

Decent work and work motivation: A fuzzy sets qualitative comparative analysis

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Abstract

This present study aims to verify which dimensions of Decent Work combine as necessary and / or sufficient conditions for a given outcome in terms of the various types of Work Motivation, according to the typology defined by the Self-Determination Theory. The Multidimensional Work Motivation Scale and the Decent Work Questionnaire were applied to 83 workers in Portugal and the fuzzy sets Qualitative Comparative Analysis was performed to the product of these instruments. Among the different results presented and discussed further in this research, those who show the highest consistency are the absence of the dimension of Meaningful Remuneration for the Exercise of Citizenship as necessary for Amotivation, and the presence of the dimension of Fulfilling and Productive Work as a necessary element linked to Extrinsic Social and Introjected work motivation; and as a sufficient condition for Identified Work Motivation. This can indicate, among other findings, the importance of a meaningful remuneration and how fulfilling the working activity is perceived. The necessary and the sufficient conditions are interpreted as psychological processes. The results of this study offer a better understanding of the links between the variables, encouraging future research in different scales and contexts. Further theoretical and practical implications, limitations of the study and perspectives for the future are presented at the conclusion of the study.

Keywords: Decent Work; Work Motivation; Self-Determination Theory; fsQCA

Introduction

The International Labor Organization (ILO) introduced the concept of Decent Work (DW) (ILO, 1999a, 1999b; Ferraro et al., 2015) and defined it as “opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity” (ILO, 1999b p. 3.). Since then, several disciplines have studied DW, being Work, Organizational and Personnel Psychology (WOPP) one of them (Ferraro et al., 2017). The approach given by the WOPP perspective (individual and subjective) improves upon the knowledge previously achieved on this concept through a micro-level of analysis (Ferraro et al., 2017), and also can add to the theory by developing new psychometric measurements of DW.

It's important to differentiate the concept of Decent Work from the Dignity in the Workplace, defined as the intrinsic, unalienable, worth of everything in the workplace, which should be respected, protected and promoted (Bal, 2017), which also takes a more philosophical point of view, as nurtures itself from the works of Kant and a Daoist approach. It must be remarked that this same position can contribute to nurture a broader view about the forces at play inside the workplace.

On the other hand, motivation has been a popular topic for various researches trough history. Trying to find an answer on how people are and remain motivated, we focus on The Self Determination Theory (SDT; Deci & Ryan, 2000, Gagné & Deci, 2005). SDT emphasize on the differences between the content (the “what”) of the outcomes and the regulatory processes (the “why”) through which the outcomes are pursued, this differentiation helps in making predictions for different contents and for different processes (Deci & Ryan, 2000). SDT employs the concept of universal psychological needs which “specify innate psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being” (Deci & Ryan, 2000 p.

229). as the basis for integrating the distinctions of outcome contents and regulatory processes and the predictions that resulted from those differentiations (Deci & Ryan, 2000). The three needs considered are competence, relatedness, and autonomy, and their satisfaction is a requirement for psychological health and for they nurture the process of internalization and intrinsic motivation (Gagné & Deci, 2005). Furthermore, the satisfaction of these needs can bring other benefits as shown by Van den Broeck, Vansteenkiste, De Witte and Lens (2008) who found that the fulfillment of the needs of competence, autonomy and relatedness led to less exhaustion.

SDT also proposes a spectrum of motivation between the intrinsic motivation (volitive behavior, internal locus of causality), the extrinsic motivation (external locus of causality) and amotivation (lack of motivation). The motivation can vary in how much is intrinsic versus extrinsic, giving place to the different types of motivation (Gagné & Deci, 2005).

This paper aims to identify and to describe the necessary and sufficient conditions in terms of Decent Work dimensions (Fundamental Principles and Values at Work, Working Time and Workload, Fulfilling and Productive Work, Meaningful Remuneration for the Exercise of Citizenship, Social Protection, Opportunities and Health and Safety) for the different types of work motivation (amotivation; extrinsic material work motivation; extrinsic social work motivation; introjected work motivation; identified work motivation and intrinsic work motivation) to occur.

An example of the relevant effects of the extrinsic incentives on the intrinsic motivation and the performance can be found in the Meta-Analysis conducted by Cerasoli, Nicklin and Ford (2014). Findings from different domains (school, physical and work) suggested that intrinsic motivation is a medium to strong predictor of performance and its importance on the

performance remained in place whether incentives were presented. Also, incentive salience influenced the predictive validity of intrinsic motivation for performance: intrinsic motivation was less important to performance when incentives were directly tied to performance and was more important when incentives were indirectly tied to performance (Cerasoli, et al., 2014).

Regarding the empirical part of our paper, the Qualitative Comparative Analysis is well suited methodological tool for the analysis of complex claims framed in terms of necessity and sufficiency (Wagemann & Schneider, 2010). A condition can be necessary if, whenever the outcome is present, the condition is also present, but there can be cases that are members of the condition but not the outcome (Schneider & Wagemann, 2012, p. 327 - 328), and a condition can be sufficient if, whenever is present, the outcome is also present, but there can be cases that are members of the outcome but not the condition (Schneider & Wagemann, 2012, p. 333).

Introduced in the late 80's by Ragin (1987) and continuously modified, became increasingly more diffused with the empirical social scientific research (Wagemann & Schneider 2010). In this technique the elements can have differing degrees of membership in sets, which allows more flexibility to the researchers (Wagemann & Schneider, 2010). In terms of causality, fuzzy sets Qualitative Comparative Analysis (fsQCA) is especially attuned to multiple conjunctural causations (Vis, 2012), which can be a combination of conditions that produce an outcome, when there is more than one condition that generates the same outcome (equifinality), or when depending on the context, an outcome is the result from the presence of a condition or its absence (Vis, 2012) We apply fsQCA in order to analyze the relation between the DW factors and the WM. Specifically we will seek the necessary and sufficient conditions in terms of DW factors for each type of work motivation outcomes to occur. Specifically, we will verify how

DW factors combine in necessary conditions and /or in sufficient conditions of each WM type applicable to corresponding subgroups.

The different combinations of necessary and sufficient conditions for each specific outcome will be interpreted as psychological motivational processes that apply to the corresponding subgroup. Our general hypothesis is that the decent work dimensions combine as necessary and sufficient conditions to each type of work motivation. Our exploratory study seeks to identify those conditions and interpret them.

Decent Work factors

For this research we will apply the model of DW developed by Ferraro, Pais, dos Santos, and Moreira (2018) with the Decent Work Questionnaire (DWQ) (Appendix C), that considers the WOPP perspective, and refers to meaningful work and ethics that ensure fundamental values and principles at work through social dialogue among those involved in the decision-making processes regarding that work (Ferraro et al, 2017b), and also the review by dos Santos (2019).

These papers propose seven DW factors. The first factor, named “Principles and values at work” reflect the degree in which the workplace complies with values such as justice (procedural and interactional), dignity, freedom, nondiscrimination, fair treatment and trusts between workers and managers (Dos Santos, 2019). The second, called “Working time and workload”, represents the work-life balance, shift work, and exhibits, on one hand, the concern for the worker’s wellness, and on the other hand is the optimization of the worker’s contribution to the goals of the organization’s goals (Dos Santos, 2019). The third factor, “Fulfilling and productive work”, its related to innovation, satisfaction, recognition, a meaningful work, commitment and intrinsic work motivation (Dos Santos, 2019). “Meaningful remuneration for the exercise of

citizenship”, the fourth factor, is related to the earnings from the working activity being perceived as fair and sufficient to exercise full citizenship in society, and make it possible to achieve a degree of freedom for the workers and their families (Dos Santos, 2019). The fifth factor is “Social protection”, refers to social protection, these being a result from the condition as a worker, concerning possible illness or unemployment, and future retirement (Dos Santos, 2019); and considers the worker’s family within the reach of the mechanisms of social protection. The sixth factor is called “Opportunities”, and it focuses on the availability of alternative jobs, allowing a choice to be available to the workers, also makes available the prospect of progress, both as improvement in remuneration and professional development (as employee or entrepreneur) (Dos Santos, 2019). Lastly, “Health and safety” as the seventh dimension, focuses on health protection, safety and the comfort of the work context and environment (Dos Santos, 2019).

Table 1 offers a summary of the aforementioned factors of DW, with their specific abbreviation.

Table 1. Summary of DW factors

N°	DW factors	Definition
DW1	Principles and Values at Work	Workplace compliance with values as justice (procedural and interactional), dignity, participation, freedom, non-discrimination, trust
DW2	Working Time and Workload	Work-life balance, workload, working time, concern for worker’s health and optimization of productivity or contribution to the organizational goals.
DW3	Fulfilling and Productive Work	Relates to innovation, intrinsic work motivation, satisfaction, recognition, meaningful work and commitment.

DW4	Meaningful Remuneration for the Exercise of Citizenship	Perception of the benefits and earnings from the working activity as fair and sufficient to allow the workers and their families to exercise freedom and a full citizenship.
DW5	Social Protection	Mechanisms of social protection for the workers and their families, resulting from the condition as a worker, concerning possible illness or unemployment, and future retirement.
DW6	Opportunities	Availability of alternative jobs, allowing the workers to have a choice, as well as professional progress, both in the ways of an improved remuneration and professional development as an employee, or as an entrepreneur.
DW7	Health and Safety	Health protection, safety and comfort of the work context and environment.

Source: Ferraro et al, (2018); dos Santos (2019)

Work Motivations

Various aspects can change the work motivation and there are several theories addressing how people are motivated and remain so towards their goals. SDT (Deci & Ryan, 2000) emphasizes that both the quantity and the quality of motivation matter. SDT taps into the quality of motivation by distinguishing two different types of regulation, autonomous or controlled (Gagné & Deci, 2005), according to the degree to which workers experience the reasons for putting effort in their work.

In this aspect, the importance of the satisfaction of the three needs lays also in the fact that they nurture the process of internalization and intrinsic motivation and ease the process of internalization of extrinsic motivation (Gagné & Deci, 2005). Autonomy can be defined as self-governance (Ryan & Deci, 2000), or the autonomy to follow internal interests or the sense of the perceived locus of causality as internal (Deci & Ryan, 2000). Competence is the sensation to be able to deal with challenges (Niemic & Ryan, 2009). Relatedness (or feeling relational support

and belongingness) represents the need to receive and provide support in relationships with others and interact and be involved with people (Deci & Ryan, 2014; Ryan & Deci, 2000). SDT postulates that when people experience satisfaction of the needs for relatedness and competence with respect to a behavior, they will tend to internalize its value and regulation, but the degree of satisfaction of the need for autonomy is what distinguishes whether identification or integration, rather than just introjection, will occur (Gagné & Deci, 2005 p. 337).

Workers who believe that the reasons for their behavior stem from themselves and find their job inherently interesting, enjoyable and challenging, i.e., are intrinsically motivated (Gagné & Deci, 2005, Deci et al, 2017). SDT considers this the most autonomous type of motivation (intrinsic motivation). Employees can be intrinsically motivated for at least parts of their jobs, if not for all aspects of them. Intrinsically motivated individuals tend to show high-quality performance and enhanced qualities of work motivation (Deci et al., 2017). For example, Fernet et al (2010) found autonomous work motivation leads to less burnout. Another good example is how this type of motivation moderated the stress, as the findings of Trépanier, Fernet and Austin (2013) suggest, so employees with a high autonomous work motivation experienced less stress against high job demands than those with low autonomous work motivation. However, jobs might also include tasks which are not intrinsically motivating. The feeling of being obligated to perform actions is the other side of the motivation, is the terrain of extrinsic motivation (Gagné & Deci, 2005).

Both types of motivation differ in their regulatory processes: if a behavior is motivated by external contingencies (a desired outcome or to avoid a consequence), it is referred as externally regulated (the activity is not intrinsically motivating), which is a good model of extrinsic

motivation subtypes (Gagné & Deci, 2005). Another central feature of the SDT is that the extrinsic motivation varies in the degree to which is autonomous versus controlled.

When a value associated with a regulated behavior is internalized (I work even when my boss is not watching) the result is a transformation from an external to an internal regulation, no longer requiring external contingency (Gagné & Deci, 2005). This internalization gives birth to three different processes, being the first the introjection, which is when the person takes the external regulation, but not as “its own” (Gagné & Deci, 2005, Deci & Ryan, 2000). In other words, with external regulation the control of behavior comes from contingent consequences that are administered by others, being with introjected regulation the contingent consequences are administered by the individuals to themselves. The prototypic examples of introjected motivation are pride or threats of guilt and shame (Deci & Ryan, 2000 p. 236). Although within a different conceptual framework, studies carried out by Vroom (1964) showed that in the explanation of motivation is important to take into account that the power of incentives e.g. money, promotions, praise, recognition, to name a few, are motivating only to the extent that an individual believes attaining the incentive is instrumental toward other things of value, such as food, cars, housing, pleasure, and so forth.

In identification, the second internalization, the people feel more freedom and decision, for they identify themselves with the extrinsic regulation, and sees it as congruent with their goals and identities (Gagné & Deci, 2005). Deci and Ryan (2000, p.236) state that the internalization in this stage is stronger than introjection, though the behavior would still be instrumental (extrinsically motivated) rather than being done autonomously.

The third and most complete type of internalization is the integrated regulation. It allows extrinsic motivation to be truthfully autonomous and contains the incorporation of and

identification with other aspects of oneself (Gagné & Deci, 2005, Deci & Ryan, 2000). It is important to note that, despite the differentiation between identified and integrated regulation stated by the SDT, the differences are very subtle, which makes it difficult to differentiate in measurement. Previous scales show how hard can be to separate both regulations in subscales (Gagné et al., 2014) and to date there is no research that demonstrates that integration accounts for additional variance in outcomes after identified or intrinsic regulation had been included.

To sum up, SDT distinguishes different types of extrinsic work motivation depending upon the degree to which employees endorse the reasons for engaging in the behavior, that is the degree in which the extrinsic reasons are internalized (Deci & Ryan, 2000). Outside of this continuum of motivation is the amotivation which is, as the name implies, the total lack of motivation (Deci & Ryan, 2000, Gagné & Deci, 2005, Gagné et al., 2014).

Individual differences in people's orientations are also addressed in SDT and explain the variables that encourage the initiation and regulation of people's behavior. Referred to as General Causality Orientations (GCO, Gagné & Deci, 2005, Deci & Ryan, 1985a), they index the grade to which people are autonomy oriented, control oriented, and impersonally oriented. The autonomy orientation reflects a tendency to experience social contexts as autonomy supportive and to be self-determined; the control orientation reflects a general tendency to experience social contexts as controlling and to be controlled; and the impersonal orientation reflects the general tendency towards amotivation.

DW and WM

Commonly, WM is approached as an independent variable. In the present study WM and its subtypes are approached as the outcomes which have different necessary and sufficient conditions in terms of decent work dimensions. In a previous research the DW model developed

by Ferraro, Pais, Moreira, & Dos Santos (2018b) was used to relate DW to WM (according to the Self-Determination Theory - Gagné & Deci, 2005). That study has shown the predictor role of DW in WM variables, being partially mediated by Psychological Capital. The results also supported the idea that a DW predicts more autonomous WM again with the mediation of Psychological Capital. Also, this study suggests that DW plays an important role in promoting a positive approach to work, and that Psychological Capital is an important mediating variable in the promotion of autonomous WM. The present research expands what has been studied by the previous one, since it not only focuses on knowledge workers, but on workers in general. Moreover, necessary and sufficient conditions for a type of WM to take place is the center of the present study bringing a more accurate understanding of the relationship between the two core concepts of this research.

The results of another study from the same authors, Ferraro et al. (2017b) shows the relation between DW and WM through performing canonical correlations. They suggest that fulfilling-and-productive-work is associated positively with intrinsic-and-identified-work-motivation and negatively with amotivation. It was also observed that an adequate working-time/workload is negatively associated with material-extrinsic-motivation (such as money). Summarizing, the results suggest that decent work, especially some of its dimensions, has an important role in promoting work motivation through two main mechanisms, the first one called ‘worthy working life as part of being a citizen in society’ and the second one called ‘contextual life comfort and committed effort’.

The different components of DW studied separately have also been related to different types of work motivation. For example, and considering the SDT, a research conducted by Gillet, Gagné, Sauvagère and Fouquereau (2013) that can be linked to variables which overlap the

dimension of the first DW factor (Fundamental Principles and Values at Work) tested a model which incorporates the perceptions of the workers (sample of 735, being 362 men and 373 women) about organizational support and supervisor autonomy support, global and domain specific (i.e., work) motivation, work satisfaction, and turnover intentions. The results showed that work motivation was significantly related to both intraindividual (global motivation) and contextual factors (organizational support and supervisor autonomy support). Also perceived organizational support and work autonomous motivation were positively related to work satisfaction, whereas turnover intentions were negatively related to perceived organizational support and work autonomous motivation, and positively related to controlled work motivation.

Another research related to variables that overlap to the aforementioned DW dimension that deserves to be mentioned is a meta-analysis about the Leader's Autonomy Support (LAS) in the workplace. This is a type of leadership characterized by leader who take interest in the perspectives of their employees, provide opportunities for choice and input, encourage self-initiation, and avoid the use of external rewards or sanctions to motivate behavior (Slemp et al, 2018). In this meta analytic review, the results were reported from a database containing 754 correlations across 72 studies (83 unique samples, N = 32,870). Results showed LAS correlated strongly and positively with autonomous work motivation and was unrelated to controlled work motivation. Another important point to remark is that the correlations became increasingly positive with the more internalized forms of work motivation. LAS was positively associated with basic needs, well-being, and positive work behaviors, and was negatively associated with distress. Correlations were not moderated by the source of LAS, country of the sample, publication status, or the operationalization of autonomy support. In addition, a meta-analytic

path analysis supported motivational processes that underlie LAS and its consequences in workplaces.

A very popular subject of the literature about researches in the workplace are the ones that deal with stress which can partially be linked to the second DW factor, Working Time and Workload and also Health and Safety, the seventh one. In a longitudinal analysis conducted by Olafsen, Niemiec, Halvari, Deci and Williams, (2019) occupational stress is defined as a “process by which workplace psychological experiences and demands (stressors) produce both short-term (strains) and long-term changes in mental and physical health” (Ganster & Rosen, 2013 p.1088). Taking this into account, stress can also be conceptualized as a contextual factor in the workplace (environmental hazards); as employees’ physiological, psychological, and/or behavioural responses to the demands, threats, and/or challenges in the workplace; or as the interaction of these two factors (Ganster & Perrewé, 2011; Kahn & Byosiére, 1992). This longitudinal analysis examined, the association between frustration of basic psychological needs and higher levels of work-related stress, their model showed that work-related stress is associated with higher levels of somatic symptom burden, which in turn is associated with higher levels of emotional exhaustion, turnover intention, and absenteeism.

Another important research carried out by Van den Broeck, Lens, De Witte and Van Coillie (2013) showed that workers thrive more when they value their job and experience interest and enjoyment, that is, when they are autonomously motivated. They analyzed a representative sample of population, as well as two divergent samples of different organizations, and found four profiles: the first was characterized by high autonomous and high controlled motivation, the second was characterized by high autonomous and low controlled motivation, the third profile typified by low autonomous, and the last one had high controlled motivation and low

autonomous motivation. The findings also showed that workers in the stress former two profiles (both scoring high on autonomous motivation) reported most job satisfaction, work enthusiasm/engagement and the lowest levels of strain/burnout. Although this study reinforces the idea that workers vary in work motivation, it doesn't contribute directly to understand the link between work motivation and decent work. However, the found clusters show that people can simultaneously regulate their work behavior by autonomous and controlled drives, which brings support to the idea that complex mechanisms are active in work behavior regarding the underlying motivations of a specific job.

Another of the aspects linked to WM it's regarding the economic remuneration (one of the elements regarding Meaningful Remuneration for the Exercise of Citizenship) and has been studied by Kuvaas, Buch, Gagné, Dysvik and Forest (2016). They found relations between pay-for-performance incentives designed to vary in instrumentality (annual pay-for-performance, quarterly pay-for performance, and base pay level) and employee outcomes (self-reported work effort and turnover intention) in a longitudinal study spanning more than 2 years. This resulted in that the amounts of quarterly and annual pay-for-performance were both positively related to controlled motivation but were differently related to the dependent variables due to different relations with autonomous motivation. Although the variables are related to one decent work dimension (meaningful remuneration for the exercise of citizenship) and to one work motivation type (extrinsic material work motivation), we have to consider that the payment design is different from payment amount and the 'meaningful remuneration...' is more linked to the amount than to the design of payment (how much I need to be a full citizen). Furthermore, earnings that contribute to the perceived amount required for being a full citizen are not limited to money. Other benefits are included (or might be included by the respondent) in their answer.

Therefore, the complex process that relates work motivation to the mentioned decent work dimension are far from clear.

Following those previous studies, the present research intends to deepen the understanding of the relationships between the different factors of DW and WM types, introducing a different approach able to map combined effects of the DW factors as necessary and sufficient conditions for each specific type of WM to occur. Considering that different mechanisms can operate simultaneously in the same individual, and that distinct individuals can have different mechanisms operating in their work motivation instead one only general pattern, fuzzy sets can help us in data treatment. Furthermore, while previous research by Ferraro (Ferraro et al., 2018b, Ferraro et al, 2018) were undertaken among knowledge workers, our current study will be carried out with a sample made of workers in general as we mentioned above. The following graphic demonstrates in a simple manner the objective of the present paper.

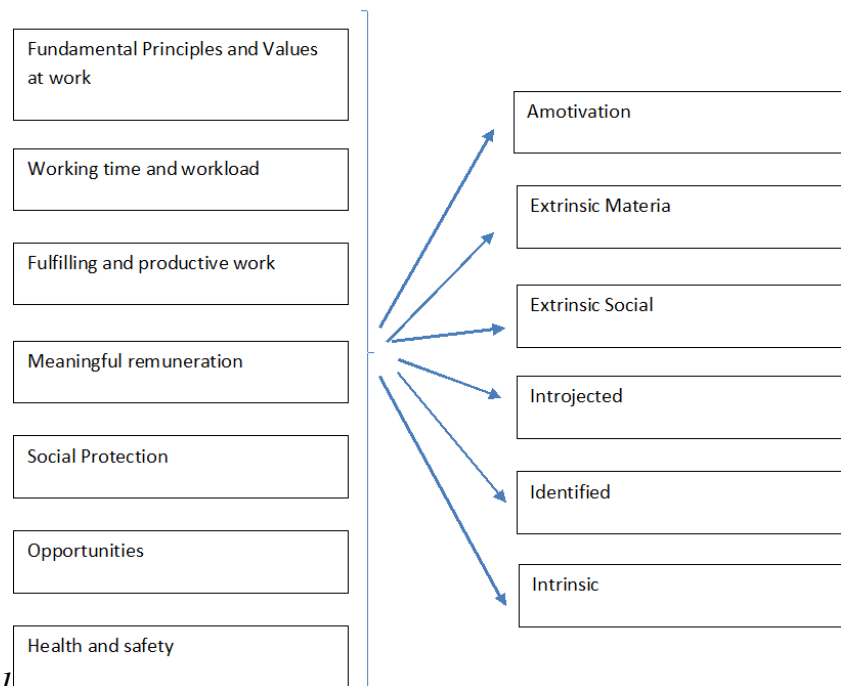


Figure 1

Method

Participants

The population is made up of 101 workers from Portugal without restrictions regarding occupational sector, 18 subjects were excluded presenting missing information (n = 83). The relative ease of access to the Portuguese plus the fact that the instruments used in this paper were validated for Portuguese samples but not for Spanish nor Italian samples, and, made the Portuguese workers a reasonable choice of sample for this research. Table 2 presents description of the sociodemographic data.

Table 2 -Descriptive Statistics - Sociodemographic

Sample	N	%
Gender		
Male	32	32%
Female	68	68%
Missing	1	1%
Age	100	100%
Missing	1	1%
Leadership Role		
Yes	15	15%
No	84	84%
Missing	2	2%
Activity Sector		
Manufacturing	6	6%
Extractive industry	1	1%
Wholesale and retail trade	13	13%
Accommodation and catering	4	4%
Agriculture, livestock, fisheries	5	5%
Construction	1	1%
Production and distribution of electricity, gas and water	3	3%
Transport and storage	3	3%
Education and science	14	14%
Human health and social support	23	23%
Real estate, renting and business services	1	1%
Information and communications technology	3	3%

Another	22	22%
Missing	2	2%
Size of the organization		
<= 9 employees	6	6%
10 <employees <15	34	34%
51 <employees <250	27	27%
251 <employees <500	13	13%
501 <collaborators <1000	5	5%
> = 1001 employees	16	16%
Working Time		
3 months	3	3%
More than 3 and up to 6 months	1	1%
More than 6 months and up to 1 year	8	8%
More than 1 year	88	88%
Missing	1	1%
Salary		
<= 500 Euros	11	11%
501 <salary <1000 Euros	55	55%
1001 <salary <1500 Euros	25	25%
1501 <salary <2000 Euros	3	3%
Missing	7	7%
Collaboration Time		
3 months	2	2%
More than 3 and up to 6 months	2	2%
More than 6 months and up to 1 year	12	12%
More than 1 year	82	82%
Missing	3	3%
Professional situation		
State worker	49	49%
Private sector worker	50	50%
Missing	2	2%

A nonprobability convenience sampling method was applied. The inclusion criteria were to be professionally active in Portugal from any field being paid for the work performed in a firm larger than 10 employees. The last criterion was due to the intention to exclude those who have no hierarchical relationships at work since other measures applied in a larger study concern leadership dimensions. This project was developed within a broader project including measures

of leader-follower relationships. These relationships have specificities in micro-businesses or even don't exist at all.

Data was collected in 2017 within the scope of a psychological research methods course by students who were trained to meet the technical and ethical standards and requirements. Participants were recruited from the social network of students and agreed participating in the study by signing an informed consent. All of them were told about the possibility of giving up along the collecting data process and those who showed interest in the results were allowed to include their email address in a blank sheet for receiving afterwards a summary of the study.

Instruments

The Decent Work Questionnaire (DWQ; Ferraro et al., 2018), the Multidimensional Work Motivation Scale (MWMS; Gagné et al., 2014, Appendix B) and a sociodemographic questionnaire were used for measurements. The DWQ has been developed to measure DW dimensions through the perception of the workers. It was developed and validated in Portugal and Brazil. This self-report instrument has 31 items and is composed by 7 dimensions described in the introduction. Every item is answered on a 5-point Likert-type scale going from 1 = "I do not agree" to the maximum of 5 = "I completely agree". This instrument scores .92 in the Cronbach alpha for Portuguese sample.

The Alpha coefficient for each DW sub-scale is .84 for the principles and values at work, (DW1, example: at my work, there is trust among people.), .84 for working time and workload (DW2, example: I consider the average number of hours I work per day to be adequate/appropriate), .81 for the fulfilling and productive work (DW3, example: my work contributes to ensuring the success of future generations.), .92 for the meaningful remuneration

for the exercise of citizenship (DW4, example: hat I earn through my work allows me to live my life with dignity and independence), .78 for social protection (DW5, example: I believe that I will have a retirement without financial worries, this being from government or private pension system), .76 for , opportunities (DW6, example: I have choices in the work that I do, which allows me to either work for others or work for myself) and .80 for health and safety (DW7, example: at my work, I am protected from risks to my physical health).

The MWMS (Gagné et al., 2014) is a 19-item scale based on SDT made to assesses seven distinct sub-scales of work motivation types: amotivation, external regulation, external material work motivation, external social work motivation, introjected regulation, identified regulation, and intrinsic regulation. This instrument has a 7-point Likert-type scale beginning from 1= “Not at all” to number 7= “Completely”. The Cronbach’s alpha coefficients in the sample for the six subscales were: .84 (amotivation), .79 (extrinsic material regulation), .91 (extrinsic social regulation), .85 (introjected regulation), .89 (identified regulation) and .91 (intrinsic motivation). The Portuguese version of the MWMS was previously validated by dos Santos et al. (submission). The alpha from the subjects are: .85 (Amotivation), .90 (Extrinsic Social Regulation), .87 (Extrinsic Material Regulation), .75 (Introjected Regulation), .90 (Identified Regulation) and .90 (Intrinsic Regulation).

The sociodemographic questionnaire was the last instrument to be filled by the participants. In this questionnaire the participants had to indicate the sex, years worked, professional situation, (if they are public employees or they belong to the private sector), employment relationship (service provider, term contract, indefinite contract), clarify if they fulfill a function of boss, the school grade, activity sector, the dimension of the organization, working time, salary and collaboration time.

Data treatment

Concerning data treatment, in this research we analyzed the different factors of DW dimensions and WM through fuzzy-set qualitative comparative analysis (fsQCA), which determines how necessary and sufficient conditions relate with a given outcome (Wagemann & Schneider 2010). While traditional quantitative methods of analysis aim to find cause-effect relations between dependent and independent variables, this particular qualitative technique, as stated by Vis (2012), “fits the causes-of-effects approach most because this approach aims to reveal the minimal (combinations of) conditions bringing about a particular outcome in specific cases”. The fsQCA technique can capture both necessary and sufficient conditions for a specific outcome in order to better understand the mechanisms and to qualitatively predict the outcomes, using the software fsQCA 3.0. (Ragin, 2017).

The idea in which this method is based on is that causal relations are habitually better understood in terms of set-theoretic relations (Fiss, 2007; Ragin, 1987, 2000, 2008). We use fuzzy set analysis as a corresponding method, since it helps to understand more clearly what elements of a configuration are relevant for a specific outcome and how the elements of DW combine to achieve their effects on WM (Fiss, 2011). Several cases may be the result of a specific configuration (Rihoux, 2006). Moreover, the interpretation of the necessary and sufficient conditions for each specific outcome will follow a psychological process. The technique of fsQCA gives us a detailed way to analyze the necessary and sufficient conditions (Fiss, 2011). The fact that a specific condition (or a specific combination of conditions) may be sufficient to produce the outcome of interest is another advantage of fsQCA (Rihoux, 2006).

Results

With fsQCA the variables need calibration, since it's not adequate to use the original data. The adjustment of the conditions and the outcome are rescaled and the range to be considered has to be in between 1 (fully in set) and 0 (fully out set), where the middle point 0.5 is "neither in nor out" set. The percentile approach can be used to define the cut-off point of these sets, more precisely, the "fully in" set is defined by the 95th percentile while the "fully out" set as the 5th percentile, and the "neither in nor out" is defined by the median, according to Ragin (2008). This criterion would be applied where no other theoretical or empirical approach is adequate for the variable's calibration. Therefore, in our study the calibration was undertaken based on theoretical cut-off points, i.e., the meaning of the Likert-type scale points of each instrument used for measuring the variables. For the outcome conditions, the cut-off point for the fully in set is 6, the cut-off point for fully out set is 2 and, finally, 4 is the middle point for cut-off. For all the remain conditions, the cut-off point for the fully in set is 4 , the cut-off point for fully out set is 2 and, finally, 3 is the middle point for cut-off.

The variables defining the conditions (necessary and sufficient) follow a similar procedure that was made based on the meaning of the Likert-type scale points used. A corresponding set of necessary and sufficient conditions is originated for each outcome variable. Considering the number of variables of the study, the complexity of the solutions found in terms of sufficient conditions, and based on the need for a qualitative interpretation of them in the light of theory, we decided to analyze the parsimonious solution since its simplicity, allows us to get a more interpretable result.

The consistency and the coverage are taken in consideration for the necessary conditions. Consistency can be understood as the percentage of cases from those who get the specific outcome

under analysis to whom that condition applies. We use the cut-off point of .8 which itself corresponds to 80%. Coverage is the percentage of cases from those to whom the condition applies who reach the specific outcome.

Sufficient conditions show to what extent the outcome is reached where the specific condition is present. However, the same outcome may occur in presence of other conditions. As said by Ragin (2006, p. 235), “a causal condition can be considered sufficient to lead to the outcome if, for each case, the fuzzy membership value of the causal condition X do not exceed the fuzzy membership value of the outcome Y”. In the study of these analysis, we use 0.75 as the cut-off point in the truth table. The cut-off point for the solution consistency for sufficient condition is .85, which indicates the degree of belonging to the specific combination as a sub-set of results. Raw coverage is the percentage of positive cases explained by the proposed combination of conditions. The unique coverage is the percentage of positive cases only explained by the proposed combination and no other.

The results will be interpreted and discussed as psychological processes that apply to the subgroups corresponding to the necessary or sufficient conditions being analyzed. Since our outcome variables are the different types of work motivation, we will follow the sequence that goes from amotivation to intrinsic motivation. Each work motivation type will be analyzed firstly in terms of necessary, and then sufficient conditions. In order to simplify the understanding of results, and, at the same time, provide a holistic interpretation, we present all the results and then, we present the respective interpretation and discussion. Only solutions above the stated cut-off point will be examined for tentative interpretation.

Table 3

Analysis of the necessary conditions for the outcome variable amotivation

Conditions tested	Consistency	Coverage
fs_DW1c	0.633157	0.060827
~fs_DW1c	0.751323	0.177648
fs_DW2c	0.619047	0.066921
~fs_DW2c	0.721340	0.133879
fs_DW3c	0.708995	0.062210
~fs_DW3c	0.640211	0.197497
fs_DW4c	0.386243	0.060867
<u>~fs DW4c</u>	<u>0.932981</u>	<u>0.112505</u>
fs_Dw5c	0.529100	0.079135
~fs_Dw5c	0.723104	0.090929
fs_Dw6c	0.742504	0.083631
~fs_Dw6c	0.684303	0.118800
fs_DW7c	0.500882	0.052515
~fs_DW7c	0.788360	0.154564

Note: = Cut off for necessary conditions: 0.80; ~ means absence of the respective condition

Table 4

Analysis of the necessary conditions for the outcome variable extrinsic social work motivation

Conditions tested	Consistency	Coverage
<u>fs DW1c</u>	<u>0.893606</u>	<u>0.296001</u>
~fs_DW1c	0.379028	0.309008
fs_DW2c	0.788235	0.293804
~fs_DW2c	0.478261	0.306056
<u>fs DW3c</u>	<u>0.935038</u>	<u>0.282885</u>

~fs_DW3c	0.287979	0.306311
fs_DW4c	0.670077	0.364091
~fs_DW4c	0.598977	0.249043
fs_Dw5c	0.692583	0.357162
~fs_Dw5c	0.534015	0.231537
<u>fs_DW6c</u>	<u>0.829668</u>	<u>0.322209</u>
~fs_Dw6c	0.442967	0.265156
fs_DW7c	0.771356	0.278846
~fs_DW7c	0.476215	0.321923

Note: = Cut off for necessary conditions: 0.80; ~ means absence of the respective condition

Table 5

Analysis of the necessary conditions for the outcome variable extrinsic material work motivation

Conditions tested	Consistency	Coverage
<u>fs_DW1c</u>	<u>0.822294</u>	<u>0.431210</u>
~fs_DW1c	0.376414	0.485822
fs_DW2c	0.709855	0.418875
~fs_DW2c	0.488530	0.494926
<u>fs_DW3c</u>	<u>0.843942</u>	<u>0.404209</u>
~fs_DW3c	0.327625	0.551687
fs_DW4c	0.574475	0.494164
~fs_DW4c	0.610016	0.401531
fs_Dw5c	0.618417	0.504880
~fs_Dw5c	0.544750	0.373919

fs_Dw6c	0.757997	0.466031
~fs_Dw6c	0.443942	0.420698
fs_DW7c	0.763489	0.436945
~fs_DW7c	0.423909	0.453665

Note: = Cut off for necessary conditions: 0.80; ~ means absence of the respective condition

Table 6

Analysis of the necessary conditions for the outcome variable introjected work motivation

Conditions tested	Consistency	Coverage
<u>fs DW1c</u>	<u>0.807320</u>	<u>0.706371</u>
~fs_DW1c	0.335205	0.721852
fs_DW2c	0.725987	0.714776
~fs_DW2c	0.437839	0.740098
<u>fs DW3c</u>	<u>0.899303</u>	<u>0.718663</u>
~fs_DW3c	0.224051	0.629489
fs_DW4c	0.480441	0.689550
~fs_DW4c	0.652595	0.716716
fs_Dw5c	0.539891	0.735426
~fs_Dw5c	0.586948	0.672211
fs_Dw6c	0.718629	0.737187
~fs_Dw6c	0.443067	0.700551
fs_DW7c	0.745933	0.712278
~fs_DW7c	0.411309	0.734440

Note: = Cut off for necessary conditions: 0.80; ~ means absence of the respective condition

Table 7*Analysis of the necessary conditions for the outcome variable identified work motivation*

Conditions tested	Consistency	Coverage
fs_DW1c	0.770562	0.882582
~fs_DW1c	0.302071	0.851543
fs_DW2c	0.675444	0.870543
~fs_DW2c	0.393343	0.870377
<u>fs_DW3c</u>	<u>0.874556</u>	<u>0.914887</u>
~fs_DW3c	0.190533	0.700762
fs_DW4c	0.453254	0.851584
~fs_DW4c	0.613018	0.881327
fs_Dw5c	0.500148	0.891849
~fs_Dw5c	0.554734	0.831670
fs_Dw6c	0.670710	0.900675
~fs_Dw6c	0.403550	0.835272
fs_DW7c	0.725739	0.907174
~fs_DW7c	0.349556	0.817082

Note: = Cut off for necessary conditions: 0.80; ~ means absence of the respective condition

Table 8*Analysis of the necessary conditions for the outcome variable intrinsic work motivation*

Conditions tested	Consistency	Coverage
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<u>fs_DW1c</u>	<u>0.829239</u>	<u>0.817858</u>
~fs_DW1c	0.302525	0.734362
fs_DW2c	0.723931	0.803432
~fs_DW2c	0.411441	0.783961
<u>fs_DW3c</u>	<u>0.928191</u>	<u>0.836119</u>
~fs_DW3c	0.191548	0.606638
fs_DW4c	0.511940	0.828238
~fs_DW4c	0.602646	0.746065
fs_Dw5c	0.566913	0.870483
~fs_Dw5c	0.547844	0.707252
fs_Dw6c	0.713623	0.825189
~fs_Dw6c	0.406288	0.724127
fs_DW7c	0.758117	0.816013
~fs_DW7c	0.362481	0.729599

Note: = Cut off for necessary conditions: 0.80; ~ means absence of the respective condition

Table 9

Analysis for the sufficient conditions for the outcome variable identified work motivation

Conditions tested	Raw coverage	Unique coverage	Consistency
~fs_DW2c	0.393343	0.0100592	0.870376
fs_DW3c	0.874556	0.288166	0.914887
~fs_DW4c	0.613018	0.0442306	0.881327
solution coverage: 0.959763			
solution consistency: 0.862651			

Note. Cut off for solution consistency: 0.85; ~ means absence of the respective condition

Table 10*Analysis for the sufficient conditions for the outcome variable intrinsic motivation*

Conditions tested	Raw coverage	Unique coverage	Consistency
fs_DW3c*~fs_Dw6c	0.37777	0.0314379	0.886336
fs_Dw5c*fs_Dw6c	0.513486	0.234496	0.891175
~fs_DW2c*~fs_DW7c	0.27229	0.0171793	0.807438
fs_DW3c*~fs_DW4c	0.564851	0.112352	0.879145
solution coverage: 0.881807			
solution consistency: 0.818008			

Note. Cut off for solution consistency: 0.85; ~ means absence of the respective condition

Regarding the sufficient conditions for the outcomes of amotivation, extrinsic material, extrinsic social and Introjected motivation, there was no sufficient conditions for equal or above the consistency cut-off point.

Discussion

Necessary conditions for amotivation

For the outcome amotivation (see Table 3), the absence of meaningful remuneration for exercising citizenship (DW4) came out as a necessary condition for a subgroup. This may indicate that the absence of an adequate remuneration for being a full citizen in society contributes for this subgroup to show amotivation as the outcome. They remain working since they may have other motivations for doing so. They have some kind of motivation at work (for going to work every day, but not for performing the job). For instance, they may get order, discipline, or they may

receive forbidden benefits like the possibility of using the resources they have access to at work for personal purposes. Furthermore, they might find hard to get alternative jobs but keep seeking them. Since no other necessary conditions for amotivation were obtained, several of these different processes might operate in the subgroup.

The Cognitive Evaluation Theory (Deci, 1975; Deci & Ryan, 1980) assumes that people need to feel autonomous and competent, so social-contextual factors that diminish these feelings undermine intrinsic motivation, leaving people either controlled by contingencies or amotivated. Low levels of compensation perceived by this subgroup can be viewed as a negative appraisal on behalf the company, saying that they effort is insufficient or that their work is not good enough, hence the low salary. This form of negative feedback (low salary) decreases the perceived competence (Gagné & Deci, 2005, Deci & Ryan, 1985b). Other studies regarding the subject of economic compensation (e.g., Rynes et al., 2004; Rynes et al., 2005) indicates that it has an impact on the needs of a lower order (such as shelter and food) and gives way for the needs from a higher order. Such idea is based on older needs theories (Alderfer, 1972; Herzberg, 1966; Maslow, 1954) but is also compatible with SDT (Gagné & Forest, 2008).

Necessary conditions for extrinsic social work motivation

In the extrinsic social work motivation (see Table 4), the results show that there is a presence of principles and values at work (DW1), which may indicate that the workers of this subgroup felt they are being respected and having voice, which are clues of social validation of themselves. Trust among people at work shows them that others value them (they trust me, and I can trust them). This reinforces the basic need of competence and relatedness, where the respect

and trust of important people makes them important to the society, and if they have freedom to make decisions in the workplace their social value is higher.

The results also suggest the presence of fulfilling and productive work (DW3). The workers of this subgroup may see the social acceptance as a consequence of performing a useful and productive work and they seek that acceptance; for this subgroup, they can perceive that by engaging in a productive work they augment their value for the society. These results

Last, there is the presence of opportunities (DW6), the workers of this subgroup may seek social acceptance and the esteem from others through self-development: they like being approved and valued; if they have opportunities for self-development they have a context that helps them to reach more value in social comparison processes. These workers see the fact that they have more job opportunities as a social validation (the more people seek me, the more important I am).

Necessary conditions for extrinsic material work motivation

In the case of extrinsic material work motivation (see Table 5), the results show a presence of principles and values at work (DW1), this can mean that the workers of this subgroup feel respected, heard, and trusted in their current working context. However, the material consequences of their work are important to them. For this subgroup, fundamental principles and values seem to be a precondition to keep working and then to pursue material objectives. For this subgroup one of the fundamental principles seems to be an adequate wage according to the value they give themselves and the work they do (the values are right when I perceive the right salary for my work).

The presence of fulfilling and productive work (DW3) may indicate that the workers of this subgroup have a fulfilling and productive work, but that working context doesn't prevent them to pursue material objectives. For them what they earn from working is motivating. They may have jobs with rich content but earning a low salary. However, we cannot forget that the high extrinsic material work motivation does not imply that the worker has a low salary.

Necessary conditions for introjected work motivation

The presence of principles and values at work (DW1) in the results (see Table 6) can be because the workers of this subgroup are aware of the importance of trust, voice behavior and respect among colleagues. They pursue to feel proud of themselves, and to feel they achieve their value in society. This can also be explained as the idea that a good work climate (supportive of psychological needs) or an organizational culture (high values of cooperation) increases the need satisfaction, mainly for the need of relatedness (Gagné & Forest, 2008). This can also be explained as the actions of a leader or manager that supports the employee's psychological needs (Bono & Judge, 2003; Gagné & Forest, 2008).

As the internalization process is forestalled, regulations and values can remain external or be only partially internalized to form introjects identifications. In the case of these subgroup workers, they do not fully "digest" the values and principles at work, but these values are enough for them to administer the contingencies themselves. An example can be the pride to be treated with respect and the confidence in their actions that others have.

For the presence of fulfilling and productive work (DW3), the workers of this subgroup get proud of themselves and avoid the feeling of shame or guilt through performing a job which contributes to the value creation. This subgroup may see their work as a way to avoid these feelings

by doing something they see as relevant for the future generations or for their immediate social context (Deci & Ryan, 2000). These results also can find explanation in the researches which shows that jobs designed to be more meaningful and interesting increase autonomous motivation (Gagné et al., 1997).

Necessary conditions for identified work motivation

In the identified work motivation (see Table 7), the presence of fulfilling and productive work (DW3) can suggest that the workers of this subgroup have a working context that allows them to contribute to value creation and make them feel good. That necessary condition allows them the autonomous regulation that is expressed through identified work motivation. This subgroup recognizes and accepts the value of the working activity, by contributing with a productive work, they find it fulfilling. The instrumental part of the behavior can be the fact that they accomplish something meaningful for others. These results are similar to Ferraro et al. (2017b) where they suggested with identified motivation.

Necessary conditions for intrinsic work motivation

The presence of principles and values at work (DW1) suggests (see Table 8), similar to the cases seen before, that the workers of this subgroup must have a context in which trust among people, participation, and respect exist for being intrinsically motivated to work. These characteristics of the work context might be seen as part of the work content. These elements (trust, respect, participation, and others) support their needs of autonomy (I can participate, I'm trusted to do things the way I see better), relatedness (I "matter" to others, I belong), and competence (I feel effective) in a way where these sub sample workers feel that they are rewarded with the work they do by being a part of the activity itself.

The Presence of fulfilling and productive work (DW3) can point that the workers of this subgroup have a work context where they feel to contribute to value creation and feel self-fulfilled by the work they perform. Therefore, they are intrinsically motivated. They may see their work as the reward by itself, not as a means to obtain something else. They may enjoy the activity because it can be interesting, engaging or even challenging, and it can afford opportunities for improvement, growth and learning. These results are similar to Ferraro et al. (2017b) where they suggested with intrinsic work motivation.

Sufficient conditions for the several types of work motivation

No sufficient conditions equal or above the cut-off point of 0.7 for consistency for amotivation, extrinsic social motivation, extrinsic material motivation nor introjected motivation, were found since the consistency levels were below the minimum proposed in theory (Fiss, 2011).

Sufficient conditions for identified work motivation

The presence of fulfilling and productive work (DW3, see table 9) may indicate that a fulfilling and productive work is sufficient to get identified work motivation for the workers of this subgroup. This dimension of DW is job-content intensive, which means that while other DW dimensions are more focused on things that surround the tasks such as conditions and contexts, this is focused on the tasks that have to be performed and the corresponding meaning they have. The workers of this subgroup may feel a greater freedom and volition because the work they do is congruent with their own personal goals and identity, thus reflecting an aspect of themselves in the activity they develop. They may understand the importance of their work and value the meaning it has and feel motivated to do it even if it is unpleasant.

The absence of adequate working time and workload (DW2) may indicate that the workers of this subgroup are strongly motivated to work through and identified process that they became highly involved in the job issues and work very hard, extending the hours of work more than would be healthy. They may see the time as a mean or a resource to be expended in the activity they value, for the meaning it has for them.

The absence of meaningful remuneration for exercising citizenship (DW4) can suggest that the workers of this subgroup are strongly motivated to work through and identified process that they became highly involved in the job issues and work very hard, even with a lower salary. Therefore, despite the possible low income they get from working, they consider very important the work they do. This may occur because they feel that their work has values or it represents something of their own, or is aligned with certain aspects of themselves they consider important.

The cases of the absence of DW2 (Working time/workload) and absence of DW4 (remuneration), can be seen as the “workaholic” type, where the person engages in the working activity beyond time and remuneration, in these cases because they have the identified work motivation, it’s part of who they are.

Sufficient conditions for intrinsic work motivation

For the intrinsic work motivation (see Table 10), the presence of fulfilling and productive work (DW3) plus the presence of remuneration (DW4) can indicate that the workers of this subgroup are highly intrinsically motivated to work because they have a fulfilling and productive work, and receive earnings seen as appropriate, by them and their families, to exercise freedom and citizenship. The reward for the activity is double, this being the activity itself and the remuneration produced by their condition as workers. They may find their job interesting or even

experience joy by doing it, they feel competent, autonomous and related to this activity, and the remuneration can accentuate those feelings.

The presence of social protection (DW5) plus the presence of opportunities (DW6) can indicate that the workers of this subgroup have a good social security system and perceive having opportunities. On the one hand they have no stress from insecurity conditions as it would be in case social protection was absent, and on the other hand they feel they can to develop. Those conditions are sufficient to them to feel intrinsic work motivation.

The presence of fulfilling and productive work (DW3) plus the absence of opportunities (DW6) may suggest that the workers of this subgroup having a fulfilling and productive work but no opportunities for development, keep their intrinsic work motivation because they like very much the work they carry on as it is currently.

The absence of working time and workload (DW2) added to an absence of health and safety (DW7) may indicate that the workers of this subgroup love what they do and became strongly involved in performing their roles at work that they overpass the time and workload recommended for a healthy life. At the same time, they don't have health and safety at work which is a consequence of the excess of work they have.

In the end, we can resume the results of necessary conditions as following. The lack of motivation was present, whenever the perception of the remuneration received for the work was unfair. For the other types of motivation, the importance of having a needs supportive work climate, jobs that are designed with the objective to be meaningful and interesting, a cooperative organizational culture, among other elements aimed to match the fundamental principles and values of an employee, as to make the work to be fulfilling and meaningful, are elements that

present in the groups whenever they showed extrinsic social, extrinsic material work, introjected, identified (fulfilling and meaningful work) and intrinsic work motivation. In the cases of social work motivation, the variable of opportunities, may they be as personal employability, capacity for entrepreneurship, prospects of increased income, benefits and expectations of professional advances showed to be a condition present whenever this motivation was also present.

For the results related with sufficient conditions, we resume the results as, for the outcome of the groups to be both identified work motivation and intrinsic work motivation, the element of a fulfilling and productive work must be present. In the sole case of identified work motivation, there is an absence of a decent time management, and the absence of the remuneration factors can show that they are not as important for the subgroup to feel identified with the meaning of the activity they develop.

For the intrinsic work motivation, results point to that a work viewed as value creator, and the lack of worries about the compensation, are sufficient conditions to be present to achieve that motivation.

Another combination suggests that the commitment from the society to provide security to the workers, as the good expectations of professional advances, are sufficient conditions for the intrinsic work motivation to be the outcome.

Results also evidence that a work viewed as a way to contribute to the future generations, seen as a worthy activity, without the need of opportunities in the future, may be the sufficient ingredients to achieve this motivation.

Finally, we can also purpose that both the absence of a good time management and the absence of a safe environment, can be the sufficient conditions for this motivation.

It's remarkable to see that, in the results for the necessary and the sufficient conditions for identified work motivation and also in some outcomes for the sufficient conditions for intrinsic work motivation, elements of DW are present showing different relationships, some being present and some being absent, for example the DW2 working time and workload, DW4 remuneration and DW6 opportunities even for the necessary and sufficient conditions for intrinsic work motivations.

Some suppositions can be, for example regarding the absence of the DW4, that these workers have another source of income to solve the economic aspects or that the economic remuneration resulted of the working activity is not destined for the objectives regarding the aspects of this factor of DW. Another supposition regarding the working time/workload can be that the amount of work they are assigned is not enough, letting them time to expend in other activities.

Limitations and perspectives for future research

Regarding the limitations, the size of sample is not representative and the does not contain subjects from the highest positions on the firms. Future research is recommended to aim to include in its sample a broader scope of position (managers, directors). Also, a longitudinal study which included different data collection points could provide a clearer and better comprehension of the causal mechanisms and variations of all dimensions and could also provide important information of how these variables change in time and how the variables change with different situations of the organizational life, such as a raise, being fired, receiving a better job proposition, receiving different feedback from the supervisors, or even having to work in a different country with different cultural factors.

Some components that where not controlled in this study and which impact could generate an effect in future research findings are the cultural, contextual factors and elements of GCO. The

sample for this study is constituted only by Portuguese workers. Future research could focus on the role of cultural characteristics on subjective elements.

Conclusion

The concept of Decent Work can be seen as the embodiment of noble values applied to the workplace in search for a better quality of the working life of the worker and to those who depend on these workers. There is an important amount of research that aims to better understand and explain its relation to the motivation of workers, and also to make it easier to be applied in the workplace. The

The present findings in this research suggests a significant relation between DW as sufficient and/or necessary elements to achieve certain types of WM as outcomes. The results presented in this paper are coherent with those exhibited by Ferraro, Pais, Moreira, & Dos Santos (2018b), adding to the notion that DW plays an important role in promoting a positive approach to work and to motivation.

Also, the results showed the significative weight of the element of meaning in the activity that is been carried by the worker. These findings can contribute to a better understanding of the psychological mechanisms at work in the different cases.

On the practical point of view, these findings may help guide the efforts of the professionals in Human Resources to modify the policies and practices in firms and companies, looking up to better or to attain certain levels or types of motivation in their collaborators. Managers are encouraged to promote all elements of DW for their intrinsic value, but also for the possible benefits for their teams, the firms they work with, and themselves.

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Appendix A

Consentimento Informado

Liderança e Trabalho

CONSENTIMENTO INFORMADO

O projeto “Liderança e Trabalho” é realizado por uma equipa de investigação da Universidade de Évora e da Universidade de Coimbra, pelos seguintes investigadores: Nuno Rebelo dos Santos (nrs@uevora.pt), Andreia Dionísio (andreia@uevora.pt) e Leonor Pais (leonorpais@fpce.uc.pt). É ainda membro da equipa de investigação o(a) estudante abaixo-assinado(a).

O/A participante abaixo-assinado/a:

- a) Tem conhecimento de quais são os objetivos do projeto;
- b) Teve oportunidade de esclarecer as questões que quis colocar;
- c) Sabe que pode desistir de participar no projeto a qualquer momento durante as respostas às questões;
- d) Sabe que o seu nome nunca será divulgado pela equipa de investigação (os dados individuais são confidenciais);
- e) Sabe que pode solicitar uma síntese dos resultados obtidos deixando o seu endereço de email ao/à aplicador/a;
- f) Mantém a confidencialidade quanto à presente investigação até receber a síntese dos resultados obtidos.

A equipa de investigação compromete-se a:

- a) Garantir ao participante o carácter voluntário da participação no presente estudo;
- b) Prestar os esclarecimentos solicitados;
- c) Utilizar parcimoniosamente o tempo disponibilizado pelo participante;
- d) Assegurar o anonimato das respostas e a confidencialidade dos protocolos individuais de resposta;
- e) Utilizar os resultados da investigação apenas para fins de trabalhos académicos e respetivas publicações;
- f) Apresentar os resultados de forma agrupada, impossibilitando a identificação individual dos respondentes;
- g) Eliminar da base de dados, constituída pela totalidade das respostas, qualquer elemento identificador do autor de cada resposta.
- h) Conduzir a investigação de acordo com o Código Deontológico da Ordem dos Psicólogos Portugueses.

Data: __/__/__

Participante:

Estudante-aplicador:

Investigador responsável: 

Appendix B

MWWS Questionnaire

PROJETO LIDERANÇA E TRABALHO

MWMS (Gagné & Forest et al, 2015) - Instruções

No presente questionário é utilizada a palavra “trabalho” significando tanto as situações de exercício de uma profissão por conta própria, como as situações de emprego por conta de outrem. Responda conforme se aplique à sua situação. Considere que não há respostas certas ou erradas. Interessa que responda conforme se aplica mais ou menos à sua situação. Utilize a seguinte escala de respostas:

- 1=Nada
- 2=Muito pouco
- 3=Um pouco
- 4=Moderadamente
- 5=Fortemente
- 6=Muito fortemente
- 7=Completamente

Coloque uma cruz (X) sobre a sua opção de resposta para cada afirmação.

Responda em todas as afirmações considerando a seguinte questão:

Por que motivo você se esforça ou se esforçaria no seu trabalho/emprego atual?

Afirmações:	Respostas						
1-Não me esforço porque na verdade sinto que o meu trabalho é uma perda de tempo	1	2	3	4	5	6	7
2-Eu faço pouco porque penso que este trabalho não é merecedor de esforços	1	2	3	4	5	6	7
3-Eu não sei porque estou neste trabalho, já que é um trabalho inútil	1	2	3	4	5	6	7
4-Para obter a aprovação de outras pessoas (por exemplo, os meus superiores, os meus colegas, a minha família, os clientes...)	1	2	3	4	5	6	7
5-Para que outras pessoas me respeitarão mais (por exemplo, os meus superiores, os meus colegas, a minha família, os clientes...)	1	2	3	4	5	6	7
6-Para evitar ser criticado por outras pessoas (por exemplo, os meus superiores, os meus colegas, a minha família, os clientes...)	1	2	3	4	5	6	7
7-Para que somente se me esforçar o suficiente no meu trabalho conseguirei recompensas financeiras (por exemplo, do meu empregador, dos meus superiores hierárquicos...)	1	2	3	4	5	6	7
8-Para que somente se me esforçar o suficiente no meu trabalho me poderão oferecer mais estabilidade no trabalho (por exemplo, o meu empregador, os meus superiores hierárquicos...)	1	2	3	4	5	6	7
9-Para que não me arrisco a perder o meu trabalho se não me esforçar o suficiente	1	2	3	4	5	6	7
10-Para que preciso de provar a mim mesmo(a) que consigo	1	2	3	4	5	6	7
11-Para que me faz sentir orgulho de mim mesmo(a)	1	2	3	4	5	6	7

12-Para que não eu vou sentir vergonha de mim mesmo(a)	1	2	3	4	5	6	7
13-Para que não me sinto mal comigo mesmo(a)	1	2	3	4	5	6	7
14-Para que pessoalmente considero importante esforçar-me neste trabalho	1	2	3	4	5	6	7
15-Para que esforçar-me neste trabalho está alinhado com os meus valores pessoais	1	2	3	4	5	6	7
16-Para que esforçar-me neste trabalho tem um significado pessoal para mim	1	2	3	4	5	6	7
17-Para que fazer o meu trabalho me diverte	1	2	3	4	5	6	7
18-Para que o que faço no meu trabalho é estimulante	1	2	3	4	5	6	7
19-Para que o trabalho que faço é interessante	1	2	3	4	5	6	7

Appendix C

DW Questionnaire

DWQ (Ferraro et al, 2018)

Este questionário refere-se ao seu trabalho atual e ao contexto profissional no qual o realiza. Por 'contexto profissional' entenda o mercado de trabalho em geral (para alguém com as suas características profissionais), a(s) empresa(s)/organização(ões) onde eventualmente trabalhe, bem como a sua eventual atividade de prestador(a) de serviço (profissionais liberais).

Não há respostas certas nem erradas. O importante é que avalie se concorda mais ou menos com as afirmações apresentadas. Utilize a seguinte escala de respostas:

- 1=Não concordo nada
- 2=Concordo pouco
- 3=Concordo moderadamente
- 4=Concordo muito
- 5=Concordo completamente

Marque com um (X) a sua opção de resposta para cada afirmação. Responda a todas as afirmações. Relembramos que elas se referem ao seu trabalho atual e ao contexto profissional no qual o realiza.

1. No meu trabalho estou protegido(a) de riscos para a minha saúde física.	1	2	3	4	5
2. Tenho perspectivas de ter uma aposentadoria/aposentação/reforma tranquila (pensão, previdência pública ou privada).	1	2	3	4	5
3. Considero adequada a quantidade média de horas que trabalho por dia.	1	2	3	4	5
4. Disponho de tudo o que preciso para manter a minha integridade física no meu trabalho.	1	2	3	4	5
5. Sinto que estou protegido(a) caso fique sem trabalho (subsídios sociais, programas sociais, etc).	1	2	3	4	5
6. Sinto a minha família protegida através do meu sistema de proteção social (público ou privado).	1	2	3	4	5
7. O que ganho com o meu trabalho permite-me viver com dignidade e autonomia.	1	2	3	4	5
8. Sinto que estarei protegido(a) no caso de ficar doente (segurança social, seguros de saúde, etc.).	1	2	3	4	5
9. O que recebo pelo meu trabalho permite-me oferecer bem-estar aos que dependem de mim.	1	2	3	4	5
10. O que ganho com o meu trabalho permite-me viver com um sentimento de bem-estar pessoal.	1	2	3	4	5
11. No meu trabalho existe confiança entre as pessoas.	1	2	3	4	5
12. O meu trabalho contribui para assegurar o futuro das novas gerações.	1	2	3	4	5
13. Através do meu trabalho desenvolvo-me profissionalmente.	1	2	3	4	5
14. Um(a) profissional como eu pode criar o seu próprio emprego.	1	2	3	4	5
15. O meu horário de trabalho permite-me gerir/administrar bem a minha vida.	1	2	3	4	5
16. Em geral, os processos de tomada de decisão relativos ao meu trabalho são justos.	1	2	3	4	5
17. Penso que tenho perspectivas de melhorar a minha remuneração/salário/benefícios.	1	2	3	4	5
18. O meu trabalho permite-me ter tempo para a minha família/vida pessoal.	1	2	3	4	5
19. O meu trabalho contribui para a minha realização (pessoal e profissional).	1	2	3	4	5
20. Disponho do que preciso para trabalhar com segurança.	1	2	3	4	5
21. Sou tratado(a) com dignidade no meu trabalho.	1	2	3	4	5
22. Sou livre para pensar e expressar o que penso sobre o meu trabalho.	1	2	3	4	5
23. Em geral, tenho condições ambientais seguras no meu trabalho (condições de temperatura, ruído, umidade, etc).	1	2	3	4	5
24. No meu trabalho sou aceito(a)/aceite tal como sou (independentemente de género, idade, etnia, religião, orientação política, etc).	1	2	3	4	5
25. Atualmente, penso que há oportunidades de trabalho para um profissional como eu.	1	2	3	4	5
26. Acho que tenho possibilidades de progredir profissionalmente (promoções, desenvolvimento de competências, etc).	1	2	3	4	5
27. Considero adequado o ritmo que o meu trabalho exige.	1	2	3	4	5
28. Na minha atividade profissional existe a possibilidade de participação equilibrada nas decisões por parte de todos os envolvidos/implicados.	1	2	3	4	5
29. O trabalho que realizo contribui para criar valor (para minha empresa/organização/clientes/sociedade, etc).	1	2	3	4	5
30. Considero digno o trabalho que realizo.	1	2	3	4	5
31. O que ganho financeiramente com o meu trabalho é justo.	1	2	3	4	5

Appendix D

Sociodemographic Questionnaire

Por último, pedimos-lhe que complete, por favor, respondendo às seguintes questões - assinale um X na opção(ões) correta(s) [dados para fins exclusivamente estatísticos]

1 Sexo <input type="checkbox"/> Masculino <input type="checkbox"/> Feminino	2 Idade: _____ anos	3 Há quantos anos trabalha na empresa/organização? _____ anos
4 Situação(ões) profissional(ais) (pode assinalar mais do que 1 situação) <input type="checkbox"/> Trabalhador do Estado <input type="checkbox"/> Trabalhador no setor privado	5 Qual o vínculo que mantém com a organização? <input type="checkbox"/> Prestador de serviços (recibos verdes) <input type="checkbox"/> Contrato a termo (certo ou incerto) <input type="checkbox"/> Contrato sem termo /efetivo(a)	6 No seu local de trabalho desempenha alguma função de chefia? <input type="checkbox"/> Sim <input type="checkbox"/> Não
7 Grau de Escolaridade <input type="checkbox"/> Sabe ler e escrever sem possuir a 4ª classe <input type="checkbox"/> 1º ciclo do ensino básico (ensino primário) <input type="checkbox"/> 2º ciclo do ensino básico (6º ano) <input type="checkbox"/> 3º ciclo do ensino básico (9º ano) <input type="checkbox"/> Ensino Secundário (12º ano) <input type="checkbox"/> Bacharelato <input type="checkbox"/> Licenciatura em curso <input type="checkbox"/> Pós-Graduação/Mestrado (pós Bolonha)/ Licenciatura Pré Bolonha <input type="checkbox"/> Licenciatura concluída (pós-Bolonha) <input type="checkbox"/> Mestrado Pré-Bolonha <input type="checkbox"/> Doutoramento	8 Setor de atividade da organização onde trabalha <input type="checkbox"/> Indústria Transformadora <input type="checkbox"/> Indústria Extrativa <input type="checkbox"/> Comércio por grosso e a retalho <input type="checkbox"/> Alojamento e restauração <input type="checkbox"/> Agricultura, pecuária, pescas <input type="checkbox"/> Construção <input type="checkbox"/> Produção e distribuição de eletricidade, gás e água <input type="checkbox"/> Transportes e armazenagem <input type="checkbox"/> Educação e ciência <input type="checkbox"/> Saúde humana e apoio social <input type="checkbox"/> Atividades imobiliárias, alugueres e serviços prestados às empresas <input type="checkbox"/> Artes e indústrias criativas <input type="checkbox"/> Tecnologia de informação e comunicações <input type="checkbox"/> Outra. Qual? _____	9 Dimensão da organização onde trabalha <input type="checkbox"/> Tem até 9 colaboradores <input type="checkbox"/> Tem entre 10 e 50 colaboradores <input type="checkbox"/> Tem entre 51 e 250 colaboradores <input type="checkbox"/> Tem entre 251 e 500 colaboradores <input type="checkbox"/> Tem entre 501 e 1000 colaboradores <input type="checkbox"/> Tem mais de 1001colaboradores
		10 Tempo de trabalho na função atual <input type="checkbox"/> 3 meses <input type="checkbox"/> Mais de 3 e até 6 meses <input type="checkbox"/> Mais de 6 meses e até 1 ano <input type="checkbox"/> Mais de um ano