued and shown that positive emotions broaden people's momentary thought–action repertoires and build their personal resources. According to the affective events theory (AET), positive emotions are immediate responses to some pleasant antecedent event (Weiss & Cropanzano, 1996). For instance, Grandey, Tam, and Brauberger (2002) in their diary study supported the link between positive affectivity and job satisfaction. However, they relied only on qualitative analyses of the affect-driven situations (see also Basch & Fisher, 1998). Thus, the contribution of the present study is to offer a more rigorous test of those work characteristics that make employees feel happy (i.e., experience positive emotions) on a daily basis.

In this diary study of fast-food restaurant employees we expand Fredrickson's (2001) Broaden-and-Build (B&B) theory by examining job resources as potential correlates of daily positive emotions in the workplace. Adopting Daniels' (2006) multilevel framework of job characteristics, we propose that employees' general perceptions of job resources relate to the daily manifestation of these job resources, which in turn relate to positive emotional experiences. Consequently, we argue that positive emotions associate to employees' personal resources on a daily basis. By differentiating between multilevel facets of job resources, and by examining how these interrelate, we provide a firmer and more complete theoretical grounding for examining employee well-being on a day-level (Daniels, 2006).

THE BROADEN-AND-BUILD THEORY OF POSITIVE EMOTIONS

Emotions are “multi-component response tendencies that unfold over relatively short time spans” (Fredrickson, 2004, p. 146). Emotions differ from moods in that they have a specific cause and are of limited duration, whereas moods are often objectless and last for longer periods of time (Gray & Watson, 2001). The central assumption of B&B theory (Fredrickson, 2001) is that distinct positive emotions broaden people's momentary thought–action repertoires and build their enduring personal resources.

Personal resources concern individuals' sense of their ability to control their environment successfully (Hobfoll, Johnson, Ennis, & Jackson, 2003).

They range from physical (e.g., physical skills) and social resources (e.g., friendships) to cognitive (e.g., intellectual complexity) and psychological resources (e.g., self-efficacy, optimism). The latter resources are the main focus of the present study. Positive emotions “broaden” by prompting momentary exploratory behaviours (e.g., flexibility, creativity), which, in turn, create learning opportunities. Such opportunities “build” accurate maps of what is demanding or threatening in the environment, which helps individuals to manage challenges successfully (Fredrickson, 2003). The acquired knowledge is translated into personal resources. For example, employees who frequently experience positive emotions are more likely to be open to new information. Consequently, they collect relevant material for the fulfilment of their tasks, which may result in enhanced self-efficacy beliefs.

There is substantial empirical evidence showing that positive emotions broaden the scope of attention, cognition and action (for reviews see Fredrickson, 2001, 2003). In contrast, only two studies offer support for the build effect of positive emotions. In their experimental study, Fredrickson, Cohn, Coffey, Pek, and Finkel (2008) randomly assigned employees to a workshop condition in which they learned how to cultivate positive emotions through loving-kindness meditation or to a control condition. Results indicated that meditation practices increased daily experiences of positive emotions, which in turn produced gains in personal resources (e.g., self-acceptance, feelings of mastery, and purpose in life) over 8 weeks. Consequently, these increments in personal resources predicted increased life satisfaction and reduced depressive symptoms. Likewise, Cohn, Fredrickson, Brown, Mikels, and Conway (2009) found in a daily study of 86 students that changes in resilience over a period of 1 month mediated the relation between positive emotions and life satisfaction. These two studies suggest that people experience high levels of well-being not simply because they feel happy but because these positive experiences develop resources.

The present diary study of fast-food employees adds to this B&B literature by testing the hypothesis that positive emotions relate to employees’ daily personal resources. Following Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009), we operationalize personal resources as a higher order factor comprised of three specific underlying aspects: (1) self-efficacy (i.e., individuals’ perceptions of their ability to meet demands in a broad array of contexts; Chen, Gully, & Eden, 2001); (2) organizational-based self-esteem (OBSE; i.e., the degree to which organizational members believe that they can satisfy their needs by participating in roles within the organization; Pierce, Gardner, Cummings, & Dunham, 1989); and (3) optimism (i.e., the tendency to believe that one will experience good outcomes; Scheier, Carver, & Bridges, 1994). A similar conceptualization of

personal resources has been proposed by Luthans, Avey, Avolio, Norman, and Combs (2006), whose higher order concept was dubbed “psychological capital” including self-efficacy, optimism, hope, and resiliency as lower order factors.

We agree with the assumption of B&B theory that positive emotions relate to employees’ personal resources (Fredrickson, 2003). However, whereas Fredrickson (2001) proposes that personal resources are only built over the course of time, we suggest that personal resources may also be the immediate outcomes of positive emotions. Thus, we propose that the impact of positive emotions on personal resources is not necessarily an enduring process, but may take place even over the course of a day. For instance, employees who feel enthusiastic and content because of the positive feedback they received from their supervisor, are likely to get an immediate boost in their self-efficacy and optimism. Empirical evidence for the relationship between positive emotions and personal resources on a day-level would strengthen the ecological validity of B&B theory. Furthermore, such evidence would expand B&B theory by suggesting that the building of enduring personal resources is not only an outcome of frequent, daily positive emotional experiences. Rather, it may also be due to frequent, daily experiences of enhanced personal resources that result from daily positive emotions. The more positive evaluations employees make about themselves and their future, the more likely it is that these evaluations will generate general positive self-beliefs (Pajares, 1997).

JOB RESOURCES AS INITIATORS OF THE BUILD PROCESS

Since positive emotions have beneficial outcomes for the employees and the organizations they work for (Fredrickson, 2003), it is important for theoretical and practical reasons to identify their potential antecedents. Positive emotions may be elicited in adverse situations (Fredrickson, 2001). However, the typical context for positive emotions to occur is not a threatening, but rather a pleasant one. Thus, it is important to consider what kind of a work context facilitates the experience of positive emotions, which in turn relate to employees’ personal resources.

Positive emotions have distinct social origins, meaning that pleasant social interactions are likely to make people feel good (Fredrickson, 2003). For instance, agreeable interactions with supervisors, colleagues, or customers at work may trigger positive emotions. Furthermore, work psychological models (e.g., Hackman & Oldham, 1980) emphasize the role of job characteristics, and in particular job resources, in generating positive affective states. *Job resources* are those physical, social,

psychological, or organizational aspects of the job that are functional in achieving work goals, reduce job demands and the associated physiological and psychological costs, and stimulate personal growth and development (Bakker & Demerouti, 2007). Due to their (intrinsic and/or extrinsic) motivational potential, job resources induce employees to meet their work goals (Meijman & Mulder, 1998). In other words, high levels of job resources may trigger affective experiences of interest and motivation in employees, which in their turn may associate positively with employees' daily personal resources. This proposition is in line with AET (Weiss & Cropanzano, 1996), according to which job characteristics predispose the occurrence of certain events at work, which relate to specific emotions that in turn have an immediate influence on attitudes and behaviours.

Schaufeli and van Rhenen (2006) showed in a cross-sectional study that managers working in resourceful work environments—characterized by quality feedback, learning opportunities, and autonomy—often feel enthusiasm, pride, and joy while working. Similarly, Bono, Jackson Foldes, Vinson, and Muros (2007) conducted an experience sampling study over 2 weeks and found that employees with supervisors high on transformational leadership (a type of quality supervision) experience more positive emotions throughout the workday. Results of another diary study of flight attendants supported the positive relationship between daily colleague support and daily self-efficacy (Xanthopoulou, Bakker, Heuven, Demerouti, & Schaufeli, 2008). However, so far the mediating role of positive emotions in the process from job to personal resources has not been examined.

In the current study of fast-food restaurant employees, we will test this process by focusing on three specific job resources, namely autonomy, supervisory coaching, and psychological climate of cooperation and warmth. Autonomy concerns employees' decision authority (i.e., freedom of action in how and when to accomplish their work tasks; Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003), whereas supervisory coaching concerns quality relationships with the subordinates characterized by the provision of high levels of resources and support to them (Tordera, González-Romá, & Peiró, 2008). Finally, a psychological climate of cooperation and warmth refers to an individual employee's perception of the extent to which there is a warm work atmosphere and cooperative relations in the work group (see also Jones & James, 1979). During interviews that preceded this study, these three job resources were recognized by the participants as the most crucial of their work. Our decision was further supported by previous qualitative analyses within the AET framework (Basch & Fisher, 1998; Grandey et al., 2002) showing that recognition from the supervisor, positive acts of colleagues, and having control (i.e., autonomy) are important antecedents of positive emotions at work.

GENERAL AND DAY-LEVEL JOB RESOURCES

Daniels (2006) argued that job characteristics can be differentiated in various, interrelated facets representing different levels of analysis. Based on the idea that people are active in interpreting and shaping their jobs, he distinguishes latent, perceived, and enacted job characteristics. The present study focuses on perceived and daily enacted job resources. These two facets concern individual visions of reality and as such are expected to have a stronger impact on individuals' positive emotions and personal resources, than latent job resources (i.e., institutional, social, or technological advances), which are independent of individual activity or perception.

Perceived job resources refer to employees' generalized view of how resourceful their job usually is. For instance, employees may believe that they generally have autonomy in their work. We dub these *general job resources* and consider them as rather stable individual perceptions that may differ from one person to another (i.e., show between-person variation). Enacted job resources are situational-specific resources that employees experience (i.e., mobilize) every day at work, and they are commonly measured within short time frames (e.g., using daily diary methods; Daniels, 2006). For example, an employee may (create and thus) experience a more cooperative and warm psychological climate on certain days comparing to other days. Consequently, such experiences of job resources may fluctuate within the same employee from one day to another (i.e., within-person variation). We dub these daily variations in experienced job resources *day-level job resources*. In this context, it is likely that fast-food restaurant employees, who work with different supervisors every day, may experience different levels of supervisory support, although they may generally believe that they work in a supportive environment.

According to Daniels (2006), daily job resources, although dynamic, may be determined to some degree by general job resources. For example, fast-food restaurant employees, who generally believe that they have autonomy on the pace with which their work is carried out, are likely to schedule their daily breaks depending on their personal needs (i.e., when they feel tired). Similarly, employees who generally believe that they receive high quality coaching from their supervisor are most likely to accept instrumental help and appreciative feedback during a specific day. Finally, employees who generally experience a psychological climate of cooperation and warmth are likely to seek a pleasant work atmosphere (e.g., by making jokes) during each shift. Although theoretically rooted, the positive relationship between general and day-level job resources has not been empirically tested before. Therefore, we formulate:

Hypothesis 1: General perceptions of job resources (i.e., autonomy, supervisory coaching, and psychological climate of cooperation and warmth) relate positively to the day-levels of the corresponding job resources.

In our attempt to expand the build hypothesis (Fredrickson, 2001) by testing how job resources associate with positive emotions that, in turn, relate to daily personal resources, it is important to examine which facet of job resources is the most powerful antecedent of positive emotions and personal resources. Suh, Diener, and Fujita (1996) hypothesized and showed that more recent experiences have a stronger effect on strain than more distal experiences. Similarly, Daniels, Harris, and Briner (2004) suggested that situational incidents at work are the main determinants of affective experiences. Therefore, we propose that, due to their proximity, daily and not general job resources will be the most powerful initiators of the build process on a daily level. This is also in line with Daniels (2006), who argued that enacted (i.e., situational) job characteristics act as direct causes of psychological states, whereas perceived job characteristics (as more distant) have mainly an indirect effect. On the basis of this reasoning and in line with the build hypothesis (Fredrickson, 2001), we expect that positive emotions triggered by daily job resources relate to personal resources on a daily basis. Hence, we formulate:

Hypothesis 2: Day-level job resources are positively related to day-level personal resources through the (partial) mediation of day-level positive emotions.

The strong direct relationship between daily job resources and personal resources that has been supported in previous studies (e.g., Xanthopoulou et al., 2008) explains our decision to hypothesize partial instead of full mediation. The combination of Hypotheses 1 and 2 proposes a specific sequence of effects, initiated by general job resources. According to Daniels (2006), general perceptions of the job may have an effect on psychological states but only indirectly through their impact on situational job characteristics. In this context, general job resources, as distal predictors, are not expected to directly affect personal resources. Rather, general job resources may function as initiators of a sequence of effects that leads to daily personal resources. More formally:

Hypothesis 3: General perceptions of job resources relate indirectly to day-level personal resources, through the respective day-level job resources, and consequently through daily positive emotions.

In contrast to Hypothesis 2, Hypothesis 3 concerns indirect effects. Indirect effects are not about explanatory mechanisms (or underlying mechanisms) but rather provide information on the sequence of events (Mathieu & Taylor, 2006). As such, a significant direct effect between the predictor and the outcome is not required. The study design and hypothesized processes are presented in Figure 1.

Control variables

Sheldon, Ryan, and Reis (1996) emphasized the importance to control for the so-called “good day effect” in diary studies. That is, regardless of individual characteristics and preferences, on some days people may feel better than on other days. For that reason, we control for positive mood as experienced at the beginning of the workday in our analyses. Additionally, in an attempt to provide robust estimates of the hypothesized relationships, we control for employees’ general personal resources, when examining daily personal resources.

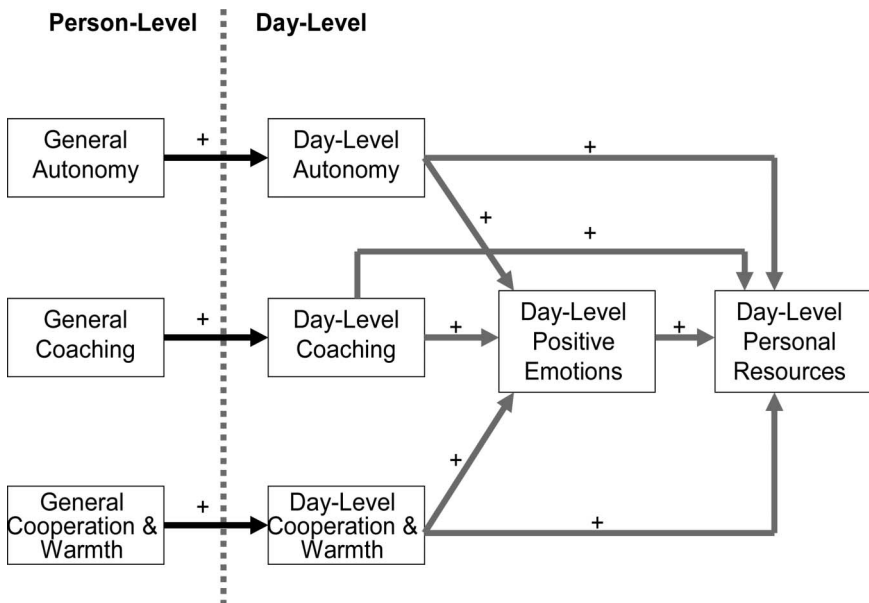


Figure 1. The study design and hypothesized processes.

METHOD

Procedure and participants

Participants were employed in three branches of a fast-food chain in Greece. This middle-sized chain was located in the second biggest Greek city. The specific work context was chosen because fast-food restaurant employees have to serve different types and amounts of customers, and they have to work with different colleagues and supervisors every day. Therefore, this setting is quite dynamic, and job resources are likely to fluctuate on a daily basis. Survey packages were handed in to all employees of the chain ($N = 45$) and instructions were provided to each employee individually. Survey packages included a letter by the director encouraging employees to participate in this study on “employee well-being”, a letter by the researchers with instructions, a general questionnaire, a diary booklet, and return envelopes.

Participation was voluntary. Employees filled out the general questionnaire as soon as they received their survey package and they were instructed to fill out the diary over 5 consecutive workdays, at the end of each shift, before leaving the workplace. There was a time lag of at least 1 week between the time employees filled out the general questionnaires and the day they started filling in the diary. Employees were working in two shifts: day (9 a.m.–5 p.m.) and evening (5 p.m.–midnight) shift. Supervisors of each shift were asked to remind employees to fill out their diaries before leaving work. Finally, employees had to fill in a personal code on the questionnaire and the diary booklet. In this way, their anonymity was assured and researchers were able to match the questionnaires and the diary surveys. A total of 42 questionnaires and diaries were returned (response rate = 93%). The sample included 30 (71%) men and 12 (29%) women. Their mean age was 29 years ($SD = 7.2$), and their mean tenure in the specific chain was 3.6 years ($SD = 4.9$). All participants worked full time, and 38% had a high-school degree. For all participants this was their main (i.e., permanent) occupation and not a temporary or side job, which may be not so common for fast-food restaurant employees in other Western countries or in multinational chains.

Measures

All measures were administered in Greek. Original scales were translated into Greek and were checked for accuracy using back-translation.

Questionnaire

General job resources. *General autonomy* was assessed with two items (“I can decide myself how to execute my job/on the pace of executing my job”)

based on a scale developed by Bakker, Demerouti, and Verbeke (2004; interitem correlation = .56; Cronbach's $\alpha = .71$). *General supervisory coaching* was assessed with three items of Graen and Uhl-Bien's (1991) Leader–Member Exchange Scale. An example item is “My supervisor uses his/her influence to help me solve my problems at work” (Cronbach's $\alpha = .59$). *General psychological climate of cooperation and warmth* was assessed with two items (“At work, there is a nice atmosphere” and “I have a nice time with my colleagues”) based on a scale developed by Demerouti, Kattenbach, and Nachreiner (2003; interitem correlation = .61; Cronbach's $\alpha = .75$).

General personal resources. We used widely used scales for the three personal resources that form the personal resources factor. *General self-efficacy* was assessed with the 10-item generalized self-efficacy scale (Schwarzer & Jerusalem, 1995). Items (e.g., “I can always manage to solve difficult problems if I try hard enough”) were scored on a 4-point scale (1 = “absolutely wrong”, 4 = “absolutely right”). *General OBSE* was assessed with the scale developed by Pierce et al. (1989). The scale includes 10 items, e.g., “I am important for the organization” (1 = “totally disagree”, 5 = “totally agree”). *General optimism* was measured with the six main items of the Life Orientation Test–Revised (LOT-R; Scheier et al., 1994). Three items of the scale are positively phrased (e.g., “I am always optimistic about my future”) and three are negatively phrased (e.g., “I hardly ever expect things to go my way”), with answers ranging from 1 = “totally disagree” to 5 = “totally agree”. All negatively keyed items were recoded so that higher scores referred to higher levels of optimism. To get a composite score for personal resources we computed an overall factor score through principal axis factoring (PAF). PAF on the three personal resources subscales resulted in one factor, which was used in further analyses (Cronbach's $\alpha = .88$). For further empirical evidence for the operationalization of personal resources as a higher order factor with self-efficacy, OBSE, and optimism as lower order factors, we refer to Xanthopoulou et al. (2009). A comparable technique is used by Luthans, Norman, Avolio, and Avey (2008) for the measurement of psychological capital.

Demographic variables. Gender, age, organizational tenure, educational level, and type of contract (i.e., full time or part time) were measured with one item each.

Diary survey

The diary survey assessed day-level measures of mood at the start of the shift, job resources, positive emotions, and personal resources. These

measures refer to a person's levels on these factors on the specific days that participants filled out the diaries. To reduce the burden of repeated responses that is typical of diary studies (Bolger, Davis, & Rafaeli, 2003), a limited number of items from the original scales were selected to measure day-level variables. The selection of items was based on the items' face validity and on factor analytic results of preliminary analyses of unpublished data collected by the authors. Participants responded to all day-level measures on a 7-point scale (1 = "no, I totally disagree", 7 = "yes, I totally agree").

Day-level mood as recalled from the beginning of the workday was measured with an item developed for the present study ("Today, I came to work in a very pleasant mood"; for a similar measure, see Fisher, 2000).

Day-level job resources. The items that were used to assess job resources in the general questionnaire were adapted to refer to the job resources on a specific working day. In particular, the two adapted items for *day-level autonomy* were: "Today during the shift, I could decide myself how to execute my job" and "I could decide myself on the pace of executing my job" based on Bakker et al.'s (2004) scale. Interitem correlations were computed for each occasion separately and ranged from .63 to .84 across the five occasions ($M = .71$), while Cronbach's alphas ranged from .79 to .91 ($M = .83$) across the five days. *Day-level supervisory coaching* was assessed with state versions of three items of Graen and Uhl-Bien's (1991) scale (e.g., "Today during the shift, my supervisor was very friendly towards me"). Cronbach's alpha values across the five days ranged from .60 to .79 ($M = .70$). *Day-level psychological climate of cooperation and warmth* was assessed with the following two items: "Today during the shift, there was a very good working atmosphere" and "I had a very nice time with my colleagues" based on a scale developed by Demerouti et al. (2003). Interitem correlations ranged from .50 to .85 ($M = .66$), and Cronbach's alphas ranged from .67 to .92 ($M = .79$) across the five study occasions.

Day-level positive emotions were measured with six items from the job-related affective well-being scale (van Katwyk, Fox, Spector, & Kelloway, 2000), which is based on the circumplex model of affect developed by Russell (1980). Specifically, we used the following items "Today, at work I felt energetic/calm/ecstatic/satisfied/enthusiastic/content" that capture both high pleasure/high activation (i.e., excitement), as well as high pleasure/low activation (i.e., relaxation) emotions. Cronbach's alpha values were computed for each study occasion separately and ranged from .83 to .91 across the five days ($M = .86$). Many studies in the context of the B&B theory have used similar scales to measure emotions (for examples, see Burns et al., 2008; Tugade & Fredrickson, 2004).

Day-level personal resources. To measure day-level personal resources we selected two items from each personal resource scale used in the general questionnaire. The selection was based on the items' face validity and their high factor loadings that resulted from factor analyses on data from previous surveys on personal resources (where the full scales were included) that the authors were involved. *Day-level self-efficacy* was measured with two items based on Schwarzer and Jerusalem's (1995) self-efficacy scale (i.e., "Today while at work, I felt I could deal efficiently with unexpected events" and "I felt I could handle every problem that came my way"). *Day-level OBSE* was assessed with two items ("Today while at work, I felt valuable/important for the company") of the scale developed by Pierce et al. (1989). *Day-level optimism* was measured with two positively phrased items based on the LOT-R (Scheier et al., 1994; i.e., "Today while at work, I felt very optimistic about my future" and "I felt that more good than bad things would happen to me"). To calculate the composite score for personal resources we followed the same procedure as with general personal resources. PAF on the three personal resources subscales resulted in one factor for all five occasions, and Cronbach's alpha values ranged from .70 to .83 ($M = .72$).

Analysis

Multilevel analysis with the MLwiN programme (Rashbash, Browne, Healy, Cameron, & Charlton, 2000) was used for testing the hypotheses. Repeated measures data can be treated as multilevel data, with repeated measurements nested within individuals. This leads to a two-level model with the series of repeated measures at the day-level (within-person; $N = 210$ study occasions), and the individual persons at the person-level (between-person; $N = 42$ participants). According to Maas and Hox (2004), for robust estimations of fixed effects in multilevel modelling a sample of at least 30 at the highest level of analysis is needed. Thus, the sample size of the present study ($N = 42$) provides sufficient power for the required analyses. In this study, variables at the day-level (Level 1) were mood, the three job resources, positive emotions, and personal resources. Person-level variables (Level 2) were general personal resources and the three general job resources.

In order to gain unbiased estimates of the hypothesized relationships, it has been recommended to use centred scores in multilevel analysis (Hofmann & Gavin, 1998). Mathieu and Taylor (2007) propose using grand mean centring techniques for the lower level variables, when testing cross-level indirect effects. This is because person mean centring would eliminate all between-person variance from lower level predictors that would preclude such cross-level tests. Thus, all person- and day-level predictor variables were centred to the grand mean, since it is expected that the within-person

relationships will carry over cross-level effects (see also Ohly & Fritz, 2010). The magnitude of the mediating and indirect effects was examined with the MacKinnon, Lockwood, Hoffman, West, and Sheets' (2002) z' -statistic and the corresponding critical values. MacKinnon et al. note that alternative approaches (e.g., the Sobel test) have low statistical power and low Type I error rates, whereas the z' -statistic provides more accurate Type I error rates and higher statistical power.

Following Bliese and Ployhart (2002), who emphasized the role of time in multilevel, longitudinal designs, we included time (i.e., the five study occasions) as a Level-1 independent variable in all analyses. Hypotheses 2 and 3 concern dynamic mediated and indirect effects that imply that changes in the predictor go hand in hand with changes in the mediator and outcome variables. Including time in our analysis allows these dynamic effects to be captured (Pitariu & Ployhart, 2010). We coded time as Day 1 = -2; Day 2 = -1; Day 3 = 0; Day 4 = 1; and Day 5 = 2, before proceeding with the data analyses. Finally, in order to rule out potential confounding due to the serial dependency in our data (Bliese & Ployhart, 2002), we controlled for previous day's scores (lagged effects) of each dependent variable in the analyses.

RESULTS

Descriptive statistics

Table 1 presents the means, standard deviations, and correlations between the study variables. Demographic variables were not significantly related with the study variables and, thus, were excluded from further analyses.

Variability of day-level constructs

Due to the fact that we hypothesize cross-level effects (i.e., person-level variables explain day-level variables), it is imperative to show that day-level factors exhibit sufficient variability at both levels of analysis (between- and within-person; Mathieu & Taylor, 2007). For each day-level variable, we applied a deviance ($-2 \times \log$) difference test comparing a model with one and a model with two levels, and then we calculated the intraclass correlation (ρ ; i.e., the amount of variance that may be attributed to between-person fluctuations). The percentage of total variance that resides between persons was significant for all day-level variables: day-level autonomy ($\Delta - 2 \times \log(1) = 115.8, p < .001; \rho = .63$; 37% of the total variance may be attributed to within-person fluctuations), day-level coaching ($\Delta - 2 \times \log(1) = 137.1, p < .001; \rho = .68$; 32% of the total variance is attributable to within-person fluctuations), day-level cooperation and warmth ($\Delta - 2 \times \log(1) = 47.8, p < .001; \rho = .41$; 59% of the total

TABLE 1
Means, standard deviations, and correlations between the study variables

| | <i>Mean</i> | <i>SD</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|--------------------------------------|-------------|-----------|-------|------|------|------|-------|-------|-------|-------|-------|-------|------|-------|-------|----|
| 1. Age | 29.36 | 7.19 | – | | | | | | | | | | | | | |
| 2. Gender | 1.28 | 0.46 | -.08 | – | | | | | | | | | | | | |
| 3. Organizational tenure | 3.63 | 4.89 | .73** | -.18 | – | | | | | | | | | | | |
| 4. Education | 2.50 | 1.37 | .10 | .04 | -.01 | – | | | | | | | | | | |
| 5. Day-level mood | 5.70 | 1.03 | -.25 | .25 | -.20 | -.22 | – | | | | | | | | | |
| 6. General personal resources | 3.58 | 0.41 | .15 | -.09 | .06 | .12 | .13 | – | | | | | | | | |
| 7. General autonomy | 2.71 | 1.16 | .07 | .02 | .15 | .01 | -.01 | .25 | – | | | | | | | |
| 8. General coaching | 3.24 | 0.80 | -.15 | -.01 | -.22 | -.03 | .18 | .19 | .26 | – | | | | | | |
| 9. General cooperation and warmth | 3.62 | 0.92 | -.12 | -.11 | -.01 | -.02 | .01 | -.05 | -.04 | .22 | – | | | | | |
| 10. Day-level autonomy | 4.39 | 1.62 | -.01 | .02 | .15 | .04 | .13 | -.04 | .54** | .05 | .12 | – | | | | |
| 11. Day-level coaching | 3.82 | 1.41 | -.12 | .03 | -.10 | -.10 | .33* | .10 | .05 | .49** | .12 | -.18 | – | | | |
| 12. Day-level cooperation and warmth | 5.07 | 1.20 | -.07 | -.14 | .05 | -.15 | .23 | -.05 | -.29 | .00 | .43** | -.09 | .25 | – | | |
| 13. Day-level positive emotions | 4.39 | 1.04 | -.18 | .07 | -.08 | -.26 | .61** | .24 | .34* | .33* | .29 | .39* | .39* | .46** | – | |
| 14. Day-level personal resources | 4.91 | 0.89 | -.14 | -.06 | .00 | .00 | .44** | .44** | .32* | .34* | .10 | .41** | .38* | .29 | .69** | – |

N = 42 employees over *N* = 210 occasions. Day-level data was averaged across 5 days. ***p* < .01, **p* < .05.

variance is explained by within-person fluctuations), day-level positive emotions ($\Delta - 2 \times \log(1) = 65.7, p < .001; \rho = .48$; 52% of the total variance may be attributed to within-person fluctuations), day-level personal resources ($\Delta - 2 \times \log(1) = 74.2, p < .001; \rho = .51$; 49% of the total variance is explained by within-person fluctuations). These results show that there are significant amounts of both between- and within-person variance in all day-level variables and, thus, that there is potential for both cross-level (Hypotheses 1 and 3) and lower level (Hypothesis 2) statistical relationships.

Day-level variables: Fixed or random slopes?

In order to capture potential within-person changes over time in day-level variables, we included time as a predictor in all analyses. We tested whether time should be used as a fixed or random component in our models. Following Bliese and Ployhart (2002), we examined a model with intercept and time for each day-level variable separately, and we compared whether the model with time set to be random (i.e., the slope associated with time could randomly vary among respondents) fit the data better than a model where time was a fixed parameter. Results indicated that adding a random component of time did not improve the fit of the model significantly for daily autonomy ($\Delta - 2 \times \log(2) = 0, ns$), daily coaching ($\Delta - 2 \times \log(2) = 5.33, ns$), daily cooperation and warmth ($\Delta - 2 \times \log(2) = 1.49, ns$), daily emotions ($\Delta - 2 \times \log(2) = 0, ns$), and daily personal resources ($\Delta - 2 \times \log(2) = .024, ns$). Based on these results, we used time as a fixed component in all models (Snijders, 2005). The same procedure was followed for all day-level variables. Preliminary analyses suggested that only random components for daily autonomy and daily positive emotions added significantly to a fixed effects model. Thus, we only included random components for these day-level variables in our analyses.

Testing hypotheses

According to Hypothesis 1, general job resources predict manifestations of the corresponding daily job resources. This hypothesis was tested for each job resource separately, while controlling for mood at the start of the workday and the respective daily job resource of the previous day, and by including time as an independent, Level 1 variable. Results of multilevel analyses showed that general autonomy predicted day-level autonomy, $\gamma = .699, SE = .201, t = 3.48, p < .001$, general coaching predicted day-level coaching, $\gamma = .310, SE = .119, t = 2.61, p < .01$, and general cooperation and warmth predicted day-level cooperation and warmth, $\gamma = .416, SE = .141, t = 2.95, p < .01$. Thus, Hypothesis 1 was confirmed. Time did not have a significant linear effect on any day-level job resource. Furthermore, daily

mood had a significant effect only on daily coaching, $t = 2.58$, $p < .01$, whereas previous levels of the dependent variable were significant for daily coaching, $t = 10.8$, $p < .001$, and daily cooperation and warmth, $t = 4.47$, $p < .001$.

Hypothesis 2 proposes that daily positive emotions (partially) mediate the relationship between day-level job resources and day-level personal resources. According to Mathieu and Taylor (2006), three conditions should be met in order to support mediation: (1) day-level job resources should be positively related to day-level positive emotions; (2) day-level positive emotions should be positively related to day-level personal resources; and (3) after the inclusion of the mediator, the previously significant relationship between day-level job resources and day-level personal resources either turns to nonsignificance (full mediation), or becomes significantly weaker (partial mediation; see also Baron & Kenny, 1986; Pitariu & Ployhart, 2010).

To test the first condition for Hypothesis 2, we fit the models presented in Table 2: (1) the Null (intercept-only) model; (2) Model 1, where we added time, the control variables (i.e., day-level mood, and previous levels of daily positive emotions), and the three general job resources; and (3) Model 2, where the day-level job resources were added. Results supported the first condition for the mediation of Hypothesis 2 since all three day-level job resources related significantly to positive emotions (see Model 2; Table 2).

In order to test the mediating effects of Hypothesis 2 (condition b and c), we examined the four nested models presented in Table 3: (1) the Null (intercept-only) model; (2) Model 1, where we added time, the control variables (i.e., general personal resources, day-level mood, and daily personal resources of the previous day), and the three general job resources; (3) Model 2, where the three day-level job resources were added; and (4) Model 3, where the daily positive emotions were added. Table 3 shows that the magnitude of the direct effect from day-level autonomy to day-level personal resources became significantly weaker after the inclusion of positive emotions in the equation. This result shows that day-level positive emotions partially mediate the relationship between day-level autonomy and personal resources, $z' = 2.04$, $p < .001$. Additionally, after the inclusion of day-level positive emotions, the previously significant relationships between day-level cooperation and warmth and personal resources turned to nonsignificance. This result suggests that positive emotions fully mediate the relationship between day-level cooperation and warmth and personal resources ($z' = 2.82$, $p < .001$).

The hypothesis of mediation could not be tested for day-level coaching because it did not relate to day-level personal resources. However, results of the z' -test, $z' = 2.05$, $p < .001$, indicated that day-level coaching had an indirect effect on day-level personal resources via day-level positive emotions. This is in line with Mathieu and Taylor (2006), who suggest

TABLE 2
Multilevel estimates of models predicting day-level positive emotions

| Variables | Model | | | | | | | | | | | |
|------------------------------------|----------|--------|----------|----------|-----------|----------|----------|----------|----------|----------|----|---|
| | Null | | | | 1 | | | | 2 | | | |
| | Estimate | SE | t | Estimate | SE | t | Estimate | SE | t | Estimate | SE | t |
| Intercept | 4.390 | .159 | 27.61*** | 4.457 | .107 | 41.65*** | 4.420 | .096 | 46.04*** | | | |
| Time | | | | -.049 | .059 | -0.83 | -.008 | .052 | -0.15 | | | |
| Day-level mood | | | | .427 | .054 | 7.91*** | .364 | .049 | 8.47*** | | | |
| Day-level positive emotions lagged | | | | .126 | .064 | 1.97* | .037 | .057 | 0.65 | | | |
| General autonomy | | | | .251 | .095 | 2.64** | .250 | .091 | 2.75** | | | |
| General coaching | | | | .128 | .140 | 0.91 | .105 | .132 | 0.80 | | | |
| General cooperation and warmth | | | | .300 | .119 | 2.52** | .197 | .109 | 1.81 | | | |
| Day-level autonomy | | | | | | | .124 | .049 | 2.53** | | | |
| Day-level coaching | | | | | | | .142 | .056 | 2.54** | | | |
| Day-level cooperation and warmth | | | | | | | .236 | .049 | 4.82*** | | | |
| -2 × log | | 655.33 | | | 453.30 | | | 410.23 | | | | |
| Δ -2 × log | | | | | 202.03*** | | | 43.07*** | | | | |
| df | | | | | 6 | | | 4 | | | | |
| Level 1 (within-person) variance | .937 | .102 | | .684 | .086 | | .519 | .068 | | | | |
| Level 2 (between-person) variance | .877 | .233 | | .275 | .099 | | .196 | .087 | | | | |
| (Random day-level autonomy) | | | | | | | (.011) | (.018) | | | | |

N=42 employees and N=210 observations. ***p < .001, **p < .01, *p < .05.

that when a mediation hypothesis is rejected, the alternative hypothesis of indirect effects should be examined (where a significant $X \rightarrow Y$ —where X is the predictor, and Y the dependent variable—relationship is not required). To conclude, these findings partly support Hypothesis 2 by showing that daily positive emotions explain the transition from day-level autonomy and cooperative climate to day-level personal resources, whereas day-level coaching relates to positive emotions, which sequentially relate to personal resources.

Hypothesis 3 states that general job resources have an *indirect* effect on day-level personal resources through their consecutive effect on daily job resources and positive emotions. *Indirect effects* are a special form of intervening effects whereby the predictor and the dependent variable are not related directly, but only indirectly through significant relationships with a linking mechanism (Mathieu & Taylor, 2007). In other words, in order to support Hypothesis 3 the following conditions should be met: (1) general job resources should be positively related to day-level job resources; (2) day-level job resources should be positively related to positive emotions; (3) positive emotions should be positively related to personal resources; and (4) the direct relationship between general job resources and day personal resources is a priori nonsignificant (Mathieu & Taylor, 2006). Given that Hypothesis 3 concerns indirect effects that pass through two consecutive variables ($X \rightarrow M_1 \rightarrow M_2 \rightarrow Y$; where M_1 and M_2 are the consecutive mediators), we followed the procedure proposed by Mathieu and Taylor (2006, 2007). Accordingly, we need first to support the sequence of $X \rightarrow M_1 \rightarrow M_2$, and then the sequence of $M_1 \rightarrow M_2 \rightarrow Y$. If both sequences of effects are significant, we may speak of a significant sequence of indirect effects.

The first condition for Hypothesis 3 has been already supported with the analyses for Hypothesis 1; the second and third conditions were supported with the analyses for Hypothesis 2. Regarding the fourth condition, Table 3 shows that none of the three general job resources had a direct effect on daily personal resources. Furthermore, analyses based on the results of Hypothesis 1 and those presented on Table 2 showed that day-level autonomy partially mediated the relationship between general autonomy and day-level positive emotions, $t_a = 3.48$, $t_b = 2.53$, $z' = 2.05$, $p < .001$, and that day-level cooperation and warmth fully mediated the relationship between general cooperation and warmth and day-level positive emotions, $t_a = 2.95$, $t_b = 4.82$, $z' = 2.52$, $p < .001$. The indirect effect of general coaching on day-level positive emotions via day-level coaching was also supported, $t_a = 2.61$, $t_b = 2.54$, $z' = 1.82$, $p < .001$. Next, analyses for Hypothesis 2 showed that day-level positive emotions mediated the relationship between day-level autonomy, and cooperation on the one hand and day-level personal resources on the other hand, whereas daily coaching

TABLE 3
 Multilevel estimates of models predicting day-level personal resources: Day-level positive emotions as mediator

| Variables | Model | | | | | | | | | | | |
|--------------------------------------|----------|------|-------|-----------|------|---------|----------|------|---------|----------|------|---------|
| | Null | | | 1 | | | 2 | | | 3 | | |
| | Estimate | SE | t | Estimate | SE | t | Estimate | SE | t | Estimate | SE | t |
| Intercept | .000 | .090 | 0.000 | -.010 | .060 | -0.170 | -.069 | .053 | -1.30 | -.099 | .053 | -1.87 |
| Time | | | | .039 | .043 | 0.907 | .051 | .039 | 1.31 | .053 | .036 | 1.47 |
| General personal resources | | | | .093 | .075 | 1.24 | .187 | .069 | 2.71** | .173 | .070 | 2.47* |
| Day-level mood | | | | .164 | .037 | 4.43*** | .134 | .034 | 3.94*** | .075 | .037 | 2.03* |
| Day-level personal resources | | | | .361 | .073 | 4.95*** | .197 | .070 | 2.81** | .152 | .068 | 2.24* |
| lagged | | | | | | | | | | | | |
| General autonomy | | | | .075 | .053 | 1.42 | -.003 | .052 | 0.058 | -.040 | .054 | -0.07 |
| General coaching | | | | .059 | .078 | 0.76 | .072 | .077 | 0.94 | .040 | .080 | 0.50 |
| General cooperation and warmth | | | | .025 | .064 | 0.39 | -.042 | .059 | -0.71 | -.056 | .063 | -0.93 |
| Day-level autonomy | | | | | | | .161 | .053 | 3.04** | .135 | .042 | 3.21** |
| Day-level coaching | | | | | | | .067 | .036 | 1.86 | .048 | .037 | 1.30 |
| Day-level cooperation and warmth | | | | | | | .114 | .033 | 3.45*** | .061 | .035 | 1.74 |
| Day-level positive emotions | | | | | | | | | | .195 | .056 | 3.48*** |
| $-2 \times \log$ | 438.49 | | | 326.27 | | | 286.51 | | | 273.75 | | |
| $\Delta -2 \times \log$ | | | | 112.22*** | | | 39.76*** | | | 12.76** | | |
| df | | | | 7 | | | 4 | | | 2 | | |
| Level 1 (within-person) variance | .327 | .036 | | .375 | .047 | | .280 | .034 | | .228 | .030 | |
| Level 2 (between-person) variance | .345 | .090 | | .038 | .031 | | .000 | .000 | | .000 | .000 | |
| (Random day-level autonomy) | | | | | | | .017 | .009 | | .029 | .012 | |
| (Random day-level positive emotions) | | | | | | | | | | .016 | .014 | |

$N=42$ employees and $N=210$ observations. *** $p < .001$, ** $p < .01$, * $p < .05$.

had an indirect effect on personal resources via positive emotions. Taking all these results into account, we conclude that the indirect effects of Hypothesis 3 are supported for all three general job resources.

Alternative models

In order to rule out alternative explanations for our main findings, we tested a series of additional models. Considering that it is also conceivable that positive self-beliefs (i.e., personal resources) relate to positive emotions that, in turn, may determine daily work experiences, we tested the alternative hypothesis that positive emotions mediate the relationship between day-level personal resources and day-level job resources. This alternative hypothesis was rejected for autonomy and coaching. Specifically, positive emotions were *not* significantly related to autonomy, when personal resources were taken into account, $\gamma = .010$, $SE = .095$, $t = 0.105$, *ns*, and day-level personal resources did *not* have a direct effect on coaching, $\gamma = .198$, $SE = .104$, $t = 1.90$, *ns*. The alternative hypothesis was supported only for cooperation and warmth. Results showed that positive emotions fully mediated the relationship between day-personal resources and daily cooperation and warmth, $z' = 4.49$, $p < .001$. The inconsistency of these findings suggests that the sequence of effects proposed by Hypotheses 2 and 3, and supported by our findings provides a better explanation of the psychological mechanisms under study.

It is also noteworthy that adding a quadratic function of time in our analyses did not improve the fit of any of the models. More specifically the quadratic effect of time was not significant for any of the three daily job resources (results for day-level autonomy: estimate = $-.077$, $SE = .078$, $t = -0.99$, *ns*, $\Delta - 2 \times \log(1) = .97$, *ns*; for day-level coaching: estimate = $-.059$, $SE = .086$, $t = -0.69$, *ns*, $\Delta - 2 \times \log(1) = .47$, *ns*; and for day-level cooperation and warmth: estimate = $.068$, $SE = .101$, $t = 0.67$, *ns*, $\Delta - 2 \times \log(1) = .43$, *ns*), neither was it related significantly to positive emotions (estimate = $-.003$, $SE = .057$, $t = -0.052$, *ns*, $\Delta - 2 \times \log(1) = .00$, *ns*) nor to day-level personal resources (estimate = $.026$, $SE = .039$, $t = 0.667$, *ns*, $\Delta - 2 \times \log(1) = .45$, *ns*). These results suggest that none of the daily variables follows a nonlinear (U-shaped) trajectory over the study occasions.

DISCUSSION

The main purpose of this diary study was to examine the processes involved in the experience of positive emotions at work on a day-to-day level. Based on B&B theory (Fredrickson, 2001), we hypothesized and found that job resources induce positive emotions in employees that consequently relate to

their personal resources. Our findings validate the build hypothesis of B&B theory (Fredrickson, 2001) on a daily basis and expand it by introducing job resources as antecedents of the build process.

Also, our study provides evidence for Daniels' (2006) multilevel model of job characteristics by showing that: (1) general perceptions of job resources determine day-levels of these job resources; and (2) general perceptions of job resources may indirectly affect daily personal resources through daily job resources and daily positive emotions. Adding time as a predictor in all examined models allowed testing for dynamic mediated relationships. Although time was not significant in any of the analyses (i.e., which further supports the assumption of random daily fluctuations), its use was crucial because it allowed controlling for the potential cooccurrence of changes in our models (i.e., whether changes in day-level variables go hand in hand).

Positive emotions associate with personal resources

The B&B theory of positive emotions (Fredrickson, 1998, 2001) suggests that positive emotions relate to personal resources. The present study provides support for this hypothesis in the workplace and on a day-to-day basis. The findings showed that the more positive emotions employees feel during a workday the higher their levels of self-efficacy, self-esteem, and optimism (i.e., personal resources) throughout that day. In contrast to B&B theory (Fredrickson et al., 2008), which holds that positive emotions build enduring personal resources only over long periods of time, our findings suggest that positive emotions may have an immediate impact on employees' beliefs regarding their capabilities to control their work environment successfully. Empirical evidence for the proposed psychological processes at the within-person level provides strong evidence for the homology of the relationships across levels of analysis, which adds to the parsimony and external validity of the theoretical assumptions under study (Kozlowski & Klein, 2000).

Furthermore, support for the effect of daily positive emotions on daily personal resources expands B&B theory because it implies that the building of enduring personal resources is not simply a result of more frequent experiences of positive emotions. Instead, it may be a result of more frequently activated beliefs of self-efficacy and control that accompany positive emotions. Frequent daily increments in personal resources may add up over time and build employees' enduring, dispositional personal resources. Although the latter assumption could not be examined in the current study (since we did not measure participants' enduring personal resources after the completion of the diary study), it is in line with Luthans and Youssef (2007), who proposed that repeated increments of positive self-beliefs can build positive dispositions that generalize over time and across

situations. However, our results clearly support the positive effect of general personal resources on day-level personal resources. Namely, employees who generally believe in themselves are likely to report high personal resources on a day-to-day level. This is in line with the proposition that the build process is dynamic, which means that enduring personal resources may lead to more personal resources over time (Fredrickson, 2001).

Job resources as initiators of the build process

Another important contribution of our study is the investigation of potential triggers of positive emotions in the workplace. So far, B&B theory has generally ignored this issue with the exception of the study by Fredrickson, Tugade, Waugh, and Larkin (2003), in which resiliency (i.e., a type of psychological personal resource) was studied as an antecedent of positive emotions. In line with the main predictions of work psychological models (Bakker & Demerouti, 2007; Demerouti & Bakker, 2011; Hackman & Oldham, 1980) and with AET (Weiss & Cropanzano, 1996), we examined job resources as potential initiators of a process leading to positive emotions at work and consequently to personal resources. Using employees' daily reports we found that the more autonomy, quality coaching, and psychological climate of cooperation and warmth on specific days, the more positive emotions employees felt and consequently the higher their personal resources on these days. The alternative hypothesis that personal resources influence favourably the perceptions of daily job resources through the experience of positive emotions was not robustly supported in our data thereby confirming that our hypotheses were more plausible.

Positive emotions seem to explain the transformation of job resources into positive self-beliefs on a daily basis. The theoretical implication of this finding is that a resourceful work environment influences personal resources partly via positive emotions. This insight expands theories that support the idea that resources create gain or upward spirals. For instance, Hobfoll's (1989) conservation of resources theory states that resources do not exist in isolation but they aggregate such that the existence of resources brings more resources. Our findings suggest that positive emotions are one of the possible mechanisms that explain this transmission of resources.

Different facets of job resources

Another theoretical contribution of the current study is that it shows the importance of taking various facets of job characteristics into account. Our findings suggest that general perceptions of job resources determine the daily manifestations of job resources. These results are in line with the recent

study by Ohly and Fritz (2010) that supported the positive effect of chronic time pressure on daily time pressure and of chronic job control on daily job control. Our findings, together with the moderate correlations between general and day-level job resources, suggest that part of within-person fluctuations in daily job resources is indeed explained by the general perceptions employees hold about their respective job resources.

However, daily, and not general, job resources are the most powerful initiators of daily positive emotions and daily personal resources. This is consistent with Daniels' (2006) claim that job characteristics can be differentiated in various, interrelated facets and that facets referring to recent experiences (e.g., daily job resources) are more crucial determinants of daily psychological states than facets referring to distal experiences (e.g., general job resources; Daniels et al., 2004; Suh et al., 1996). General perceptions of job resources may determine individuals' daily psychological states through daily job resources. Important from a practical perspective, our findings do confirm that workers who experience positive emotions on a daily basis can be found in work environments that are resourceful. Employees who work in generally resourceful environments are more likely to make use of these job resources on a day-to-day basis and experience positive emotions more frequently.

Limitations and future research

Despite obtaining interesting results, the present study has certain limitations. A first limitation is that results are solely based on self-reports, which may have inflated the examined relationships. However, correlations between the study variables were not high, with the sole exception of the correlation between daily positive emotions and daily personal resources ($r = .69$; Table 1). To test whether these two factors tap into a single construct we performed Harman's single-factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) for each of the 5 days separately. Analyses resulted in more than one factor for each of the 5 days, which did not explain the majority of the total explained variance. In other words, common method variance does not seem to be a major threat to the validity of our study.

Another limitation is that all day-level variables were measured at one point in time (i.e., at the end of the work shift). This may be considered problematic for two reasons. The first is that there was no temporal interval in the measurement of the day-level variables, which restricts causal inferences. However, the additional analyses that have been performed did support the proposed sequence of effects compared to alternative models. Also, in our analyses we controlled for previous days' levels of the dependent variable. In addition, it is important to note that general job resources, which were the initiators of the hypothesized process, where

measured at least 1 week before the daily diary study. This temporal separation between general and day-level factors is a means of reducing same-source/method biases (Podsakoff et al., 2003) that strengthens our findings. The second issue relates to participants reporting retrospectively on their daily job resources, positive emotions, and personal resources. Due to the particularity of the occupation, it was not possible to collect data at different points in time during the shift, since employees could not neglect their customers in order to fill out the diary. Nevertheless, the work of Kahneman, Krueger, Schkade, Schwarz, and Stone (2004) with the day reconstruction method, where participants systematically reconstruct their activities and experiences of the preceding day, documents close correspondence with experience sampling methodology results.

Another limitation of the present study concerns the low reliability of the general supervisory coaching scale. It is important to note that this scale is based on a highly reliable, valid, and frequently used scale (i.e., Leader–Member Exchange Scale; Graen & Uhl-Ben, 1991). Further, the translation of the scale into the Greek language does not seem particularly problematic, since the same items, when used in the diary survey, showed better and acceptable reliabilities across the measurement points. Finally, the moderately high, positive correlation between general coaching and day-level coaching (.49) is indicative of the validity of the general coaching scale. Nevertheless, future research should use more elaborate measures. Finally, our study concerns a very specific type of workers, which limits the generalizability of our findings. Nevertheless, the study of homogeneous samples provides robust information when the purpose is to explain specific psychological processes and mechanisms. However, it is important for future studies to replicate our findings in different work contexts.

Although we focused solely on the effect of generalized perceptions of job resources on how job resources are actually experienced on a day-level, it is highly likely that this relationship is mutual (Daniels, 2006). For instance, daily experiences of job resources may also alter employees' generalized perceptions of these resources. Similarly and in line with the assumptions of B&B theory (Fredrickson, 2001), positive emotions formulate upward spirals that have beneficial effects to individual well-being. For instance, throughout the dynamic broaden and build process, individuals become more resilient, and consequently may create more resourceful environments that may facilitate the elicitation of more positive emotions. The idea of spirals encapsulates by definition reciprocity, which has not been the main interest here. Nevertheless, future studies should examine these hypotheses of reciprocity.

Next, although our findings imply that frequent increments in positive self-beliefs can build enduring personal resources, this relationship has not been directly tested. Thus, future studies should empirically examine

whether personal resources that are built during a specific day may have long-lasting effects. B&B theory (Fredrickson, 2001) also states that resources can be used in the future when stressors are met. This proposition should be more explicitly tested in organizational studies. Finally, based on the assumption of B&B theory that positive emotions “undo” the negative effect of negative emotions (Tugade & Fredrickson, 2004), we did not have a theoretical reason to expect that negative emotions would counteract the positive effects hypothesized in the study. However, it would be interesting for future studies to examine this undoing effect in the work context.

Practical implications

Happy workers are a valuable asset for organizations (Cropanzano & Wright, 2001). A meta-analysis showed that happy employees are more positively evaluated by their superiors and by others, handle managerial jobs better, exhibit more extrarole and prosocial behaviour at work (e.g., altruism, courteousness, and helping others), show less withdrawal behaviour (e.g., turnover, absenteeism), are less likely to burn out, and—last but not least—show superior performance and productivity (Lyubomirsky et al., 2005). Considering that the link between personal resources (or psychological capital) and job performance is well established (Luthans et al., 2008), our study results suggest that—perhaps—some of the beneficial effects of positive emotions may occur through increased personal resources. Therefore, increasing employees’ positive emotions may be an important objective of HRM and occupational health policies. This is particularly crucial for employees who are in constant interaction with clients as in fast-food restaurants. Such interactions are often emotionally demanding and, thus, can be detrimental for employee functioning and well-being (for a review, see Morris & Feldman, 1996). Enhancement of positive emotions seems to be able to facilitate flourishing on a daily level.

Results from the present study suggest that positive emotions can be fostered by providing resourceful jobs so that employees’ perceptions of general job resources increase. Employees working in generally resourceful work environments are likely to enact these job resources on a day-level (Daniels, 2006), which in turn may relate to positive emotions. Hence, organizations that promote job redesign (autonomy), introducing coaching programmes (supervisory coaching), and team building (psychological climate of cooperation and warmth) are likely to increase employees’ positive emotions (see also Schaufeli & Salanova, 2008) and consequently their personal resources. Importantly, our study convincingly showed that the beneficial effects of resourceful work environments in terms of activation of positive emotions and positive self-beliefs in employees are immediate. In other words, daily positive events at work (i.e., job resources) are of

particular importance because they are in position to create happy workers. To conclude, from a practical point of view, the main message of this study is that a resourceful work environment in itself has the potential to promote a happier workforce on a day-to-day basis.

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