

# A STUDY OF THE RELATIONSHIP BETWEEN WORKPLACE ATTACHMENT AND JOB SATISFACTION

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Workplace attachment as an emotional connection between the employee and his/her work environment is closely linked to job satisfaction. Several studies have identified place attachment as an antecedent of place satisfaction, while others have emphasized the influence of satisfaction on place attachment. It would seem that the two variables are linked, but the use of correlational designs constitutes a limit to these studies because it does not make it possible to determine the direction of the effect. The aim of this work is to explore the relationship between these two variables with a semilongitudinal design. This article presents an analysis of the relationship between workplace attachment and job satisfaction in a sample of 325 employees recruited from medium and small organizations. Its purpose is to identify the directionality of the effect using a semilongitudinal design. The results show that workplace attachment is a predictor of job satisfaction and not vice versa. The implications for HR are discussed.

**Key words:** Place attachment; Workplace attachment; Job satisfaction; Semilongitudinal design; Environmental psychology.

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For several years researchers have investigated the variables affecting employees' attachment to their work in order to define the dimensions and the different types of relational models that affect organizational behavior and the quality of working life (Dinç, 2007). However, few studies have examined the variables identified in the field of environmental psychology, which studies "the psychological processes that contribute to the maintenance of the dynamic existing between physical space and social space" (Rioux, 2014, p. 237). In this article, we examine the links between job satisfaction and workplace attachment, which is a central concept in environmental psychology. Two theoretical approaches currently coexist in the literature. First, some researchers consider attachment as an attitude and therefore a three-dimensional concept, integrating affective, cognitive, and behavioral dimensions (Aronson, Wilson, Akert, & Fehr, 2001; Scannell & Gifford, 2010); others see place attachment as the affective dimension of the sense of place, defined as the attitude towards a place (Bricker & Kerstetter, 2000; Steele, 1981; Vitterso, Vorkinn, & Vistad, 2001; Wickham, 2001). We take the latter approach. Conceptualized by Schumaker and Taylor (1983) in their *theory of place attachment*, place attachment refers to the affective component of a person's

connection to a given place (Giuliani, 1991; Lewicka, 2010; Low & Altman, 1992). This is the view that predominates in the organizational framework. For example, workplace attachment, defined as the emotional link between employees and their work environment, has been the subject of many studies in recent years (e.g., Dewulf & Van Meel, 2003; Kampschroer & Heerwagen, 2005; Le Roy & Rioux, 2012). This emotional connection influences the quality of work performance and the well-being of employees (Rioux, 2006), the affective organizational commitment (Scrima, 2014, 2015), the intention to leave the organization (Rioux, 2011), organizational citizenship behaviors (Le Roy & Rioux, 2012), and adaptation to a new workplace following a move (Inalhan & Finch, 2004).

#### THE WORKPLACE ATTACHMENT

Rioux (2006) proposed the first theoretical model and the first scale to measure the effects of attachment to the workplace on various attitudes and behaviors in the organization. As already mentioned, attachment to the workplace is defined as the emotional link resulting from the dynamic interaction between an employee and his/her organizational environment (Rioux, 2006) and is considered to be an important aspect of the quality of working life. Several studies (e.g., Dinç, 2007) have shown that when employees are able to customize their workplace, they are more connected to it, thereby raising the indicators of the quality of working life such as job satisfaction, well-being, and performance. In recent years, attachment to the workplace has been the subject of numerous studies that have examined it in relation to a large range of psychosocial variables. For example, Velasco and Rioux (2010) found a positive relationship between attachment to the workplace and affective commitment. According to the authors, employees who are emotionally attached to their workplace are very likely to develop a positive emotional connection to their organization. Rioux and Pavalache-Ilie (2013) found that workplace attachment is a good predictor of two dimensions of organizational citizenship behaviors: “help given to colleagues” and “team spirit.” Specifically, the authors argue that the more employees are attached to the workplace, the more they will show citizenship behaviors towards their colleagues and contribute to the proper functioning of the team. In addition, employees attached to their workplace will show higher levels of job satisfaction than their colleagues with a low level of attachment (Rioux & Pignault, 2013). All of these studies thus underline the importance of attachment to the workplace in human resource management. Based on these theoretical contributions, human resource managers could implement organizational interventions geared towards the comfort of employees, with the ultimate goal of developing commitment, encouraging organizational citizenship behaviors, and thereby increasing the performance of workers.

#### JOB SATISFACTION

Through his pioneering studies, Mayo (1949) was the first to emphasize the role of job satisfaction as a psychosocial variable that could explain the behavior of employees (Agho, Price & Mueller, 1992). Among the different models proposed, despite some contradictory results (Roussel, Igalens, & Sire, 1996), there seems to be a general consensus that work satisfaction can be considered as an attitude (Spector, 1997; Wright, 2006) and that it can be defined as the assessment that individuals make about their own job or job status (Ajzen, 2001), or as an indicator of how much people “love” their work, including their assessment of the environmental conditions in which the work is done (Lent, 2008), or as an overall assessment of the job’s attractiveness (Judge, Weiss, Kammeyer-Mueller, & Hulin, 2017).

Job satisfaction is considered a benchmark of work and organizational psychology. Recent research has shown that it has a negative impact on absenteeism (Kehinde, 2011). The scholars therefore argue that employees with high levels of job satisfaction tend to have less time off work. Cass, Siu, Faragher, and Cooper (2003) observed an effect of satisfaction on employee health and well-being, also reducing costs for the company. Numerous research studies have emphasized the fundamental role of this variable on employee performance (Bono & Judge, 2003; Iaffaldano & Muchinsky, 1985; Judge, Thoresen, Bono, & Patton, 2001; Organ, 1988; Ostroff, 1992; Petty, McGee & Cavender, 1984; Riketta, 2008; Shore & Martin, 1989). For example, Ahmad, Iqbal, Javed, and Hamad (2014) suggested that employees with high levels of job satisfaction tend to achieve higher levels of performance than their colleagues with low levels of satisfaction.

#### THE RELATIONSHIP BETWEEN WORKPLACE ATTACHMENT AND JOB SATISFACTION

Numerous studies have investigated the relationship between place attachment and place satisfaction. However, results in the current scientific literature are equivocal (Ramkissoon, Smith & Weiler, 2013), with some studies suggesting that place attachment predicts place satisfaction (Halpenny, 2010; Prayag & Ryan, 2012; Wickham, 2001; Yuksel, Yuksel, & Bilim, 2010), while others suggest that place satisfaction predicts place attachment (Brocato, 2006; Changuklee, & Allen, 1999; George & George, 2004). Similar discrepancies can be found in the more specialized literature investigating the relationship between workplace attachment and job satisfaction. For example, Pasquier and Rioux (2014) found that the workplace attachment of bank employees in the Paris region predicted their level of job satisfaction assessed by the Minnesota Satisfaction Questionnaire (MSQ). More specifically, the authors found that the more bank employees are attached to their workplace, the more they feel satisfied with their work. By contrast, Velasco and Rioux (2010) found that overall job satisfaction, as measured by the MSQ and its “intrinsic satisfaction” and “interest for work” dimensions, was a predictor of workplace attachment as measured by the Workplace Attachment Scale (WAS; Rioux, 2006). Most environmental psychology studies argue that satisfaction judgments could be influenced by the type and level of place attachment (Fleury-Bahi, Félonneau, & Marchand, 2008; Halpenny, 2010; Mowen, Graefe, & Virden, 1998; Scott & Vitardas, 2008; Wickham, 2001). For example, Scott and Vitardas (2008) found that individuals with higher place-attachment levels tend to give a better evaluation of the services offered by the community. Hwang, Lee, and Chen (2005) carried out a study to identify the correlations between visitors’ attachment to a national park and their perceptions of service quality. They found that tourists’ involvement had a significant positive effect on perceived service quality. Consistent with this literature we hypothesized that:

*H<sub>1</sub>: Workplace attachment impacts job satisfaction.*

To the best of our knowledge, there has been little research on the impact of job satisfaction on workplace attachment. However, several authors argue that the duration of the relationship between a person and a specific place plays an extremely important role in the development of attachment to a specific place such as a neighborhood, a city, or one’s home (Florek, 2011; Hernández, Hidalgo, Salazar-Laplace, & Hess, 2007). The psychological process underlying this phenomenon can be explained by the greater number of potential experiences with the place; as postulated by Rubinstein and Parmelee (1992), positive experiences with a place generally lead to greater attachment to it. According to Hernández et al. (2007), people are attached to a place if they experience a sense of comfort and security there. Consequently, it can be assumed that a place that satisfies an individual can influence the development of a feeling of attach-

ment (Insch & Florek, 2008), and that citizens' satisfaction is an antecedent of their attachment to the place (Zenker & Rütter, 2014). According to Dinç (2007), employees who feel comfortable (in terms of security, atmosphere, productivity, independence, and concentration) and aesthetically satisfied (to the extent that they are free to personalize their office) are not impeded by the conditions of employment as such; most of them have a positive perception and even a strong attachment to their workplace, demonstrating that the latter can effectively support an employee's daily performance.

*H<sub>2</sub>: Job satisfaction impacts workplace attachment.*

## METHOD

### Participants and Procedure

Potential participants were drawn from a list of alumni of four French universities. To be included in our study, they had to work full time in a French company and be willing to evaluate their perceived values regarding attachment to their workplace. We sent letters to 350 workers explaining the study and the criteria for participation. A total of 325 Francophone workers in 14 organizations agreed to participate in this research. They received a letter containing the objectives of the research and a questionnaire. They were informed that the questionnaire was completely anonymous and that the data would be analyzed in an aggregated form. Six months later, the same questionnaire was sent to the participants who had answered the first questionnaire ( $N = 325$ ). Anonymity was guaranteed by giving each employee the same random code for T1 and T2. The T1 and T2 questionnaires were collected by hand in a sealed envelope at their workplace. The participants were all employed in medium and large organizations in various professional sectors: banking, health, education, trade, and retail. Men made up 59% of the sample, and the age range was 20 to 60 years ( $M = 38.5$ ,  $SD = 9.3$ ). Forty-six per cent of the sample worked in the public sector and 54% in the private sector. Length of service ranged from 2 to 38 years ( $M = 12$ ,  $SD = 4.2$ ); 79% had permanent contracts.

### Instruments

The questionnaire had three sections. The first part collected information about age, sex, type of contract, sector of employment, and length of service. The second and third parts included the following scales:

The Workplace Attachment Scale (WAS; Rioux, 2006), which has seven items with a 5-point Likert type response scale, ranging from 1 (*totally disagree*) to 5 (*strongly agree*). An example item is: "This workplace is part of me."

Twelve items from the "intrinsic satisfaction" subscale of the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England, & Lofquist, 1967). Responses are made on a 5-point Likert scale, ranging from 1 (*totally unsatisfied*) to 5 (*totally satisfied*). An example item is: "I have the chance to do something that allows me to use my abilities."

### Data Analysis

Data was analyzed using structural equation modeling techniques with the AMOS 5.0 software (Arbuckle, 1997). The variables measured at T1 and T2 were included in the model as latent factors. In or-

der to minimize bias errors of common variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), two assessments were made six months apart. To control for inflated measurement errors due to the high number of indicators for each latent variable and to improve the reliability and normality of measurements (Nasser-Abu, Alhija, & Wisenbaker, 2006), we created three parcels for each latent factor using Rogers and Schmitt's (2004) factorial algorithm. The procedure for creating the parcels was as follows: first, we carried out a factor analysis with the maximum likelihood extraction method for each scale, and then ranked the items in descending order according to factorial weight; we then assigned them to three parcels according to their factorial weights. This method made it possible for each parcel to have an almost identical factorial weight. The parcels at T1 and T2 were the same. Finally, we tested and compared four different models:

Stability model (M1). This model presents structural relationships between the same latent variables at T1 and T2 and correlations in time synchronicity. The temporal stability relationships of the scales were explored by calculating correlations between the constructs for each observed pair of variables (T1 and T2). This model provided an estimate of the overall parameter stability between the first and second rounds (Pitts, West, & Tein, 1996).

Causal Model (M2). This model is identical to the first, but it also contains the structural parameter between workplace attachment (T1) and job satisfaction (T2).

Inversed causal model (M3). This model is identical to the stability model, but it also contains the structural parameter between job satisfaction (T1) and workplace attachment (T2).

Reciprocal model (M4). This model includes all the reciprocal relationships between workplace attachment and job satisfaction. It includes all the parameters in Models 1, 2, and 3.

The models were compared using  $\Delta\chi^2$  test. The goodness of fit of the model was tested using the following indices:  $\chi^2/df$ , adjusted goodness-of-fit index (AGFI), nonnormed fit index (NNFI), comparative fit index (CFI), root mean square error of approximation (RMSEA). In this study, we considered a model to be satisfactory if the structural parameters were significant at a threshold lower than .001, if the ratio between  $\chi^2$  and degrees of freedom was less than 3, if the AGFI index was greater than .90, the NNFI and CFI indices were above .95, and the RMSEA index below .08 (Jöreskog & Sörbom, 1986).

## RESULTS

### Preliminary Analysis

First, we tested the factorial structures of the WAS and the MSQ. For this study, we confirmed the single-factor structure of the WAS (T1:  $\chi^2 = 35$ ,  $df = 14$ ,  $\chi^2/df = 2.50$ , AGFI = .90, NNFI = .95, CFI = .96, RMSEA = .06; T2:  $\chi^2 = 32$ ,  $df = 14$ ,  $\chi^2/df = 2.28$ , AGFI = .91, NNFI = .96, CFI = .96, RMSEA = .05), explaining 59% of the variance at T1 and 62% at T2, and we obtained a Cronbach's  $\alpha$  of .82 and .84. For intrinsic satisfaction of MSQ, the CFA on our data confirms the one-dimensional structure (T1:  $\chi^2 = 124$ ,  $df = 54$ ,  $\chi^2/df = 2.37$ , AGFI = .92, NNFI = .98, CFI = .98, RMSEA = .05; T2:  $\chi^2 = 121$ ,  $df = 54$ ,  $\chi^2/df = 2.24$ , AGFI = .92, NNFI = .98, CFI = .98, RMSEA = .04), with an explained variance of 47% at T1 and 50% at T2, and a Cronbach's  $\alpha$  of .92 and .93.

To test longitudinal measurement invariance we calculated, for workplace attachment and job satisfaction separately, three models: a configural invariance model, a weak factor invariance model (metric), and a strong factor invariance model (scalar) (van de Schoot, Lugtig, & Hox, 2012). Table 1 shows the fit indices on the models. The test confirms the longitudinal invariance of measures.

TABLE 1  
Longitudinal measurement invariance

Model	$\chi^2$	df	$\Delta\chi^2$	$\Delta df$	p	NNFI	RMSEA
Workplace attachment							
Configural	.42	2	-	-	-	.97	.03
Metric	.58	3	.16	1	.69	.97	.03
Scalar	1.04	5	.46	2	.79	.95	.05
Job satisfaction							
Configural	.63	2	-	-	-	.98	.00
Metric	.78	3	.15	1	.69	.97	.02
Scalar	.82	5	.04	2	.98	.96	.03

*Note.* For both variables the parceled models are tested. NNFI = nonnormed fit index; RMSEA = root mean square error of approximation.

### Hypothesis Test

Table 2 presents the correlation indices between the variables in the study. For sociodemographic variables, there are no significant correlations between workplace attachment scores and job satisfaction scores, at either T1 or T2. By contrast, all the variables of the model are correlated with each other ( $p < .001$ ). The 6-month test-retest indicates good data stability for attachment to the workplace ( $r = .72$ ,  $p < .001$ ) and job satisfaction ( $r = .75$ ,  $p < .001$ ).

TABLE 2  
Correlation matrix

	1	2	3	4	5	6	7	8	9
1 Sex <sup>+</sup>	—								
2 Job sector <sup>+</sup>	.09	—							
3 Type of contract <sup>+</sup>	.02	.23**	—						
4 Age	.05	.12*	.22**	—					
5 Organizational tenure	.09	.09	.05	.10	—				
6 Workplace attachment T1	.08	.07	.00	.07	.05	.85			
7 Job satisfaction T1	.11	.10	.03	.01	-.12*	.34**	.92		
8 Workplace attachment T2	.08	.08	.02	.01	.04	.72**	.33**	.83	
9 Job satisfaction T2	.09	.09	.02	.09	-.10	.37**	.75**	.42**	.91

*Note.*  $N = 325$ ; + = Kendall's Tau index; Cronbach's  $\alpha$  on the diagonal.

\*  $p < .01$ . \*\*  $p < .001$ .

Next, we analyzed the previously defined structural models to test our hypotheses about the directionality of the effect using a maximum likelihood estimation method. Table 3 shows the fit indices of the four models and the  $\Delta\chi^2$  comparing the models. Overall, the models all showed a good fit, as the AGFI was

equal to or greater than .90, the NNFI and the CFI greater than .95, and the RMSEA lower than .08; moreover, the  $\chi^2/\text{degrees of freedom}$  ratio was equal to or less than 3.

The stability model (M1) confirms the good quality of the longitudinal data, because, as mentioned above, there were significant correlations between workplace attachment scores and job satisfaction scores at T1 and T2. The causal model (M2), which emphasizes the effect of workplace attachment on job satisfaction, seems to have better results than the stability model (M1) [ $\Delta\chi^2 (1) = 11, p < .001$ ]. The inversed causal model (M3) does not provide a significant improvement over the stability model [ $\Delta\chi^2 (1) = 3, p = ns$ ]; furthermore, the structural parameter highlighting the effect of job satisfaction on attachment to the workplace is not significant ( $p = .08$ ). This indicates that the model testing the direct effect between job satisfaction and workplace attachment does not confirm the directionality of the effect. Finally, the reciprocal model (M4), in which the parallel effect of the variables were tested on each other, is better than the stability model (M1) [ $\Delta\chi^2 (2) = 10, p < .01$ ], but inferior to the causality model (M2) [ $\Delta\chi^2 (1) = 1, p = ns$ ]; the  $\chi^2$  of Model 4 (= 125) was greater than that of Model 2 (= 124). This result could be attributed to the low value of the added parameter, as the structural parameter highlighting the effect of job satisfaction on workplace attachment is not significant ( $p = .07$ ).

TABLE 3  
Fit indices of the models

Model	$\chi^2$	df	$\chi^2/df$	AGFI	NNFI	CFI	RMSEA	Comparison	$\Delta\chi^2$	$\Delta df$	p
Stability (M1)	135	44	3.06	.91	.95	.96	.07				
Causal (M2)	124	43	2.88	.95	.99	.99	.04	M2 vs. M1	11	1	< .001
Inversed causal (M3)	132	43	3.06	.91	.93	.95	.08	M3 vs. M1	3	1	ns
Reciprocal (M4)	125	42	2.97	.92	.93	.95	.08	M4 vs. M1	10	2	< .01

Note.  $N = 325$ ; AGFI = adjusted goodness-of-fit index; NNFI = nonnormed fit index; CFI = comparative fit index; RMSEA = root mean square error of approximation.

Figure 1 shows that the causal model (M2) yielded good significance for all indices ( $p < .001$ ). Moreover, all the covariances between the errors of each pair of items at T1 and T2 were significant ( $p < .001$ ); this model accounted for 54% of the variance in job satisfaction.

## DISCUSSION

The aim of this study was to test the relationship between workplace attachment and job satisfaction, using a semilongitudinal model in a nonexperimental research plan, and structural equations to test the directionality of the effect between workplace attachment and job satisfaction. Few studies have examined the relationship between attachment to the workplace and job satisfaction. However, Rioux (2005), using a multiple regression model, observed that intrinsic satisfaction was a predictor of the workplace attachment of hospital staff. By contrast, in environmental psychology, Ramkissoon and colleagues (2013), using the same analysis technique, observed that attachment to the workplace was a good predictor of satisfaction. However, both these examples have the abovementioned limitations of correlational research and thus do not provide insight into the direction of the effect (Gollob & Reichardt, 1987; Maxwell, Cole, & Mitchell, 2011



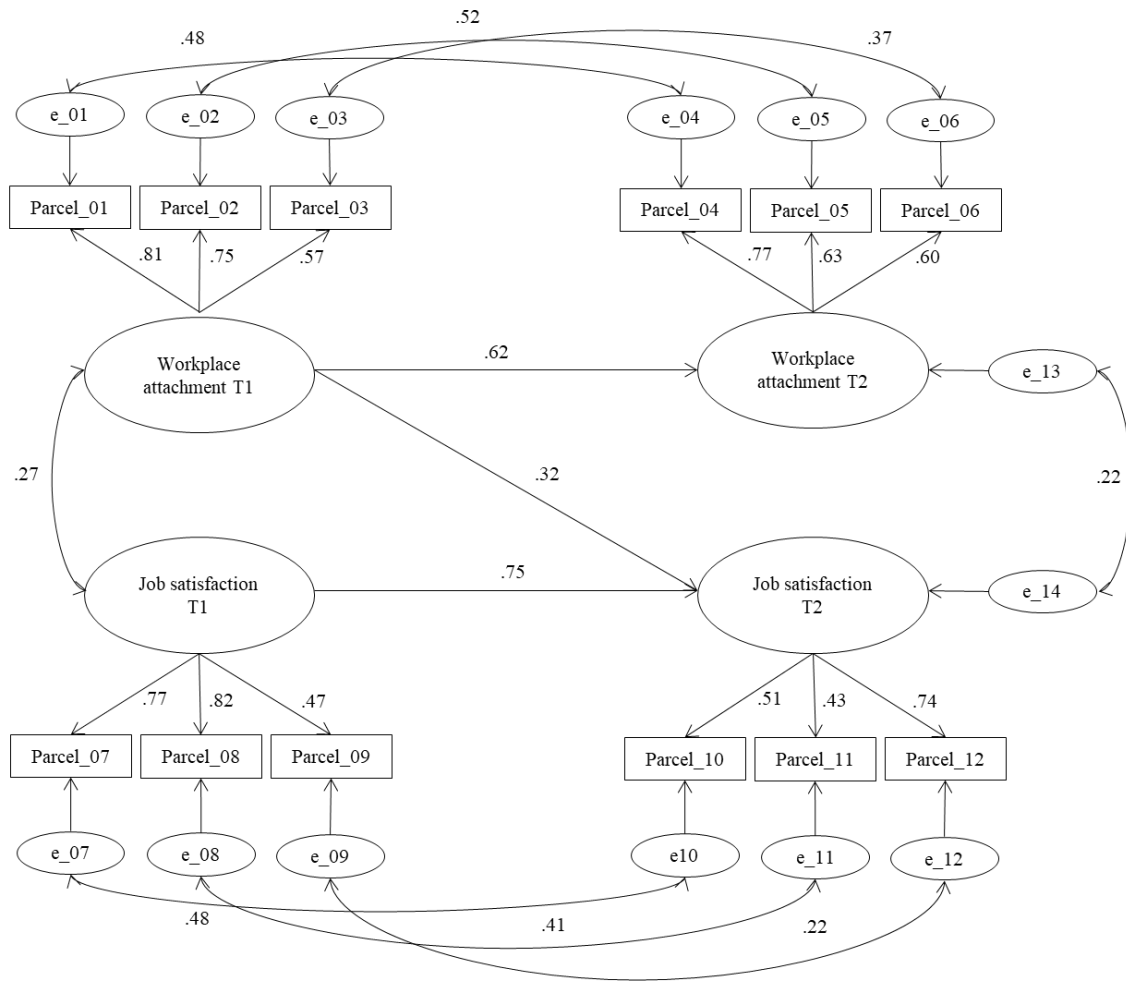


FIGURE 1  
Causal model (M2).

Selig & Preacher, 2009). In the present study, we confirmed that a semilongitudinal survey, combined with analysis of different structural equation models, could provide more information about the direction of the effect. We tested Hypotheses 1 and 2 respectively by causal (M2) and inversed causal (M3) models, but only the causal model (M2) was significantly better than the stability model (M1). Obviously, this study is limited by the complexity of the phenomena, the use of self-evaluation scales, and the nonrepresentativeness of the sample, and the results must be interpreted with caution. However, from a probabilistic point of view, it is fair to say that greater attachment to the workplace will lead to greater satisfaction at work, but not vice versa.

From a theoretical point of view, our results are in line with those of the meta-analysis conducted by Connolly and Viswesvaran (2000), showing that 10 to 25% of the variance in job satisfaction can be attributed to differences in affective disposition between individuals, and more particularly to positive affectivity. Note that our definition of the concept of attachment to the workplace refers to the positive emotional bond between individuals and their workplace. Moreover, in accordance with Brief and Roberson's (1989) observation that the QSM essentially evaluates cognitions, our research supports the line of research based on the view that emotions influence cognitions at work (Van Hoorebeke, 2008).



Two avenues could be explored to develop this result further. The Workplace Attachment Style Questionnaire (WASQ; Scrima, 2018) could be used to assess attachment to the workplace in its secure, avoidant, and anxious dimensions, increasing the impact of the emotional bond, whatever its valence, on the cognitive dimension of job satisfaction (Scrima, Rioux, & Di Stefano, 2017). Job satisfaction could be evaluated globally using a single item as recommended by Mignonac (2004). In general, a better understanding of the impact of psycho-environmental variables such as attachment to the workplace on job satisfaction could enrich the debate on the operationalization of the concept of job satisfaction.

From an applied point of view, this result, if confirmed by other studies, could have important implications for human resource management. In environmental psychology, place is considered part of the identity of each individual. Human resource managers could therefore increase their employees' job satisfaction through organizational development plans aimed at increasing their attachment to the workplace (Moffat, Mogenet, & Rioux, 2016; Scrima, Moffat, & Rioux, 2016). For example, as suggested by Harms (2011), employees should be allowed to customize their offices, create spaces for conviviality or be involved in choosing their office. Furthermore, the customization of spaces should be internalized through training interventions aimed at enhancing *self* by promoting the role of comfort in the workplace. These activities could promote attachment to the workplace and thus improve job satisfaction, leading to higher performance, reduced absenteeism, and improved employee health.

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