


Experiences in Work Relationships: A Measure of Attachment Strategies at Work

Psychological Reports
2022, Vol. 0(0) 1–28
© The Author(s) 2022
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/00332941221075249
journals.sagepub.com/home/prx


Seitl Martin, Miroslav Charvát, Jan Střelec, and Klára Seitlová

Department of Psychology, Palacký University Olomouc, Olomouc, Czech Republic

Konstantinos Kafetsios 

Department of Psychology, Palacký University in Olomouc, Czech Republic

Abstract

Much of the burgeoning research on adult attachment in organizational settings has utilized assessment methods developed for personal or social relationships contexts. Here, we propose and test a novel framework for assessing attachment orientations in the workplace, the Experiences in Work Relationships—Individual (EWR-I), based on a conceptualization of the regulatory functions of attachment dynamics. Using data from two samples comprising early career starters and employees in the Czech Republic ($N = 588$ and $N = 633$) analyses confirmed the bifactorial structure of the new scale corresponding to “interpersonal hyperactivation” (involving emotional instability, negative emotionality, and lack of appreciation in work relationships) and a second factor termed “interpersonal deactivation” (involving distancing from others and relationships at work, mistrust and inhibition of positive emotionality). Evidence of convergent and discriminant validity against general relational assessments of adult attachment, and predictive and construct validity against measures of workplace personality, organizational citizenship behavior and counterproductive work behavior further documented the nature and utility of the new scale. We argue that interpersonal hyperactivation and deactivation represent two distinct and measurable key components of attachment behavior dynamics at work.

Corresponding Author:

Konstantinos Kafetsios, Psychology Department, Palacký University in Olomouc, Czechia

Email: kafetsios@gmail.com

Keywords

secondary attachment strategies, attachment at work, emotion regulation, personality assessment

Attachment theory is among the most influential theories in psychology, with significant contributions to various fields such as developmental, cognitive, social, counseling, and clinical psychology (Mikulincer & Shaver, 2016). In recent years, there has been a strong interest in applying attachment theory in work and organizational settings (Harms, 2011; Yip et al., 2018) to understand, among other things, counterproductive work behavior (e.g., Hazan & Shaver, 1990), contextual job performance (e.g., Geller & Bamberger, 2009; Richards & Schat, 2011), stress management (Hawkings et al., 2007; Johnstone & Feeney, 2015; Lopez & Ramos, 2015), or leader-follower interaction (e.g., Kafetsios et al., 2014). Despite the growing interest, the vast majority of research on attachment in organizations has used general, standardized self-report assessments of adult attachment, scales that typically revolve around romantic, social or family relationships. Based on a conceptualization of secondary attachment strategies and related emotion regulatory dynamics (Diamond & Aspinwall, 2003; Mikulincer et al., 2003), this paper presents the results of a novel framework for assessing attachment in the workplace that focuses on attachment-related emotion and behavior at work.

Arguably, existing assessment frameworks of attachment orientations at work involve several limitations, conceptual as well as operational. Conceptually, attachment at work constitutes a distinct part of the broader attachment system (Hazan & Shaver, 1990). For instance, people experience differently and act in different ways at work and in romantic relationships (Leiter et al., 2015), which is reflected in the different ways organizational contexts affect experiencing and expressing attachment relationships at work (Richards & Schat, 2011). Hence, a domain-specific assessment method is needed. Operationally, using standard assessments of general individual differences in attachment orientations for testing work processes and outcomes, involves several limitations. Adult attachment scales were initially created in order to tap generic experiences in personal or romantic relationships, and this creates discrepancies between the work and the out-of-work contexts. Individual items of the existing scales relate, for the most part, to private experiences and reporting on those in the context of studies that target behavior at work or organizational factors is hardly justifiable (Seitl & Charvát, 2018).

The aim of the present study was, therefore, to construct a new scale that can provide a valid dimensional assessment of workplace attachment behavior and to test its basic psychometric properties, factorial structure, and validity. The scale was designed to depict the two basic facets of adult attachment organization—hyperactivation and deactivation—at the individual level and thus can also be used in research to capture organizational phenomena at higher levels (e.g., dyadic, group).

The Attachment Theory Framework

Attachment is an innate bonding behavioral system that is activated in situations where there is an increased need for closeness due to a potential threat (Bowlby, 1969). It motivates an individual to seek support from significant others (attachment figures) while other processes such as cognition and appraisal are overshadowed or completely inhibited during its activation. Inherent deactivation of the system occurs after the person has received the support they needed and has gained a sense of security.

If the necessary support is lacking or is not consistently provided over the long term during early development, the attachment system may gradually become hyperactivated or permanently deactivated; hyperactivation and deactivation are two important secondary attachment strategies (Mikulincer & Shaver, 2016). Therefore, relational experiences with significant others throughout life form the basis for mental models of self and others termed internal working models (IWMs). IWMs reflect experiences with the availability of others and with one's own success in seeking closeness to and attention from others (Bartholomew & Horowitz, 1991). IWMs then become part of implicit relational procedural knowledge. When activated, they tend to automatically and unconsciously influence one's experiences and behavior.

Individuals with predominantly successful experiences in achieving closeness with others tend to have a secure attachment orientation and a correspondingly positive working model of self and others, as well as more functional emotion regulation. Individuals with unsuccessful experiences in resolving attachment security tend to develop secondary attachment strategies/orientations of two types: avoidance and anxiety. An insecure-avoidant orientation is associated with chronic persistent deactivation of the attachment system and a generalized working model in which the self is more autonomous and independent of others. An insecure-anxious attachment orientation typically involves hyperactivating strategies to regulate anticipated or perceived stress. Consequently, anxious individuals are consciously hypervigilant of attachment-related stimuli (Mikulincer & Shaver, 2016), which carries over to relationships in general, including work relationships (Hazan & Shaver, 1990).

The goal of these secondary strategies is to meet the relational needs of people with an insecure attachment orientation. While the goal of the anxious orientation and corresponding hyperactivating strategies is to achieve the constant and close presence of others when needed, people with an avoidant orientation and deactivating strategies aim to avoid situations in which they would re-experience feelings of loneliness, abandonment and loss (Mikulincer & Shaver, 2016). Individual differences in attachment organization can therefore be understood as cognitive-affective structures that give rise to certain specific experiences and behaviors depending on the respective relationship context (Bowlby, 1969).

Attachment Theory at Work

Probably the most well-established application of attachment theory in work and organizational psychology is the identification of factors that can influence the value of organizational outcomes while supporting the achievement of relational goals associated with individual attachment orientations (Yip et al., 2018). Individuals with different attachment orientations tend to consistently exhibit different behavioral manifestations at work, for example, in terms of turnover intentions (Richards & Schat, 2011), organizational loyalty (Scrima et al., 2014), response to feedback (Wu et al., 2014), providing and seeking support (Geller & Bamberger, 2009), organizational supportive behaviors (Little et al., 2011), team orientation (Seitl & Charvát, 2018) and of course in relation to different emotional regulation strategies at work (Richards & Hackett, 2012). Attachment orientations are also considered mediators or moderators of situational and individual dynamics to important organizational outcomes such as job satisfaction (Dahling & Librizzi, 2015; Hardy & Barkham, 1994; Towler & Stuhlmacher, 2013), leader-follower interaction (e.g., Gruda & Kafetsios, 2020; Wu & Parker, 2017) or team effectiveness (Lavy et al., 2015).

The emotion regulation strategies associated with each of the two insecure attachment orientations form a separate part of the insecure attachment organization (Diamond & Aspinwall, 2003). Secure individuals are better able to regulate positive and negative emotions than individuals with an anxious or avoidant attachment orientation (Cooper et al., 1998). This suggests that individuals with insecure attachment orientations experience more negative and less positive affect (Wei et al., 2005), which is partly a consequence of less effective strategies for regulating negative emotions (Cooper et al., 1998).

Recent research has extended these observations to the organizational context. Employees with secure attachment exhibited more vigor at work and had more functional use of physical, emotional, and cognitive resources, as well as greater social engagement (Little et al., 2011). Conversely, the deactivating and hyperactivating emotion regulation strategies employed by avoidant and anxious attachment orientations, respectively, resulted in lower use of emotional and cognitive resources at work and, consequently, lower OCB (Simmons et al., 2009). Employees with anxious or avoidant attachment orientations reported higher negative affect and lower positive affect and used less effective emotion regulation strategies (emotion suppression or superficial acting; Richards & Schat, 2011). To our knowledge, however, these important observations about individual differences in emotional and behavioral attachment dynamics in the workplace have not been translated to methods for assessing attachment in organizational contexts.

Assessment of Personality-Based Attachment Dimensions at Work

Typically, attachment orientations in the workplace have been measured using one of the following three approaches. The first approach applies instruments developed for

assessing adult attachment in romantic and close relationships to the work and organizational context. These commonly used methods, including the Relationship Questionnaire (Bartholomew & Horowitz, 1991) and especially the Experiences in Close Relationships (ECR) scale (Brennan et al., 1998) and its variants (i.e., the ECR-R, Fraley et al., 2000 or the ECR-RS, Fraley et al., 2011), focus on measuring specific attachment relationships in the workplace (e.g., Gruda & Kafetsios, 2020). Compared to previously developed dimensional scales (e.g., Adult Attachment Scale, Collins & Read, 1990; Attachment Style Questionnaire, Feeney et al., 1994; or Adult Attachment Questionnaire, Simpson, 1990), the ECR has become one of the most widely used instruments for assessing individual differences in attachment organization among adults, in part due to its simple dimensional structure and connection to an extensive body of theory and research (Gillath et al., 2016). However, issues of reliability and validity should be considered in the context of using the test in different populations and subgroups (Graham & Unterschute, 2015).

Although the solutions described above for assessing attachment theory in the workplace are probably among the most commonly used, their application in work and organizational contexts has methodological and possibly other limitations. First, eliciting responses on more personal information about personal or romantic relationships may interfere with other parts of the questionnaire related to more formal organizational outcomes or reported behaviors (Richards & Schat, 2011; Yip et al., 2018), sometimes resulting in negative feedback from respondents (Seitl & Charvát, 2018). Second, the construct itself has a degree of variability in the experiences and behaviors associated with attachment in the workplace, depending on the context (Little et al., 2011). For example, in one study (Geller & Bamberger, 2009), anxious and avoidant attachment orientations showed different tendencies to instrumental help than would be expected based on the literature on romantic attachment relationships (Feeney & Collins, 2001).

A second approach to assessing attachment in the workplace is to adapt instruments originally developed for romantic and close relationships in general to the work environment. This involves reformulating the items by replacing the key word “partner” with “other” or by specifying the work context (by adding the phrase “at work”). In several studies, the ECR has been adapted in this way to explore phenomena of leadership or emotion regulation in the workplace (Game, 2008; Richards & Hackett, 2012); also the AAS (Collins & Read, 1990) has been adapted for a study on feedback seeking (Wu et al., 2014) or, under the acronym AAW, for research on personality-related differences in the workplace (Neustadt et al., 2011) and on organizational loyalty (Scrima et al., 2014). Last but not least, in this second approach the Social Group Attachment Scale (Smith et al., 1999) was used to explore group phenomena, as well as organizational group behavior with the use of adapted items (Yip et al., 2018).

As a result, less attention has been paid to the development of tools for direct assessment of workplace attachment, which represents the third approach. Among the first efforts in this direction was the development of the Self-Reliance Inventory (SRI, Joplin et al., 1999), which focuses on attachment in working adults. The SRI contains

16 items corresponding to three subscales: interdependent, counterdependent, and overdependent attachment orientations. The scale has been used in research on the work environment and has shown good psychometric properties (Simmons et al., 2009). More recently, Leiter et al. (2015) developed the Brief Attachment Questionnaire (BAQ), which includes 10 items and two subscales that ask about participants' perceptions and attitudes towards themselves and others, thus mapping facets of anxious and avoidant IWMs in the workplace. Finally, Shorey and Chaffin (2018) developed and tested a short bonding scale, the Leaders' Experiences in Relationships Scale (LEARS), which focuses specifically on the quality of leader-follower interaction. In summary, much of the workplace-specific attachment scales focused on general attitudes and perceptions of relationships and paid lip service to behavioral and emotional aspects of attachment orientations at work.

Development of the Experiences in Work Relationships—Individual Scale

Overall, measuring individual differences in attachment orientations at work does not usually address attachment dynamics or their impact on emotion regulation in the work context. We propose and test a self-report scale of attachment at work, the Experiences in Work Relationships—Individual (EWR-I), which targets such behavioral and emotional facets of the attachment system in the work context in order to capture characteristic aspects of the attachment system within the work environment.

In compiling the new instrument, we established the following criteria: (a) the items had to be formulated in relation to attachment relationships in the workplace, (b) the focus should be primarily on behavioral manifestations of hyperactivating and deactivating strategies associated with attachment orientations as manifested in the workplace, (c) the items should focus on personal experiences rather than on general attitudes or beliefs, and (d) a dimensional approach to measuring attachment orientations in the workplace (Fraley et al., 2015) should be adopted.

The initial item pool was gathered from three sources. First, one third were original items formulated by the present study authors in line with theoretical descriptions of the dynamics of secondary attachment strategies in the workplace, for example, the item "When I have an argument with my partner at home, I think about it at work too" is based on the description of work-life imbalance and difficulties at work associated with attachment hyperactivating strategies (Mikulincer & Shaver, 2016). Another third of the items were adapted from existing assessment methods. Particular attention was paid to two-dimensional attachment scales that follow the above mentioned criteria. Namely, appropriate items from the ECR (Brennan et al., 1998) and the AAW (Neustadt et al., 2011) were adapted for work-related relationship behavior. For example, the ECR avoidance item "As soon as my partner starts getting close to me, I pull away" was rephrased to "As soon as someone starts getting close to me at work, I notice that I pull away from them." The final third of items was based on related research on preferred work environment (Seitlová et al., 2015), job mobility (Seitl & Štřelec, 2017) and

personality at work (Seitl & Charvát, 2018). We identified items and subscales that had the highest predictive value for attachment insecurity and incorporated the corresponding items from these subscales into the original pool of EWR-I items. For example, self-confidence was found to correlate with insecure attachment orientations in previous research. Therefore, the self-confidence scale item “I stay calm when others talk about me behind my back” was selected for inclusion in the EWR-I.

In this way, an initial pool of 118 items was formulated, of which 63 items corresponded to hyperactivating and 55 items to deactivating strategies at work. The items covered a wide range of subtypes of hyperactivating or deactivating secondary strategies at work, with some of the items corresponding to both subgroups when formulated in reverse. Based on preliminary analyses of those 118 items in the first phase of the study, the scale was reduced to 19 items, those that best described the two underlying attachment dimensions and the respective regulatory strategies (hyperactivation—deactivation at work). In the final phase of this research program, we used an independent large sample of workers to test the factorial structure of the 19-item EWR-I. This resulted in the final version of the scale with 15 items. The aim of this reduction was to create a scale that was short and at the same time able to measure characteristic behaviors and experiencing of two largely uncorrelated attachment orientations: hyperactivating and deactivating attachment strategies at work. The two scale dimensions were tested in terms of convergent, discriminant and construct validity.

As described in the introduction, a primary goal was to demonstrate the convergence of the new scale with existing attachment dimensional scales that, on the one hand, map generic individual differences in attachment organization, such as the ECR, and, on the other hand, discriminate these generic self-report scales in predicting work variables. Therefore, we expected that

Hypothesis 1: a/b: Attachment hyperactivating (deactivating) strategies at work as measured by the EWR-I will be related to attachment anxiety (avoidance), but not to attachment avoidance (anxiety) as measured by a generic self-report attachment scale such as the ECR.

The predictive and construct validity of the *EWR-I* was tested against organizational citizenship behavior (OCB), counterproductive work behavior (CWB), self-regulation, ability to build and maintain relationships at work, and conscientiousness. We chose to test OCB based on research that links secure attachment to organizational citizenship behaviors (Hazan & Shaver, 1990) and, in particular, established inverse relationships between OCB and attachment anxiety (Little et al., 2011; Richards & Schat, 2011) and avoidance (Geller & Bamberger, 2009; Rom & Mikulincer, 2003). Insecure individuals often fail to support others, to cooperate, to create a positive climate and to effectively promote organizational outcomes (Geller & Bamberger, 2009; Hazan & Shaver, 1990; Richards & Schat, 2011).

Hypothesis 2: Attachment hyperactivating and deactivating strategies at work as measured by the EWR-I will be uniquely and negatively related to OCB.

We also tested the relationships between secondary attachment strategies as measured by the EWR-I and counterproductive work behavior (CWB). CWB is characterized by a level of unfairness and willfulness that can harm the organization and/or its members (Camara & Schneider, 1994), including the circle of customers, suppliers and others associated with the organization. Pioneering work linking CWB and secondary attachment strategies identified as significant namely attachment avoidance (Richards & Schat, cited in Harms, 2011). Following research (Leiter et al., 2015; Little et al., 2011; Richards & Schat 2011) brought the conclusions about positive relation of both attachment avoidance and attachment anxiety to self-reported CWB. While attachment anxiety can lead to CWB through ineffective emotion regulation contributing to incivility, negative and hostile emotions, or through the overemphasis of one's own emotions and relational needs over the interests of others, attachment avoidance is highly associated with distrust of others and the general expectation of unfairness (Leiter et al., 2015; Richards & Schat, 2011). Therefore, we expected that

Hypothesis 3: Hyperactivating and deactivating strategies at work as measured by the EWR-I will be uniquely and positively related to CWB.

Attachment orientations, particularly anxious attachment, are also related to self-regulation at work (Mikulincer & Shaver, 2016). Decreased self-regulation is one of the core aspects of attachment anxiety (Hazan & Shaver, 1990). This is due to the exaggeration of emotions and ineffective emotion regulation associated with attracting others and maintaining closeness. Therefore, self-regulation was assessed to test the construct validity of the scale. It was expected that

Hypothesis 4: Attachment hyperactivating strategies at work as measured by the EWR-I will be negatively related to self-regulation at work. With regards to attachment avoidance and deactivating strategies, evidence on relationships with self-regulation is mixed (e.g., Gillath et al., 2010; Mikulincer & Shaver, 2016) hence we did not arrive in specific relevant hypothesis.

The penultimate comparative variable at issue was the ability to build and maintain relationships in the workplace, as shown in related work (Hardy & Barkham, 1994; Seitel & Charvát, 2018). Although the quality of interpersonal relationships may also be impaired in attachment anxiety, it is attachment avoidance that is highly atypical of closeness to others and the development of personal bonds (Mikulincer & Shaver, 2016). The motivation to avoid interpersonal closeness and relationships is one of the most characteristic signs of attachment avoidance.

Hypothesis 5: Attachment deactivating strategies at work as measured with the EWR-I will be negatively related to the ability to build and maintain workplace relationships.

Table 1. Summary of study characteristics.

Study	Sub-samples	Measures	N	Age	SD	Males %
1	Sample n_1	EWR-I 118	165	39.3	12.9	58.8
	Sample n_2	EWR-I 118, ECR-CZ	167	37.6	13.5	19.2
	Sample n_3	EWR-I 118, ECR-CZ, BIP	93	24.7	5.6	19.4
	Sample n_4	EWR-I 118, OCB, CWB	163	40.9	10.7	67.5
	Total N_{1-4}		588	36.9	12.8	43.5
2	Sample N_5	EWR-I 19	633	39.7	9.9	26.2
	Total N_{1-5}		1221	38.3	11.5	34.6

Note. EWR-I 118 = Experiences in Work Relationships with the original set of 118 items, ECR-CZ = Experiences in Close Relationships—Czech, BIP = Business-Focused Inventory of Personality, EWR-I 19 = Experiences in Work Relationships with 19 items. OCB = The scale of interpersonal facilitation used as a measure of organizational citizenship behavior, CWB = CWB evaluation used as a measure of counter-productive work behavior.

Finally, the discriminant validity of the developed scale was tested against personality constructs such as conscientiousness, which is not usually connected to any attachment insecure dimension (Harms, 2011; Nofle & Shaver, 2006).

Method

Participants, Procedure and Materials

Data were collected in two main phases from participants who completed the original 118-item version of the EWR-I in Phase 1 and from participants who completed the reduced 19-item version of the scale in Phase 2 (see Table 1). In all studies, we included employees of public and private organizations in the Czech Republic through non-random, intentional selection by the collaborating institutions, on the condition that participants were at least 18 years old, worked in the premises and were able to interact with colleagues. All participants confirmed their informed consent to the terms of the study.

In phase 1, a first (n_1) subsample comprised 165 employees from firefighting departments who completed the 118 items version of EWR-I. Scale instructions read “The scale contains statements that focus on people’s experience of cooperation and relationships at work. Read each statement carefully and assess the extent to which it describes you. Mark your answer with a cross on the attached range of numbers. The statements cannot be considered either correct or incorrect, so it is not possible to achieve good or bad results.” Alphas for expected subscales interpersonal hyperactivation and interpersonal deactivation were .81 and .86, respectively. The second dataset (n_2) comprised $N = 167$ early career university graduates and university staff who, in addition to the EWR-I ($\alpha_{\text{hyperactivation}} = .84$ and $\alpha_{\text{deactivation}} = .86$), completed the ECR-CZ (Seitl, et al., 2016). This is an adapted and adjusted version of the widely used ECR scale (Brennan et al., 1998), which contains 31 items divided into the subscales

Relationship Anxiety and Relationship Avoidance. The psychometric properties of the ECR-CZ were previously tested on a large sample in the Czech republic (Seitl et al., 2016). ECR-CZ alphas in the n_2 sample were .88 for anxiety and .87 for avoidance. The third subsample (n_3) included 93 university graduates and staff (18 men and 75 women with a mean age of $M_{age} = 24.7$, $SD = 5.6$) who, in addition to the EWR-I ($\alpha_{hyperactivation} = .88$ and $\alpha_{deactivation} = .88$), they completed the ECR-CZ ($\alpha = .89$ for anxiety and $\alpha = .88$ for avoidance) and the Business-Focused Inventory of Personality (BIP, Hossiep et al., 2003). The BIP comprises 210 items assessing 14 personality traits in relation to their success rate in different areas of work, including conscientiousness, emotional stability, team orientation, and leadership qualities. The reliability of the individual scales ranged from $\alpha = .75$ to $\alpha = .92$. The fourth subsample (n_4) included $N = 163$ engineering firm employees (110 men and 53 women with a mean age of $M_{age} = 40.9$ [$SD = 10.7$, $min = 20$, $max = 66$]). In addition to completing the EWR-I ($\alpha_{hyperactivation} = .82$ and $\alpha_{deactivation} = .81$), participants were also assessed on the organizational citizenship (OCB) and counterproductive work behavior (CWB) scales.

OCB was prospectively assessed by participants' direct supervisors using the Interpersonal Facilitation Scale (Van Scotter, 1994). This scale captures the extent to which participants help others at work, contribute to their performance, and help maintain the social and psychological climate, all of which contribute to the success of the organization. The internal consistency of the scale reached a level of $\alpha = .93$ in the n_4 sample. Direct supervisors also rated participants' CWB using Gruys' (1999) 13-item scale (on a scale of 0–4, never, rarely, sometimes, often, very often), which includes the following categories: Misuse of Information, Misuse of Resources, Dangerous Behavior, Low Quality of Work and Inappropriate Verbalization. Cronbach alpha was $\alpha = .96$ in the n_4 sample. These two scales were completed by supervisors 6 months after the end of the study. In total, phase 1 included 588 employed respondents aged 18–70 years ($M_{age} = 36.0$, $SD = 12.8$, 43.5% men).

In the second phase of the research program, we collected data from $n_5 = 633$ employees working in private companies, security services, and nursing staff who completed the 19 item version of the EWR-I (166 were men and 452 were women, 15 participants did not state their gender). Their average age was $M = 39.7$ ($SD_{age} = 9.9$, 19–84). Alphas for the two EWR-I dimensions were $\alpha_{hyperactivation} = .80$ and $\alpha_{deactivation} = .74$.

Results

Phase 1

Scale development. To determine the EWR-I factorial structure, an initial pool of 118 scale items were submitted to a principal axis factoring (Varimax normalized) on a total sample of 588 phase 1 respondents. Based on recommendations for the stability of factor components as a function of sample size and component saturation (Guadagnoli & Velicer, 1988) and expecting from previous work on generic adult attachment higher

Table 2. Factor Intercorrelations.

Subscale	1	2	3
1. EWR-I Bond	—		
2. EWR-I deactivation	.54*	—	
3. EWR-I hyperactivation	.23*	.22*	—
<i>M</i>	3.36	3.60	4.44
<i>SD</i>	0.83	0.82	0.92

Note. $N = 588$. * = $p < .01$.

saturation levels (Seitl et al., 2016), a sample of that size was deemed adequately powered. The initial analysis yielded 12 factors with eigenvalues equal to or greater than one. Although factors had meaningful connections to individual types of secondary attachment strategies, there were also several items with multiple loadings, with some items having no or negative loadings. Based on this initial observation, we decided to reduce items with inconsistencies in loadings in order to render the scale psychometrically and theoretically clearer.

Therefore, after initial checks and removal of items with low added value for the scale ($N = 34$), we applied an Exploratory Factor Analysis for ordinal data (Baglin, 2014) on a total of 84 items. Given the ordinal character of the Likert-type scale and a distortion in kurtosis in several of the items (Mardia, 1970), we used a matrix of polychoric correlations followed by Parallel Analysis based on Minimum Rank Factor Analysis (MRFA) (Timmerman & Lorenzo-Seva, 2011) with Promax rotation. Factor loadings of 0.3 or above were set as critical for item inclusion within factors, items with lower loadings were again excluded, which resulted in a final solution of 44 items.

A Minimum partial average test (MAP, Velicer, 1976) suggested a three-factor structure as the best solution with the three factors explaining 51.4% of common variance. Information regarding the EWR-I factor loadings and communalities are presented in S1. A first general “Bonding” factor comprised 16 items ($\alpha = .87$), with an average inter-item correlation of .29 (see Supplementary Table S1). Lower scores on this factor indicated secure attachment, whereas higher scores depicted general insecurity but no indication of the specific secondary strategy (deactivation or hyperactivation). The second factor, labeled “Interpersonal deactivation,” comprised 17 items that describe deactivating strategies ($\alpha = .86$), and had an average inter-item correlation of .27. The third factor, labeled “Interpersonal hyperactivation,” comprised 11 items originally describing hyperactivation strategies ($\alpha = .82$), and had an average inter-item correlation of .30. The second and third factors are measures of the preferred type of secondary strategies. Two items still had a double loading, however, indicating some undesirable overlap between the Bond and Interpersonal deactivation factors.

Table 2 presents correlations among the three EWR-I subscales. Intercorrelations among the three EWR-I subscales were expected, since exclusively preferred types of secondary strategies are rare in respondents with insecure attachment. However, results

revealed a potential issue in the structure of EWR-I. The first, “Bond” factor indicated strong covariance with Interpersonal deactivation; in retrospect, this is in line with theory, since avoidance is typically more strongly (negatively) associated with general secure attachment (Mikulincer & Shaver, 2007). However, given the main aim in constructing the scale was to tap the emotion and behavioral manifestations of the two secondary regulatory strategies at work, we focused on further determining the most suitable items in phase 1 that distinctly loaded on attachment deactivation and hyperactivation at work.

Exploratory Factor Analysis of the 19 Item Experiences in Work Relationships-I Scale

After excluding additional items ($N = 25$) a further EFA with matrix of polychoric correlations explored the factor structure of the shortened scale. In a parallel analysis (PA, Timmerman & Lorenzo-Seva, 2011) we simulated 500 random matrices of polychoric correlations and factor extraction through permutation from measured data. Only two factors extracted from the factually monitored data explained more variance than factors extracted from random matrices. Subsequently, in the MAP test, a minimum average partial correlation of .016 was achieved for two factors. Two factors were also confirmed using the Hull method, which attempts to balance the number of estimated parameters and function approximation of the model on the data acquired (Lorenzo-Seva et al., 2011). Thus, a bifactorial solution of the set of 19 selected items was validated through a number of analytic ways (see Table 3). Minimum Rank Factor Analysis (MRFA) with varimax normalized rotation was the method for factor extraction and Bartlett’s test of sphericity was significant (2784.9, $df = 171$, $p < .001$) and the Kaiser-Meyer-Olkin criterion was also satisfactory (KMO = .859). The two factors explained 42.8% of the total and 67.2% of the common variance. Factor 1 (termed interpersonal hyperactivation) explained 34.7% of the items variance and factor 2 (termed interpersonal deactivation) explained 32.5% of the common variance. Finally, we performed an initial Confirmatory Factor Analysis of those items using IBM SPSS AMOS 25. The model fit was promising $\chi^2 = 470.540$, $df = 150$, $p < .000$, $\chi^2/df = 3.14$, $GFI = .921$, $CFI = .879$, $RMSEA = .060$ (90% CI .054–.067) yet it also evidenced the need for further factor exploration.

Phase 2

Final Scale Composition and Test of Factorial Structure. Following the promising results from phase 1, we proceeded to verify the EWR-I factorial structure using a different sample of employees ($n_5 = 633$). A two-factor model was defined with a latent hyperactivation factor (HYP) corresponding to 10 observed items and a latent deactivation (DEA) factor corresponding to nine items. Calculations were performed using the R lavaan package (Rosseel, 2012) following the maximum likelihood estimation

Table 3. EFA results for the EWR-I version comprising 19 items.

Item number	F1 Hyperactivation	F2 Deactivation	h^2
H_01_r	.51	.04	.41
H_03	.76	.24	.87
H_05	.55	–.32	.61
H_07	.51	.01	.51
H_09	.70	.01	.60
H_11	.47	.03	.56
H_13_r	.57	.11	.52
H_15	.64	–.02	.58
H_17	.62	–.01	.48
H_19	.67	.11	.77
D_02	.01	.71	.67
D_04	–.01	.63	.51
D_06	.00	.78	.78
D_08	.22	.53	.47
D_10_r	–.03	.65	.54
D_12	.11	.39	.35
D_14	–.07	.53	.60
D_16	.21	.54	.47
D_18	–.10	.67	.61

Note. F1 = factor loadings of hyperactivation (anxiety); F2 = factor loadings of deactivation (avoidance); factor loadings $>.30$ are in bold; h^2 = communalities; r = items with reverse scoring. Numbers of items indicate belonging to the factor and their order in the scale.

method. The model, however, did not show optimal fit: $\chi^2 = 816.675$, $df = 151$, $p < .001$, $\chi^2/df = 5.41$, $GFI = .931$, $CFI = .864$, $RMSEA = .060$ (90% CI .056–.064).

Results were not meaningfully different from those in phase 1. We therefore proceeded to disqualify items that had bearing on the bifactorial model, in particular, items that either saturated with another factor to a significant extent or that shared a unique variance with other items: The newly defined model (Figure 1) thus involved 15 items allowing also for correlations between unique variances of item couples: H_01_r $\sim\sim$ H_13_r and H_07 $\sim\sim$ H_19. The CFA results demonstrated significant improvement and the model showed very good fit with the data: $\chi^2 = 182.099$, $df = 87$, $p < .001$, $\chi^2/df = 2.09$, $GFI = .963$, $CFI = .943$, $RMSEA = .042$ (90% CI .033–.050). This solution also resulted in a theoretically meaningful low zero-order correlation between factors ($r = .06$).

Item Analysis and Reliability

We considered the 15 items version of the EWR-I as final (see Table 4). For the purpose of conducting the final item analysis and calculating the total parameters of both the

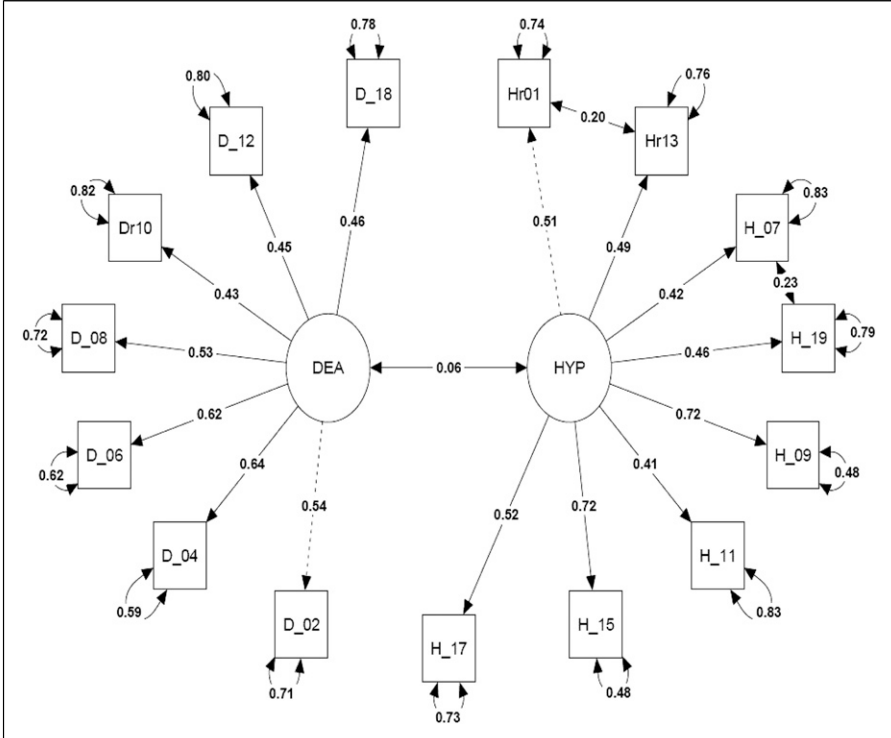


Figure 1. Standardized estimates of CFA for EWR-I with 15 item ($n_2 = 633$). DEA = latent deactivation factor, HYP = latent hyperactivation factor; D = observed items for deactivation factors, H = observed items for hyperactivation factor; r = items with reverse scoring.

EWR-I subscales, all the sub-samples were merged comprising $N = 1221$ participants, of whom 422 were men and 784 were women (15 participants did not state their gender, $Age = 38.3, SD = 11.5$). The two subscales had satisfactory internal consistency ($\alpha = .76$ and $\omega = .79$ for the interpersonal hyperactivation, the values $\alpha = .74$ and $\omega = .78$ were reached for interpersonal deactivation) and women reported higher scores than men ($t(1204) = -8.92, p < .001, d = .55$) in hyperactivation but not in the deactivation dimension. Moreover, weak but statistically significant correlations between age and hyperactivation and deactivation were detected ($r = -.08, p < .004$ or $r = .14, p < .001$ respectively). Interestingly, in men deactivation at work increased with age ($r = .25, p < .001$), whereas in women hyperactivation at work diminished with age ($r = -.19, p < .001$).

Table 4. Item analysis of hyperactivation and deactivation subscales (N = 1221).

Subscale	Item Wording (English, Czech)	M	SD	Skew	Kurt	ITC	α iid
Hyperactivation							
Hyperactive							
H_01_r	I Stay calm if others talk about me behind my back. (R) Když o mně ostatní hovoří za mými zády, nechává mě to v klidu	4.55	1.69	-0.98	0.94	.45	.60
H_07	If I have an argument with my partner at home, I think of it even at work Když mám neshody s partnerem/partnerkou doma, myslím na to i v práci	4.08	1.68	-1.12	-0.00	.40	.56
H_09	I Feel very bad when others reject me Cítím se velmi špatně, když mě druzí odmítají	4.50	1.50	-0.73	-0.77	.61	.73
H_11	If I am not appreciated by any of my colleagues for a long time, I feel disappointed Když mě nikdo ze spolupracovníků dlouho neocení, jsem zklamán/á	3.27	1.51	-0.55	-1.14	.39	.55
H_13_r	I Cope well with possible stress in my relationships with my colleagues. (R) Napětí ve vztahu ke spolupracovníkům snáším dobře	4.48	1.60	-1.01	-0.32	.50	.64
H_15	If any of my colleagues criticizes me, I think about it for a long time Když mě někdo ze spolupracovníků kritizuje, dlouho o tom přemýšlím	4.78	1.53	-0.57	-0.54	.52	.66
H_17	After certain meetings, I think for a long time about the impression I made on others Po některých setkáních ještě dlouho myslím na to, jaký dojem jsem vyvolal/a	3.92	1.53	-0.94	1.14	.54	.67
H_19	If I am dissatisfied at work, it is reflected in my life at home Když jsem v práci nespokojen/á, promítne se to i doma	4.07	1.70	-1.09	0.94	.58	.70
Deactivation							
deaktivace							
D_02	As soon as somebody begins to get closer to me at work, I notice that I withdraw from them Jakmile se někdo začne se mnou v práci sblížovat, přistihuju se, jak se odtahují pryč	2.67	1.25	0.98	0.94	.60	.76
D_04	I do not understand colleagues who make contacts very quickly Spolupracovníkům, kteří velmi rychle navazují kontakty, nerozumím	2.97	1.49	0.83	-0.00	.58	.77
D_06	I am not very fond of meeting new people Na nová setkání moc nejsem	3.17	1.60	0.55	-0.77	.65	.75
D_08	It is difficult for me to trust others fully Je pro mě obtížné druhým zcela věřit	3.92	1.64	0.16	-1.14	.45	.79
D_10_r	It is easy for me to have a close relationship with others at work. (R) Je pro mě snadné být v práci druhým osobně blízko	3.34	1.40	0.51	-0.32	.58	.77
D_12	I am considered a rather reserved person Považují mě za zdrženlivého člověka	3.53	1.42	0.08	-0.54	.32	.81
D_18	I Rarely have a friendly relationship at work V zaměstnání pěstují přátelské vztahy jen minimálně	2.51	1.41	1.28	1.14	.56	.77

Note. Skew = skewness; Kurt = kurtosis; ICT = Corrected item-total correlation; α iid = Cronbach's Alpha if item is deleted.

Phase 3

Convergent, Discriminant, and Predictive Validity. The final part of the research involved a re-analysis of collected data in order to test the construct, predictive and discriminant validity of the EWR-I 15 item version. Parallel criterion/convergent validity was tested by associating EWR-I dimensions with the ECR attachment anxiety and avoidance dimensions using datasets n_2 and n_3 ($N = 260$). As shown in Table 5, an expected positive correlation between EWR-I hyperactivation and ECR anxiety (hypothesis 1a) and between EWR-I deactivation and ECR avoidance (Hypothesis 1b) were fully supported.

The EWR-I predictive validity was tested against assessments of Organizational Citizenship Behavior (OCB) and Counterproductive Work Behavior (CWB). The EWR-I subscale met the condition for standard division (Shapiro-Wilkov $p = .10$, or $.09$), however, the OCB and CWB measurements demonstrated significant skewness ($-.70$ and 1.9 respectively) leading to logarithmically transforming the OCB and CWB scores. The correlation matrix depicted in Table 6 shows the basic associations among variables.

In predicting OCB from the two EWR-I dimensions (Hypothesis 2) we also tested for age effects and included the interactive term of hyperactivation and deactivation in line with Geller and Bamberger (2009). Age was a predictor of OCB ($\Delta R^2 = .02$, $F(1, 161) = 4.6$, $\beta = -.17$, $t = -2.1$, $p = .03$). In a second step, EWR-I hyperactivating and deactivating strategies were added and led to a statistically significant increase in explained variance of model: $\Delta R^2 = .05$, $F(3, 159) = 4.0$, $p = .03$, with $\beta = -.21$, $t = -2.7$, $p < .01$ for deactivating strategies, in line with hypothesis 2b. However, contrary to hypothesis 2a, hyperactivation was a non-significant independent predictor of OCB ($\beta = .01$, $t = .1$, $p = .92$). The interaction of hyperactivation and deactivation dimensions which, to some extent corresponds to fearful avoidant attachment (Bartholomew & Horowitz, 1991), was not a significant predictor of OCB, although a trend for increase in explained variance was observed ($\beta = .15$, $t = 1.9$, $p = .056$). The model with all predictors together showed following parameters: $R^2 = .09$, $\Delta R^2 = .07$, $F(4, 158) = 4.0$, $p < .01$.

Positive, albeit weaker, correlations were found between both EWR-I attachment dimensions and CWB, in line with hypothesis three and previous research (Leiter et al., 2015; Little et al., 2011). Given intercorrelations between the two EWR-I dimensions, a regression analysis was used to clarify relationships with CWB. Results found EWR-I hyperactivation and deactivation were both unique positive predictors of CWB ($\beta = .18$, $t = 2.6$, $p = .03$, and $\beta = 0.17$, $t = 2.3$, $p = .02$, respectively; $R^2 = .07$, $\Delta R^2 = .06$, $F(2, 160) = 6.4$, $p = .02$). The results supported uniqueness of the relation of each EWR-I subscale to CWB.

Construct and Discriminant Validity. Construct and discriminant validity of the EWR-I were tested against the BIP dimensions ($n_3 = 93$). Attention was paid to associations with Emotional Stability, ability to Build and Maintain Contacts (openness to contact), and conscientiousness, however, we present results from all BIP dimensions depicted in

Table 5. Criterion validity of EWR-I to ECR-CZ.

	Men (<i>n</i> = 50)		Women (<i>n</i> = 210)	
	Anxiety ECR	Avoidance ECR	Anxiety ECR	Avoidance ECR
EWR-I hyperactivation	.58**	.05	.67**	-.13
EWR-I deactivation	-.08	.70**	.10	.68**

Note. ($n_2 + n_3 = 260$) ** statistically significant at $\alpha = .01$.

Table 7. The first cluster supports the hypothesis 4a that a hyperactivating strategy in the work environment is strongly associated with emotional instability and problems with self-regulation at work.

These subscales in the first cluster are also not associated with the deactivation scale. The second cluster provides information that the deactivating strategy is strongly associated with a lower ability to build and maintain relationships (openness to contact) and moderately associated with lower sensitivity and a lower team orientation. A weaker negative correlation in the sense of practical significance can be found in assertiveness and sociability. The strongest relation in this cluster supported hypothesis 5, following one of the core characteristics of attachment avoidance. The third cluster shows a negative correlation of both EWR-I scales with the scales of Self-confidence, Decisiveness, and Motivation to Leadership. The fourth cluster is important especially because, according to the theoretical expectations, a connection between the EWR-I scale and Conscientiousness was not detected even in our study. Both the final results and results relating to the BIP subscales of Conscientiousness, Emotional Stability, and Ability to Make Contacts support convergent and discriminant validity of the EWR-I subscales dealing with interpersonal hyperactivation and interpersonal deactivation.

One key argument behind the need for developing a work-specific attachment scale was identification of limitations surrounding the use of generic romantic attachment scales such as the ECR for use in organizational research. In this final part we tested whether the two EWR-I dimensions would be better predictors of personality-consistent behaviors at work over and above the ECR dimensions of avoidance and anxiety. In [Tables 8a and 8b](#) we present the results from multiple regression analyses in two steps, where each of the BIP dimensions is regressed on the ECR dimensions of avoidance and anxiety in the first step, and the EWR-I dimensions of deactivation and hyperactivation in the second step. As can be seen, apart from sociability, EWR-I deactivation and hyperactivation were superior predictors of power motivation and action orientation BIP dimensions, documenting in this way the discriminant and construct validity of the new scale over its generic romantic attachment equivalent. Interestingly, neither the ECR nor the EWR attachment dimensions were associated with consciousness.

Table 6. Means, Standard Deviations, and Intercorrelations between constructs.

Variables	M	SD	1	2	3	4
1. Age	40.9	10.7				
2. EWR-I H	44.6	8.2	.03			
3. EWR-I D	46.7	7.7	.11	.18*		
4. CWB	.82	1	.13	.21**	.21**	
5. OCB	4	0.16	-.17*	-.04	-.23**	-.28**

Note. $N_4 = 163$. EWR-I HYP = T-score for EWR-I hyperactivating strategies; EWR-I DEA = T-score for EWR-I deactivating strategies; CWB = logarithmic transformation of count of incidences; OCB = logarithmic transformation of Interpersonal facilitation scale scores. * $p < .05$; ** $p < .01$.

Table 7. Parallel construct validity of EWR-I and BIP.

BIP Subscales	Hyperactivation r	Deactivation r
Emotional stability RS	-.75	-.24
Working under pressure RS	-.58	-.26
Flexibility RS	-.37	-.10
Openness to contact RS	-.09	-.79
Sensitivity RS	-.08	-.47
Team orientation RS	.04	-.38
Assertiveness RS	-.17	-.31
Sociability RS	-.05	-.28
Self-confidence RS	-.61	-.42
Action orientation RS	-.38	-.34
Leadership motivation RS	-.30	-.44
Achievement motivation RS	-.08	.04
Power motivation RS	-.11	.05
Conscientiousness RS	.07	-.13

Note. Correlations in bold are significant at $\alpha = .01$. RS = raw score.

Discussion

Recent years have witnessed a strong research interest in attachment or attachment-related topics at work and in organizational settings. Yet, individual differences in attachment orientation at work were typically assessed with the use of generic, relationship-oriented self-report scales, while less attention has been paid to directly assessing attachment dynamics in the workplace. The studies presented here provide evidence for a novel, brief, theoretically grounded dimensional self-report scale suitable for direct assessment of secondary attachment-related behavioral strategies in the workplace. Of note, the scale targets self-reported work-related attachment or attachment-related emotions and behaviors, not self-reported attitudes toward relationships at work or relationships in general.

The results of analyses of two large samples of workers in the Czech Republic documented the expected bifactorial structure of the scale, which is consistent with key concepts of attachment regulation processes (Mikulincer & Shaver, 2007; Wei et al., 2005). Interpersonal hyperactivation—illustrated by emotional instability, negative emotionality, and lack of appreciation in relationships—and interpersonal deactivation—illustrated by distancing from others, distrust, inhibition of positive emotionality, and a general refusal to engage in workplace relationships—represent two distinct and measurable components of attachment dynamics in the workplace. The model and the two uncorrelated dimensions showed good internal consistency based on data collected in public and private organizations.

Two-dimensional scales assessing manifestations and experiences typical of attachment at work are particularly well suited to situations in which the research goal is to determine the direction of dominant secondary strategies. Identifying the two dimensions based on a range of emotions and behaviors at work allowed for a more direct assessment of the impact anxious and avoidant strategies have on work-related organizational outcomes (also as likely moderators or mediators) without having to resort to a more general distinction between secure and insecure attachment. This was also one of the reasons we chose not to include a third factor (bonding) that was observed in early stages of the analysis.

The initially observed third factor (bonding) expressed a general level of insecurity about attachment at work, exemplified in stable and general attachment strategies/relationships. This is consistent with similarly identified factors in general/romantic attachment scales (e.g., Collins & Read, 1990; Gillath et al., 2009a, 2009b; Joplin et al., 1999). Such a factor expresses the range of the avoidance/security dimension, and correlates (inversely) with the avoidance dimension (see Brennan et al., 1998). Indeed, a high correlation between the bonding and the deactivating (avoidance) factors was also observed in the standardization of the national version of the ECR in Czech Republic (Seitl et al., 2016) and in the present data. Given the also weak factor loadings of some of the bonding items, and given that our goal was to deviate from a general model of secure-insecure attachment relationships and to align with a model of secondary bonding strategies at work, we therefore decided not to include the items corresponding to this factor and to give preference to a bifactorial solution. The final bifactorial solution of the EWR-I included 15 items that showed satisfactory psychometric parameters, internal consistency, and model fit.

The newly developed short scale exhibited good validity. In terms of convergent validity, EWR-I hyperactivation and deactivation at work correlated as expected, with the ECR dimensions of anxiety and avoidance, and only with these. At the same time, the extent of covariation between the EEA-I and the general ECR dimensions suggests that the newly developed scale is a stand-alone attachment measure that focuses on attachment-related strategies at work. Importantly, the EWR-I has good discriminant validity in predicting typical workplace personality dimensions compared to the ECR. Deactivating and hyperactivating strategies at work were consistent and superior to ECR anxiety and avoidance orientations in predicting several BPI dimensions:

Table 8. Regressing BIP dimensions on generic attachment (step 1) and EWR-I (step 2) dimensions.

Ba	Achievement Motivation			Power Motivation			Leadership Motivation			Conscientiousness			Flexibility			Asertiveness								
	B	t	β	B	t	β	B	t	β	B	t	β	B	t	β	B	t	β						
ECR Avoidance	.05	.46	.04	.28	.14	1.32	.22	1.61	-.21	-2.01 ^a	.11	.93	-0.13	-1.20	-.08	-.58	-.06	-.61	.03	.25	-.09	-.84	.18	1.38
ECR Anxiety	-.06	-.52	-.01	-.04	.08	.76	.30	2.01 ^a	-.10	-.92	.31	2.46 ^a	0.05	0.52	0.05	.31	-.35	-3.46 ^c	-.18	-1.23	-.04	-.38	.19	1.32
EWR-I Deactivate	.01	.06	-.14	-1.02	-.50	-4.25 ^c	-.50	-4.25 ^c	-.50	-4.25 ^c	-.50	-4.25 ^c	-.06	-.43	-.06	-.43	-.06	-.43	-.15	-1.14	-.04	-.42	-.317 ^b	
EWR-I Hyper	-.07	-.43	-.28	-1.80	-.46	-3.50 ^c	-.46	-3.50 ^c	-.46	-3.50 ^c	-.46	-3.50 ^c	.02	.13	.02	.13	.02	.13	-.20	-1.36	-.04	-.23	-1.57	
F (4,88)	.18		1.86			11.10		11.10		11.10		11.10		.51		.51		.51		4.06		4.02	4.02	
ΔR ²	.006		.003			.023		.048		.048		.257 ^c		.021		.007		.118 ^b		.034		.01	0.15 ^b	
Bb	Action Orientation			Sensitivity			Openness to Contact			Scalability			Team Orient			Emotional Stability								
ECR avoidance	-.32	-3.50 ^c	-.23	-1.92	-.41	-4.23 ^c	-.20	-1.6	-.55	-6.19	-.02	-.25	-0.34	-3.51 ^c	-.24	-1.85	-.32	-3.15 ^c	-.08	-.59	-.04	-.50	.12	1.46
ECR anxiety	-.47	-5.16 ^c	-.31	-2.36 ^b	-.15	-1.51	-.09	-.68	-.04	-.46	.14	1.59	-0.24	-2.49 ^c	-.41	-2.91 ^b	.07	.69	.07	.50	-.62	-7.37 ^c	-.1	-1.12
EWR-I deactivate	-.14		-.14		-.32c	-2.48 ^b	-.01	-.05	-.05	-.05	-.05	-.05	-.05	-.05	-.05	-.05	-.05	-.05	-.05	-.05	-.05	-.05	-.05	-.05
F (4,88)	.19		1.43		9.98		6.7		6.7		46.5		1.81 ^c		5.14		5.14		4.76		4.76	4.76	4.76	
ΔR ²	.279 ^c		0.032		.177 ^b		.062 ^a		.30 ^c		.34 ^c		.15 ^b		.02		.11		.06 ^c		.37 ^c		.37 ^c	

Note. a $p < .05$, b $p < .01$, c $p < .001$. $p = .07$. In bold statistically significant coefficients.

Assertiveness, Openness to Contact, Team Orientation, Emotional Stability. The EWR-I deactivation factor mediated the relationships between ECR avoidance and leadership motivation and sensitivity. These are all evidence in support of the scale's context specificity and provide a very good basis for further research. Finally, as expected, the scale discriminated against conscientiousness at work (Nofle & Shaver, 2006).

An indicator of EWR-I predictive validity were the positive correlations of both EWR-I dimensions with counterproductive work behavior (see also Leiter et al., 2015). These findings are further underscored by the fact that supervisor ratings of counterproductive work behaviors occurred 6 months after employees' EEA-I self-reports. Increasing incidence of hyperactivating and deactivating strategies at work can lead to patterns of behavior that may be harmful to the organization or other members of the organization.

As expected, a negative relationship was observed between the EWR-I deactivating strategies and OCB, which is consistent with the results of previous studies (Geller & Bamberger, 2009; Rom & Mikulincer, 2003). In general, our results are consistent with those of Hazan and Shaver (1990), who identified a strong negative relationship between OCB and attachment avoidance. However, contrary to expectations, there was no significant relationship between hyperactivating strategies and organizational citizenship behavior (OCB). This null result may be due in part to the research design, as the data for OCB in the present study were collected 3 months after the measurement of EWR-I, unlike the above mentioned studies. The difference between parallel and predictive designs may have influenced the observed associations, as has been found, for example, in research on integrity tests and CWB (Iddekinge et al., 2012).

Further results on the construct validity of the EWR-I shed light on attachment-related behavioral strategies in the workplace. Moderate and strong associations between the EWR-I and emotional instability and low stress resistance document the convergent validity of the new scale. As in previous studies, attachment anxiety has been associated with experiencing tension, negative emotionality, and emotional instability in the workplace (Hazan & Shaver, 1990; Joplin et al., 1999). The construct validity of the scale is further supported by strong negative relationships between the EWR-I deactivating dimensions and building and maintaining effective work relationships and sensitivity to others. It appears that individuals with deactivating strategies (avoidant attachment) tend to avoid dependence on others and emphasize autonomy and control. In addition, avoidant individuals tend to suppress and reject new impulses or requests in interpersonal relationships to avoid feelings of tension and anxiety. Despite these results in the expected direction and support for the EWR-I construct validity, it is necessary to consider the strength of the detected relationships, especially in the case of Emotional Stability and Openness to contact. It is noteworthy that the EWR-I hyperactivating dimension was not related to these work results.

The contribution to attachment measurement at work is straightforward. Variability in attachment orientations is one of the general characteristics of the population and represents an important aspect of workplace behavior and experience. Leaders who have general knowledge about attachment and specific information about the

attachment orientations of their followers can carry out their jobs more effectively by understanding the causes of everyday behavior in an organization (for a comprehensive review, see Yip et al., 2018). In addition to retrospectively using knowledge about retention strategies at work, this knowledge can also be used proactively in individual task setting and motivation. For example, organizational outcomes may be affected by employees with higher interpersonal hyperactivation who work alone or by employees with interpersonal deactivation tendencies who work in an interpersonally demanding teamwork environment (Hazan & Shaver, 1990). In addition, managers could use the scale to actively work to support followers in their development (e.g., Gillath et al., 2010; Wu & Parker, 2017).

Finally, an interesting ancillary finding of this paper is the observed moderating effects of gender on the relationships between age and workplace attachment organization: for men, workplace deactivation increased with age, whereas for women, workplace hyperactivation decreased with age. These findings are partially consistent with previous research in the general population suggesting that interpersonal avoidance increases with age, while anxiety decreases with age (Chopik et al., 2019). However, the observed gender differences are a novel finding that warrants further investigation. One explanation may lie in the specificity of the organizational environment and the differences in career development between men and women, which entail unequal opportunities and different expectations of organizational life.

Limitations

This research program is not without limitations. The EWR-I was developed and tested in Czech language and culture. Although attachment organization has been considered and tested cross-culturally (Schmitt et al., 2004), recent research also points to cultural differences (Gruda & Kafetsios, 2020). Further research is needed to further validate the scale in cultures with similar or different cultural mandates than Czech Republic. Another limitation is the lack of data to test the stability of the EWR-I, that is, to test its test-retest reliability, which may be the subject of further research. The determination of the appropriate sample size of the two main data sets was based on previous experience with related scales and recommendations from the literature (Guadagnoli & Velicer, 1988). In the future, a priori power analysis would be optimal. Finally, although the current samples had some diversity in work experience (entry-level, beginning, University employees, firefighters), future research may expand testing in more organizationally diverse work settings to test for, among other things, likely differences between organizational types in the two attachment strategies.

Conclusions

The Experiences in Work Relationships—Individual is a brief scale designed to measure secondary attachment strategies in the workplace. It includes two clear, uncorrelated dimensions (deactivating—hyperactivating) that capture emotions and

behavioral dynamics associated with two significant secondary attachment strategies in the workplace. The new scale is intended for use in research designs that aim to capture attachment at the individual or dyadic level (e.g., Richards & Schat, 2011) with respect to relationships and outcomes in the work context.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by Czech Ministry of Education, Youth, and Sports for specific research, granted in 2021 to Palacký University Olomouc (IGA_FF_2021_008 SPP 31/432104021).

ORCID iD

Konstantinos Kafetsios  <https://orcid.org/0000-0001-5933-4409>

Supplemental Material

Supplement material for this article is available in online.

References

- Baglin, J. (2014). Improving your exploratory factor analysis for ordinal data: A demonstration using FACTOR. Retrieved from Practical Assessment. *Research & Evaluation, 19*(5). <https://doi.org/10.7275/dsep-4220>
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment orientations among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*(2), 226–244. <https://doi.org/10.1037/0022-3514.61.2.226>
- Bowlby, J. (1969). *Attachment and loss. (vol. 1st, Attachment)*. Basic Books.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). Guilford Press.
- Camara, W. J., & Schneider, D. L. (1994). Integrity tests: Facts and unresolved issues. *American Psychologist, 49*(2), 112–119. <https://doi.org/10.1037/0003-066x.49.2.112>
- Chopik, W. J., Edelstein, R. S., & Grimm, K. J. (2019). Longitudinal changes in attachment orientation over a 59-year period. *Journal of Personality and Social Psychology, 116*(4), 598–611. <https://doi.org/10.1037/pspp0000167>
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology, 58*(4), 644–663. <https://doi.org/10.1037//0022-3514.58.4.644>

- Cooper, M. L., Shaver, P. R., & Collins, N. L. (1998). Attachment styles, emotion regulation, and adjustment in adolescence. *Journal of Personality and Social Psychology, 74*(5), 1380–1397. <https://doi.org/10.1037//0022-3514.74.5.1380>
- Dahling, J. J., & Librizzi, U. A. (2015). Integrating the theory of work adjustment and attachment theory to predict job turnover intentions. *Journal of Career Development, 42*(3), 215–228. <https://doi.org/10.1177/0894845314545169>
- Diamond, L. M., & Aspinwall, L. G. (2003). Emotion regulation across the life span: An integrative perspective emphasizing self-regulation, positive affect, and dyadic processes. *Motivation and Emotion, 27*(2), 125–156. <https://doi.org/10.1023/A:1024521920068>
- Feeney, B. C., & Collins, N. L. (2001). Predictors of caregiving in adult intimate relationships: An attachment theoretical perspective. *Journal of Personality and Social Psychology, 80*(6), 972–994. <https://doi.org/10.1037/0022-3514.80.6.972>
- Feeney, J., Noller, P., & Hanrahan, M. (1994). Assessing adult attachment. In M. B. Sperling & W. H. Berman (Eds.), *Attachment in adults* (pp. 128–151). The Guilford Press.
- Fraley, R. C., Heffernan, M. C., Vicary, A. M., & Brumbaugh, C. C. (2011). The experiences in close relationships-Relationship Structures Questionnaire: and method for assessing attachment orientations across relationships. *Psychological Assessment, 23*(3), 615–625. <https://doi.org/10.1037/a0022898>
- Fraley, R. C., Hudson, N. W., Heffernan, M. E., & Segal, N. (2015). Are adult attachment styles categorical or dimensional? A taxometric analysis of general and relationship-specific attachment orientations. *Journal of Personality and Social Psychology, 109*(2), 354–368. <https://doi.org/10.1037/pspp0000027>
- Fraley, C. R., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology, 78*(2), 350–365. <https://doi.org/10.1037//0022-3514.78.2.350>
- Game, A. M. (2008). Negative emotions in supervisory relationships: The role of relational models. *Human Relations, 61*(3), 355–393. <https://doi.org/10.1177/0018726708088998>
- Geller, D., & Bamberger, P. (2009). Bringing avoidance and anxiety to the job: Attachment orientation and instrumental helping behavior among co-workers. *Human Relations, 62*(12), 1803–1827. <https://doi.org/10.1177/0018726709337524>
- Gillath, O., Giesbrecht, B., & Shaver, P. R. (2009a). Attachment, attention, and cognitive control: Attachment style and performance on general attention tasks. *Journal of Experimental Social Psychology, 45*(4), 647–654. <https://doi.org/10.1016/j.jesp.2009.02.011>
- Gillath, O., Hart, J., Nofle, E. E., & Stockdale, G. D. (2009b). Development and validation of and state adult attachment measure (SAAM). *Journal of Research in Personality, 43*(3), 362–373. <https://doi.org/10.1016/j.jrp.2008.12.009>
- Gillath, O., Karantzas, G., & Fraley, R. (2016). *Adult attachment: A concise introduction to theory and research*. Academic Press.
- Gillath, O., Sesko, A., Shaver, P., & Chun, D. (2010). Attachment, authenticity, and honesty: Dispositional and experimentally induced security can reduce self- and other-deception. *Journal of Personality and Social Psychology, 98*(5), 841–855. <https://doi.org/10.1037/a0019206>

- Graham, J. M., & Unterschute, M. S. (2015). A reliability generalization meta-analysis of self-report measures of adult attachment. *Journal of Personality Assessment, 97*(1), 31–41. <https://doi.org/10.1080/00223891.2014.927768>
- Gruda, J., & Kafetsios, K. (2020). Attachment orientations guide the transfer of expectations in leadership judgments: Culture matters. *Personality and Social Psychology Bulletin, 46*(4), 525–546. <https://doi.org/10.1177/0146167219865514>
- Gruys, M. L. (1999). *The dimensionality of deviant employee behavior in the workplace*. [Doctoral dissertation]. University of Minnesota. https://www.researchgate.net/publication/235147561_The_Dimensionality_of_Deviant_Employee_Behavior_in_the_Workplace
- Guadagnoli, E., & Velicer, W. F. (1988). Relation of sample size to the stability of component patterns. *Psychological Bulletin, 103*(2), 265–275. <https://doi.org/10.1037/0033-2909.103.2.265>
- Hardy, G. E., & Barkham, M. (1994). The relationship between interpersonal attachment orientations and work difficulties. *Human Relations, 47*(3), 263–281. <https://doi.org/10.1177/001872679404700302>
- Harms, P. D. (2011). Adult attachment orientations in the workplace. *Human Resource Management Review, 21*(1), 285–296. <https://doi.org/10.1016/j.hrmr.2010.10.006>
- Hawkings, A. C., Howard, R. A., & Oyebode, J. R. (2007). Stress and coping in hospice nursing staff. The impact of attachment orientations. *Psycho-Oncology, 16*(6), 563–572. <https://doi.org/10.1002/pon.1064>
- Hazan, C., & Shaver, P. R. (1990). Love and work: An attachment-theoretical perspective. *Journal of Personality and Social Psychology, 59*(2), 270–280. <https://doi.org/10.1037/0022-3514.59.2.270>
- Hossiep, R., Paschen, M., Hoskovcová, S., & Vybíralová, A. (2003). *Business-focused inventory of personality–BIP*. Hogrefe - Testcentrum.
- Iddekinge, C. H., Roth, P. L., Raymark, P. H., & Odle-Dusseau, H. N. (2012). The criterion-related validity of integrity Tests: An updated meta-analysis. *Journal of Applied Psychology, 97*(3), 499–530. <https://doi.org/10.1037/a0021196>
- Johnstone, M., & Feeney, J. A. (2015). Individual differences in responses to workplace stress: The contribution of attachment theory. *Journal of Applied Social Psychology, 45*(7), 412–424. <https://doi.org/10.1111/jasp.12308>
- Joplin, J. R. W., Nelson, D. L., & Quick, J. C. (1999). Attachment behavior and health: Relationships at work and home. *Journal of Organizational Behavior, 20*(6), 783–796. [https://doi.org/10.1002/\(SICI\)1099-1379\(199911\)20:6<783::AID-JOB923>3.0.CO;2-p](https://doi.org/10.1002/(SICI)1099-1379(199911)20:6<783::AID-JOB923>3.0.CO;2-p)
- Kafetsios, K., Athanasiadou, M., & Dimou, N. (2014). Leaders' and subordinates' attachment orientation, emotion regulation and affect at work: A multilevel analysis. *The Leadership Quarterly, 25*(3), 512–527. <https://doi.org/10.1016/j.leaqua.2013.11.010>
- Lavy, S., Bareli, Y., & Ein-Dor, T. (2015). The effects of attachment heterogeneity and team cohesion on team functioning. *Small Group Research, 46*(1), 27–49. <https://doi.org/10.1177/1046496414553854>
- Leiter, M. P., Day, A., & Price, L. (2015). Attachment orientations at work: Measurement, collegial relationships, and burnout. *Burnout Research, 2*(1), 25–35. <https://doi.org/10.1016/j.burn.2015.02.003>

- Little, L. M., Nelson, D. L., Wallace, J. C., & Johnson, P. D. (2011). Integrating attachment orientation, vigor at work, and extra-role performance. *Journal of Organizational Behavior*, 32(3), 464–484. <https://doi.org/10.1002/job.709>
- Lopez, F. G., & Ramos, K. (2015). Predicting well-being in managers: Test of and positive psychology model. *The Journal of Positive Psychology*, 11(4), 378–387. <https://doi.org/10.1080/17439760.2015.1092571>
- Lorenzo-Seva, U., Timmerman, M. E., & Kiers, H. A. L. (2011). The hull method for selecting the number of common factors. *Multivariate Behavioral Research*, 46(2), 340–364. <https://doi.org/10.1080/00273171.2011.564527>
- Mardia, K. V. (1970). Measures of multivariate skewness and kurtosis with applications. *Biometrika*, 57(3), 519–530. <https://doi.org/10.2307/2334770>
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. Guilford Press.
- Mikulincer, M., & Shaver, P. R. (2016). *Attachment in adulthood* (2nd ed.). Guilford Press.
- Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion*, 27(2), 77–102. <https://doi.org/10.1023/a:1024515519160>
- Neustadt, E. A., Chamorro-Premuzic, T., & Furnham, A. (2011). Attachment at work and performance. *Attachment & Human Development*, 13(5), 471–488. <https://doi.org/10.1080/14616734.2011.602254>
- Noffle, E. E., & Shaver, P. R. (2006). Attachment dimensions and the big five personality traits: Associations and comparative ability to predict relationship quality. *Journal of Research in Personality*, 40(2), 179–208. <https://doi.org/10.1016/j.jrp.2004.11.003>
- Richards, D. A., & Hackett, R. D. (2012). Attachment and emotion regulation: Compensatory interactions and leader–member exchange. *The Leadership Quarterly*, 23(4), 686–701. <https://doi.org/10.1016/j.leaqua.2012.03.005>
- Richards, D. A., & Schat, A. C. (2011). Attachment at (not to) work: Applying attachment theory to explain individual behavior in organizations. *Journal of Applied Psychology*, 96(1), 169–182. <https://doi.org/10.1037/a0020372>
- Rom, E., & Mikulincer, M. (2003). Attachment theory and group processes: The association between attachment orientation and group-related representations, goals, memories, and functioning. *Journal of Personality and Social Psychology*, 84(6), 1220–1235. <https://doi.org/10.1037/0022-3514.84.6.1220>
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1–36. <https://doi.org/10.18637/jss.v048.i02>
- Schmitt, D. P., Alcalay, L., Allensworth, M., Allik, J., Ault, L., Austers, I., Bennett, K. L., Bianchi, G., Boholst, F., Cunen, M. A. B., Braeckman, J., Brainerd, E. G. Jr., Caral, L. G., A., Caron, G., Casullo, M. M., Cunningham, M., Daibo, I., De Backer, C., De Souza, E., & ZupanÈË, A. (2004). Patterns and universals of adult romantic attachments across 62 cultural regions: Are models of self and other pancultural constructs? *Journal of Cross-Cultural Psychology*, 35(4), 367–402. <https://doi.org/10.1177/0022022104266105>
- Scrima, F., Rioux, L., & Lorito, L. (2014). Three-factor structure of adult attachment in the workplace: Comparison of British, French, and Italian samples. *Psychological Reports*:

- Sociocultural Issues in Psychology*, 115(2), 627–642. <https://doi.org/10.2466/49.PR0.115c25z2>
- Seitl, M., & Charvát, M. (2018). Attachment orientations: and motivational framework of personality dispositions in selection and counseling. *Individual and Society*, 21(1), 12–28.
- Seitl, M., Charvát, M., & Lečbych, M. (2016). Psychometric characteristics of the czech version of experiences in close relationships scale(ECR). *Československá Psychologie*, 60(4), 351–371.
- Seitlová, K., Kasalová, B., & Seitl, M. (2015). Work environment preferences of generation Y in relation to attachment theory. In J. C. Dias Rouco (Ed.), *Proceedings of the 11th European conference on management leadership and governance*. Academic Conferences and Publishing International Limited.
- Seitl, M., & Střelec, J. (2017). Job Mobility in the Light of the Adult Attachment Theory in Teachers of Elementary Schools. In A. Gregar & M. Horák (Eds.), *Work and organizational psychology 2017: Work potential and its changes over time. Proceedings of international conference* (pp. 516–527). UTB.
- Shorey, H. S., & Chaffin, J. S. (2018). Leader–follower attachment: Implications for personality assessment in organizational contexts. *Journal of Personality Assessment*, 100(5), 518–528. <https://doi.org/10.1080/00223891.2018.1472100>
- Simmons, B. L., Gooty, J., Nelson, D. L., & Little, L. M. (2009). Secure attachment: Implications for hope, trust, burnout, and performance. *Journal of Organizational Behavior*, 30(2), 233–247. <https://doi.org/10.1002/job.585>
- Simpson, J. A. (1990). Influence of attachment orientations on romantic relationships. *Journal of Personality and Social Psychology*, 59(5), 971–980. <https://doi.org/10.1037/0022-3514.59.5.971>
- Smith, E. R., Murphy, J., & Coats, S. (1999). Attachment to groups: Theory and measurement. *Journal of Personality and Social Psychology*, 77(1), 94–110. <https://doi.org/10.1037/0022-3514.77.1.94>
- Timmerman, M. E., & Lorenzo-Seva, U. (2011). Dimensionality assessment of ordered polytomous items with parallel analysis. *Psychological Methods*, 16(2), 209–220. <https://doi.org/10.1037/a0023353>
- Towler, A. J., & Stuhlmacher, A. F. (2013). Attachment orientations, relationship satisfaction, and well-being in working women. *The Journal of Social Psychology*, 153(3), 279–298. <https://doi.org/10.1080/00224545.2012.735282>
- Van Scotter, J. R. (1994). *Evidence for the usefulness of task performance, job dedication, and interpersonal facilitation as components of overall performance*. [Unpublished dissertation thesis]. University of Florida.
- Velicer, W. F. (1976). Determining the number of components from the matrix of partial correlations. *Psychometrika*, 41(3), 321–327. <https://doi.org/10.1007/BF02293557>
- Wei, M., Vogel, D. L., Ku, T.-Y., & Zakalik, R. A. (2005). Adult attachment, affect regulation, negative mood, and interpersonal problems: The mediating roles of emotional reactivity and emotional cut off. *Journal of Counseling Psychology*, 52(1), 14–24. <https://doi.org/10.1037/0022-0167.52.1.14>

- Wu, C.-H., & Parker, S. K. (2017). The role of leader support in facilitating proactive work behavior: And perspective from attachment theory. *Journal of Management*, 43(4), 1025–1049. <https://doi.org/10.1177/0149206314544745>
- Wu, C.-H., Parker, S. K., & de Jong, J. P. (2014). Feedback seeking from peers: And positive strategy for insecurely attached team-workers. *Human Relations*, 67(4), 441–464. <https://doi.org/10.1177/0018726713496124>
- Yip, J., Ehrhardt, K., Black, H., & Walker, D. O. (2018). Attachment theory at work: And review and directions for future. *Journal of Organizational Behavior*, 39(2), 185–198. <https://doi.org/10.1002/job.2204>