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Decent Work and Work Engagement: A profile study with academic personnel

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Index

Abstract	3
Introduction	3
Literature Review	4
Method	8
Participants.....	8
Procedure	9
Instruments.....	9
Data Analysis	10
Results	12
Discussion	17
Implications	18
Limitations and recommendations for future research	19
Conclusion.....	19
References	21

Note: The present thesis is presented in an article format and structure.

Abstract: This study analyses the relationship between Decent Work and Work Engagement in Portuguese and Brazilian higher education teachers/researchers, and aims to identify distinct emergent profiles resulting from the relationship between these variables. The sample is composed of 749 participants and data was collected online, in both Portugal and Brazil, using the *Decent Work Questionnaire* (DWQ) and the *Utrecht Work Engagement Scale* (UWES). Results of multiple linear regressions show that Decent Work dimensions predict Work Engagement in all its three dimensions (Vigor, Dedication and Absorption). Profiles of workers regarding Decent Work dimensions were created using the K-means procedure. Differences regarding Work Engagement and its respective dimensions were analyzed through a MANOVA. The results help organizations to apply new strategies and policies for promoting higher levels of decent work, especially Opportunities to make their workers feel more engaged with their work. Limitations and directions for future research are considered.

Keywords Decent Work, Decent Work Profiles, Work Engagement, Academic Personnel.

Introduction

The main purpose of this research is to study the effect of different higher education academics' perceptions-based profiles of Decent Work on Work Engagement. This is an innovative study that may empirically support the theoretically adopted perspective that Decent Work plays an important role in the promotion of work engagement (Byrne, Peters, & Westen, 2016; Duffy et al, 2017; Ferraro et al., 2016a). In this way, this study will contribute to the existing knowledge on Decent Work, enriching it with the subjective experience as perceived by higher education teachers and researchers.

Our study is carried out under the Work, Organizational and Personnel Psychology (WOPP) perspective, which together with other disciplines provide useful knowledge to the developments of people, organizations and society.

In the present research, Decent Work is conceptualized as work - and a work-related context - that allows a professional to pursue a productive and fulfilling activity, with personal and professional opportunities for development, where the individual is treated with respect and acceptance, has freedom of speech, earns a remuneration that allows the professional to live with autonomy and dignity, offers social protection, and respects health and security conditions, with adequate distribution of working time and workload (Ferraro, Pais, dos Santos, & Moreira 2016c; ILO 1999).

Work Engagement is addressed as the degree to which people feel energized and enthusiastic regarding their work. It is characterized by vigor, dedication and absorption (Schaufeli, Bakker, & Van Rhenen 2009). Thus it is a positive, fulfilling, and work-related state of mind reflecting involvement, commitment, passion, effort, and energy (Joo, Lim, & Kim 2016; Schaufeli, & Bakker 2010; Schaufeli, González-Romá, & Bakker 2002b). Work engagement refers to the employee-work relationship and how it is perceived by the employees themselves (Joo, Lim, & Kim 2016; Schaufeli, & Bakker 2010).

In the present study, we focus specifically on higher education teachers and researchers. This is a professional group of knowledge workers, who have very specific demands and different types of contracts. This group has had an enormous expansion in Portugal and in Brazil (Rowe, Bastos, & Pinho, 2011), and it suffers from the intensification of demands like the pressure to publish more and more research and the need to balance all of their roles and tasks, such as research, teaching and managing. Academic personnel also have to deal with increasing diversity, by learning to communicate in other languages, for example. Furthermore, these two countries were affected by the global financial crisis, and this brought about consequences for a lot of professions and workers. Academic personnel were no exception and suffered wage reductions, as well as the suspension of their careers' development. Therefore, they suffer from increasing stress, putting their well-being on the line (Araújo, & Esteves 2016). In this scenario, it becomes especially relevant to study their work contexts under the umbrella of decent work. We question how far decent work is present in this profession and to what extent it can have an impact on workers' engagement.

There is not much research on the full range of Decent Work from a psychological perspective (Pereira, dos Santos, & Pais, 2017), especially in the professional group of academic personnel, and its impact on work engagement. We intend to contribute to fill this gap in the literature, hoping that it will bring relevant knowledge for both individuals and organizations.

The present study can be innovative both at a theoretical and a practical level. This research is useful by placing workers' perceptions of Decent Work at the fore front and, consequently, bringing relevant knowledge about essential topics in the quality of working life and general quality of life. We intend to verify to what extent different decent work profiles impact work engagement differently, as a way to promote both concepts in the workplace, since both bring benefits to individuals and organizations, as already mentioned (Ferraro, Dos Santos, Moreira, & Pais 2016a; Ferraro, Pais, Moreira, & dos Santos 2017a).

Literature review

Decent Work

The Decent Work (DW) concept has been developed by the International Labour Organization (ILO) since 1999 and, more recently, has become one of the Sustainable Development Goals for 2030. This construct has a long history and has been developed through several important steps (conferences, treaties, declarations, etc.) to achieve its current definition (Ferraro, Dos Santos, Pais, & Mónico 2016b). The Universal Declaration of Human Rights in 1948 and the International Labour Organization (ILO) foundation along with the United Nations (UN) played a significant role for the awareness of social justice and also for working conditions. We can see the convergence between the concept of Decent Work and the four main values that underlie ILO's action, which are freedom, equity, security and human dignity (Ferraro, Pais, & dos Santos 2015; Ferraro et al. 2016c; ILO 2008; Wicaksono, & Priyadi 2016). Therefore, these values include concepts such as work-life balance, career management, unemployment, participation, and compensation. (Ferraro et al. 2016c).

In 1999, the ILO's Director General Juan Somavia described decent work as an approach focused on people - a "people-centered approach" (ILO 2001, p.29) - and also elaborated four strategic objectives of Decent Work regarding employment, social protection, workers' rights, and social dialogue (Ferraro et al. 2015; Ghai 2002; Wicaksono, & Priyadi 2016). Three measures of Decent Work perceptions were developed (Duffy et al. 2017; Ferraro et al. 2016c; Webster, Budlender, & Orkin 2015). The measure created by Duffy et al. (2017) uses the concept of Decent Work as a different one from the ILO's definition. Webster et al.,'s (2015) instrument does not cover the full range of the Decent Work concept. In contrast, the Decent Work Questionnaire (Ferraro et al. 2016c) fits our approach in this research since it is the only instrument which covers the full range of the concept as defined originally by the ILO (Pereira, dos Santos, & Pais 2017). Decent Work concept is defined by seven dimensions according to Ferraro et al. (2016c, 2017a). The first dimension refers to Fundamental Principles and Values at Work – meaning that work and the workplace must reflect justice, dignity, freedom, acceptance, fairness, trust, clarity of norms, participation, solidarity and mental health. These principles are the core of the concept of Decent Work and work as its' foundations (Ferraro et al. 2016c, Ferraro et al. 2017a). It is important to mention one aspect that covered by this dimension, which is gender equality - making sure that there is no discrimination and that opportunities and remuneration, for example, are fair for men and women (Ferraro et al. 2015). This is a transversal goal to all dimensions of Decent Work. Moreover, the non-discrimination value was expanded to all categories that can, somehow, become a source of discrimination (Del'Olmo, & Darcanchy 2016).

The second dimension is Adequate Working Time and Workload - meaning that a decent balance between work and personal life is required. The work pace, deadlines, shifts and schedules should be adequate to the workers instead of overwhelming.

Fulfilling and Productive Work is the third dimension, which means that work must be a contribution to personal and professional development and fulfillment. It must also create value for both the individual and the society, thereby contributing for future generations. People have to feel that their work has a meaning and is worthy in some way.

The fourth dimension is Meaningful remuneration for the exercise of citizenship. This states that the remuneration received for the work is perceived as fair, and it allows the workers and their families, autonomy and dignity. Thus, this dimension includes the relationship between remuneration and the worker's perception of wellbeing, and, as a consequence, the perception of the fairness of this relationship.

Social Protection, the fifth dimension refers to the protection provided by public government or private insurance to workers and their families in case of unemployment, illness and retirement. This dimension can be felt as a distal recognition by society of the contribution that the workers give through their work.

The sixth dimension, Opportunities, relates to the prospects of possible developments in workers' careers, regarding learning, benefits, income and professional position and challenges. In this dimension, workers' perceptions of their own employability and entrepreneurship are included.

Finally, the seventh dimension, Health and Safety, includes workers' perceptions of being protected from risks to physical and psychological health at work. Therefore, the working conditions are perceived as safe allowing the maintenance of physical and psychological integrity.

All seven dimensions, and the concept of Decent Work as a whole, benefit individual workers but they also benefit multiple agents, such as the markets, organizations, politicians, and national leaders. This can happen not just on a national level but also on a global level, which shows the importance the world should give to Decent Work (Ferraro et al. 2015).

Empirical research has been developed on this subject, and Decent Work dimensions have been found to be highly motivating for workers. For that reason, it is associated with various types of work motivation, and also through the mediation of Psychological Capital (Ferraro et al. 2017a; Pereira, dos Santos, & Pais 2017). In addition, Decent Work is strongly related to autonomous types of motivation (Ferraro et al. 2016a). From a WOPP perspective, the importance of the concept of Decent Work is shown in its influence on work motivation and the resilience of workers, and, consequently, on their well-being and productivity (Ferraro et al. 2017a).

A recent study conducted among Knowledge Workers (Lawyers) showed a positive association of some dimensions of Decent Work (*Fulfilling and Productive Work, Fundamental Principles and Values at Work* and *Meaningful Remuneration for the Exercise of Citizenship*) with identified and intrinsic motivation (Ferraro et al. 2017b). Another group of Portuguese and Brazilian Knowledge Workers (Physicians) was analyzed, revealing that Decent Work - especially the dimensions *Fulfilling and Productive Work, Fundamental Principles and Values at Work* and *Opportunities* - plays an important role in producing work engagement in all its three dimensions (Ferraro et al. 2016a). Thus, we can see that these two concepts and their effects were already studied together. However, and as previously mentioned, our study will be innovative in the way that we will create Decent Work profiles and test their relationship with worker's engagement, as well as being conducted among a specific professional group that has never been analyzed before (academic personnel).

Work engagement

This concept was firstly introduced by Kahn (1990). According to him, people use different degrees of themselves, physically, cognitively and emotionally, in the performance of their roles. Another approach to work engagement is advocated by Schaufeli et al. (2002b), who consider engagement to be a specific mental state, positive, fulfilling and work-related. Instead of looking at their jobs as stressful, engaged employees look at them as demanding. They have a strong sense of energetic connection with their work. This perspective was also empowered by the development and growth of positive psychology (Araújo, & Esteves 2016; Bakker, Schaufeli, Leiter, & Taris 2008; Hakanen, Bakker, & Schaufeli 2006; Schaufeli 2017; Simbula, Guglielmi, Schaufeli, & Depolo 2013).

Some authors affirm that engagement represents the "positive antipode of burnout" (Bakker, Schaufeli, Demerouti, & Euwema 2007b, p. 229), considering engagement and burnout to be opposite sides of a work-related well-being continuum. (Maslach, & Leiter 1997; Maslach, Leiter, & Jackson 2012).

However, in the present study, we adopt another perspective, which supports the idea that engagement and burnout are two distinct and independent constructs (Schaufeli 2012; Schaufeli, & Bakker 2009; Schaufeli et al. 2002b; Schaufeli, & Salanova 2011).

According to this perspective, engagement is characterized by three dimensions: Vigor, Absorption, and Dedication (Bakker et al. 2007b). Vigor refers to high levels of energy and mental resilience regarding work tasks, to the willingness to invest effort into work, and to persist when facing obstacles. Thus, a worker who feels vigorous at his/her work is highly motivated and is more likely to be persistent when encountering difficulties at work. Absorption is characterized by being so concentrated, focused, and happily engrossed in work, that time passes by quickly and one has difficulty detaching oneself from work. Finally, dedication refers to the strong involvement in one's work, experiencing a sense of enthusiasm, inspiration, pride, challenge, and significance (Bakker et al. 2007b; Schaufeli 2012; Schaufeli, & Bakker 2010). Several definitions of engagement agree that it involves behavioral-energetic (vigor), emotional (dedication), and cognitive (absorption) components (Schaufeli, & Bakker 2010).

A lot of empirical research has also been done regarding Work Engagement. Among of the most important predictors of work engagement are job resources, some of which include job control/autonomy, performance feedback, task significance, social support, supervisory coaching, and organization-based self-esteem (Bakker, & Bal 2010; Christian, Garza, & Slaughter 2011; Mauno, Kinnunen, & Ruokolainen 2007), which turn out to be especially relevant for teachers (Hakanen et al. 2006). Thus, job resources were found to promote the positive development of work engagement (Altunel, Kocak, & Cankir 2015; Bakker, & Bal 2010; Bakker, Demerouti, & Sanz-Vergel 2014; Ferraro et al. 2016a; Ferrer, & Morris 2013; García-Sierra, Fernández-Castro, & Martínez-Zaragoza 2015; Hakanen et al. 2006; Iyer 2016; Lee, Shin, Park, Kim, & Cho 2017; Leiter, & Bakke, 2010; Prieto, Salanova, Martínez, & Schaufeli 2008; Schaufeli, & Bakker 2004; Schaufeli et al. 2009; Simbula et al. 2013; Yuan, Li, & Tetrick 2015; Kulikowski, & Sedlak 2017).

The opposite relationship can also be found, with work engagement being negatively related to the lack of job resources (Narainsamy, & Van Der Westhuizen 2013). Job resources also contribute to higher work engagement, while interacting with high job demands (Bakker, Hakanen, Demerouti, & Xanthopoulou 2007a). It has been found, through longitudinal research, that job resources, especially autonomy and social support, contribute to work engagement not only over time, but also from day to day (Bakker et al. 2014; Christian et al. 2011; Mauno et al. 2007). Other relevant antecedents of work engagement have been studied, such as some individual factors. In general, extroversion, emotional competences, conscientiousness, proactivity, optimism, and self-esteem are positively related to work engagement. Those who show high expression of such characteristics tend to interpret problems more positively, taking action towards their resolution (Bakker et al. 2012; Bakker et al. 2014; Christian et al. 2011; García-Sierra et al. 2015; Prieto et al. 2008; Wang, & Wanberg 2017).

When it comes to the consequences of work engagement, organizations can increase profitability through higher customer satisfaction and loyalty, employee retention, social support, performance quality, organizational commitment, and general productivity (Bakker et al. 2014; Kaur 2017). The benefits and

consequences of work engagement do not exist only at an organizational level. At the individual level, engagement produces growth, development, better social functioning, better task performance, and better health, and it increases self-efficacy beliefs (Adil, & Kamal 2016; Araújo, & Esteves 2016; Christian et al. 2011; Iyer 2016; Lee et al. 2017; Rich, Lepine, & Crawford 2010; Rodríguez-Muñoz, Sanz-Vergel, Demerouti, & Bakker 2014; Salanova, Agut, & Peiró 2005; Schaufeli, & Bakker 2010; Torp, Grimsmo, Hagen, Duran, & Gudbergsson 2012; Yuan et al. 2015).

Engaged employees experience their working conditions more positively and tend to have less sick related absence and turnover intention, which also promotes organizational citizenship and proactive behaviors, the latter being very important for modern organizations characterized by flexibility and fast changes due to globalization (Bakker et al. 2014; Bakker, Tims, & Derks 2012; Caesens, Stinglhamber, & Marmier 2014; Christian et al. 2011; Joo, Lim, & Kim 2016; Kaur 2017; Lee et al. 2017; Rongen, Robroek, Schaufeli, & Burdorf 2014; Sonnentag 2003). Perhaps because of these proactive behaviors, it is interesting to note that work engagement also predicts job resources (Bakker et al. 2014). In fact, work engagement improves the quality of working life and the quality of life outside the work domain promoting well-being, health, and happiness (García-Sierra et al. 2015; Narainsamy, & Van Der Westhuizen 2013; Rodríguez-Muñoz et al. 2014; Shimazu, Schaufeli, Kamiyama, & Kawakami 2015). Therefore, work engagement appears to be a good work-related health measure that should be promoted among workers (Torp et al. 2012).

As reported in previous studies mentioned above, work engagement is associated with many constructs that are comparable with the already explained Decent Work dimensions. Ferraro et al. (2016a), as previously stated, have found a positive relationship between Decent Work and Work Engagement in a sample of physicians. Since physicians and academic personnel are knowledge workers, it is expected that the same relationship would be found. Thus, our hypothesis is:

H1: Decent work is positively related to work engagement in academic personnel;

From the Decent Work dimensions that are significant for the prediction of work engagement, we looked for profiles based on these dimensions. We intend to verify if there are profiles of workers whose decent work perceptions are similar. In case we find those profiles, we intend to verify if they are significantly different in predicting work engagement. This intention can be rephrased as research questions:

Are there profiles of workers based on decent work dimensions? In case the answer is yes, what are the differences between those profiles for the prediction of work engagement?

Method

Participants

Our sample is composed of Brazilian ($N = 411$; 54.9%) and Portuguese ($N = 338$; 45.1%) university teachers and researchers. This sample is framed within a wider study undertaken by Ferraro, et al. (2016a; 2016c; 2017a; 2017b), which included more knowledge workers but we only took the university teachers into consideration, for the reasons already mentioned. The sample is gender balanced, with 49.9% female

and 50.1% male participants. Respondents have an average of approximately 49 years of age ($SD = 9.94$; two missing values) and 18 years of job tenure ($SD = 11.09$). Regarding the educational level, participants are mainly professionals with a Ph.D. (77.8%). 15.9% have a master degree and 5.2% post-doctoral studies. Only 1.1% of them have a Bachelor or an equivalent degree. Concerning the type of contract (0.8% of missing values), 85.6% have a permanent contract, 11.3% a fixed-term contract, and 2.3% are service providers. The majority of the sample (72.6%) works in the public sector.

Procedure

Participants were required to be a teacher and researcher at a higher education institution, to have at least six months of work experience, to be currently employed, and to be paid for their work. We contacted the participants through professional associations or professionals' public email addresses on institutional websites. Recruitment was made by contacting these professionals by email, personally or by phone, and briefing them about the study, after which the informed consent document and the survey were sent through a hyperlink. As the survey was available online, the first document presented to the professionals was the informed consent, and, only after reading it and agreeing, they could respond to the survey. The participants were informed about the confidentiality and anonymity of their responses and that the results would only serve for research purposes. Therefore, participation was voluntary and participants could discontinue the survey at any time if desired. On average participation required 20 minutes. This study was approved by an Ethical Committee.

Instruments

Decent Work Questionnaire (DWQ)

Given the interest in understanding the psychological dimensions of decent work and in weaving this construct into new theoretical development efforts, we consider that the DWQ, a self-report measure of decent work, demonstrates evidence of reliability and validity to be used in this research, and that it will also be useful for researchers, practitioners, and policy analysts who are interested in assessing the quality of work that people experience (Ferraro et al. 2016c).

The DWQ was developed to measure the workers' perceptions of their working and professional conditions (a self-reported measure). This questionnaire was developed and validated in Portuguese and Brazilian samples. It is composed of 31 items, with a global score (DW Global) and the already mentioned seven subscales reflected in seven factors: *Fundamental Principles and Values at Work* measured with six items (e.g., "In general, decision-making processes about my work are fair."), *Adequate Working Time and Workload*, with four items (e.g., "I consider the average number of hours that I work per day as adequate/appropriate."), *Fulfilling and Productive Work*, with five items (e.g., "My work contributes to my personal and professional fulfillment."), *Meaningful remuneration for the exercise of citizenship*, with four items (e.g., "What I earn through my work allows me to live with dignity and independence."), *Social Protection*, with four items (e.g., "I feel that I am protected if I become unemployed (unemployment insurance, government/social benefits, social programs, etc)."), *Opportunities*, with four items (e.g., "Currently, I think there are work/jobs opportunities for an individual

like me.”), and *Health and Safety*, also with four items (e.g., “I have all that the resources and support I need to work safely.”). Response options are based on a 5-point Likert scale, ranging from 1 = “I do not agree” to 5 = “I agree completely”. With good reliability, convergent and discriminant validity indices, the DWQ is a good tool for developing empirical studies on the decent work concept (Ferraro et al., 2016c). In our sample, the Cronbach’s alpha value was .92 for the whole measure (see Table 1 for Cronbach’s alphas for each dimension).

Utrecht Work Engagement Scale (UWES)

For measuring Work Engagement, we decided to use the most commonly used instrument for this purpose, which is the Utrecht Work Engagement Scale (UWES), also a self-reported measure, that has been validated in several countries and proves to be a unitary construct; especially, the usage of the total score is recommended for practical purposes (Bakker et al. 2008; Schaufeli, & Bakker 2009; Schaufeli, & Bakker 2010; Schaufeli et al. 2002b).

The UWES was adapted to the Portuguese sample (Schaufeli, Martínez, Pinto, Salanova, & Bakker 2002a) and to the Brazilian sample (Machado, Porto-Martins, & Benevides-Pereira 2014; Porto-Martins, Machado, & Benevides-Pereira 2013), and has 17 items that are subdivided into the three subscales already mentioned: *Vigor*, measured with six items (e.g., “At my job, I feel strong and vigorous.”), *Dedication*, with five items (e.g., “I am enthusiastic about my job.”), and *Absorption* with six items (e.g., “When I am working, I forget everything else around me.”). Response options are on a 7-point Likert scale from 0 = “Never” to 6 = “Always/Every day”. In our study, we found .95 of Cronbach’s alpha value for the whole measure and .87, .92 and .83 for the vigor, dedication and absorption dimension, respectively, which are consistent values with the ones of the original scale (Schaufeli et al. 2002b).

Data analysis

This is a non-experimental and cross-sectional study, based on quantitative data. All the analysis was carried out with the statistical program SPSS 22.0 (IBM Corp 2013) for Windows operating system. Outliers were analyzed according to Mahalanobis squared distance (Tabachnick, & Fidell 2013), with no relevant values found. The normality of the variables and their respective factors were assessed by the coefficients of skewness (Sk) and Kurtosis (Ku). Skewness values didn’t exceed |1.15| and for kurtosis, the biggest score was |1.83|. These are scores that comply with the normality assumptions for the sample (Maroco 2010; Tabachnick, & Fidell 2013). For the analyses, a probability of .05 for the Type I error of was considered.

We considered that grouping both Portuguese and Brazilian higher education teachers would strengthen the analysis for this professional group. Therefore, we checked for equal variances test (Levene’s Test) and we accepted the null hypothesis that both countries (Portugal and Brazil) are similar in variances (Type I error > 0.05) with roughly similar standard deviations as well. Hence, we decided to proceed with the statistical analysis including both samples together.

The first step of the results was to conduct a descriptive and correlational analysis. Correlations (weak, moderate, or strong) were classified according to Cohen (1988). Effect size was obtained by calculating eta squared (η^2) measure (Howell 2013).

After the descriptive statistics and the Person's correlations (see Table 1) between the study variables, a multiple linear regression was performed to test the effects of decent work on work engagement (H1). The assumptions of normality and homogeneity of the errors were graphically verified. The independence of the errors was assessed by the Durbin-Watson values, which were between 1 and 3 for all variables. We also used the Variance Inflation Factor (VIF) to test multicollinearity; these values were less than 10 for all the variables meaning that none of the variables was collinear (Maroco 2010). Also, standardized residual values were all lower than |4|.

The creation of professionals' profiles based on the scores obtained from the DWQ's four factors that were significantly correlated with work engagement, was carried out through a cluster analysis, using the K-means procedure. In this procedure, we have to insert the number of clusters we want, therefore we performed a hierarchical method (between-groups linkage) in order to know what the optimal number of clusters would be (Bholowalia, & Kumar 2014; Yim, & Ramdeen 2015). The intervals were measured with the Squared Euclidean distance, and the last agglomeration schedule coefficients across stages were graphically accessed (Figure 1). We can see that the Elbow, or the step where the distance coefficients make a bigger jump, is in stage 745. This means that the optimal number of clusters should be $k = 749 - 745$ ("elbow stage") = 4 clusters.

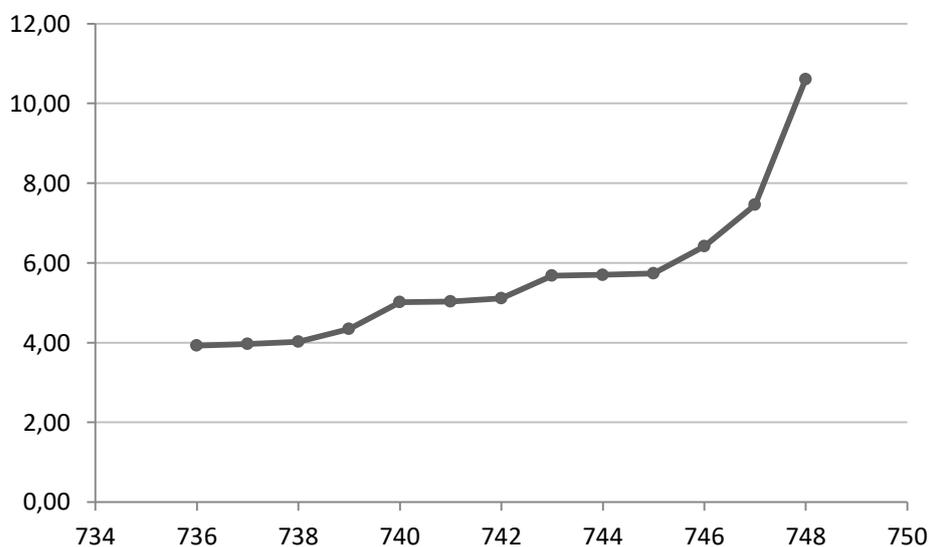


Figure 1 Agglomeration schedule coefficients

After the creation of the profiles, differences regarding Work Engagement scores were analyzed through a multivariate analysis of variance (MANOVA, General Linear Model procedure). Normality of the distribution was assumed. The Levene's test of Equality of error variances was significant, meaning that

they are not equal. We then decided to use a stricter alpha value ($p < .001$) when evaluating the results of the MANOVA (Allen, & Bennett 2007).

Results

Table 1 presents the descriptive statistics of all the dimensions (minimum, maximum, mean and standard deviation). In the Decent Work Questionnaire, the fourth dimension (Fulfilling and productive work) got the highest mean ($M = 4.26$), in opposition to the Social protection dimension which had the lowest mean ($M = 2.83$). The Work Engagement dimension with the highest mean was found to be Dedication ($M = 4.67$). Absorption recorded the lowest mean value of the three dimensions ($M = 4.41$). The standard deviation values did not exceed the value 1 in the measured scales.

As can be seen in table 1, a moderate correlation ($r = .31$; $R^2 = 9.61\%$) was found between Decent Work and Work Engagement global dimensions (Cohen, 1988). It is important to note that almost all correlation coefficients were significant ($p < .001$). The stronger correlation found was between Fulfilling and productive work and Dedication ($r = .526$; $R^2 = 27.68\%$). Fulfilling and productive work was moderately correlated with the vigor ($r = .424$; $R^2 = 17.98\%$) and absorption dimensions ($r = .348$; $R^2 = 12.11\%$). The dimensions that were not correlated were Absorption and social protection and absorption and adequate working time and workload.

For our analysis, global Decent Work and its respective seven dimensions were considered the predictor variables, and Work Engagement and its three dimensions the criterion variables. Results of the multiple linear regressions (Table 2) suggest that the effect of Decent Work on Work Engagement is significant and positive, thus supporting Hypothesis 1, which states that Decent Work is positively related with Work Engagement. The multiple regression carried out with the global scale of Work Engagement produced a multiple correlation coefficient of $r_{\text{multiple}} = .484$, classified as of moderate magnitude according to Cohen (1988), indicating that, overall, the Decent Work dimensions are responsible for 23.4% (R^2) of the variability in global Work Engagement. We performed three more regressions in order to assess to what extent the Decent Work dimensions are good predictors of vigor, dedication, and absorption (see Table 2). Thus, Decent Work explains approximately 19% of the variance in Vigor, 30% of the variance in Dedication, and 14% of the variance in Absorption.

Taking the standardized regression score (β) into account, the most predictive variables of global Work Engagement were Fulfilling and Productive work ($\beta = .41$), followed by Opportunities ($\beta = .13$). Actually, Fulfilling and Productive work predicts not only the global Work Engagement but also all its three dimensions ($\beta = .36$ for Vigor; $\beta = .44$ for Dedication; $\beta = .34$ for Absorption). This means that, with respect to Decent Work perceptions, Fulfilling and Productive Work is the one that affects all the dimensions of Work Engagement, and influences the perception of Work Engagement most strongly. Opportunities is also predictor of Vigor ($\beta = .14$) and Dedication ($\beta = .17$). There is a negative relation between Adequate Working time and Workload and Absorption ($\beta = -.16$), which means that Adequate Working Time and Workload negatively predicts Absorption.

Table 1 Descriptive statistics, correlations matrix between DWQ and UWES and Cronbach's alphas coefficients (between brackets)

	Min	Max	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
DW_Global (1)	2	5	3.34	0.56	(.92)	.788*	.700*	.622*	.718**	.671*	.618*	.688*	.310*	.302*	.381**	.189**
Fundamental principles and values at work (2)	1	5	3.33	0.78		(.88)	.432*	.471*	.425*	.399*	.423*	.510*	.263*	.246*	.317**	.177**
Adequate working time and workload (3)	1	5	3.09	0.90			(.87)	.307**	.457**	.387**	.339**	.451**	.116**	.130*	.204**	-.001
Fulfilling and productive work (4)	1	5	4.26	0.58				(.78)	.308*	.283*	.440*	.290*	.462*	.424*	.526**	.348**
Meaningful remuneration for the exercise of citizenship (5)	1	5	3.24	0.86					(.88)	.521*	.324*	.454**	.153*	.145*	.182*	.102*
Social protection (6)	1	5	2.83	0.88						(.79)	.245*	.412*	.089*	.088*	.114**	.049
Opportunities (7)	1	5	3.05	0.91							(.76)	.200**	.303**	.291*	.376**	.187**
Health and Safety (8)	1	5	3.34	0.85								(.85)	.138**	.160*	.148**	.078*
UWES_Global (9)	1	6	4.50	0.91									(.95)	.945*	.920*	.920**
UWES_Vigor (10)	1	6	4.44	0.95										(.87)	.826**	.801*
UWES_Dedication (11)	0	6	4.67	1.04											(.92)	.749**
UWES_Absorption (12)	0	6	4.41	0.96												(.83)

** $p \leq .01$; * $p \leq .05$

Table 2 Multiple regression analysis between Work Engagement and the 7 dimensions of Decent Work

DW Dimensions	Global Work Engagement				Vigor				Dedication				Absorption			
	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>B</i>	<i>SE</i>	β	<i>t</i>
Fundamental principles and values at work (DW1)	.07	.50	.06	1.33	.04	.05	.03	.76	.10	.05	.08	1.83	.07	.06	.05	1.17
Adequate working time and workload (DW2)	-.07	.04	-.07	-1.67	-.04	.04	-.04	-1.03	.03	.04	.02	.58	-.17	.05	-.16	-3.72**
Fulfilling and productive work (DW3)	.64	.06	.41	10.61**	.59	.06	.36	9.23**	.79	.07	.44	12.04**	.57	.07	.34	8.36**
Meaningful remuneration for the exercise of citizenship (DW4)	.02	.04	.02	.53	.01	.05	.01	.16	.01	.05	.01	.15	.05	.05	.05	1.08
Social protection (DW5)	-.08	.04	-.07	-1.86	-.01	.04	-.07	-1.78	-.10	.04	-.08	-2.15*	-.06	.05	-.05	-1.26
Opportunities (DW6)	.13	.04	.13	3.40**	.14	.04	.14	3.49**	.19	.04	.17	4.63**	.07	.04	.06	1.56
Health and Safety (DW7)	.02	.04	.01	.35	.06	.05	.06	1.33	-.04	.05	-.00	-.78	.01	.05	.01	.23
	$r_{multiple}=.48, R^2=.23$				$r_{multiple}=.45, R^2=.20$				$r_{multiple}=.56, R^2=.31$				$r_{multiple}=.38, R^2=.14$			
	$R^2_{aj}=.23, SE=.80$				$R^2_{aj}=.19, SE=.86$				$R^2_{aj}=.30, SE=.87$				$R^2_{aj}=.14, SE=.90$			
	$F(7.74)=32.43**$				$F(7.74)=26.41**$				$F(7.74)=47.54**$				$F(7.74)=17.65**$			

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

Note: worthy coefficients are indicated in bold.

Note that the negative effect of Social Protection on the prediction of Dedication ($\beta = -.08$) is a very weak effect and it may be the suppression effect since the same correlation is positive when done separately.

In order to access whether there were distinct profiles of individuals based on the scores of the Decent Work Questionnaire regarding these four dimensions (Adequate working time and workload, Fulfilling and productive work, Social protection, and Opportunities), we performed a cluster analysis with the K-means procedure. Convergence of 4 clusters was reached in 8 iterations. The final cluster centers together with the number of cases in each cluster, and the means and standard deviations are shown in Table 3. The results indicate that these four Decent Work dimensions can differentiate, through the means, the subjects that belong to each cluster.

Table 3 Clusters' descriptive statistics and final cluster centers (FCC)

	Profile 1 Low Decent Work <i>N</i> = 189			Profile 2 High Opportunities <i>N</i> = 194			Profile 3 Low Opportunities <i>N</i> = 176			Profile 4 High Decent Work <i>N</i> = 190		
	Mean	SD	FCC	Mean	SD	FCC	Mean	SD	FCC	Mean	SD	FCC
Adequate working time and workload	2.21	.57	2	2.70	.63	3	3.57	.55	4	3.91	.65	4
Fulfilling and productive work	3.85	.68	4	4.34	.45	4	4.17	.49	4	4.66	.34	5
Social protection	2.25	.70	2	2.36	.68	2	3.03	.65	3	3.68	.67	4
Opportunities	2.07	.53	2	3.65	.50	4	2.54	.48	3	3.90	.53	4

Table 3 describes each profile regarding its scores for each of the four decent work dimensions. The first profile presented is the Low Decent Work, made up of 189 participants. This is the profile that exhibits the lowest scores for all these four dimensions, compared with the other profiles. In contrast, the High Decent Work profile (*N* = 190), as the name indicates, includes the subjects that produced the higher levels of these Decent Work dimensions. The main difference between the second and the third profile was the Opportunities dimension, which revealed higher levels in the second profile (High Opportunities) and lower levels in the third profile (Low Opportunities). Fulfilling and productive work was the dimension that registered the highest scores across all profiles. Adequate working time and workload, and Social Protection levels grow across the profiles.

In Figure 2, we can see the pattern of means of how the subjects perceive their Decent Work regarding these specific four dimensions, in each profile. In this graphic, we used standardized values, so as to make it easier to understand the differences between the profiles. The standardization was made based on the means of each dimension across all profiles. Thus, it is easier to see that the opportunities dimension is the big difference in the second and third profile. The first and fourth profiles are even more obviously referring to Low Decent Work and High Decent Work, respectively.

A MANOVA was conducted to test whether the profiles differentiate each other regarding Work Engagement and its constituent dimensions (Vigor, Absorption and Dedication). A statistically significant

MANOVA effect was obtained, Wilks' $\lambda = .843$, $F(9,1808.417) = 14.617$, $p < .001$. The multivariate effect size (η^2_p) was estimated at .083, which implies that 8.3% of the variance in global Work Engagement was accounted for by the profiles of Decent Work. The highest effect size registered was for Dedication ($\eta^2_p = .124$). The Decent Work Profiles are responsible for 8% of the variance in Vigor ($\eta^2_p = .080$) and 3.4% of the variance in Absorption ($\eta^2_p = .034$).

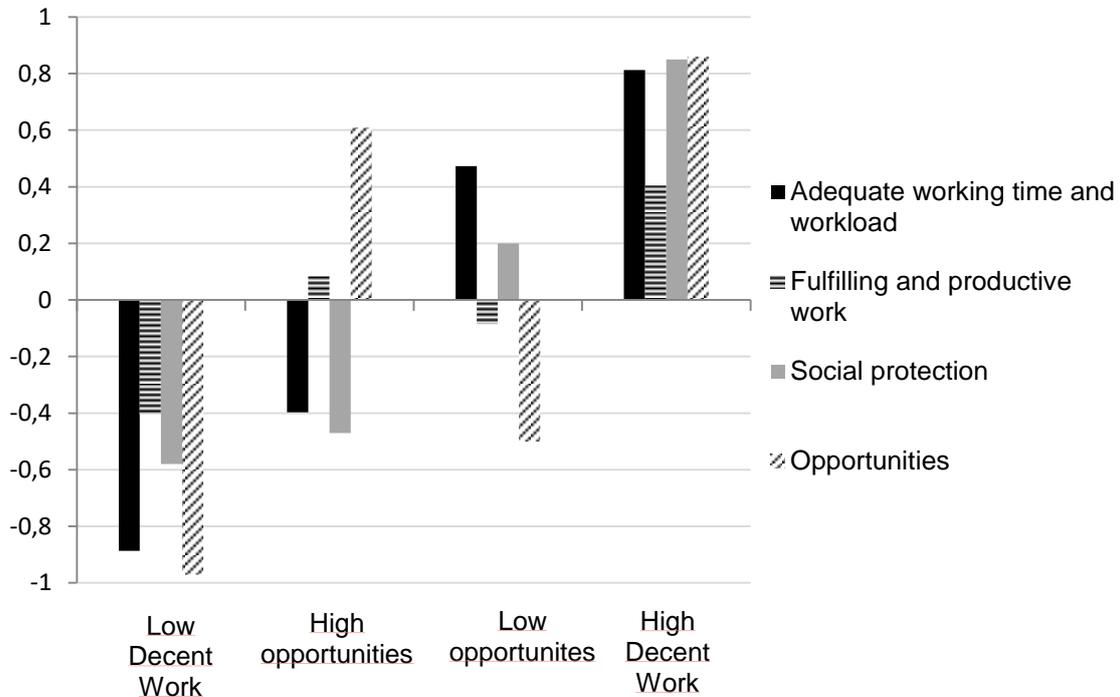


Figure 2 Decent Work Profiles

Finally, a series of post-hoc analyses (Tukey's HSD) were performed to examine the profiles' mean difference comparisons across all profiles, regarding the Work Engagement dimensions (Table 5). Thus, in regards to Work Engagement prediction, in all its variables, profiles 1 and 3 do not differ from each other but they do differ from profiles 2 and 4. Therefore, profiles 2 and 4 similarly predict higher Work Engagement levels, meaning that Opportunities are really important for the promotion of Work Engagement.

Table 5 Work Engagement means of each profile and multiple comparisons between profiles

	Profile 1 Low Decent Work	Profile 2 High Opportunities	Profile 3 Low Opportunities	Profile 4 High Decent Work
Global Work Engagement	4.19 _a	4.67 _b	4.29 _a	4.82 _b
Vigor	4.12 _a	4.59 _b	4.24 _a	4.79 _b
Dedication	4.19 _a	4.90 _b	4.44 _a	5.12 _b
Absorption	4.25 _a	4.57 _b	4.21 _a	4.60 _b

Note. Unshared subscripts indicate that means are significantly different (* $p < .05$)

Discussion

This study aimed at verifying the relationships between Decent Work and Work Engagement among academic personnel, and analyzing their profiles regarding four dimensions of Decent Work and the corresponding dimensions of Work Engagement with which a significant relationship was found. Although the research design was cross-sectional, we have presented the conceptual reasons why the relationships found can be interpreted as the effect of Decent Work on Work Engagement. Moreover, considering the profiles, it was expected to find differential effects on Work Engagement.

Firstly a hypothesis concerning the relationships between Decent Work and Work Engagement dimensions (H1) was confirmed. In general, Decent Work dimensions had a higher effect on the Dedication dimension of Work Engagement. Dedication dimension, as described by Schaufeli, Bakker, and Van Rhenen (2009), is characterized by feelings of purpose, meaning, inspiration, and challenge. Our findings may have to do with the fact that academic personnel have a concern about their responsibility for the education of future generations. Therefore, they feel that their work is meaningful and inspiring. The same result seems to be obtained in previous studies of the same professional group (Araújo, & Esteves 2016; Rodrigues, & Barroso 2008).

The negative relation between Adequate Working time and Workload and Absorption is understandable. Adequate working time and workload refers to the balance between work and other life domains, such as family and leisure. Therefore, if people feel that their workload is exaggerated and overwhelming, it may take over their lives, and these people are therefore more absorbed by their work, which can be quite related to workaholism. Previous researches found work overload to be positively related to workaholism. Those findings are consistent with our results (Botham 2018; Habe, & Tement 2016; Kanai, & Wakabayashi 2001).

Creating profiles allowed us to identify different patterns of workers' perceptions of Decent Work more accurately. In doing so, we gained power in the prediction and anticipation of worker's Engagement.

High levels of Fulfillment and productive work were found across all Decent Work profiles. This means that it is a constant, in this profession, that higher education teachers and researchers feel that their work is meaningful, contributes to their development, and creates value and a purpose for individuals, organizations, and society. Moreover, high scores of this dimension enrich life beyond one's work role (Johnson, & Jiang 2016). Despite high levels of this dimension across all profiles, the highest mean is registered in the High Decent Work profile which is also the profile that predicts higher levels of Work Engagement. Therefore, Fulfilling and Productive Work is a very good predictor of Work Engagement.

The greater contribution of our study is that Opportunities appears to be the crucial Decent Work dimension in the promotion of Work Engagement. Even with lower levels of Adequate working time and workload, and Social protection, workers become more dedicated to their jobs, show stronger vigor and absorption if they have opportunities for development and alternative jobs are available. The last aspect mentioned is apparently counter-intuitive, since we could expect that, with alternative jobs available, they would decrease dedication, vigor, and absorption in the current job. However, the existence of

opportunities inside or outside the organization seems to encourage workers to be more devoted to their work. This happens maybe because they see these opportunities for progress also arising from the work they do and from the development it provides. This strengthens their engagement.

It is interesting to point out that, in Human Resources Management, a movement of disinvestment in career management has been growing. Moreover the organizations have been creating this instrumental relationship with the workers putting the responsibility of professional development for the individuals (Paradnike, Endriulaitiene, & Bandzeviciene 2016; Wang, & Wanberg 2017). This tendency ignores the relevance of the creation of opportunities in the workers' development which is leading to lower levels of Work Engagement. Therefore, our findings are as a wake-up call for the Human Resources Departments, showing the relevance of models where the organizations play an important role in the career management of their employees, giving them opportunities for personal and professional development. In this way, we appeal to Human Resources Management to bring back the concern about the employees' career, by finding a balanced approach between individual and organizational career management (De Vos, & Cambré 2017; Granrose, & Portwood 1987).

Implications

On a theoretical level, our study helps in the expansion of the nomological network of the Decent Work concept, since it is clearly related to Work Engagement. Moreover, we strengthen the idea that the different Decent Work dimensions have differentiated impacts on multiple variables of human behavior, on the organizations and on the organizational behavior itself. Although Decent Work is an integrative concept (Dos Santos 2017), it integrates diverse components that seem not to have the same relevance according to the different variables to which it is associated. From a conceptual point of view, this study encourages future research on Decent Work from the perspective of work, organizational, and personnel psychology (WOP-P).

Our findings also have important practical implications for individuals and organizations. On an individual level, promotion of Decent Work and its respective effect on Work Engagement help to enhance motivation, positive feelings and behaviors towards work, and, ultimately, the quality of working life. In the present study, practitioners confirm that Opportunities play an important role in employees' Work Engagement.

For organizations, a high level of workers' engagement strengthens their contribution for the organizational purpose: workers are more motivated, happier towards life at the workplace, which improves productivity and good working environment (Araújo, & Esteves 2016; Johnson, & Jiang 2017). Therefore, in order to boost workers' engagement, there is one specific Decent Work dimension that is crucial. Higher education institutions should design human resources policies and practices that ensure opportunities for promotion, and personal and professional development for their employees.

The new knowledge about the processes through which the improvement of the academic personnel engagement occurs contributes to a better society. The presented results reinforce the idea that Decent Work is a worthy concept to be pursued by public policies and organizational governance. Although

Decent Work is worthy by itself, acknowledging that it is related to engagement underlines its importance. Since most of our sample is composed of workers in the public sector, our findings are very much relevant for governments and politicians to improve academic personnel's engagement in education systems.

Moreover, this research will contribute to practitioners, organizations, human resources teams, and work psychologists to design human resource management policies and practices aligned with the Decent Work concept.

Limitations and recommendations for future research

This study has some limitations that should be addressed by future research. Despite the integrative characteristic of the DW concept, the present research was focused on four out of the seven psychological dimensions (Adequate working time and workload, Fulfilling and productive work, Opportunities and Social Protection). In any case, the overall concept was used for testing the effects of Decent Work on Work Engagement. The specific focus on these four dimensions brought interesting and even somewhat counter-intuitive results. Future analogous studies could focus interestingly on the three remaining dimensions of DW and expand the nomological network of the concept, exploring its relationships with other variables.

The cross-sectional design implies that the interpretation of the relationships found as an effect must be made with caution. In future research, it may be desirable to apply a longitudinal approach, for better understanding variations of Decent Work and Work Engagement through time.

Since our sample is only composed of academic personnel, it would be relevant to develop new studies on Decent Work devoted to other occupations and professional groups, in order to better understand the link between these variables. Furthermore, although our study was conducted with a sample from two countries, it could also be interesting to develop research in other countries and cultures.

Additionally, it could be relevant, in future research, to access the sociodemographic characteristics of each of these Decent Work profiles, to understand if there are differences.

Our study did not measure organizational level variables such as human resource policies and practices and their peculiarities in academic personnel management. In the future, contributions of this type of measures could be relevant to clarify the role of decent work in the work engagement and well-being of these professionals.

Conclusion

The understanding of the knowledge workers and the contribution of their working conditions to their work engagement is essential to retain higher education teachers and their knowledge, to improve their performance and well-being, and, therefore, to enhance the quality of the education provided.

Research on Decent Work from a WOPP perspective is needed, to the extent that it can offer important contributions for workers and organizations, and can help the expansion of its nomological network and, therefore, its dissemination throughout the world (Pereira, dos Santos, & Pais 2017). Decent Work applies to all occupations, countries and sectors of activity and deserves to be studied thoroughly.

Our research empirically suggests that higher levels of Work Engagement in higher education teachers and researchers can be achieved through investment in the creation and maintenance of Decent Work, and, especially, Opportunities. Our results are relevant content for human resources management practices, strategies and policies that aim to improve work engagement.

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