The concept of humour has a long history within psychology (e.g., Freud, 1960). Central in this literature is the humour-health hypothesis stating that humour enhances individuals' functioning (Martin, Puhl-Doris, Larsen, Gray, & Weir, 2003). Some studies attested to this hypothesis (e.g., Abel, 2002), however not all types of humour seem to have beneficial effects. Martin and colleagues (2003), for example, differentiated between four humour styles, oriented towards others or oneself and being conductive or rather detrimental for one’s well-being (see Figure 1). On the positive side, self-enhancing humour is directed to oneself. It pertains to a tendency to be amused by the incongruencies of life and to having a genuine humourous outlook, even in times of stress. Affiliative humour is expressed to amuse others, facilitate relationships and reduce interpersonal tensions. It includes, for example, satire, irony, and philosophical humour (Galloway, 2010). On the negative side, self-defeating humour pertains to making disparaging jokes at one’s own expense. Aggressive humour refers to a hostile type of humour, employed to purposely alienate, hurt or manipulate others, mostly to defend oneself against threat. Self-enhancing and affiliative humour consistently relate positively to individuals’ physical, psychological and social well-being, while self-defeating and aggressive humour hold predominantly negative relationships with these various aspects of optimal functioning (e.g., Greengross & Miller, 2008).

In line with the contemporary interest in positive psychology (Bakker, Rodríguez-Muñoz, & Derks, 2012), we aim to extend the humour-health hypothesis based on the two benign types of humour (i.e., affiliative and health-enhancing) in two ways. First, we want to examine whether the health-enhancing impact of self-
enhancing and affiliative humour is also supported in the work context, where other norms and cultures may play a role in the comprehension of humour (Cooper, 2008) and where job aspects, rather than personal traits, are considered as the most important determinants of employees’ well-being (Pinder, 2008). Second, we argue that humour may also assist individuals in dealing with the work environment, and job characteristics in particular. This expectation builds on previous theorising that humour may serve as a coping mechanism which helps individuals to appraise and to restructure stressful situations; an assumption that has not been tested before (Abel, 2002). Before turning to our hypotheses, we present the Job Demands Resources (JD-R) model, describing the relationships between job characteristics and employees’ well-being (Bakker & Demerouti, 2007).

The JD-R model suggests that various job characteristics may impact employees’ work-related well-being. Initially, the physical, psychological, social, or organisational job aspects that tap into employees’ energy were considered job demands (Bakker & Demerouti, 2007). Recently, these job demands have been bifurcated into job hindrances and job challenges (Clawford, Lepine, & Rich, 2010; Van den Broeck, De Cuyper, De Witte, & Vansteenkiste, 2010; see also Pofdsakoff, Lepine, & Lepine, 2007). Job hindrances (e.g., emotional demands, role conflict) are obstacles that can be hardly overcome. They truly frustrate employees’ needs and goal achievement, deplete workers energy and therefore lead to burnout and decreased work engagement (Van den Broeck et al., 2010). Job challenges (e.g., workload, cognitive demands) may also tap into employees’ energy, but are conquerable and add to employees’ development, goal achievement and need satisfaction. They therefore relate positively to burnout and equally contribute to work engagement (Crawford et al., 2010; Van den Broeck et al., 2010).

Job aspects that are univocally beneficial are labeled job resources (e.g., autonomy, social support; Bakker & Demerouti, 2007). They reduce health-impairing job aspects and their associated costs (e.g., Hakanen, Bakker, & Demerouti, 2005), assist employees in achieving work goals and stimulate work related need satisfaction, personal growth, learning and development (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). Job resources therefore prevent or decrease burnout and add to the experience of work engagement.

Apart from having job resources, according to the JD-R model, employees may also benefit from personal resources, i.e., malleable lower-order, cognitive-affective personal aspects reflecting a positive belief in oneself and the world (e.g., hope, optimism and self-efficacy; Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010). According to Conservation of Resources theory (COR; Hobfoll, 2001) personal resources add to individuals’ optimal functioning both by increasing resilience and by contributing to employees’ potential to successfully control and influence the environment (Hobfoll, Johnson, Ennis, & Jackson, 2003). Personal resources may thus directly contribute to individuals’ well-being, as well as buffer the health-impairing effects of job demands and boost the positive impact of job resources (Van den Broeck, Van Ruyssseveldt, Smulders, & De Witte, in press; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007).

However, to date few studies have found evidence for the buffering role of personal resources, potentially because no differentiation was made between job hindrances and job challenges. The boosting role of personal resources only received first evidence (Van den Broeck et al., in press). The current paper aims to further this research in examining whether self-enhancing and affiliative humour may be considered as personal resources buffering the health-impairing impact of job hindrances and job challenges and fortifying the health-enhancing associations of job challenges and job resources.

Humour as personal resources in the JD-R model

COR considers sense of humour as a valuable personal resource (Hobfoll, 2001). Particularly self-enhancing and affiliative humour may fit this concept as they are dispositional types of behaviour, reflecting a benign outlook towards oneself and others (Martin et al., 2003). Building upon this assumption, we expect that self-enhancing and affiliative humour yield health-enhancing main effects and foster employees’ well-being in interaction with the job characteristics.

According to COR, individuals strive to protect, maintain and increase their resources. Stress occurs when individuals risk losing or actually lose valued resources. Disposing of resources is rewarding in its own right and adds to psychological and physical well-being. In line with positive psychology, personal resources such as optimism and self-esteem have been positively related to employee well-being (e.g., Xanthopoulou et al., 2007). Extending previous research relating humour to well-being (Martin et al., 2003) and in line with COR we therefore expect:

**Hypothesis 1:** Self-enhancing humour relates (a) negatively to burnout and (b) positively to work engagement.

**Hypothesis 2:** Affiliative humour relates (a) negatively to burnout and (b) positively to work engagement.

COR also assumes that individuals endowed with high personal resources are more capable of dealing with stressful situations. They can invest more resources to overcome difficulties and are therefore more likely to solve particular problems, which makes them less prone to the negative consequences of stress. Self-enhancing and affiliative humour have indeed been shown to relate to coping (Martin et al., 2003). The use of humour furthermore...
Hypothesis 3: Self-enhancing humour buffers the health-impairing relationships of job hindrances and job challenges: It attenuates (a) the positive association between job hindrances and burnout, (b) the positive association between job challenges and burnout and (c) the negative association between job hindrances and work engagement.

Hypothesis 4: Affiliative humour buffers the health-impairing relationships of job hindrances and job challenges: It attenuates (a) the positive association between job hindrances and burnout, (b) the positive association between job challenges and burnout and (c) the negative association between job hindrances and work engagement.

Finally, as self-enhancing and affiliative humour relate to positive emotions (Greengross & Miller, 2008), they may broaden individuals’ thought-action repertoire. This is because positive emotions assist individuals in developing new and creative ideas and actions, which may, in turn, further build individuals’ durable resources in terms of well-being and other aspects of optimal functioning (Frederickson, 2001). In line with this view, humour has been defined to include an incongruous component (Cooper, 2008), which may help to resolve challenging situations (Mayo, 2010). As self-enhancing and affiliative humour may foster creative ways of dealing with job challenges and increase social bonding through the generation of positive emotions (Cooper, 2008), they may boost the health-enhancing effect of job challenges and job resources. In sum, we hypothesise:

Hypothesis 5: Self-enhancing humour fortifies the health-enhancing associations of job challenges and job resources: It strengthens (a) the positive association between job challenges and work engagement, (b) the positive association between job resources and work engagement and (c) the negative association between job resources and burnout.

Hypothesis 6: Affiliative humour fortifies the health-enhancing associations of job challenges and job resources: It strengthens (a) the positive association between job challenges and work engagement, (b) the positive association between job resources and work engagement and (c) the negative association between job resources and burnout.

Method

Procedure and participants

Readers of a Flemish HR-magazine were invited via the website of the magazine and the weekly electronic newsletter to participate in an anonymous internet study on work-related well-being during December 2009. In total, 1192 employees (of 1401 participants) provided complete information and therefore constitute the sample of the current study. Somewhat more women (60%) than men (40%) participated. Age ranged from 19 to 65 years (M= 41.98 years; SD= 10.35). The majority of the respondents was highly educated: 67% obtained at least a bachelor degree. Most participants (59%) were white-collar workers, 31% were junior and senior managers and 10% were blue-collar workers. Participants generally had a permanent contract (90%) and were full-time employed (75%).

Measures

Scale scores were computed as the mean of the items scores. Table 1 includes the correlations of the scales.

Job characteristics. Role conflict and workload were included as exemplary job hindrance and job challenge, respectively (e.g., Crawford, et al., 2010). Role conflict was measured with three items, including ‘I get conflicting orders’ (Cronbach’s α=.78; Notelaers, De Witte, Van Veldhoven, & Vermunt, 2007). Four items such as ‘My job requires that I work very hard’ tapped into workload (Cronbach’s α=.75; Karasek, Brisson, Kawakami, Houtman, Bongers, & Amick, 1998). Following previous JD-R research, three items such as ‘My colleagues are interested in me’ measured the job resource of social support from colleagues (Cronbach’s α=.77; Karasek et al., 1998). Respondents rated their agreement with each of these items on a five-point scale ranging from 1 (totally disagree) to 5 (totally agree).

Humour. Participants’ self-rated benevolent humour styles were assessed via the self-enhancing and the affiliative humour scale of the Humour Styles Questionnaire (HSQ; Martin et al., 2003). Self-enhancing humour included eight items, such as ‘If I am feeling sad or upset, I usually lose my sense of humour’ and ‘I don’t need to be with other people to feel amused – I can usually find things to laugh about even when I’m by myself’ (Cronbach’s α=.83). Affiliated humour included eight items, such as ‘I laugh and joke a lot with my closest friends’ and ‘I usually don’t laugh or joke around much with other people’ (Cronbach’s α=.83). Responses were coded on a seven-point Likert scale ranging from 1 (totally disagree) to 7 (totally agree).

Well-being. Burnout was measured via the Dutch version of the Maslach Burnout Inventory-General Survey (Cronbach’s α=.93; Schaufeli & van Dierendonck, 2000), including exhaustion (five items, e.g., ‘I feel totally exhausted in my job’) and cynicism (four items, e.g., ‘I doubt the usefulness of my job’). Work engagement was assessed via 10 items of the Utrecht Work Engagement Scale (Cronbach’s α=.95; Schaufeli, Salanova, González-Romá, & Bakker, 2002) assessing vigour (e.g., ‘At my work, I feel bursting with energy’) and dedication (e.g., ‘I am proud of the work I do’).

<table>
<thead>
<tr>
<th>Table 1 Correlations among study variables</th>
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<tr>
<td>1. Role conflict</td>
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<td>2. Workload</td>
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<tr>
<td>3. Social support</td>
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<td>4. Self-enhancing humour</td>
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<td>5. Affiliative humour</td>
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<td>6. Burnout</td>
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<td>7. Work engagement</td>
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Note: ** p<.01
Participants rated the frequency with which they encountered burnout and work engagement on a seven-point scale from 0 (never) to 6 (always, every day).

**Analyses**

Following Aiken and West (1991) and in line with the JD-R model, the first step of the multiple regression analyses (SPSS, version 17) predicting burnout and work engagement included the main effects of role conflict, workload and social support. Secondly, the main effect of one of the benign humour styles was included to test Hypotheses 1 and 2. Separate analyses were performed for self-enhancing and affiliative humour, as these styles are highly interrelated (Martin et al., 2003): Individuals using self-enhancing humour often also use affiliative humour and vice versa (Galloway, 2010). The relative high correlation between these types of humour (r= .53, p<.001) may therefore cause multicollinearity, preventing us to detect the specific impact of each of the humour types (Martin et al., 2003). Finally, we examined the two-way interactions between each of the humour styles and the job characteristics, to test Hypotheses 3 to 6. All variables were mean centered to compute the interaction terms (Cohen, Cohen, West, & Aiken, 2003).

**Results**

**Preliminary analysis**

As outlined in Table 1, in line with the JD-R model, role conflict correlated positively with burnout and negatively with work engagement, while workload related only positively to burnout. Social support from colleagues related negatively to burnout and positively to work engagement. Both humour styles related negatively to burnout and positively to work engagement. The well-being indicators (i.e., burnout and work engagement) were negatively related.

To test the divergent validity of our variables, we compared three different models (Confirmatory Factor Analysis, using AMOS 18). First, the Harman’s single factor in which all items loaded on one factor did not fit the data well; χ²(945)= 16582.84, p<.001; RMSEA=.12; SRMR=.25; CFI=.87, TLI=.47. The expected measurement model including the seven latent variables based on their respective items provided an adequate fit to the data; χ²(924)= 5007.95, p<.001; RMSEA=.06; SRMR=.13; CFI=.87, TLI=.50, which was better than the fit of the single factor model; Δχ² (21)= 11574.89; p<.001. In the third model the items loaded on both their expected factors and a latent common method factor (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). This model fitted the data well; χ²(879)= 3324.59, p<.001; RMSEA=.05; SRMR=.07; CFI=.92, TLI=.91, and provided better fit than the expected measurement model; Δχ² (45)= 1683.36; p<.001. However the common method factor in the third model only explained 7% of the total variance, which is below the 25% threshold for common method variance (Williams, Cote, & Buckley, 1989). Common method variance is therefore rather unlikely to significantly distort participants’ responses (Podsakoff et al., 2003).

**Primary analysis**

As shown in Table 2, the results regarding burnout show, in line with the JD-R model, that both role conflict (job hindrance) and workload (job challenge) related positively to burnout, while social support (job resource) related negatively. Hypothesis 1a suggested that self-enhancing humour would relate negatively to burnout. The results of Step 2 of the regression analysis support this hypothesis. Hypotheses 3a and 3b assumed that self-enhancing humour would buffer the health-impairing relationships of job hindrances and job challenges. However, no interactions were found between self-enhancing humour, role conflict or workload. Therefore hypotheses 3a and 3b were not supported. Hypothesis 5c included that self-enhancing humour would fortify the association between social support and burnout. As self-enhancing humour did not interact with social support, this hypothesis was also not supported.

Similar findings were observed for affiliative humour in the prediction of burnout. Hypothesis 2a stipulated that affiliative humour would relate negatively to burnout, which was supported in Step 2 of the regression analysis. Hypotheses 4a and 4b included that affiliative humour would buffer the health-impairing associations of job hindrances and job challenges. As no interactions were found, Hypotheses 4a and 4b were not confirmed. Hypothesis 6c indicated that affiliative humour would foster the negative association between social support and burnout, but no interaction was found, rejecting Hypothesis 6c.

As respects work engagement, in line with the JD-R model, role conflict related negatively to work engagement, while workload and job resources related positively. Hypothesis 1b suggested that self-enhancing humour would relate positively to work engagement in Step 2. The results support this hypothesis. Hypothesis 3c included that self-enhancing humour would relate negatively to burnout, which was supported in Step 3 of the regression analysis showed that self-enhancing humour interacted with role conflict. The negative association between role conflict and work engagement was however stronger for employees using high versus low levels of self-enhancing humour (B_{hsp}=.47, R²= .33***).
were found, suggesting that particularly similar job demands and job resources may interact (i.e., role conflict and social support may both be considered as social job aspects), an assumption that is also made within the Demand-Induced Strain Compensation Model (de Jonge & Dormann, 2006).

**Discussion**

Against the backdrop of positive psychology, this study aimed to extend our knowledge on the role of humour in the context of work. Specifically, we examined whether self-enhancing and affiliative humour relate to burnout and work engagement, and whether these humour styles may serve as personal resources, assisting employees to optimally deal with job hindrances, job challenges and job resources.

First, results provided support for the recent refinement of the JD-R model in which job hindrances are health-impairing, job resources are health-enhancing and job challenges yield mixed effects (Clawford et al., 2010; Van den Broeck et al., 2010). Second, in line with the humour-health hypothesis, results attested to the direct health-enhancing associations of self-enhancing and affiliative humour (Martin et al., 2003). The benign types of humour associated negatively with burnout and positively with work engagement. Third, self-enhancing and affiliative humour intervened in the relationships between job characteristics and work engagement, but not in the associations with burnout. Different processes may thus occur in the development of ill-health and well-being, as was also suggested in positive psychology and the JD-R-literature. The benign types of humour interacted with role conflict (i.e., job hindrance). Contrary to our expectations, the two humour styles seemed to come into play predominantly when role conflict was low. Possibly, workers may be less inhibited to use affiliative and self-enhancing humour when they perceive low levels of role conflict, which may then increase their levels of work engagement. Self-enhancing and affiliative humour also interacted with social support (i.e., job resource). Rather than strengthening their beneficial role, both types of humour seemed to compensate for low job resources. Humour and social support may thus not act as previously suggested (Fredrickson, 2001), but rather serve as a reserve, which makes individuals less vulnerable to a loss or lack of environmental resources (Hobfoll, 2001). Self-enhancing
and affiliative humour did not interact with workload (i.e., job challenge), perhaps because workload lacks a relational component included in role conflict (i.e., living up to the conflicting expectations of others), social support (i.e., having social relations) and both humour styles. This assumption builds on the Demand-Induced Strain Compensation Model which assumes that interactions are more likely among constructs including the same cognitive, emotional or physical elements (de Jonge & Dormann, 2006). In sum, we propose that self-enhancing and affiliative humour may compensate for a lack of job resources, but have limited health-enhancing effects when job hindrances are high.

Some limitations of the current study need to be mentioned. First, self-enhancing and affiliative humour only explained a small portion of work-related well-being. The low explained variance of the main effects of humour may point to the importance of job design over personal characteristics for work-related well-being (Pinder, 2008; Taris & Feij, 2001), but may equally hint at the importance of measuring constructs at the same level (i.e., life domain versus work setting; Vallerand, 1997). Future studies may therefore explore whether individuals’ work-related humour styles relate stronger to burnout and work engagement. Interaction effects however generally explain little additional variance in questionnaire research (McClelland & Judd, 1993), as also was found in other JD-R studies (e.g., Hakanen, et al., 2005; Van den Broeck et al., in press).

Second, this study builds on the literature conceptualising job design and personal resources as antecedents of well-being (e.g., Hakanen, Schaudeli, & Ahola, 2008). However, as also the causal reversed relationships have been found (e.g., Xanthopoulos, Bakker, Demerouti, & Schaufeli, 2009), future studies may further disentangle the causal relationships between job characteristics, humour and workers’ well-being, thereby examining whether humour may also serve as personal resource influencing the occurrence of job characteristics and/or mediating their effects. Such studies may also rely on observer ratings of the different humour styles (e.g., Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) to examine whether the actual use of humour may have similar positive effects as one’s own perception of job characteristics. Finally, future research may also expand the set of different job aspects. Also other types of humour may be included, such as self-defeating and aggressive humour (Martin et al., 2003).

Conclusion

Despite these limitations and the need for future research, this study supports the assumption that self-enhancing and affiliative humour may play a role in enhancing employees’ well-being. They may decrease burnout and increase work engagement over and above the influence of various job characteristics. The two benign humour styles under study may furthermore compensate for a lack of job resources, thereby increasing levels of work engagement. From a practical point of view, based upon this study’s findings, one could argue that the two positive humour types under study, which are either inter- (i.e., affiliative) or intra-directed (i.e., self-enhancing), are helpful ‘tools’ that can be stimulated at work by, for example, integrating them into ceremonies and social events (e.g., Romero & Pescosolido, 2008), the organisational culture (Holmes & Marra, 2002), and leadership styles (Priest & Swain, 2002). However, practitioners should bear in mind that humour may not become evident in all circumstances. Specifically, the current results highlight that self-enhancing and affiliative humour are mainly activated in conditions of low job hindrances. In general, we would like to encourage future research to tap into the humour-health hypothesis, as this study is among the first to point at the beneficial role of humour and its function as a personal resource in the context of work.

Footnotes

1 In line with the propositions of JDR, we also tested the job demands × job resources interactions. Role conflict and social support interacted in the prediction of burnout. Simple slope analyses confirmed the JDRs’ buffering hypothesis: Role conflict associated stronger with burnout under conditions of low (i.e., 1 SD below the mean) versus high (i.e. 1 SD above the mean) social support; \( B_{\text{conflict}} = 0.47, SE = 0.04, T = 11.79, p < .001 \); \( B_{\text{social support}} = 0.61, SE = 0.04, T = 15.65, p < .001 \). No other interactions were found, suggesting that particularly similar job demands and job resources may interact (i.e. role conflict and social support may both be considered as social job aspects), an assumption that is also made within the Demand-Induced Strain Compensation Model (de Jonge & Dormann, 2006).

References
