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WORK AND ORGANIZATIONAL PSYCHOLOGY 2020

PSYCHOLÓGIA PRÁCE A ORGANIZÁCIE 2020

ZBORNÍK PRÍSPEVKOV Z 19. MEDZINÁRODNEJ KONFERENCIE

Ivana Piterová,
Denisa Fedáková,
Jozef Výrost (Eds.)

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Introduction

Due to the COVID-19 pandemic the 19th International Conference Work and Organizational Psychology 2020 took place online between 20 and 21 May 2020.

Despite the unprecedented situation, over 35 participants took part in the Conference with 11 online presentations and 19 posters. The online presentations were divided into three sections: Psychology in Organisations; Diagnostics in Work Psychology, and the Social Context of Work.

In this book of conference proceedings, following a now over 20-year tradition, we present 23 selected studies, which have been presented in the form of a lecture or a poster at the conference and later submitted as written papers and peer reviewed. We would like to thank our colleagues from Charles University in Prague, Palacký University in Olomouc, Tomas Bata University in Zlín, Masaryk University in Brno, Constantine the Philosopher University in Nitra, P. J. Šafárik University in Košice and from the Centre of Social and Psychological Sciences in Košice for their valuable help with the organization of the conference and for their cooperation in the review process. We wish that the readers of the proceedings will find interesting information and inspiration for their own work tasks and practice.

This conference, organized by the team of the Centre of Social and Psychological Sciences in Košice, was a special one due to the global pandemic and consequently a time of physical and social distancing. However, it is worth emphasising that the organizers succeeded in keeping the conference continuity, and despite the online distancing the conference climate still enabled valuable and inspiring discussions between participants.

Ivana Piterová, Denisa Fedáková & Jozef Výrost
editors of the conference proceedings

Úvodné slovo

Kvôli celosvetovej pandémii COVID-19 sa 19. ročník medzinárodnej konferencie Psychológia práce a organizácie 2020 konal online, v dňoch 20. – 21. mája 2020.

Navzdory okolnostiam a neobvyklej situácii sa konferencie zúčastnilo viac ako 35 ľudí, s 11-timi online prezentáciami a 19-timi postermi. Online prezentácie boli rozdelené do troch sekcií: 1. Psychológia v prostredí organizácie; 2. Psychologická analýza pracovnej činnosti a psychodiagnostika v psychológii práce; a 3. Práca a jej sociálny kontext, jednotlivec v práci.

V tomto konferenčnom zborníku z konferencie, ktorá má viac ako 20 ročnú tradíciu, prezentujeme 23 príspevkov, ktoré boli na konferencii prezentované formou prednášky alebo posteru a neskôr boli v písomnej podobe zaradené do recenzného procesu. Radi by sme sa poďakovali našim kolegom z Karlovej univerzity v Prahe, Univerzity Palackého v Olomouci, Univerzity Tomáše Bati v Zlíne, Masarykovej univerzity v Brne, Univerzity Konštantína Filozofa v Nitre, Univerzity Pavla Jozefa Šafárika v Košiciach a z Centra spoločenských a psychologických vied SAV v Košiciach, za ich pomoc s organizáciou konferencie a ich spoluprácu na recenznom procese. Želáme čitateľom tohto zborníka, aby našli zaujímavé informácie a inšpiráciu pre ich vlastnú vedeckú prácu, aj odbornú prax.

Tohtoročná konferencia PPaO 2020, organizovaná tímom Centra spoločenských a psychologických vied SAV, bola kvôli globálnej pandémii a z toho vyplývajúcich fyzických odstupov realizovaná v netradičnej online podobe. Napriek tomu, stojí za to zdôrazniť, že organizátori uspeli v udržaní kontinuity konferencie a napriek fyzickej vzdialenosti, online podmienky konferencie umožnili hodnotné a inšpirujúce diskusie medzi jej účastníkmi a účastníčkami.

Ivana Piterová, Denisa Fedáková & Jozef Výrost
editori konferenčného zborníka

CONTENT / OBSAH

Contributions in English / Príspevky v angličtine

Contributions in Slovak / Príspevky v slovenčine

Czech Version of the Implicit Positive and Negative Affect Test: Possibilities for Work and Organizational Research

Česká verze testu pozitivních a negativních implicitních afektů: uplatnění ve výzkumu psychologie práce a organizace

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Abstract

Objectives. *The aim of this study is to provide a Czech version of the Implicit Positive and Negative Affect Test (IPANAT; Quirin et al., 2009) and discuss possibilities for using this measure in research of work and organizational psychology. The rationale of the test is to gain information about participants' emotional states or traits without their awareness. Subjects are asked to rate the extent to which artificial, nonsense words express certain moods.*

Method. *To date, invented artificial words and those from the original IPANAT and different language versions (Qurin et al., 2018; Sulejmanov & Spasovski, 2017) were pretested in a Czech context. Participants evaluated these words with respect to four criteria: pleasantness, familiarity, meaning, and associative value. The results enabled us to choose five artificial words. Data for initial construct validity was obtained from relations with explicit affect in a sample of 202 participants.*

Results. *Concerning the psychometric properties of the IPANAT-CZ, the results have shown acceptable internal consistencies for IPA and INA, and factorial validity was obtained. The correlational analysis regarding associations between IPANAT-CZ and measures of explicit affect, has shown no significant correlations.*

Conclusions. *Preliminary evidence for the psychometric properties of the Czech version of the test are provided.*

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Limitations. *The main limitation is that we have failed to provide evidence for convergent validity of the test.*

Keywords. *implicit affect; Czech version; organizational research*

Abstrakt

Cíle. *Cílem příspěvku je představit českou verzi testu pozitivních a negativních afektů (IPANAT; Quirin et al., 2009) a upozornit na potenciální přínos testu ve výzkumu psychologie práce a organizace. Test přináší informace o neuvědomovaných, implicitních, emočních stavech či rysech. Participanti jsou během testu žádáni, aby zhodnotili, do jaké míry vyjadřují uměle vytvořená slova bez konkrétního významu určité nálady.*

Metoda. *Dosud byla v českém kontextu identifikována nová umělá slova a současně prověřena slova z původního IPANAT a jeho různých jazykových verzí (Qurin et al., 2018; Sulejmanov & Spasovski, 2017). Účastníci předvýzkumu vyhodnotili slova s ohledem na čtyři kritéria: příjemnost, známost, význam a asociativní hodnota. Výsledky předvýzkumu umožnily vybrat pět umělých slov. Data pro první ověření konstruktové validity byla získána na souboru 202 respondentů ve vztahu k explicitním afektům.*

Výsledky. *V případě psychometrických vlastností IPANAT-CZ výsledky vykázaly přijatelnou vnitřní konzistenci pro implicitní pozitivní a implicitní negativní vliv a byla získána podpora pro faktorovou validitu. Korelační analýza týkající se vztahu mezi IPANAT-CZ a měřením explicitního vlivu však nezjistila žádné významné hodnoty.*

Závěry. *Předběžné závěry o psychometrických vlastnostech české verze testu jsou představeny.*

Limity. *Hlavním omezením jsou chybějící důkazy o konvergentní validitě testu.*

Klíčová slova. *implicitní vliv; česká verze; organizační výzkum*

Introduction

Dual process models (Strack & Deutsch, 2004; Kuhl, 2000; Kahneman, 2011) propose a distinction between a reflective and an associative information processing systems. The reflective

system is related with appraisals based on conceptual prepositions and classifications, whereas the associative system operates on automatic appraisals. Following this line of thought, Quirin et al. (2009) propose a conceptualization of implicit affect as automatic activation of cognitive representations of affective experiences. On a broader level, affects can be understood as adaptive responses related with appraisals concerning characteristics of the environment which have evolutionary purposes (Moors, 2013; Montag & Panksepp, 2017). Concerning the differentiation between implicit and explicit affect, one of the main assumptions is that implicit affect is related with the associative system, whereas, on the other hand, explicit measures of affect (e.g. PANAS; Watson et al., 1988) are associated with the reflective system. It should be noted that exchange between the two systems is not excluded (Quirin et al., 2009).

Implicit affect is indirectly measured with the Implicit Positive and Negative Affect Test - IPANAT (Quirin et al., 2009). More precisely, the test uses six artificial words (e.g. SAFME, VIKES), which are given to subjects together with three positive (happy, cheerful, energetic), and three negative (helpless, tense, inhibited) emotion words. Participants are instructed to rate to which extent artificial words from a putative language express certain moods. The instructions of the test are created with the goal to redirect participants' attention of the actual aim of measurement. Although there are different operationalisations of implicit affective processes (Greenwald et al., 2003; Egloff & Schmukle, 2002; Payne et al., 2005), the main advantages of the IPANAT are the higher construct validity (in terms of measuring affect), and the representation of implicit positive affect and implicit negative affect as orthogonal components (Weil et al., 2019).

The psychometric properties of the IPANAT have been evaluated in numerous studies and also different language adaptations have been provided (Quirin et al., 2009; Quirin, Kazén et al., 2009; Quirin et al., 2018; Sulejmanov & Spasovski, 2017; Hernández et al., 2020). Since some of the artificial (nonsense) words may not be neutral and free of meaning in a specific language, the first step is to provide words stimuli that can be used in a specific cultural context. As Quirin et al. (2009) have shown, the IPANAT has three sources of variance, namely state, trait, and error. The error variance reflects subjective associations individuals may have with artificial words. In that sense, we firstly focus on identifying artificial words that can be used to measure implicit affect in Czech population. Afterwards, we will preliminary evaluate the psychometric properties of the proposed Czech version of the IPANAT.

Apart from filling in this gap, the emphasis of this contribution is on providing further avenues for research using the test in work and organizational psychology. In general, we will relate to, but also expand previous accounts of the importance of studying implicit affect in organizational domain (Barsade et al., 2009). Next, based on theoretical background and empirical findings, we will propose specific research questions that could be investigated in future studies. In summary, these include the role of implicit affect in the selection decision process, outcomes from training, job stress, job satisfaction, and organizational climate.

Aims of the present study

The aim of the present study is to provide a Czech version of the Implicit Positive and Negative Affect Test (IPANAT-CZ). Firstly, in the pretest study, our goal is to obtain five artificial (nonsense) words that are neutral, unfamiliar, and free of meaning in a Czech context. Focusing on five words, instead of six, is with the rationale to provide a version of the test more suitable for assessment in workplace setting. Secondly, we will explore the psychometric properties of the IPANAT-CZ. In this study, we will focus on the factor structure of the items, and internal consistency. Also, convergent validity will be investigated by the associations of the implicit positive and negative affect with measures of explicit positive and negative affect. Finally, the wider goal of this investigation is to consider the potential utilization of the test in work and organizational research.

Pretest study – Method

Procedure and participants

The six artificial words from the original IPANAT (Quirin et al., 2009), together with artificial words chosen from the Macedonian (Sulejmanov & Spasovski, 2017), Polish, and Dutch versions of the test (see Quirin et al., 2018), and 3 newly developed words were used. A total of 15 artificial words were given to 14 subjects (psychology master's students at the Palacký University in Olomouc) to evaluate them with respect to 4 criteria: pleasantness, familiarity, meaning, and associative value, which is in line with the procedure proposed by Quirin et al. (2009). The word stimuli were randomly allocated in each booklet given to the participants. For the pleasantness rating, we have employed a Likert-type scale (ranging from 0 = very unpleasant, to 6 = very pleasant). The familiarity and meaning was assessed by asking participants does the

nonsense word was familiar or has meaning to them, and a yes/no answer was provided. Finally, for the associative value, participants were asked to provide a list of words associated with each of the stimuli used within a period of 30 seconds.

Results

Results showed that the artificial words *BASDI, KUMIF, MIPOK, CEBJU,* and *NIMPE* were neutral in regard to the pleasantness criteria. In particular, the mean scores were: BASDI 3.47, KUMIF 2.47, MIPOK 3.60, CEBJU 2.87 and NIMPE 3.67, or in other words, they were close to the mid-point of the used scale. Next, affirmative responses on the familiarity/meaning question were in range of 6.7% to 13.3%, which is similar to the findings by Hernández et al. (2020). Finally, the chosen artificial words were among the ones with the lowest number of associations on the associative value task. More importantly, the associations were neutral and not related among the participants (see Sulejmanov & Spasovski, 2017; Hernández et al., 2020).

Psychometric properties of the IPANAT-CZ - Method

Procedure and participants

The instructions and mood adjectives of the IPANAT (Quirin et al., 2009) were translated from English to Czech by a native speaker of the Czech language and fluent in English. An internet version of the test was created and convenience sampling was utilized to gather the data. Participants were recruited via social networking services and e-mailing list, and were asked to pass on the link with the test (snowball method). The sample consisted of 202 subjects (49 men and 153 women). The age of the participants ranged from 15 to 71 years with a mean age of M = 28.92 years (SD = 10.72).

Measures

The Czech version of the Implicit Positive and Negative Affect Test (IPANAT-CZ) contains 5 artificial words (*BASDI, KUMIF, MIPOK, CEBJU, NIMPE*). Participants are asked to indicate on a four-point answer scale (from 1 = doesn't fit at all, to 4 = fits very well) to what extent does the sound of the artificial word convey each of the following moods: happy, helpless, energetic, tense, cheerful, and inhibited. Positive affect (PA) and negative affect (NA) are computed by

averaging adjective scores derived from positively valenced and negatively valenced adjectives. Quirin et al. (2009) reported that Cronbach's alpha for both IPA and INA were .81.

Explicit affect was measured with the same mood adjectives as the ones included in the IPANAT. This is consistent with the study by Quirin et al. (2018) where explicit affect was measured in this way (in two of the samples), instead of using the original PANAS scale. Participants are asked to indicate the extent to which they felt happy, helpless, energetic, tense, cheerful, and inhibited on a rating scale from 1 (= not at all) to 4 (= completely). By analogy to the IPANAT, EPA and ENA scales are computed by averaging scores for positive adjectives and negative adjectives, respectively. In Quirin et al. (2018), Cronbach's alpha for these measures were not reported.

Results

It should be mentioned that the primary sample contained 205 participants. However, 3 subjects were excluded from data analysis, since they responded confirmatory on a question about the presumed underlying aim of the test. This results are the same with the ones obtained by Quirin et al. (2009).

Descriptive statistics and internal consistency

The descriptive statistics of the measures used are depicted in Table 1.

Table 1. *Descriptive statistics (means, standard deviations, skewness, and kurtosis) and Cronbach's α for the measures.*

	M	SD	SK	K	Cronbach's α
IPA	2.36	0.38	-0.54	0.76	.76
INA	2.14	0.38	-0.05	0.23	.68
EPA	2.51	0.69	-0.08	-0.47	.83
ENA	1.97	0.67	0.67	-.01	.62

Note. N = 202; IPA = implicit positive affect; INA = implicit negative affect; EPA = explicit positive affect; ENA = explicit negative affect.

Table 1 shows that the measures were normally distributed, as indicated by the skewness and kurtosis. Participants reported higher mean levels for IPA, than INA, which is consistent with previous studies (Hernández et al., 2020; Quirin et al., 2009; Quirin et al., 2018). Furthermore, the mean IPA scores were 2.34 (*SD* = 0.41) for men and 2.37 (*SD* = 0.37) for women. The mean INA scores were 2.09 (*SD* =0.45) for men and 2.16 (*SD* = 0.36) for women. In line with previous findings (Quirin et al., 2009), gender differences were not significant for IPA, $t(200) = -0.57$, $p > .05$, nor for INA, $t(200) = -1.17$, $p > .05$. Cronbach's alpha for IPA, and ENA, were satisfactory, whether for INA, and ENA, were somewhat lower.

Factorial validity

A principal component analysis with a varimax rotation was performed for the adjective scores of the IPANAT-CZ. The KMO value was .62, and Bartlett's test showed statistical significance, $\chi^2(15) = 290.60$, $p < .01$. Parallel analysis, based on Patil et al. (2017) engine, has shown that two components should be retained. Varimax-rotated factor loadings are shown in Table 2.

Table 2. *Varimax-rotated factor loadings of the adjective scores for the IPANAT-CZ.*

Mood adjective score	Factor 1: Implicit PA	Factor 2: Implicit NA
Cheerful (*veselý*)	**.89**	.03
Happy (*šťastný*)	**.87**	-.01
Energetic (*energický*)	**.71**	-.09
Helpless (*bezmocný*)	-.06	**.80**
Tense (*nervózní*)	.06	**.76**
Inhibited (*utlumený*)	-.08	**.77**

Note. $N = 202$; PA = positive affect; NA = negative affect.

The two factor solution explained 64.76% of the total variance. All positive adjective scores loaded on the first component (explained variance 34.25%), and all negative adjectives scores loaded on the second component (explained variance 30.51%). In line with previous studies (Quirin et al., 2009; Sulejmanov & Spasovski, 2017), all the primary loadings were high, and all cross-loadings were lower than .10. Moreover, there was not a significant correlation between IPA and INA, r = -.06, p > .05, indicating that the two components are orthogonal.

Correlational analysis

Next, we have calculated intercorrelations between implicit affect and explicit affect scales. The results are given in Table 3.

Table 3. *Pearson correlations between implicit affect and explicit affect.*

	Implicit PA	Implicit NA
Explicit PA	.09^{NS}	.10^{NS}
Explicit NA	.05^{NS}	.13^{NS}

Note. N = 202; PA = positive affect; NA = negative affect. NS = not significant

Contrary to the majority of previous findings (Quirin et al., 2018), our results did not confirm the expected relation between implicit affect and explicit affect. The relation between EPA and ENA was significant, r = -.61, p < .01.

Discussion

The aim of the current study was to provide a Czech version of the IPANAT. Furthermore, our goal was creation and initial validation of a shorter version of the test, which will be more suitable for use in workplace setting. We will first discuss the adaptation of the test and the findings regarding the psychometric properties of the IPANAT-CZ. Afterwards, we will focus on specific questions that could be investigated in future studies relating to work and organizational psychology.

The pretest analysis showed that the artificial words *BASDI, KUMIF, MIPOK, CEBJU,* and *NIMPE* were neutral and meaningless in a Czech context. The subjective associations with the words were not related among the participants, and did not have a clear positive or negative connotation. For example, in the Spanish adaptation (Hernández et al., 2020) the word *TUNBA* frequently elicited in the participants the association with the Spanish word for grave (*tumba*), and consequently was discarded as a stimulus that can be used in the test. This relates to the measurement error variance. As Quirin et al. (2009) suggest, some of the chosen words may still elicit subjective associations in some individuals. However, decrease of error variance is achieved by aggregating the responses for each emotional word across artificial words. Furthermore, the authors propose that subjective associations can as well contribute to true score, since "affective states (or traits) do influence the likelihood with which the associates retrieved from memory are positive or negative" (Clark & Waddell, 1983, as cited in Quirin et al., 2009, p. 503).

Regarding the procedure proposed by Quirin et al. (2009) for obtaining the artificial words, although it has been used in many subsequent studies, we propose that in can be further improved. A one possible avenue is to give the preliminary artificial words to a larger sample, and assess them on a semantic differential scale (Osgood et al., 1957). This will allow to choose words with the most neutral connotative meaning. Additionally, there can be control for the bouba/kiki effect (Ramachandran & Hubbard, 2001) when selecting the artificial word stimuli. It has been shown that there is non-arbitrary mapping between speech sounds and visual shape of objects. In that sense, it can be assumed that some artificial words with "sharp" speech sounds can evoke associations of such objects, as well. Consequently, this could be related with assessment of artificial words as tense, or increase of measurement error.

Concerning the psychometric properties of the IPANAT-CZ, the results have shown that the internal consistencies were satisfactory, although the Cronbach alpha for the INA was somewhat lower. However, the results are comparable with previous findings (Quirin et al., 2018). The factor structure was clear, and the components of IPA and INA were orthogonal, which is in line with previous investigations (Quirin et al., 2009; Sulejmanov & Spasovski, 2017). However, it should be mentioned that in some studies (e.g. Hernández et al., 2020) using a confirmatory factor analysis (CFA), the two dimensions were non-orthogonal.

The results from the correlational analysis of implicit and explicit affect, have failed to provide evidence for convergent validity. Previous studies (Quirin et al., 2018) have shown that IPA is positively associated with EPA, and not in a relation with ENA, whereas INA positively correlates with ENA, and is unrelated to EPA. This kind of results were obtained in most of the samples used, and primarily were using the original PANAS. One explanation for our results is that we have employed the same adjectives for the assessment of explicit affect, and there was a low internal consistency of the ENA scale. We should mention that the correlation between INA and ENA, just failed to be significant, $r = .13$, $p = .06$. Furthermore, our study was internet-based, and there is a possibility of careless responding (Ward & Pond, 2013). Definitely, we advise future studies to employ the original PANAS scale, and not exclusively rely on web-based samples.

In conclusion, our investigation has shown that the IPANAT-CZ has acceptable internal consistency, and a clear factor structure. In that sense, we have provided preliminary evidence for the psychometric properties of the Czech version of the test. However, further studies are needed that will provide evidence for test-retest reliabilities, and construct validity. In addition, future examinations should as well employ CFA, and also use a representative sample of employees. These steps are needed before the test can be used in a workplace setting.

Next, we propose five specific areas (selection decision process, outcomes from training, job stress, job satisfaction, and organizational climate) from work and organizational psychology that should benefit from investigating the role of implicit affect.

Firstly, when using the IPANAT in the workplace setting, it is advisable that the instructions should be altered to include a "cover story" applicable in the work context. For example, it may be written that the goal of the research is related to choosing a brand name. In that way, subjects should focus on the characteristics of the artificial words, or the intention to redirect their attention form the actual aim of measurement is still achieved. However, the instructions should not include naming a specific product, since this will lead to eliciting associations that participants might have with that product.

Researchers focusing on the impact of emotions on the employee selection process have provided large conclusions about the effects of candidates' emotions on their performance during different types of selection techniques (Buckley et al., 2017; Hausknecht et al., 2004; McCarthy & Goffin, 2004). Other studies have discussed the impact of emotions on selection process in a

broader framework of emotional intelligence (e.g. Fox & Spector, 2000; Kluemper et al., 2015), defined as the ability to recognize, evaluate and express emotions, understand and regulate them in oneself and as well in others (Mayer & Salovey, 1997). However, the above studies have paid attention especially to ability, trait affect, or explicit emotional states. Moreover, there have been just a few studies focusing on the role of emotions in decision making by HR specialists, although their emotions influence, besides interviews, results of other selection techniques as well (Buckley et al., 2017). For example, Fox and Spector (2000), who conducted one of the sporadic studies, found in their research that the affective reaction of the interviewer mediates the relation between emotional intelligence of candidate and interview outcomes. Therefore, it seems that the effects of affects of both, candidate and HR specialist, on interview outcomes and decision making in other selection techniques, should be investigated further.

In the field of employee training, personality traits as well as characteristics related to emotions were identified as significant predictors of motivation to learn (Christiansen & Tett, 2013). Among affects, attention was paid particularly to anxiety. Anxiety is a negative predictor of motivation to learn as well as self-efficacy after training (Collquitt et al., 2000). However, Darban and Polites (2016) included emotions to a broader model of training, explaining the dynamics of training in IT and found that the role of anxiety in motivation to learn can be dependent on other individual differences and situational factors. From that perspective, we suggest investigating the role of the emotions in motivation to learn, and their impact on training outcomes. Because previous studies were aimed at stable predictors largely (Christiansen & Tett, 2013), we propose, in accordance with Newton (2013), focusing on effects of emotions, and not just to the explicit ones, but especially to those which are outside of participants´ immediate attention.

Previous studies have shown that implicit affect is related with cardiovascular activity (CV), which if prolonged is related with progress and development of CV diseases (Weil et al., 2019). In that sense, understanding the relation between stressors in organizations, implicit affect, and strains form it, is an important question for further research. Consistent with Kahn and Byosiere (1992) framework for the study of stress in organizations, implicit trait affect might moderate the relation between stressors and the appraisal process, or the relation between the appraisal process and strains. This is in line with the conclusion that the IPANAT is related with CV activity during

and after a stressor (Weil et al., 2019). Further studies are needed that will investigate this relation in workplace context, but also could consider the role of implicit affect on other consequences of job stress, namely psychological, and behavioral. Definitely, the main goal should be offering prevention strategies before the consequences are developed. For example, cognitive restructuring, or focusing on changing perceptions and thought processes that are connected with stress (Landy & Conte, 2013) is one alternative. It should be noted that Quirin et al. (2009) explicitly state that implicit affect should not be equated with the term unconscious, or these representations may be translated into conceptual propositions which are processed through reflective consciousness. Consequently, the goal of cognitive restructuring in this case would be firstly becoming aware of these representations, and afterwards changing negative thoughts into positive ones (Quick et al., 1997).

Concerning job satisfaction, it is recognized that a distinction between affect states and attitudes should be made (Weiss, 2002). However, self-report measures of affect are biased by numerous factors (see Weil et. al, 2019). The inclusion of implicit affect in job satisfaction research would firstly contribute for more objective measurement of the construct, which is related with general efforts for better operationalization of psychological phenomena (Kahneman, 1999). Furthermore, Bowling et al. (2008) in a meta-analysis have shown that explicit PA and NA are related with facets of satisfaction, namely satisfaction with work itself, supervision, co-workers, pay, and promotion. In line with these findings, future examinations could investigate the incremental validity of IPA, and INA in predicting specific facets of satisfaction. Another option is to use event sampling techniques (Tschan et al., 2005) which enable assessment of implicit affect across time periods. Such studies will provide deeper understanding of environmental influences on implicit affect, and its relation with job satisfaction. In relation with the notion of Landy and Conte (2013), that it is important to explore the contributions of disposition and environment on emotional experience, the emerging question is which specific work events, and in whom, are related with changes in implicit affect, and how this relates with job satisfaction, or other work behaviors?

Finally, implicit affect can be investigated in relation to the construct of organizational climate, in which emotions are deeply rooted. As a type of organizational climate (multi climate construct, see Landy & Conte, 2013), the emotional or affective climate has a connection to loyalty

and productivity, and attracted the attention of research and practice for its potentially positive as well as negative organizational outcomes (Schneider & Barbera, 2014). Emotional climate (Berman Brown & Brooks, 2002), is described as unique sets of emotions, which are shared by a group of individuals who are involved in organizational structures and processes. Although the main characteristic of the emotional climate is sharing patterns of emotions, it does not mean an equality of emotional experiencing in team members. Individual patterns of rapidly changing emotional experiences and expressions lead to different contributions to the whole climate, and to different individuals' agreement with the climate, which mirrors the following level of job satisfaction and motivation (Berman Brown & Brooks, 2002). Differences in contribution to emotional climate also stream from team roles and authority. This opens the opportunity to apply the above-mentioned event sampling techniques (Tschan et al., 2005) to assess day-to-day impacts of implicit affects of team members on their individual agreement with the climate, and on the emotional climate itself, with acknowledgment of team members´ asymmetries in authority. That direction seems to be quite new and offering a deeper understanding of climate dynamics and its outcomes.

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