

# ENVIRONMENTAL SATISFACTION AT WORK, SATISFACTION AT WORK AND TURNOVER INTENTION. STUDY ON A SAMPLE OF FRENCH OFFICE WORKERS

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**Abstract:** *Our article aims to identify the impact of two types of variables connected to satisfaction: a variable coming from the field of Environmental Psychology (environmental satisfaction at work) and a variable coming from the field of Work Psychology (work satisfaction). The results of ascending incremental regressions (step by step) show that the dimension „Environmental Alienation” of the ESAW and the age constitute predictors of the turnover intention.*

**Key words:** *Environmental satisfaction at work, satisfaction at work, turnover intention, office workers in France.*

## 1. Introduction

Since the pioneering research of Mayo in the 30's, work satisfaction is without a shadow of a doubt a central concept of organisational psychology (Paillé, 2008), considering primarily its role as a mediator between the working conditions and the individual and organisational effects (Dormann & Zapf, 2001). There are various works on the subject, and they refer to numerous, sometimes contradictory models (Roussel, 1996); however, there seems to be a certain consensus around considering work satisfaction to be an attitude (Spector, 1997; Wright, 2006), thus entailing a global evaluation of objects (Ajzen, 2001). It would also be the result of an assessment that a person does on his work or on his work situation (Paillé, 2008), or of the things he likes and does not like in his job, including the working conditions (Lent, 2008).

Various authors concentrated in detail on the characteristics of the physical work environment and connected them to the employees' satisfaction (Moos, 1973; Weiss, Dawis, Angleterre, & Lofquist, 1977).

For instance, Carlopio (1996) postulates that the physical environment has certain effects on the employees' behaviour and attitudes at work, precisely on the work satisfaction, the intention to quit one's job and the professional commitment. Actually, these results support the thesis according to which the physical working environment entails the psycho-social working environment as well.

Along the same line, Bodin-Danielsson (2013) describes a study in which she pinpoints to

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the impact of the architectural conception of the working spaces on work satisfaction, on health and perceived level of stress. We should also mention the research conducted by Tomovska–Misoska et al. (2014), which had as subjects 250 employees of a bank in Macedonia and employees of the IT and Communications industry, which confirms that environmental satisfaction at work and work satisfaction depend on office conception, in point of space range, lighting conditions, privacy and air quality.

Last but not least, Wells (2000) postulates that “work satisfaction is partly explained by the satisfaction felt towards the working environment, especially when the employees work in open-space offices” (Wells, 2000, as cited by Pasquier & Rioux, 2014, p. 277).

## 2. Objectives

While certain researches focused on the impact of work satisfaction (Besseyre des horts & Nguyen, 2010) or of the environmental satisfaction at work (Carlopio, 1996) on the intention to leave the organisation, no research, as far as we know, has put together the two variables in a single work,

We are well aware of the fact that numerous variables numerous, especially economic variables are known to have an impact on the intention to quit. Nonetheless, in this research we do not aim to trace the ensemble of variables which predict the intention to leave an organisation, but to confront two types of variables connected to satisfaction: one variable coming from the field of environmental psychology (environmental satisfaction at work) and another variable coming from the field of work psychology (work satisfaction).

## 3. Materials and Method

Our sample is made of 102 office workers who conduct their activity in occupational health centres, in Paris. The participants are aged between 25 and 35 ( $M = 30.22$ ;  $SD = 9.23$ ), with a length in service in the organisation ranging from 3 months to 14 years ( $M = 4.65$ ;  $SD = 4.33$ ). Sixty-five percent of the participants are women. Three percent consider themselves as management, 44% superior qualified workers, 13% as intermediate workers and 43% as employees.

The questionnaire is made of four parts:

(a) The Scale of Environmental Satisfaction at Work (SESW) (Moffat, Mogenet, & Rioux, 2016. Tested on a population of office employees working in occupational health centres and in banks (Moffat, 2016b; Moffat, et al., 2014), the SESW demonstrates acceptable psychometric characteristics. The Cronbach Alpha is situated between .71 and .90

The temporal stability and convergent validity indices are indeed satisfactory. This scale is made of 58 items distributed on ten dimensions: Layout (for example “it’s a spacious company”), Security (for example “I feel safe when I go out of the company a bit late”), Calm (for example “the office is calm”), Transport (for example “I can get to work easily”), Sociability (for example, “the employees work together easily”), Trading (for example “there are enough shops near my company”), Environmental alienation (for example „I’m getting bored in this office”), Neighbourhood agreeableness (for example “The neighbourhood architecture is nice”), Green Spaces (for example “the green spaces which are closest to the company are too often closed to the public”), Agreeableness of the university (for example „the spaces in this university are in a bad state”). The answer scale

comprises five levels going from 1- “totally disagree” to 5-I “totally agree”.

(b) The French adaptation (Roussel, 1996) of the short version of the Minnesota Satisfaction Questionnaire (MSQ) of Weiss et al. (1977).

This tool comprises 20 items (for example “the accomplishment feeling that you get from your work”). Its one-dimensional version was used by Casoinic (2011) in the biotechnology sector, by Rioux and Pignault (2013) in a supermarket in Paris, by Mignonac (2004) in the industry and tertiary sectors. The MSQ presents satisfactory psychometric qualities, with an Alpha Cronbach value of .91. The answers are assessed on a five-point Likert scale going from (1) very unsatisfactory to (5) very satisfactory.

(c) The turnover intention scale Mobley, Griffeth, Hand & Meglino, 1979). This one-dimensional scale is made of three items (for example „I often think of leaving my current company).

It has been used in different organisational contexts: the IT industry, financing and services, (Elçi, Karabay, Alpkın, & Şener, 2014), public service (Paillé, 2006, 2007) or the health sector (Michaels & Spector, 1982). The assessment of each item is done on a five-point Likert scale going from (1) total disagreement to (5) total agreement.

(d) An identification part which allowed us to trace the socio-demographic (age, sex) and organisational (length in service in company, length in service on a given position, status) characteristics of the sample

The participants asked via their professional social networks and e-mail to answer our questionnaire, which primarily described the objectives of the research and then asked the subjects to participate by answering the four parts of the tool presented above. The completion time was around 20 minutes.

## 4. Results and Discussion

### 4.1. Descriptive Statistics

The univariate normality of the items was verified. To be exact, the asymmetry and flattening indices are acceptable, as they range between -1 and +1. We afterwards measured the multivariate normality. The Mardia index of 3460 is convenient, due to the fact that it is inferior to the threshold value of 3480.

The descriptive results obtained on the „environmental satisfaction at work” scale are presented in table 1.

The Alpha Cronbach values calculated for each of the 10 ESAW factors are acceptable (from .51 to .92), although a little feeble as far as the dimension “Agreeability of the Company” is concerned (Alpha value of .51). Nevertheless, we note that the deletion of item 26 of the dimension “sociability” would increase the Alpha value to .70 instead of .63, and the deletion of item 15 of the dimension “green spaces” would increase the coefficient to .76 instead of .63. However, we have chosen to keep these items.

The results bring forward a medium level of global environmental satisfaction ( $M = 3.07$ ;  $SD = 0.97$ ). The average values of each dimension range from 3.35 (for the dimension „transport”) to 2.09 (for the dimension „green spaces”). The dimensions „transport” ( $M = 3.35$ ;  $SD = 0.96$ ) “agreeability of the company” ( $M = 3.23$ ;  $SD = 0.80$ ), „agreeability of the neighbourhood” ( $M = 3.19$ ;  $SD = 1.06$ ), „layout” ( $M = 3.19$ ;  $SD = 0.98$ ) and „trading” ( $M = 3.17$ ;  $SD = 1.04$ ) obtain significantly higher values on average as compared to the „sociability” dimension ( $M = 3.02$ ;  $SD = 0.74$ ) ( $p < 01$ ).

Table 1

*Descriptive statistics of the 10 factors of ESAW*

| Factor                           | No. of items | M    | SD   | Alpha Cronbach | Explained variance |
|----------------------------------|--------------|------|------|----------------|--------------------|
| Transport                        | 5            | 3.35 | 0.96 | .71            | 7.46 %             |
| Agreeability of the company      | 4            | 3.23 | 0.80 | .51            | 4.41 %             |
| Agreeability of the neighborhood | 5            | 3.19 | 1.06 | .88            | 4.18 %             |
| Layout                           | 8            | 3.19 | 0.98 | .92            | 10.82 %            |
| Trading                          | 4            | 3.17 | 1.04 | .64            | 7.75 %             |
| Sociability                      | 7            | 3.02 | 0.74 | .63            | 3.15 %             |
| Security                         | 8            | 2.97 | 1.14 | .89            | 12.39 %            |
| Calm                             | 9            | 2.91 | 0.84 | .81            | 7.00 %             |
| Environmental alienation         | 5            | 2.90 | 0.86 | .70            | 3.27 %             |
| Green spaces                     | 3            | 2.09 | 1.12 | .63            | 6.54 %             |
| ESAW                             | 58           | 3.07 | 0.97 | .95            | 65.97%             |

ESAW: Environmental Satisfaction at Work scale

Moreover, the comparison of the average values shows that the satisfaction of employees towards the green spaces which are close to their organisation registers a significantly more feeble value ( $M = 2.09$ ;  $SD = 1.12$ ) as compared to the „environmental alienation” dimension ( $M = 2.90$ ;  $SD = 0.86$ ), with a threshold of  $p < .001$ . The office workers in health centres seem little satisfied of the green spaces surrounding their company, probably because most of the (Ile de) France centres are far from green spaces and situated in economically dynamic neighbourhoods. The highest average values registered for the dimensions “transport” “agreeability of neighbourhood” and “trading” go in the same direction. Finally, we register high average values for the dimensions “agreeability of the company” ( $M = 3.23$ ;  $SD = 0.80$ ) and “layout” ( $M = 3.19$ ;  $SD = 0.98$ ), referring to the company premises.

The psychometric qualities of the MSQ and of the turnover intention scale were afterwards verified. For the MSQ, the results show the one-dimension nature of the scale, with an explained variance of 43.77% and a proper value of 8.76. The Cronbach Alpha is satisfactory ( $\alpha = .76$ ). Furthermore, the factorial analysis conducted starting from the items of the turnover intention scale leads to the appearance of one dimension only, which presents 83,56% of the explained variance and a proper value of 2.51. The Alpha Cronbach is also very satisfactory ( $\alpha = .90$ ).

#### **4.2. The Connections between Environmental Satisfaction at Work and the Socio-Demographic, Socio-Organisational and Psycho-Organisational Variables**

The correlation matrix between the ESAW dimensions and the socio-demographic, socio-organisational and psycho-organisational variables was examined. The socio-demographic variable “age”, the dimension “environmental alienation” of the ESAW and the variable “work satisfaction” correlate significantly with the organisational behaviour “turnover intention” with a threshold of  $p < .05$ .

Table 2

*Correlations between the socio-demographic variables, the socio-organisational variables, the 10 factors of ESAW, work satisfaction and turnover intention*

|   | Turnover intention |
|---|--------------------|
| <b>Age</b>                                | -.20*              |
| <b>Sex</b>                                | .04                |
| <b>Company department</b>                 | -.19               |
| <b>Length in service in the company</b>   | -.14               |
| <b>Length in service in the position</b>  | -.17               |
| <b>Environmental satisfaction at work</b> | .01                |
| Layout                                    | -.07               |
| Security                                  | .11                |
| Calm                                      | -.05               |
| Transport                                 | .04                |
| Sociability                               | -.07               |
| Trading                                   | .14                |
| Environmental Alienation                  | -.23*              |
| Neighbourhood Agreeableness               | .08                |
| Green Spaces                              | .02                |
| Agreeableness of the company              | .09                |
| <b>Work Satisfaction</b>                  | -.23*              |

\*  $p < .05$  ; \*\*  $p < .01$  ; \*\*\*  $p < .001$

The dimension “environmental alienation” concerns the physical work environment, which, according to Carlopio (1996), is strongly connected to work satisfaction and turnover intention. Moreover, according to Giraud (2012), the researches point out that „the connection between satisfaction and turnover intention is more obvious than the connection between satisfaction and actually leaving the organisation” (Hom, et al., 1992; Mobley, 1977, 3) . What is more, the same author shows that generational affiliation does not have an impact on the intention to quit.

Table 3

*The predictive effects of age and environmental alienation at work on the turnover intention*

| Criterion          | Predictor                | Beta | R <sup>2</sup> | t     | p         |   |
|--------------------|--------------------------|------|----------------|-------|-----------|---|
| Turnover intention | Environmental Alienation | -.42 | .05            | -2.87 | $p < .01$ | R=.34   |
|                    | Age                      | -.04 | .11            | -2.57 | $p < .05$ | R <sup>2</sup> =.11<br>F(2,99)=6.32 ; $p < .01$ |

### 4.3. Predictors of Environmental Satisfaction at Work

An ascending incremental regression analysis (step by step) was afterwards conducted, successively considering as criteria the socio-demographic variable “age”, the dimension „environmental alienation” of the ESAW and the variable “satisfaction at work” of the MSQ. The introduced predictors correspond with the variables and correlate with age? ( $R^2 = .11$ ) and they predict the intention to quit the company. Work satisfaction is not a predictor at .05. The more routine makes place in the working environment, the younger the employee, the higher his intention to quit the company.

#### 4.4. Discussion

We have noticed that the office employees of healthcare centres in (Ile de) France were very satisfied with the premises as well as with the neighbourhood where the company was situated. As a matter of fact, since we have entered the third industrial revolution, the work environment is no longer centred around the work station but entails a larger space, including the office space and the neighbourhood.

This could explain why more and more companies design functional office spaces in dynamic businesses neighbourhoods. This is the case of Tour Totale Coupole in the business neighbourhood “La Defense”. However, it would be interesting to build on the impact of the localisation of the neighbourhood on environmental satisfaction at work, because according to an IFOP research (2014) “*Paris Workplace 2014*” the satisfaction felt towards the neighbourhoods of (Ile de) France differs based on their geographical position. Only 40% of the questioned office workers would be satisfied with the location of their organisation based on the time that it takes them to get from home to work, public transport accessibility and security of the environment.

It was shown that environmental alienation and age constitute predictors of the turnover intention. In other words, a young employee who gets bored or does not progress in his job would have the intention to quit more than an older employee. This goes in the same line with the works of McElroy and Morrow (2010), who show that, depending on their age, the employees have different reactions which are triggered by the perception that they have on their space and by the interest they demonstrate in their job. Whether they want to stay with the company or quit, more than four employees are touched by work routine or work boredom, commonly known as “bore-out” (Régionsjob, 2015).

At present, the companies show increasing interest in the layout of the working environment in order to increase productivity (Ulrich, 2003) or reduce absenteeism (Carlopio, 1996) and they design the space as a place to live in (Le troisième œuvre, 2012).

It is indeed true that the company “cannot ignore the fact that work quality depends on the notion of wellness, on motivation, on enthusiasm, progress and pleasure. Half of the employees transform their work frame into an essential element” (<http://letroisiemeoeuvre.com/lamenagement-des-espaces-une-strategie-rh-2/>).

Consequently, the work environment is a key of performance and wellness at work. It is therefore essential for the organisations that the HR representatives invest in the layout of work environments, which would allow to ensure the loyalty of their employees. Of course, these results have to be prudently considered and should be confirmed before they could serve as indicators for the human resources responsible, specifically in the sectors where they are constantly confronted with important personnel turnout.

#### 5. Conclusions

The results of this research can be practically applied and could suggest various means of intervention to the human resources managers. In order to avoid or control the bore-out, the human resources managers should regularly apply assessment questionnaires using their career management tools, in order to foster work motivation via the formation, renewal of tasks, reorganisation of work spaces or internal mobility

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## References

- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52, 27-58.
- Bodin-Danielsson, C. (2013). L'impact de la conception architecturale des bureaux sur le confort et le bien-être des employés. In L. Rioux, J. Le Roy, L. Rubens, J. Le Conte (eds.), *Le confort au travail. Que nous apprend la psychologie environnementale?* (pp. 17-39). Laval: Presses Universitaires de Laval.
- Carlopio, J. R. (1996). Construct validity of a Physical Work Environment Satisfaction Questionnaire. *Journal of Occupational Health Psychology*, 1(3), 330-344.
- Casoinic, D. (2011). *Leadership et diversité démographique dans les organisations : l'influence de l'âge sur les relations LMX, le leadership transformationnel, la satisfaction au travail et l'engagement affectif*. Unpublished Ph.D. Thesis, Université de Grenoble, Grenoble, France.
- Des Horts, C. H. B., & Nguyen, V. (2010). Satisfaction, implication, engagement, enracinement et intention de départ des jeunes cadres - Une relation ambiguë. *Revue Internationale de Psychosociologie*, 16(40), 143-160.
- Dormann, C., & Zapf, D. (2001). Job satisfaction: A meta-analysis of stabilities. *Journal of Organizational Behavior*, 22(5), 483-504.
- Elçi, M., Karabay, M. E., Alpkan, L., & Şener, İ. (2014). The mediating role of mobbing on the relationship between organizational silence and turnover intention. *Procedia-Social and Behavioral Sciences*, 150, 1298-1309.
- Giraud, L. (2012). *L'intention de quitter l'entreprise : une approche par l'étape de carrière et l'appartenance générationnelle du salarié*. Unpublished Ph.D. Thesis, EM Lyon Business School, Lyon, France.
- Lent, R. (2008). Une conception sociale cognitive de l'orientation scolaire et professionnelle: considérations théoriques et pratiques. *L'orientation scolaire et professionnelle*, 37(1), 57-90.
- McElroy, J. C., & Morrow, P. C. (2010). Employee reactions to office redesign: A naturally occurring quasi-field experiment in a multi-generational setting. *Human Relations*, 63(5), 609-636.
- Michaels, C. E., & Spector, P. E. (1982). Causes of employee turnover: A test of the Mobley, Griffeth, Hand, and Meglino model. *Journal of Applied Psychology*, 67(1), 53-69.
- Mignonac K. (2004). Que mesure-t-on réellement lorsque l'on invoque le concept de satisfaction au travail? *Revue de Gestion des Ressources Humaines*, 53, 80-93.
- Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, 86(3), 493-499.
- Moffat, É. (2016). *La satisfaction environnementale au travail des employés de bureaux*. Unpublished Ph.D. Thesis, Université Paris Nanterre, Nanterre, France.
- Moffat, É., Mogenet, J. L., & Rioux, L. (2016). Développement et validation d'une Échelle de Satisfaction Environnementale au Travail (ÉSET). *Psychologie Française*, 61, 196-206.
- Moffat, E., Scrima, F., Rioux, L., & Mogenet, J. L. (2014). *Satisfaction au travail, satisfaction environnementale au travail et intention de retrait. Une étude menée auprès d'une population d'employés de bureau*. Poster présenté au XVIIIème Congrès de l'Association Internationale de Psychologie du Travail de Langue Française (AIPTLF), Florence, Italie.

- Moos, R. H. (1973). Conceptualizations of human environments. *American Psychologist*, 28 (8), 652-665.
- Paillé, P. (2006). Les relations entre l'implication au travail, les comportements de citoyenneté organisationnelle et l'intention de retrait. *Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology*, 56(2), 139-149.
- Paillé, P. (2007). Comportements de citoyenneté organisationnelle et intention de quitter : le rôle médiateur de l'intention de s'absenter. *Revue québécoise de psychologie*, 28(3), 209-225.
- Paillé, P. (2008). Les comportements de citoyenneté organisationnelle: une étude empirique sur les relations avec l'engagement affectif, la satisfaction au travail et l'implication au travail. *Le travail humain*, 71(1), 22-42.
- Pasquier, D., & Rioux, L. (2014). Satisfaction et confort au travail. L'apport de la démarche implicite. *Psychologie du Travail et des Organisations*, 20 (3), 275-293.
- Rioux, L., & Pignault, A. (2013). Workplace attachment, workspace appropriation, and job satisfaction. *Psychology: Revista Bilingüe de Psicología Ambiental-Bilingual Journal of Environmental Psychology*, 4, 39-65.
- Spector, P. E. (1997). *Job satisfaction: Applications, assessment, causes and consequences*. Thousand Oaks: Sage.
- Tomovska-Misoska, A., Stefanovska-Petkovska, M., Ralev, M., & Krliu-Handjiski, V. (2014). Workspace as a factor of job satisfaction in the banking and ICT industries in Macedonia. *Serbian Journal of Management*, 9(2), 159-171.
- Ulrich, R. (2003). *The impact of flowers and plants on workplace productivity*. Texas: A & M University.
- Wright T. A. (2006). The emergence of job satisfaction in organizational behavior: a historical overview of the dawn of job attitude research. *Journal of Management History*, 12(3), 262-277.
- \*\*\* *Paris Workplace 2014*. Available at: [http://www.ifop.com/media/poll/2639-1-study\\_file.pdf](http://www.ifop.com/media/poll/2639-1-study_file.pdf). Accessed: 02-02-2017.
- \*\*\* *L'aménagement des espaces, une stratégie RH*. Available at: <http://letroisiemeoeuvre.com/lamenagement-des-espaces-une-strategie-rh-2/>. Accessed: 02-02-2017.
- \*\*\* *Plus de 4 salariés sur 10 s'ennuient au bureau*. Available at: <http://www.regionsjob.com/actualites/plus-de-4-salaries-sur-10-sennuient-au-bureau.html>. Accessed: 02-02-2017.