

A supportive climate may protect employees' well-being from negative humour events: a test of the affective events theory with humour events

Ana Junça Silva

Instituto Universitário de Lisboa, Portugal
Instituto Politécnico de Tomar, Tomar, Portugal
analjsilva@gmail.com

Antonio Caetano

Instituto Universitário de Lisboa, Portugal
antoniocaetano@iscte.pt

Rita Rueff Lope

Instituto Universitário de Lisboa, Portugal
ESADE – Business School, Barcelona, Spain
ritarueff@gmail.com

Abstract

This study investigated: (a) the mediating role of affect between humour events and well-being at work and (b) the moderating role of psychological work climate in the indirect relationship between humour events and well-being at work, via affect. The moderated mediation model was tested through a study with 93 full-time employees. We used regressions and bootstrapping analyses to test the moderated mediation model. The findings indicated a significant association between humour events and well-being at work with affect as a mediator. Moreover, psychological work climate was found to significantly moderate the indirect relationship between humour events and well-being at work via affect, such that it become stronger when individuals were in a positive psychological work climate. This paper adds considerable evidence of the relationship between humour-related events and their impact on individuals' well-being. Psychological work climate strengthens the association between affect and well-being after humour events.

Keywords: *humour events; affect; psychological work climate; moderated mediation.*

1. Introduction

Humour is a key-factor in the organizational context due to its positive effects on several outcomes, like creativity and stress reduction (e.g., Maiolino & Kuiper 2016; Robert & Wilbanks 2012). It is also a positive mental health indicator (Junça-Silva & Rueff-Lopes 2020) and has been found to be related to both physical and psychological well-being (Yue et al. 2008). Gunzelman and Olson (2018), in their study with 1,239 senior executives from 104 organizations, reported that the appropriate use of workplace humour is beneficial for employees and “desired organizational outcomes”.

The affective events theory (Weiss & Cropanzano 1996) assumes that diverse kinds of affective events (e.g., humour affective events) arouse, positive or negative, affective reactions that, in turn, will influence work-related attitudes and behaviours at work. Humour may be conceptualized as an affective event, as it triggers affective reactions and, as a consequence, influences individuals’ well-being (Junça-Silva & Rueff-Lopes 2020). As such, it may be positive or negative. A humour event is positive when it includes telling jokes or engaging in spontaneous witty banter, creating amusement, lessening interpersonal tension, and facilitating the relationships around. A humour event is negative, on the other hand, when it encompasses a hostile or aggressive use of humour, in which the joketeller’s self is enhanced at the expense of denigrating, disparaging, excessively teasing, or ridiculing others (Junça-Silva & Rueff-Lopes 2020; Zillman 1983).

Despite the existence of well-known empirical demonstrations of the affective events theory, research on humour events framed in such theory is scarce. Moreover, there is still much to comprehend as regards the process through which humour events may affect individuals’ well-being. The context in which these situations occur may also influence individuals’ reactions. For example, several studies have demonstrated that the psychological work climate is crucial for individuals’ well-being (e.g., Schaufeli & Taris 2014). It may provide social and psychological resources, such as support from colleagues or supervisors. Hence, the more positive is the work climate, the greater the well-being of employees (Cooper & Marshall 2013). Therefore, it is likely that the psychological work climate affects how individuals react to humour events and, as a result, their well-being. It may moderate the relationship between affect and well-being after humour events, strengthening the relation between positive affect and well-being.

This study offers new insights into the relationship between humour events and well-being, and thus helps to fill the gaps in the literature. Based on these assumptions, the present study seeks to examine the association between humour events and well-being in a sample of employees by examining the potential mediating effect of affect in this relationship. We also intend to explore the potential moderating effect of the psychological work climate between affect and well-being.

2. Theoretical background

2.1. Humour events and well-being: a mediated relationship

Although humour has been mostly conceptualized as an individual characteristic, there is evidence that humour can be treated as a discrete event. Humour is “any event shared by an agent (e.g., an employee) with another individual (a target) that is intended to be amusing to the target and that the target perceives as an intentional act” (Cooper 2005:

766-767). Romero and Cruthirds (2006) also propose that humour produces affect and cognitions in the individual, group, or organization. As such, humour can be classified as an affective event that “stimulates appraisal of and emotional reaction to a transitory or ongoing job-related agent, object or event” (Basch & Fisher 2000: 37).

The affective events theory (Weiss & Cropanzano 1996) suggests that the workplace is filled with conditions that condition the occurrence of affective daily events which arouse, positive or negative, affective reactions and, in turn, influence work-related attitudes and behaviours at work. Affective events are proximal causes of affect and distal causes of well-being. Positive humour events trigger positive affect (e.g., joy) and refer to the act or behaviour of telling jokes or engaging in spontaneous witty banter to create amusement, lessen interpersonal tension, and facilitate relationships. For example, an individual may amuse his/her boss or colleagues by making a joke, or employees may share something funny with their colleagues. On the other hand, negative humour events are referred to as hostile uses of humour, in which the self is enhanced at the expense of denigrating, disparaging, excessively teasing, or ridiculing others (Galloway 2010). For instance, a boss may make poor jokes at the expense of his/her subordinates to indicate that s/he is the one who oversees, or an employee may create a specific bad gossip about someone at work. Thus, the use and expression of humour are affective events that trigger affective fluctuations at work. Wijewardena et al. (2010) proposed managerial humour to be an ‘affective event’ that, on the one hand, leads to changes in employees’ momentary affect and, at the same time, influences long-term resilience and job burnout.

Once positive humour events relate to positive affect (Greengross & Miller 2008), they may broaden individuals’ thought-action repertoire. According to the broaden and build theory (Frederickson 2001), positive affect improves creativity, novelty, and actions, which stimulates individuals’ durable resources regarding well-being. Positive humour events may raise creative ways of dealing with challenges, increase social bonding through positive affect (Cooper 2009) and boost well-being. On the other hand, negative humour events may impair well-being through negative affect (Junça-Silva et al. 2020).

Diverse studies have found that individuals who experience negative humour events tend to be more stressed and unhappy (e.g., Wijewardena et al. 2017). On the other hand, individuals with a higher frequency of positive humour events tend to perpetuate a cycle of positive emotions (e.g., Roberts & Wilbanks 2012) and increase their levels of well-being. This is consistent with Cooper’s suggestion (2009) that humour events may act as a defence mechanism against stress by letting individuals relax from tensions built up by daily hassles. Based on these assumptions, we argue that humour events may be related to well-being. Therefore, we hypothesize that:

H1. Humour affective events will be positively related to well-being.

H2. Affect will mediate the relationship between humour events and well-being.

2.2. The moderating role of psychological work climate

Recently, some studies have shown that the psychological work climate can influence well-being (e.g., Schaufeli & Taris 2014; Tims, Bakker, & Derks 2013). It may provide social and psychological resources, such as support from colleagues/supervisors for individuals at work. According to the Job-Demands-Resources Model (JD-R; Demerouti et al. 2001), these resources are motivational in nature, and play a role in predicting well-

being (Tims et al. 2013). Hence, the more positive the psychological work climate, the greater the well-being of employees (Cooper & Marshall 2013).

Various researchers have found associations between psychological work climate and individual work outcomes. For example, Koys (2001) demonstrated that psychological climate was associated with satisfaction. Harter, Schmidt, & Hayes (2002) also found that psychological work climate was positively related to employee satisfaction, engagement, and other work-related attitudes.

Based on these findings, it is likely that psychological work climate influences the affective reactions of individuals to humour events and, consequently, their well-being. It may act to strengthen the relation between affect and well-being. On the other hand, it may weaken the negative impact of affect on individuals' well-being. Thus, we hypothesized that:

H3. The positive indirect effect of humour events on well-being via affect will be moderated by psychological climate, such that the indirect effect will be strengthened for employees with a perceived positive psychological climate and weakened for those with a negative perceived psychological climate (Figure 1).

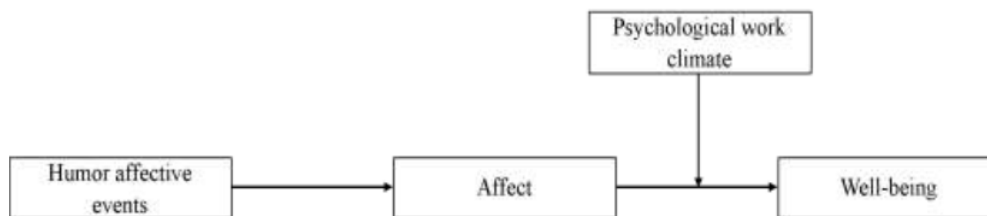


Figure 1. The conceptual model of the research

3. Method

3.1. Participants

Ninety-three full-time employees in a higher-education institution (64 women, 29 men; mean age = 24.76 years old, SD = 9.05 years old) participated in this study. The majority had a high school diploma or below (96.8%), 2.2% had a master's degree or above, and 1.1% a bachelor's degree. 71% performed administrative functions, 14% were professors and 15% were human resource managers.

3.2. Procedure

Our research proposal was approved by the Academic Ethics Committees of our Institution. Participants were randomly sampled from full-time employees. We asked the human resources personnel to help us distribute and collect our survey forms, which included our explanation to all participants about the voluntary nature of taking part in the present study. The employees completed the survey during normal work time. We distributed 150 copies of the survey and only 93 valid responses were collected (response rate = 62%).

3.3. Measures

Humour events. Participants were instructed to recall and describe a positive or negative work-related humour event that has taken place in the past seven days that provoked them to experience affect. They were asked to describe the episode in a detailed way (e.g., “I was with two of my colleagues, at lunch time, and my supervisor fell down with her food... we laughed a lot”; “one colleague was pushed and fell, we laughed so much”, “we had a party on the Friday afternoon, and we enjoyed sharing jokes and funny things with each other”; “(...) I got late to work, and when I arrived, some colleagues whispered”; “my supervisor gave me negative feedback in front of my colleagues, he was a jerk; “when I arrived at work, I had my desk all messed up, my colleagues had hidden all my pens”). They were also requested to rate on a seven-point scale how bad or good the episode had been to them.

Affect. We used the Multi-Affect Indicator (Warr et al. 2013). The scale includes 16 items, in which eight measure positive affect (e.g., enthusiastic, joyful), while the other eight items measure negative affect (e.g., nervous, tense). Participants were asked to indicate the degree to which they experienced those feelings after the described humour event, using a 7-point Likert scale (1 – not at all; 7 – extremely). In order to analyse the affect, we created a ratio between the positive and negative affect by dividing positive affect by the negative one. The Cronbach’s α value for the negative affect subscale was .90, and for the positive affect subscale it was .85.

Well-being. Individuals responded to the Satisfaction with Life Scale (SWLS; Diener et al. 1985). It includes five items that measure global life satisfaction. Answers to each item are given on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). An example item is “the conditions of my life are excellent”. In this study, the internal consistency reliability was .88.

Work psychological climate. We used two items from the scale of the Psychological Climate of Cooperation and Warmth (Kattenbach, Demerouti & Nachreiner 2010). Participants had to provide their answers on a 7-point Likert scale concerning the following items: “At work, there is a nice atmosphere” and “I have a nice time with my colleagues”. Inter item correlation was .65.

Control variables. To warrant the accuracy of results, we controlled for three demographic variables: sex, education level and age. We opted for such variables because these may influence employees’ organizational behaviour and affect (Thau, Bennett, Mitchell, & Marrs 2009).

4. Data analysis

First, we analysed the data and looked for missing values. Then, we explored issues regarding multicollinearity, skewness, kurtosis, and normal distribution. For data analysis, we used SPSS v. 27.0 and PROCESS macro. Humour events were coded 1 = negative and 2 = positive.

To test the first and the second hypotheses, regarding the direct effect of humour events on well-being and the mediating role of positive affect in this relationship, we used bootstrap analysis (based on 5.000 bootstrapped samples using bias corrected and accelerated 95% confidence intervals (Cis)) recommended by Hayes (2012). This analysis calculated direct paths between the variables, in the form of regression weights and the significance of the indirect path, which is the reduction of the relation between

humour events and well-being, when positive affect is included in the model. The indirect effect is significant when the 95% CI does not include 0. We z-transformed the variables to compare the variable effects' sizes.

To test the moderated mediation model (hypothesis 3), we used PROCESS macro, model 14 developed by Preacher et al. (2007). This macro is relevant as it allows evaluating whether a specific mediation effect is contingent upon the level of a moderating variable by providing coefficients for both the mediator and dependent variable models. Moderated mediation occurs when the indirect path varies with the level of the moderator variable (e.g., Muller et al. 2005).

5. Results

5.1. Descriptive statistics

Means, standard deviations, and correlations between the variables are showed in Table 1. Overall, 48% of the participants reported an unpleasant humour event and 52% reported a pleasant one. All the variables were positively related to each other; however, no significant relationship was found between humour events and psychological work climate.

Table 1. Means, standard deviations, and correlations between the variables

Variables		<i>S</i> <i>D</i>	1	2	3	4	5	6	7
1. Sex		-	1						
2. Age	4.7 6	9. 05	.1 5*	1					
3. Education		-	- .06	.2 2*	1				
4. Humour events		-	.1 9*	- .13	- .13	1			
5. Affect	.09	1. 35	.1 8*	.2 8**	- .02	.1 7*	1		
6. Psychological work climate	.80	1. 16	.1 1	.0 3	- .01	.0 1	.3 8**	1	
7. Well-being	.75	1. 14	.2 1*	- .01	- .08	.1 5*	.3 6**	.5 1**	1

Notes: $N = 93$; * $p < 0.05$; ** $p < 0.01$.

5.2 Hypotheses' testing

Hypothesis 1: The first hypothesis predicted that humour events would be positively related to well-being. Our first hypothesis was supported, as humour events presented a positive and significant correlation with well-being ($r = .15$, $p < .05$).

Hypothesis 2: The mediating effect of affect between humour events and well-being. The second hypothesis predicted that affect would mediate the relationship between humour events and well-being. We tested the indirect effect via bootstrap analysis

(Shrout & Bolger 2002) and found evidence for the indirect effect of humour events on well-being via affect (.26, 95% CI [.03, .54]). The total model was significant, $F(1, 88) = 1.96$, $p < .01$, and explained 15% of variance in well-being. Therefore, H2 was supported by the data.

Hypothesis 3: The moderating effect of psychological work climate. The third hypothesis predicted that psychological work climate would moderate the indirect effect of humour events on well-being via affect, such that the indirect effect would be strengthened for employees with a perceived positive psychological climate (versus negative psychological climate). To test this hypothesis, we divided the analysis into two parts. First, we conducted a simple moderation (model 1, in PROCESS (Hayes 2018)), in which we tested the moderating effect of psychological climate on the link between affect and well-being. Then, based on the suggestions of Hayes and Rockwood (2017), we tested the moderated mediation model (model 14, in PROCESS (Hayes 2018)).

The first analysis revealed a significant interaction effect between affect and psychological climate in predicting well-being ($\beta = -.25$, $SE = .09$, $\Delta R^2 = .06$, $p < .001$). Simple slope analysis (Dearing & Hamilton 2006) found that affect showed a significant relationship with well-being in lower levels of psychological climate (i.e., - 1 SD) (simple slope = .57, $p < .01$), but not significant in higher levels of psychological climate (i.e., + 1 SD) (simple slope = -.01, $p > .05$).

Then, we analysed model 14 to test the moderated mediation model. The index of the moderated mediation analysis showed a significant result (-.15, 95% bootstrap CI [-.31, -.04]). The negative sign implies that the indirect effect is larger for those who reported a negative ratio of affect than for those who reported a positive one. This significant interaction supports the indirect effect of affect at different levels of the moderator (psychological work climate). Preacher et al (2007) suggest verifying these results with bootstrapped standard errors used to create 95% CIs. Thus, results showed the existence of conditional indirect effects at the mean, and one SD below the mean, using 95% bias accelerated and corrected CIs with 5.000 bootstrapped resamples. As Table 2 shows, the indirect effect at one SD below the mean (.34, 95% CI [.10, .65]), and the mean (.16, 95% CI [.02, .37]) were significant, but the indirect effect a tone SD above the mean (-.02, 95% CI [-.21, .19]) was not (Figure 2). The model explained 41% of variance on well-being. Thus, hypothesis 3 was supported by the data.

Table 2. Indirect effects of humour events on well-being (through affect) at low and high levels of psychological work climate

Predictor	Well-being					
	β	SE	t	p	LLCI	ULCI
Humour events	.20	.20	.99	.32	-.20	.61
Affect	.26	.09	2.85	.00**	.08	.44
Climate	.25	.12	2.20	.03*	.02	.48
Affect x Climate	-.25	.09	-2.71	.00**	-.41	-.06
R ²	.41					

Climate	Conditional effects at climate +- 1 SD					
	β	SE	z	p	LLCI	ULCI
- 1.00	.34	.17	3.22	.00**	.10	.65
0	.16	.09	2.85	.00**	.02	.37
+ 1.00	-.02	.10	-.18	.85	-.22	.18

Notes: N = 93. All effects tested for significance using bias-corrected confidence intervals from 5,000 bootstrapped samples. *p < .05; **p < .01.

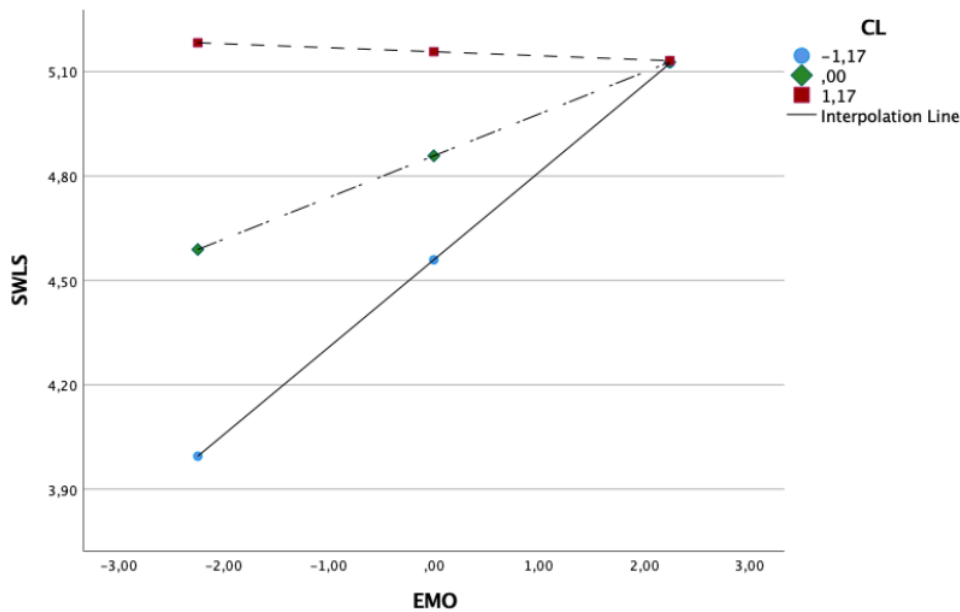


Figure 2. Moderation graph of psychological climate between affect and well-being (emo = affect ratio; SWLS = well-being).

6. Discussion

The present study had three goals: (1) to test an established link relating humour events to well-being; (2) to examine affect as a mediator in the relation between humour events and well-being; and (3) to analyse the degree to which psychological work climate serves as a moderator of the link between affect and well-being.

There is considerable evidence of the benefits of humour for well-being. However, these studies have been focused on humour as an individual characteristic. There are few studies considering the role of humour events on an individual's well-being. As far as we know, this is one of the first studies to begin unpacking the role that psychological work climate may play in this relationship.

We found that humour events were positively related to higher levels of well-being. This is consistent with the humour-health hypothesis, which states that humour has beneficial effects for individual's optimal functioning (Martin & Lefcourt 2004). Humour is globally accepted to be an indicator of positive mental health (Junça-Silva & Rueff-Lopes 2020), and has been found to be related to both physical and psychological well-being (Yue et al. 2008). However, this study goes further and addresses why and how this relation exists.

The results also demonstrated that affect mediated the relationship between humour events and well-being. They are hence in line with the affective events theory (Weiss & Cropanzano 1996), as it suggests that affective events at work stimulate affective reactions which, in turn, influence employee's attitudes and behaviours (Junça-Silva Caetano, & Rueff-Lopes 2017). Thus, humour events, as affective experiences, arouse affect and, at the same time, influence individuals' well-being. Our findings demonstrated that affect fully mediated the link between humour events and well-being. A potential reason for the full mediation found is that humour events facilitate the emergence of the feelings of relaxation, which contributes to increased levels of positive affect and, in turn, results in higher levels of well-being. Moreover, these results also confirm the well-established concept that affect is a significant predictor of individuals' well-being (Cooper 2009). Thus, the more positive humour events, the higher the frequency of positive affect, which may be translated into higher levels of well-being.

Additionally, we found that this mediated relationship was significant when there were lower to moderate levels of psychological work climate, but not when it was higher. That is, individuals in poorer psychological work climates benefit more from experiencing humour events that trigger positive affect, which, in turn, translates into higher levels of well-being. A possible explanation is that those experiencing good psychological work climates tend to pay less attention to positive humour events, and therefore are less likely to experience emotional gains from the presence of positive affect. For those in poorer work climates, affect experienced after humour events may have a larger impact on their well-being. People working in supportive psychological work climates tend to feel good already while working with their colleagues and/or supervisors, so the effect of increased positive affect after humour events may be negligible. However, for individuals working in poorer and non-supportive work climates, experiencing positive affect after humour events, as well as increased perceptions of work climate, may substantially increase their well-being. Some studies have already demonstrated that a positive work climate may be beneficial for employees' well-being (e.g., Bernerth et al. 2016; Tims, Bakker, & Derks 2013). Therefore, it is likely that a good psychological work climate protects against the translation of the inexistence or low frequency of positive affective experiences into lesser well-being.

In sum, the findings of this study are in line with the humour-health hypothesis and suggest that humour events influence well-being. But this relation is mediated by affect, which, in turn, is shaped by low and moderate levels of psychological work climate. That is why humour events trigger affect that enhances individuals' well-being, in particular when psychological work climate is poor.

The integration of psychological climate as a moderator extends the affective events theory and research into humour by introducing new factors affecting humour events' outcome relationships.

6.1 Limitations and future research

Despite the potential of this study, it has some limitations. Firstly, the small sample size (due to low response rate) means that the results should be generalized with some caution. Secondly, the use of self-reported measures may also bias data because individuals may not always provide accurate reports. Thirdly, we asked participants to report a pleasant/unpleasant humour event that occurred in an organizational context. Although we have asked them to recall a recent event (from the previous week), it is likely that their reports may have been influenced by memory bias. Efforts should be made to further studies by conducting, for instance, a diary study to obtain more accurate data. In addition, we must also consider the very low correlation between humour events and well-being (only .15). This might be due to the sample size. Thus, this result should be interpreted with some caution. Future studies could explore this link with other methods, such as a diary study, or a longitudinal one. By examining these relations with other designs, it will be possible to confirm the results of the present study and acknowledge it more consistently. It would also be interesting to analyse humour's daily fluctuations, which is only possible when we have data concerning multiple points in time.

The results of the current study open several avenues of potential research. To begin with, we tested the affective events theory (Weiss & Cropanzano 1996) by assuming humour events as an affective event. However, we did not test the moderating role of personal characteristics, such as personality or mood. Therefore, some personality traits should be explored in these relationships, for instance, gelotophobia or optimism. Additionally, the role that job characteristics and leadership styles may have in predicting humour affective events could also be relevant to explore. At last, emotional regulation strategies, such as reappraisal, mindfulness or savouring should be analysed in future studies, too, to understand whether they may intensify or buffer the mediating path between humour affective events, affect and well-being.

6.2 Practical implications

This study has several practical implications for organizations and employees. It is important to acknowledge the relevance of humour events at work. With regard to this issue, managers may analyse their employees' perceptions of their work climate, as it appears to be a mechanism that may protect their well-being from displaying less positive affect. Therefore, it is crucial that managers promote a good and supportive psychological work climate among their employees. For example, managers may organize social events or teambuilding activities that may improve social and psychological bonds between employees. We believe that the emotional and social bonds that may be created among employees go a long way in improving their quality of life at work.

7. Conclusion

The present study addresses a major gap in the current positive psychology literature. While the correlational link between humour and well-being has been well-established,

this is one of the first studies to examine some of the intricacies of this relation. To date this is the first study exploring the role of affect as a mediator between humour events and well-being and analysing the moderating role of psychological work climate among these relationships.

Compliance with Ethical Standards

Funding: This study was funded by Fundação para a Ciência e Tecnologia (grant number SFRH/BD/80460/2011).

Ana Junça Silva declares that he/she has no conflict of interest. Antonio Caetano declares that he/she has no conflict of interest.

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Moreover, there is no conflict of interest.

Informed consent: Informed consent was obtained from all individual participants included in the study.

References

- Basch, J. & Fisher, C. D. (2000). 'Affective job events-emotions matrix: a classification of job related events and emotions experienced in the workplace', in Neal M. Ashkanasy, N.M., Härtel, C.E.L & Zerbe, W.J. (eds.), *Emotions in the Workplace: Research, Theory and Practice*, Westport Conn., London: Quorum Books, pp. 36-48.
- Bernerth, J. B., Whitman, D. S., Walker, H. J., Mitchell, D. T. & Taylor, S. G. (2016). 'Actors have feelings too: an examination of justice climate effects on the psychological well-being of organizational authority figures'. *Journal of Occupational and Organizational Psychology* 89 (4), pp. 693-710.
- Cooper, C. L. (2005). 'The future of work: careers, stress and well-being'. *Career Development International* 10 (5), pp. 396-399.
- Cooper, C. (2008). 'Elucidating the bonds of workplace humor: a relational process model'. *Human Relations*, 61 (8), pp. 1087-1115. <https://doi.org/10.1177/0018726708094861>.
- Cooper, C. L. & Marshall, J. (2013). 'Occupational sources of stress: a review of the literature relating to coronary heart disease and mental ill health', in Cooper, C.L. (ed.), *From Stress to Wellbeing* Vol. 1: *The Theory and Research on Occupational Stress and Wellbeing*. Palgrave Macmillan UK, pp. 3-23.
- Dearing, E. & Hamilton, L. C. (2006). 'Contemporary advances and classic advice for analyzing mediating and moderating variables', *Monographs of the Society for Research in Child Development* 71, pp. 88-104. <https://doi.org/10.1111/j.1540-5834.2006.00406.x>
- Demerouti, E., Bakker, A. B., Nachreiner, F. & Schaufeli, W. B. (2001). 'The job demands-resources model of burnout'. *Journal of Applied Psychology* 86 (3), pp. 499-512.
- Diener, E. D., Emmons, R. A., Larsen, R. J. & Griffin, S. (1985). 'The satisfaction with life scale'. *Journal of Personality Assessment* 49 (1), pp. 71-75.

- Fredrickson, B. L. (2001). 'The role of positive emotions in positive psychology: the broaden-and-build theory of positive emoticons'. *American Psychologist* 56, pp. 218–226.
- Galloway, G. (2010). 'Individual differences in personal humor styles: identification of prominent patterns and their associates'. *Personality and Individual Differences* 48 (5), pp. 563–567.
- Greengross, G. & Miller, G. F. (2008). 'Dissing oneself versus dissing rivals: effects of status, personality, and sex on the short-term and long-term attractiveness of self-deprecating and other-deprecating humor'. *Evolutionary Psychology* 6 (3). <https://doi.org/10.1177/147470490800600303>.
- Gunzelman, R.J. & Olson, J. (2018). 'Humor loves company: a report on the role of humor in organizations'. *European Journal of Management* 18 (1), pp. 17–34. <http://hdl.handle.net/20.500.12264/91>.
- Harter J. K., Schmidt F. L. & Hayes T. L. (2002). 'Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis'. *Journal of Applied Psychology* 87, pp. 268–279.
- Hayes, A. F. (2018). 'Partial, conditional, and moderated mediation: quantification, inference, and interpretation'. *Communication Monographs* 85 (1), pp. 4–40. <https://doi.org/10.1080/03637751.2017.1352100>.
- Hobfoll, S. E. (2001). 'The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory'. *Applied Psychology* 50 (3), pp. 337–421.
- Hobfoll, S. E., Johnson, R. J., Ennis, N. & Jackson, A. P. (2003). 'Resource loss, resource gain, and emotional outcomes among inner city women'. *Journal of Personality and Social Psychology* 84 (3), pp. 632–643. <https://doi.org/10.1037/0022-3514.84.3.632>.
- Junça-Silva, A. & Caetano, A. (2013). 'Validation of the flourishing scale and scale of positive and negative experience in Portugal'. *Social Indicators Research* 110 (2), pp. 469–478.
- Junça Silva, A., Caetano, A. & Lopes, M. (2020). 'A working day in the life of employees: development and validation of the scale for daily hassles and uplifts at work'. *TPM – Testing Psychometrics and Measurement* 7 (2), pp. 221–250. 10.4473/TPM27.2.5
- Junça-Silva, A. & Lopes, R. R. (2020). 'Unfriendly customer behaviors and employees' psychological capital: the role of health symptoms and positive humor events'. *Current Psychology* 1–11. <https://doi.org/10.1007/s12144-020-01163-8>.
- Kattenbach, R., Demerouti, E., & Nachreiner, F. (2010). 'Flexible working times: effects on employees' exhaustion, work-nonwork conflict and job performance'. *Career Development International*, 15 (3), pp. 279–295. <https://doi.org/10.1108/13620431011053749>.
- Kiffin-Petersen, S., Murphy, S. A. & Soutar, G. (2012). 'The problem-solving service worker: appraisal mechanisms and positive affective experiences during customer interactions'. *Human Relations* 65 (9), pp. 1179–1206. <https://doi.org/10.1177/0018726712451762>.
- Koys D. J. (2001). 'The effects of employee satisfaction, organizational citizenship behaviour and turnover on organizational effectiveness: a unit-level, longitudinal study'. *Personnel Psychology* 54, pp. 101–114.
- Lazarus, R. S. (1991). 'Cognition and motivation in emotion'. *American Psychologist* 46 (4), p. 352–357. <https://doi.org/10.1037/0003-066X.46.4.352>

- Lyubomirsky, S. & Tucker, K. L. (1998). 'Implications of individual differences in subjective happiness for perceiving, interpreting, and thinking about life events'. *Motivation and Emotion* 22 (2), pp. 155-186.
- Maiolino, N. & Kuiper, N. (2016). 'Examining the impact of a brief humor exercise on psychological well-being'. *Translational Issues in Psychological Science* 2 (1), 4-13. <https://doi.org/10.1037/tps0000065>.
- Martin, R. A. & Lefcourt, H. M. (2004). 'Sense of humor and physical health: theoretical issues, recent findings, and future directions'. *Humor: International Journal of Humor Research* 17 (1/2), pp. 1-20.
- Martin, R. A., Puhlik-Doris, P., Larsen, G., Gray, J. & Weir, K. (2003). 'Individual differences in uses of humor and their relation to psychological well-being: development of the Humor Styles Questionnaire'. *Journal of Research in Personality* 37 (1), pp. 48-75.
- Preacher, K. J., Rucker, D. D. & Hayes, A. F. (2007). 'Addressing moderated mediation hypotheses: theory, methods, and prescriptions'. *Multivariate Behavioral Research* 42 (1), pp. 185-227.
- Robert, C. & Wilbanks, J. E. (2012). 'The wheel model of humor: humor events and affect in organizations'. *Human Relations* 65 (9), pp. 1071-1099. <https://doi.org/10.1177/0018726711433133>.
- Romero, E. J. & Cruthirds, K. W. (2006). 'The use of humor in the workplace'. *The Academy of Management Perspectives* 20 (2), pp. 58-69.
- Schaufeli, W. B. & Taris, T. W. (2014). 'A critical review of the Job Demands-Resources Model: implications for improving work and health', in Bauer, G.F. & Hämmig, O. (eds.), *Bridging Occupational, Organizational and Public Health*. Springer Netherlands, pp. 43-68.
- Shrout, P. E. & Bolger, N. (2002). 'Mediation in experimental and nonexperimental studies: new procedures and recommendations'. *Psychological Methods* 7 (4), pp. 422-445.
- Tims, M., Bakker, A. B. & Derks, D. (2013). 'The impact of job crafting on job demands, job resources, and well-being'. *Journal of Occupational Health Psychology* 18 (2), 230-240.
- Warr, P., Bindl, U. K., Parker, S. K. & Inceoglu I. (2013) 'Four-quadrant investigation of job-related affects and behaviours'. *European Journal of Work and Organizational Psychology* 23, pp. 342-363.
- Weiss, H. M. & Cropanzano, R. (1996). 'Affective events theory: a theoretical discussion of the structure, causes and consequences of affective experiences at work', in Staw, B.M. & Cummings, L.L. (eds.), *Research in Organizational Behavior: An Annual Series of Analytical Essays and Critical Reviews*. Greenwich, CT: JAI Press, pp. 1-74.
- Wijewardena, N., Samaratunge, R. & Härtel, C. (2019) 'Examining humor events at work', in *Managing with Humor*. Singapore: Springer, pp. 13-33. https://doi.org/10.1007/978-981-13-3636-2_2.
- Wijewardena, N., Samaratunge, R., Härtel, C. & Kirk-Brown, A. (2016). 'Why did the emu cross the road? Exploring employees' perception and expectations of humor in the Australian workplace'. *Australian Journal of Management* 41 (3), pp. 563-584. <https://doi.org/10.1177/0312896215626231>.
- Wijewardena, N., Härtel, C. E. & Samaratunge, R. (2017). 'Using humor and boosting emotions: an affect-based study of managerial humor, employees' emotions and

- psychological capital'. *Human Relations* 70 (11), pp. 1316-1341.
<https://doi.org/10.1177/0018726717691809>.
- Yue, X.D., Hao, X. & Goldman, G., (2008). 'Humor styles, dispositional optimism and mental health: A study among 800 undergraduates in Hong Kong and Mainland China'. Paper presented at the 20th International Humor Conference, Spain: Madrid.
- Zillmann, D. (1983). 'Disparagement humor', in McGhee, P. & Goldstein, J.H. (eds.), *Handbook of Humor Research*. Vol. 1. *Basic Issues*. New York: Springer, pp. 85-107.

