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Does the association between workload and work engagement depend on being workaholic?

A cross-cultural study on Italian and Canadian employees

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Work intensification implies increased workload which, in turn, can impact on work engagement, and workaholism; however, their mutual relations have not received adequate scholarly attention up to now. This cross-cultural study, grounded on the Job Demands-Resources model, examined the association between workload and work engagement and verified if workaholism acted as a moderator. Moreover, we examined if cultural differences affected these associations. To this purpose, 416 Canadian and 412 Italian employees filled a cross-sectional questionnaire. The association between workload and work engagement varied significantly between countries, and was moderated by workaholism. Results discussed in view of the theoretical framework provide insights for both scholars and managers in terms of human resource management and job design.

keywords: work intensification, workload, workaholism, work engagement, Job Demands-Resources model

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1 Introduction

In nowadays complexified world of work, organizations are in perpetual development due to micro (e.g., crowd-working) and macro-environmental (e.g., labour law) change (Korunka and Kubicek, 2017). Further to this evolution, "working harder, better, faster and stronger", which exemplifies work intensification's motto, degenerated into triteness among workers who have to keep up with and manage these changes through active actions (Ingusci et al., 2016; Kubicek et al., 2014). Organization's main objective is to remain competitive thus explaining the higher level of work intensification among employees (Kubicek et al., 2014); nonetheless, studies suggest that a higher level of work intensification is frequently associated with poorer physiological and psychological health regardless the employment status (i.e., public vs private, part-time vs full-time; Le Fevre et al., 2015).

Work intensification is usually established when an employee feels "pressed to complete more tasks within one working day" (Kubicek et al., 2014) (p. 26). Work intensification is also considered as a subjective factor, a perception from the employee point of view (Franke, 2015). All in all, work intensification fits with a situation of work and effort amplification because of the rise of work demands (Ogbonnaya et al., 2017). The latest definition must be differentiated from workload, the first being considered as the whole process having a dynamic characteristic, and involving a workload situation in it (Franke, 2015). In other words, workload is an outcome of work intensification. Precisely, workload may have a negative impact on employee motivation, hence, a higher level of workload will participate in less self-motivation and more in controlled motivation (Prem, 2017). Concurrently, organizational transformations contribute to a higher level of workload and job stress (Vakola and Nikolaou, 2005). Furthermore, job demands, including workload, are among the most frequently mentioned occupational stress factors for full-time employees (Charyszyn and Tucker, 2001; Cox et al., 2000; Paoli, 2005). Taken for granted that work intensification implies higher involvement in work activity, scholars in the last years have focused on two specular facets of work behaviors and attitudes as their primary outcomes, that is workaholism and work engagement (Gaudiino and Di Stefano, 2019), with distinctive outcomes affecting in turn job attitudes and well-being (Shimazu and Schaufeli, 2009). In fact, previous studies showed that workaholism was associated with negative work outcomes while work engagement was associated with positive work outcomes (Gaudiino and Di Stefano, 2019; Shimazu and Schaufeli, 2009). Moreover, Girardi et al. (2018) found a positive association between workload and workaholism, and stressed also the role of workload in moderating the positive association between workaholism and perfectionism[1]. Moreover, they found that the association between this latter and workaholism was stronger for individuals with higher levels of workload.

For decades now, workaholism has been defined many times. Oates (1971) (p. 11), a pio-

[1]Perfectionism is understood as a personality trait that leads individuals to an overly critical evaluation of their behavior in relation to the definition and achievement of extremely high performance standards, often even unrealistic and in search of the lack of defects in their performance.(Girardi et al., 2018)

neer in the field, defined workaholism as "[...] the compulsion or the uncontrollable need to work incessantly". Workaholic individuals have strong obsessions or need for work which has become so excessive that it creates a disturbance with own personal health and happiness, interpersonal relations, and social functioning (Cheung et al., 2018; Oates, 1971). Precisely, Schaufeli et al. (2008) defined workaholism as the tendency to work excessively hard in a compulsive way, so identifying the two dimensions examined in this study (i.e., working excessively and working compulsively). Their two-factor model is among the most used ones as it adequately captures the dimensionality of the construct. Other models, such as Spence and Robbins (1992) three-factor model, have received less empirical support (Del Líbano et al., 2010). Still, scholars are undecided on how to characterize at what point someone has become workaholic. Indeed, some researchers would focus on the number of hours worked by an employee to define workaholism (Mosier, 1983), whereas, other researchers would prefer to consider the tendency to accept additional hours and to invest further energy above the limit (Spence and Robbins, 1992; Mudrack, 2004).

Concurrently, work engagement has been, at least, equally studied during the same period (Bakker and Albrecht, 2018). It is now obvious that work engagement is highly appreciated by organizations since it is positively connected with creativity, task performance, organizational citizenship behavior, and client satisfaction (Bakker et al., 2014). Work engagement has been defined as a "positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli and Bakker, 2004) (295). Moreover, Bakker et al. (2011) (p. 5) argued that "work engagement captures how workers experience their work: as stimulating and energetic and something to which they devote time and effort (the vigor component); as a significant and meaningful pursuit (dedication); and as engrossing and something on which they are fully concentrated (absorption)". Work engagement is associated with several constructs salient to occupational health and organizational performance: more positive evaluations from coworkers about in-role and extra-role performance (Bakker et al., 2004), performance and customer loyalty (Salanova et al., 2005), organizational financial returns (Xanthopoulou et al., 2009), among others.

Now, it appears clear that workaholism and work engagement are two sides of the same coin and only recently scholars have started to examine them jointly (Schaufeli et al., 2006b). In fact, Di Stefano and Gaudiino (2019) argued that even though workaholism and work engagement pertain respectively to negative and positive involvement in work, a portion of their meaning might overlap and thus deserves further scholarly attention, especially with reference to workload which may force individuals to further investment in their work activities. Either way, a first positive and salient association was found between workaholism and work engagement in a Dutch sample (Schaufeli et al., 2008). Before this study, the relationship between workaholism and work engagement had not been studied except from a qualitative perspective by Schaufeli et al. (2001) with no notable results. In general, the importance of work engagement and workaholism has been empirically demonstrated in terms of relationship with various indicators of well-being and job performance (Shimazu et al., 2015). Moreover, this paper acquires its full and real meaning in our nowadays world of work where firms try to foster engagement (Biggs

et al., 2014; Ouweneel et al., 2013). Therefore, it is compelling to focus on workaholism to examine if being workaholic is notably related to being engaged and if being workaholic affects the relationship between work engagement and workload.
To date, few studies focused on the moderating role of workaholism; among these studies, Bakker et al. (2013) examined whether workaholism moderated the relationship between daily activities during non-work time and daily well-being in the evening, while Law et al. (2008) hypothesized the role of workaholism in moderating the impact of workload on exhaustion.
Little research has also been conducted on the relationship between work engagement and workload. Among these, Hallberg et al. (2007) found a positive association between workload and higher work engagement, while Hakanen et al. (2008) reported a significant negative effect of job demands on work engagement, as well as Tomic and Tomic (2011). So, one of the main aims of the current study is to examine the association between workload and work engagement and the moderating role of the workaholism; thus we will examine the state of being workaholic as a possible concept allowing convergence between workload and work engagement. To the best of our knowledge, such a relation has not been studied yet. Results from this study could have several potential practical implications. Having an estimate of the association between workload and work engagement could be useful for managing adequate levels of workload for fostering desired heightened work engagement. Knowing if and how workaholism moderates such a relationship could be useful to plan adequate potential interventions for workaholic workers to reduce the drawbacks affecting work engagement. Finally, finding any difference in these relationships between Italian and Canadian employees could be of practical importance to human resources managers having business in either or both countries.

1.1 Theoretical framework

Traditionally, the amount of workload that a person experiences was associated with one's subsequent engagement (Sussman, 2012). Hence, the more workload one experiences, the more they are assumed to be engaged. Nevertheless, some researchers found opposite results, the more workload one experiences, the more they will be disengaged (Bent et al., 1999; Schnorpfeil et al., 2002). Today, experiencing a high workload does not necessarily mean that an employee will be more engaged in own work, as often an excessive workload turns some people to be workaholic (Bakker et al., 2014). In the same vein, Molino et al. (2016) found that workaholism does not result in work engagement. As a result, an individual could be workaholic in meeting the set targets and deadlines, but they do not engage fully in that particular work.
Changes in workload affect workers and impact on their performance. In some cases, stress may enable workers to learn and improve their performance, as persisting in working, they garner more experience. Conversely, in other cases, underutilization of human skills causes stress (Johnson et al., 2005). Therefore, workers with abilities to perform exceedingly enjoy workload. However, when pressure based on workload intensifies, it has a negative impact on individuals. Often, employers fail to understand that stress from work intensification is one of the primary causes of absenteeism from work (Paškvan

and Kubicek, 2017). According to Parikh et al. (2004), the nature of the job might contribute to severe emotional and physical exhaustion. As a result, employees are unable to deal with more workload. In return, their performance is affected.

Organizations do not only give attention to the adverse effects of work-related well-being such as psychological distress but also positive results like work engagement. Work engagement is studied through the theoretical framework of the Job Demands-Resources model (Demerouti et al., 2001) (hereafter JD-R model). According to the JD-R model, job resources enhance work engagement. Precisely, two psychological processes are theorized into the JD-R model (Schaufeli, 2017; Demerouti et al., 2001): a stress process, or health impairment process, which is launched by a high level of job demands, leading to negative work outcomes (e.g. poorer performance), and especially when it is not counterbalanced by job resources; and a motivational process launched by job resources which leads to positive work outcomes (e.g. organizational commitment, extra-role behavior) through work engagement. As such, the organizational or physical job aspects that could be essential in achieving goals at work limit the demand for the job. Other job resources are supervisory coaching, work social support, feedback, and rewards (Bakker, 2008). Notably, these theoretical assumptions have received empirical support in several studies (Lo Presti, 2013). The JD-R model does not assume a direct relationship between job demands and work engagement (Bakker et al., 2007). However, some studies, based on the JD-R model, suggest that some job demands such as workload are overtime positively linked with work engagement through the motivational process (Bakker et al., 2005; Mauno et al., 2007). Job demands may also act as a moderator between job resources and work engagement (Bakker et al., 2004). Moreover, some forms of job demand such as role conflict are negatively related to the dedication part of work engagement (Prieto et al., 2008; Mauno et al., 2007). However, another important assumption in the JD-R model is that demanding aspects of work (i.e., work overload) lead to constant overtaxing and, in the long run, to exhaustion (Lee and Ashforth, 1996; Wright and Cropanzano, 1998).

The challenge-hindrance model of occupational stress (Webster et al., 2011) offers some additional and significant insights for explaining the differential roles of job-demands, such as workload. In fact, job demands may differ from an employee to another, with different consequences as well. Challenge demands suggest the offer of a professional opportunity to foster employee's personal growth, thus workload could be one of the challenges identified in the literature (Webster et al., 2011). Hindrance demands denote a more negative aspect of job demands by identifying stressful demands such as role ambiguity or role conflict (Webster et al., 2011). Hence, our study will interpret the level of workload as a challenge demands.

So consistent with the challenge-hindrance perspective, workload can be considered as a challenge job demand (Webster et al., 2011). Thus, a higher level of workload would lead to a increase in work engagement and, likely, workers with a higher workload will be completely concentrated and deeply absorbed by their work (for a full review concerning job demands and resources and their impact see the meta-analysis by Crawford et al. (2010).

In light of these reasons and contrasting evidence, we hypothesize: H1: Workload will

be positively associated with work engagement Also, this study can also contribute to the scholarly debate by focusing on the moderating role of workaholism - i.e. a negative form of work investment - between workload and work engagement – i.e. a positive form of work investment (Harpaz and Snir, 2014), as will be discussed in the following section.

1.2 Workaholism as a culturally-determined moderator

Although work engagement and workaholism represent two types of heavy work investment, they are weakly correlated and constitute two different concepts (Shimazu et al., 2015). More specifically, as reported above, workaholism has negative consequences while work engagement has positive consequences in terms of well-being and performance.
Instead, some studies have focused on highlighting the moderating role of workaholism (Bakker et al., 2013). For instance, Law et al. (2008) hypothesized the moderating effect of workaholism between workload and exhaustion.
So, as far as we know, although there are many studies on workaholism and work engagement and on their differences/similarities, their relationship, according to the formulation of our hypothesis, has not been studied yet. Quite surprisingly, no study, as far as we know, has analyzed the workaholism's moderation effect with respect to the relationship between workload and work engagement. Based on previous evidence showing that workaholism has detrimental effects (Cheung et al., 2018), it can be expected that the abovementioned hypothesized positive association between workload and work engagement could be depressed among workaholic individuals because their subsequent overwhelming psychological and physical investment in work activities, paired with heightened workload, could result in the activation of the health impairment process and thus to a depletion of psychological and physical resources that might lead to lowered work engagement.
Moreover, the variables studied in the present paper have been debated for a couple of decades, in different cultural contexts and with mixed results. For example in the Italian context, workaholism was found to be positively related to job demands, with the latest ones mediating between workaholism and burnout (Guglielmi et al., 2012). Another longitudinal study showed instead that job demands (i.e., mental workload) predicted an increase in workaholism over time, while the opposite did not hold (Balducci et al., 2018). Ceteris paribus, a Canadian study by Burke et al. (2010) seemed to reach, at a higher intensity, similar conclusions to Guglielmi et al. (2012). That being said, Italy and Canada seem to show differences in terms of cultural and work settings that deserve further scholarly attention, thus the moderating role of workaholism may vary based on cultural differences.
Hofstede's (Hofstede et al., 2005) theoretical model of cultural dimensions represents a useful framework for depicting differences between Italian and Canadian work experiences and subsequent individual outcomes. Hofstede's model (Insights, 2019) includes six different cultural dimensions: a) power distance (i.e., the extent to which less powerful members of institutions or organizations expect and accept that power is distributed unequally); b) individualism (i.e., the degree of interdependence a society maintains among its members); c) masculinity (i.e., the extent to which individuals value com-

petition, achievement and success [i.e., masculine society] against caring for others and quality of life [i.e., feminine society]); d) uncertainty avoidance (i.e., the extent to which individuals feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these); e) long-term orientation (i.e., the extent to which a society maintains some links with its own past [i.e., normative society] and deal with the challenges of the present and future [i.e., pragmatic society]); and f) indulgence (i.e., the extent to which people try to control their desires and impulses).
Hofstede's model has been successfully applied to several studies (Coyne and Ong, 2007; Eskildsen et al., 2010) concerning job attitudes and behaviors and proved to be a useful and valid theoretical framework for explaining differences between countries having different cultures.
To our study purposes, the cultural dimension of masculinity appears particularly noteworthy. In fact, this cultural dimension has particular importance and criticality because masculine cultures being driven by competition, achievement and success could result in a stronger association between workload and work engagement. This means that success is defined by the "winner" or "best-in-the-field", thus individuals strive to attain high standards of performance. Such a dimension could result in a stronger association between workload and work engagement, because the former could be seen as a mean for achieving higher success and performance, thus fostering work engagement. Moreover, a masculine culture could also reinforce workaholism (and its effects), because heightened job effort is usually associated with masculine aspects such as antagonism, accomplishment, etc. that may buttress excessive and negative effort in own work, i.e., workaholism.
According to Hofstede (Insights, 2019), Italy has a score of 70, while Canada has a score of 52, thus, Italy is a more masculine society than Canada. A more masculine society seems to handle more easily workload at work since professional and personal growth are top priorities, as well as the preference for higher pay and where failure is considered as a negative personal outcome. Consequently, also consistently with a challenge-hindrance perspective, Italian employees might couple a high level of workload with a high level of work engagement.

H_2: the positive association between workload and work engagement will be stronger among Italian than Canadian workers.
Moreover, Italian employees will be more prone to workaholism and its negative effects; this issue, coupled with the likelihood, sustained by the above-mentioned evidence, that the two workaholism dimensions may moderate the association between workload and work engagement, leads to the following hypothesis:

H_3: Working excessively (a) and working compulsively (b) (i.e., definition of workaholism) will moderate the association between workload and work engagement, with stronger effects among Italians.

1.3 Designing a study to test moderation with bootstrapping

This study aims to test a model of statistical moderation, which plays an important role in many social science theories. Thus, in this section, it is explained a specific analysis procedure, which was used in the statistical analysis process: the moderational hypothesis. This hypothesis implies that the effect of some variable of interest X (i.e., antecedent variable) on Y (i.e., criterion variable) is influenced by or dependent on M (i.e., moderator variable) (Hayes, 2017). Accordingly, the statistical analysis must measure and test the differential effects of the independent variable on the dependent variable according to another variable: the moderator one. The effects of moderation, as well as those of mediation, explain to us in a more complex and exhaustive way the simple effects of a relation. Moderation analysis is used when the goal is to uncover the boundary conditions of an association between two variables (Hayes, 2017). Moderation analysis is typically conducted by testing for linear interaction between X and M in a model of Y; With evidence that X's effect on Y is moderated by M, a researcher typically will then quantify and describe the contingent nature of the association or effect by estimating X's effect on Y at various values of M. According to Hayes (2017), it is used when one's research goal is to describe the conditional nature of the mechanism or mechanisms by which X transmits its effect on Y and testing hypotheses about such contingent effects. In Figure 1, it is depicted the simplest moderation model.

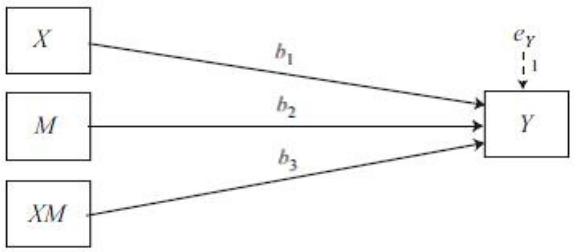

Figure 1: The model of simple moderation

The depicted model includes three causal paths that feed the outcome variable (Y): a predictor X (path b1), a moderator M (path b2), and the interaction term or product of these two, XM (path b3). The hypothesis is supported if the interaction term (path b3) is significant. There may also be significant conditional effects for the predictor (X) and the moderator (M), but these effects are not directly relevant. Furthermore, it would be desirable that the moderator (M) is not correlated with both the predictor (X) and the criterion (Y) to provide a more interpretable interaction term.

To minimize the effect of the sample size, bootstrapping can be used, which is a nonparametric approach to effect-size estimation and hypothesis testing that makes no assumptions about the shape of the distributions of the variables or the sampling distribution of the statistic (Preacher and Hayes, 2004). It is a statistical resampling technique with the reintroduction by approximation of the sampling distribution of a statistic. It is used in particular when the distribution of the statistics of interest is not known, allowing to

approximate the mean and variance of an estimator, construct confidence intervals and calculate p test values.
It returns a test that is not based on large-sample theory, meaning it can be applied to small samples with more confidence, and it has been suggested as a way to contain and support the power problem introduced by asymmetries and other forms of nonnormality in the sampling distribution.
The bootstrapping is accomplished by taking a large number of samples of size from the data, sampling with replacement, and computing the moderated effect, MX, in each sample (Preacher and Hayes, 2004).

2 Method

2.1 Participants and procedure

Data were collected among 416 Canadian and 412 Italian employees. A convenience sampling procedure was adopted in order to reach higher heterogeneity in responses (Landers and Behrend, 2015).
As for Canadians, 211 men (50.7%) and 205 women (49.3%) participated. The mean age was 35.09 years (SD = 9.23), and average tenure was 10.49 years (SD = 7.52). With regard to their educational level, 18 (4.3%) held a high-school degree, and 398 (95.7%) a university degree. Among them, 34 (8.2%) worked as blue collars or administrative employees, and 382 (91.8%) worked as middle or top managers. As for their employment contract, 370 (88.9%) held a permanent contract, and 46 (11.1%) not permanent contracts. Among them, 14 (3.4%) worked in the primary sector, 48 (11.5%) in the secondary sector, and 354 (85.1%) in the tertiary sector.
As for Italians, 198 men (48.1%) and 214 women (51.9%) participated. Mean age was 42.97 years (SD = 10.78), and average tenure was 19.68 years (SD = 11.58). With regard to their educational level, 60 (14.6%) held a junior high-school degree, 153 (37.1%) a high school degree, and 199 (48.2%) a university degree. Among them, 297 (72.1%) worked as blue collars or administrative workers, and 115 (27.9%) as middle or top managers. As for their employment contract, 301 (73.1%) held a permanent contract, and 111 (26.9%) not permanent contracts. Among them, 9 (2.2%) worked in the primary sector, 99 (24%) in the secondary sector, and 304 (73.8%) in the tertiary sector.
Respondents received a copy of the questionnaire along with a sealable envelope in order to protect privacy. Trained researchers distributed questionnaires within organizations and participation was voluntary. Completed questionnaires were collected after one to two weeks.

2.2 Measures

Workload. A 3-item scale (e.g., "How often does it occur that you have to work extra hard to finish your work?") in its English (Bakker et al., 2004) and Italian (Lo Presti and Nonnis, 2014) version has been used. Responses were based on a 5-point frequency scale (from 1 = never to 5 = always), and scores were equal to the mean of the three

items. Cronbach's alpha was .78 for the Italian sample and .60 for the Canadian sample.

Working excessively. The 5-item (e.g., "spend more time working than on socializing with friends, on hobbies, or on leisure activities") scale by Schaufeli et al. (2009) has been used (Italian version: Guglielmi et al., 2012). Responses were based on a 7-point Likert scale (from 1 = completely disagree to 7 = completely agree), and scores were equal to the mean of the five items. Cronbach's alpha was .70 for the Italian sample and .63 for the Canadian sample.

Working compulsively. The 5-item (e.g., "feel guilty when I take time off work") scale by Schaufeli et al. (2009) has been used (Italian version: Guglielmi et al., 2012). Responses were based on a 7-point Likert scale (from 1 = completely disagree to 7 = completely agree), and scores were equal to the mean of the five items. Cronbach's alpha was .69 for the Italian sample and .63 for the Canadian sample.

Work engagement. The 9-item (e.g., "Time flies when I'm working") Utrecht Work Engagement Scale in its English (Schaufeli et al., 2006a) and Italian (Balducci et al., 2010) version has been used. Responses were based on a 7-point frequency scale (from 0 = never to 6 = always), and scores were equal to the sum of the nine items. Cronbach's alpha was .93 for the Italian sample and .95 for the Canadian sample.

Control variables. The following variables were inserted as control variables: sex (0 = man, 1 = woman), educational level, employment contract (0 = permanent, 1 = temporary), working hours (0 = full time, 1 = part time), type of job (0 = blue collar/administrative work, 1 = middle/top management).

2.3 Data analysis

Missing values analysis was not carried out because no missing values were present on responses about study variables.
A measurement invariance test via multi-group confirmatory factor analysis (Lisrel 9.3; extraction method: robust maximum likelihood) was carried out in order to verify for configural invariance (e.g., items equally loading on their respective factor across countries). χ^2 values, degrees of freedom, Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Standardized Root Mean square Residual (SRMR) were used for evaluating the measurement adequacy of the estimated model.
χ^2 was calculated for examining significant differences in demographic variables between the two samples. Cronbach's alphas were used for estimating variables' internal consistency. Descriptive statistics and zero-order correlations were computed for describing variables' average values and their inter-correlations. Student's t-test was used for evaluating the statistical significance in the difference of variables' average values between the

two samples. A hierarchical multiple linear regression for each country was computed for examining the predictive role of study variables with respect to work engagement.
Finally, a two- (e.g., workload X country) and two three-way interactions (i.e., workload X working excessively/compulsively X country) were tested via regressions computed with bootstrapping (5000 samples; Process Macro for SPSS) (Hayes, 2017). Bs and construct bias-corrected 95% confidence intervals (hereafter 95% CI; LL = lower level of confidence interval, UL = upper level of confidence interval) were computed for each estimated interaction and a graphical depiction was provided.
Because a single questionnaire was used, we addressed common method variance following Podsakoff (2003), in particular, to reduce evaluation apprehension and protect respondent anonymity. Items were inserted randomly into the questionnaire and scales were graphically separated from each other. Different scale endpoints and formats for the predictor and criterion measures were used in order to reduce method bias caused by commonalities in scale endpoints and anchoring effects. Finally, additional items (that is, not used for computing scales) were inserted in order to reduce response bias.

3 Results

A measurement invariance test via multi-group confirmatory factor analysis was carried out in order to verify for configural invariance. Goodness of fit indexes $\chi^2 = 1622.78$, df = 398, RMSEA = .08 [.08, .09], CFI = .94, SRMR = .07) provided adequate evidence that the four continuous variables (workload, working excessively, working compulsively, work engagement) had the same factorial structure (i.e., configural invariance) across the two countries.
An analysis of the differences in frequencies distributions of sample characteristics between the two countries was carried out through χ^2 statistics. Results showed that the two samples were similar with respect to sex distribution ($\chi^2 = .59$, ns), while they were different in regards to the other variables. Educational level was higher in the Canadian samples ($\chi^2 = 232.90$, p <.001), the rate of permanent workers was slightly lower in the Italian sample ($\chi^2 = 33.99$, p <.001), the rate of full time workers was higher among Canadians ($\chi^2 = 75.13$, p <.001), and finally the Canadian sample was more predominantly composed of middle/top managers ($\chi^2 = 352.40$, p <.001). Table 1 depicts descriptive statistics, Cronbach's alphas, and zero-order correlations between study variables, differentiated for each country. In regards to variables' mean values, the Italian sample showed higher values with respect to workload (t = -9.05, p <.001), working excessively (t = -5.29, p <.001), and work engagement (t = -16.86, p <.001). No significant difference emerged for working compulsively.
Cronbach's alphas were adequate, although Canadian values were lower in three out of four cases (except for work engagement) and close to the lower bound of acceptable ones (i.e., .60).
As for associations between variables, these did not show any significant value in the Italian sample. As for the Canadian sample, work engagement positively correlated with workload (r = .51, p <.001), working excessively (r = .50, p <.001), and working

compulsively (r = .51, p <.001).

Table 1: Descriptive statistics and zero-order correlations (Italy under the diagonal, Canada above the diagonal).
Note: 2(0 = man, 1 = woman); 3(0 = permanent, 1 = temporany); 4(0 = full time, 1 = part time); 5(0 = blue collar/administrative work, 1 = middle/top management). Cronbach's alphas (Italy, Canada) on the diagonal; *** p <.001, ** p <.01, * p <.05.

		1	2	3	4	5	6	7	8	9
	M (SD)	-	-	-	-	-	3.24(.65)	2.52(.46)	2.64(.51)	3.17(1.11)
1) Sex[2]	-	-	-.07	.00	-.04	-.09	-.30***	-.22***	-.37***	-.62***
2) Educational level	-	.08	-	-.11*	-.09	15**	.09	.12*	.12*	19***
3) Employment contract[3]	-	.01	.03*	-	.22***	-.31***	-.07	-.13**	-.11*	-.20***
4) Working hours[4]	-	.21***	-.21***	37***	-	-.20***	-.00	-.12*	-.07	-.14**
5) Type of job[5]	-	-.23***	.20***	11*	-.00	-	.10	.07	10*	.20***
6) Workload	3.70 (.82)	.04	-.08	-.06	-.07	-.02	(.78, .60)	.50***	.48***	.51***
7) Working excessively	2.72 (.60)	-.03	-.06	.05	.01	.10*	.61***	(.70, .63)	.47***	.50***
8) Working compulsively	2.57 (.63)	.02	-.08	.03	-.02	.01	.36***	.50***	(.69, .63)	.51***
9) Work engagement	4.51 (1.18)	.02	-.02	.01	-.05	.02	-.05	-.00	-.06	(.93, .95)

A hierarchical multiple linear regression was computed for examining the associations between predictors, control variables, and work engagement, for each country (Table 2). As for Italy, none variable did show any significant association, moreover, the amount of explained variance was negligible. As for Canadian employees, work engagement was positively predicted by educational level (β step 1 = .11, p<.01; β step 2 = .09, p <.05; β step 3 = .07, p<.05), workload (β step 2 = .33, p<.001; β step 3 = .19, p <.001),

working excessively (β step 3 = .23, p<.001), and working compulsively β step 3 = .11, p<.001).

Moreover, work engagement was negatively predicted by sex (β step 1 = -.61, p <.001; β step 2 = -.51, p <.001; β step 3 = -.46, p <.001), employment contract (β step 1 = -.14, p <.001; β step 2 = -.13, p <.001; β step 3 = -.10, p <.01), and working hours (β step 1 = -.11, p <.01; β step 2 = -.11, p <.01; β step 3 = -.08, p <.05).

Control variables explained 45% of work engagement variance (p <.001), workload explained an additional 10% (p <.001), and working excessively and compulsively an additional 5% (p <.001). Total explained variance was equal to 61% (p <.001).

Finally, two- and three-way interactions were computed by means of regressions with bootstrapping. The association between workload and work engagement differed between the two countries (β = -3.10, p < .001, 95% CI [-4.14, -2.06]; explained additional variance = 4.9%, p <.001), in particular as it can be seen on Table 2, the association was positive and statistically significant only among Canadian workers. In regards to the moderating role of working excessively (β = .01, p <.001 95% CI [.61, 1.42]; explained additional variance = 1.7%, p <.001) and working compulsively (β = .88, p <.001, 95% CI [.52, 1.23]; explained additional variance = 1.6%, p <.001) coupled with potential national differences, we found significant results. As can be seen in Figure 2 and 3, while the association between workload and work engagement remained statisti-

Table 2: Work engagement regressed on study variables. Note: 6(0 = man, 1 = woman); 7(0 = permanent, 1 = temporary); 8(0 = full time, 1 = part time); 9(0 = blue collar/administrative work, 1 = middle/top management). Cronbach's alphas (Italy, Canada) on the diagonal; *** p <.001, ** p <.01, * p <.05.

	Italy			Canada		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Sex[6]	.05	.05	.06	-.61***	-.51***	-.46***
Educational level	-.04	-.05	-.05	.11**	09*	.07*m
Employment contract[7]	.03	.03	.03	-.14***	-.13***	-.10**
Working hours[8]	-.08	-.08	-.09	-.11**	–.11**	-.08*
Type of job[9]	.03	.03	.03	.06	.05	.06
Workload		-.06	-.09		.33***	.19***
Working excessively			.08			.23***
Working compulsively			-.07			.11***
R^2	.01	.01	.01	.45***	.55***	.61***
Δ R^2		.00	.00		.10***	.05***

cally non-significant and did not vary depending on values of working excessively and working compulsively among Italian employees, as for Canadians, results showed that such an association was positive when moderators' values were lower, while it turned to be negative, although statistically non-significant, when values of working excessively and working compulsively were higher.

4 Conclusions

In recent years, organizations are in constant development due to changes at the micro and macro environment (Korunka and Kubicek, 2017), in fact, new technologies of information and communication have significantly accelerated the speed with which goods and services are produced (Burchell et al., 2001). Due to this acceleration in the rhythms of the workflow, greater intensification and pressure on the workforce, also linked to greater workplace demands, can be expected. Workload is a term that is closely linked to work intensification. In recent years, it has become increasingly difficult discussing or comprehensively analyzing work intensification without mentioning workload. Over the years, researchers and scholars have argued that workload is a direct outcome of work intensification and directly impacts employee morale and motivation (Franke, 2015). Furthermore, research has shown that increased workload and work intensification significantly hampers innovation and creativity (Zeytinoglu et al., 2007). Hence,

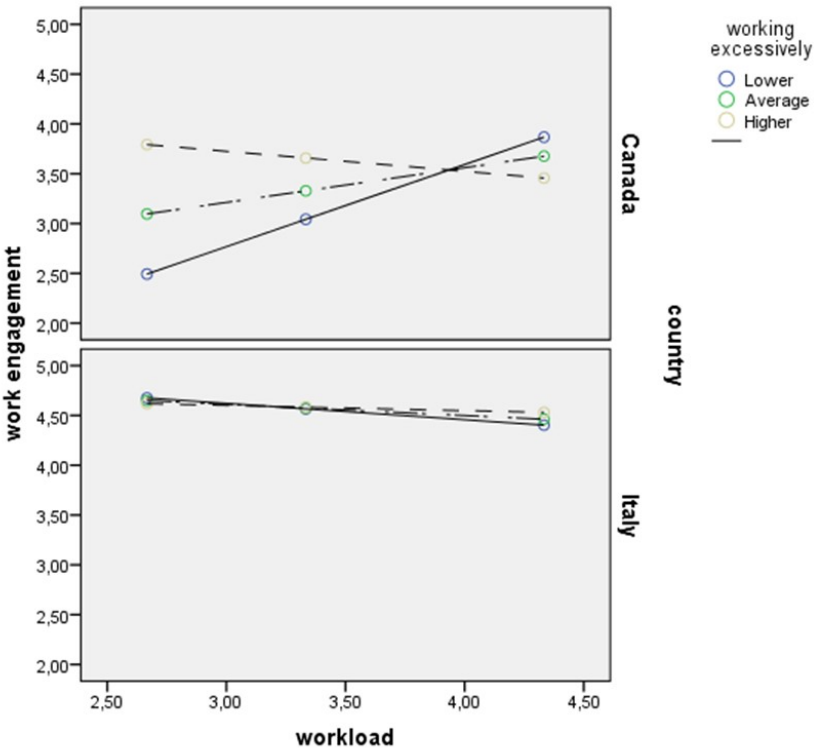

Figure 2: The association between workload and work engagement moderated by working excessively and country

work intensification and the consequent greater workload could also be an organizational and individual problem, as well as they imply a greater involvement in work, which could in turn be associated both with work engagement and workaholism.

Hence, in a bid to shed more insights on workload (and work intensification), this study considered two variables that may differentially associated with it: workaholism and work engagement. In fact, as already mentioned, workload represents a working condition proximal to work engagement and workaholism, and, in any case, little research has been conducted about the relationship between these latter constructs with reference to workload.

Moreover, given that the relationship between these variables has been deepened in two different cultural contexts (Canada and Italy), it seemed useful and appropriate to use, as a framework, Hofstede's theoretical model of cultural dimensions (Insights, 2019) and in particular one of the six cultural dimensions proposed by Hofstede: masculinity. This is because we believe that the two contexts mentioned show differences in terms of cultural dimensions and work settings. Future research could focus on the social environment of workers: for instance it could be crucial considering the view of the context in the development of job behaviours (Ciavolino et al., 2017).

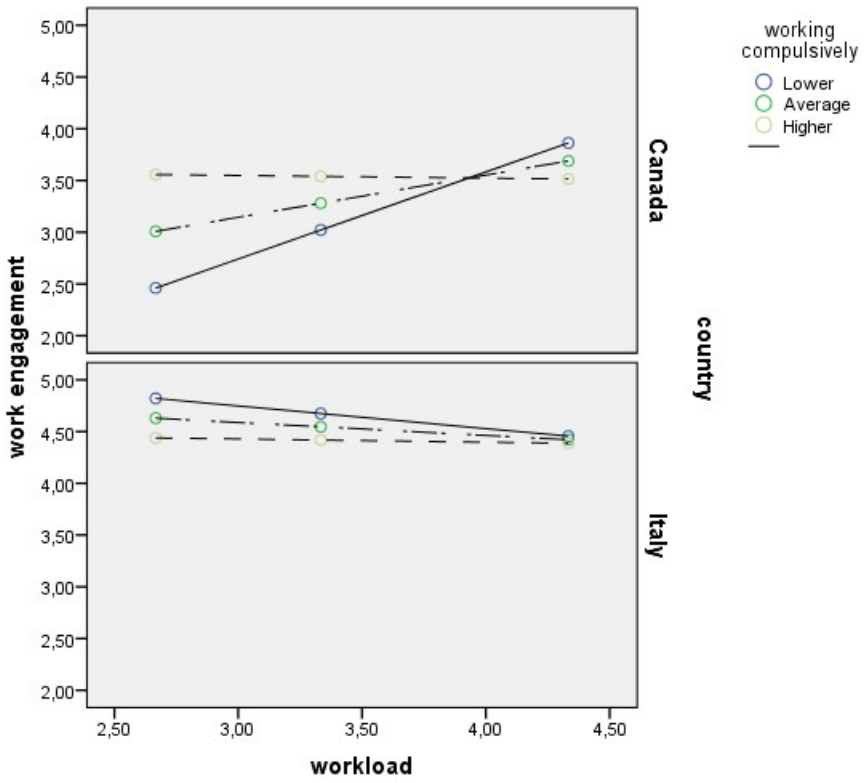

Figure 3: The association between workload and work engagement moderated by working compulsively and country

So, the aims of the current study were threefold. First, this study examined the relationship between workload and work engagement, secondly it examined the moderating role of country (Canada vs. Italy) on the association between workload and work engagement. Third, we further examined if these, direct and conditional, associations were different between Italian and Canadian workers. First, as for the Italian sample, we did not find any significance with regard to H1. Workload did not show any significant association with work engagement, which means that levels of the latter do not depend on workload. This result could reflect the lack of uniqueness with respect to the relationship between workload and work engagement, since in the literature there are contrasting evidence about their association (Crawford et al., 2010; Tomic and Tomic, 2011; Hakanen et al., 2008). Moreover work engagement may depend on other variables, as work autonomy, co-workers social support, job insecurity, etc. that have proven to be its significant and stronger predictors in other Italian studies (Chirumbolo et al., 2017; Lo Presti and Nonnis, 2014).
As for the Canadian sample, in line with our hypothesis, we found a positive association between workload and work engagement, which contrasts with some previous evidence

(Tomic and Tomic, 2011; Hakanen et al., 2008), but in agreement with other studies (Crawford et al., 2010). Work engagement was positively predicted by workload, so levels of work engagement positively depend on levels of workload. Moreover, the higher rate of workers working as managers and top managers in the Canadian sample might also explain the positive association between these two variables, consistently with the challenge-hindrance perspective (Webster et al., 2011).

This also means that we did not find support to H2. In fact, although there was a significant difference between the two countries in the association between workload and work engagement, it was of opposite sign than expected, as the positive effect of workload was stronger among Canadian workers. In fact, as for the cultural differences between the two countries, based on the Hofstede's theoretical model, we would have expected a stronger negative association between workload and work engagement among Italian employees compared to the Canadian ones (higher levels of masculinity in the Italian culture), while the results of our study completely diverged: Canadian employees showed a positive and significant association between workload and work engagement.

Concerning our third hypothesis, as for Italian workers, the moderating role of workaholism with respect to the association between workload and work engagement could not be demonstrated. Therefore, workaholism seemed to have no impact on this association. This couples with the null association between workload and work engagement discussed above. As mentioned previously, we could not rely on previous evidence about the moderating role of workaholism with respect to work engagement, since no other study, as far as we know, analyzed this association. As for Canadian workers, the association between workload and work engagement was instead moderated by both dimensions of workaholism: work excessively and work compulsively. Regarding this association, we have found that the association between workload and work engagement was significantly positive at lower levels of workaholism, while not significant when workaholism was higher. Such conditional positive association between workload and work engagement could be explained by the fact that workers with a higher workload remained motivated and active in carrying out their tasks only when their levels of workaholism were lower, while such an association turned to be unsignificant among workaholic employees. This is also consistent with a challenge-hindrance perspective, showing that Canadian employees were more likely to perceive workload as a challenge job demand (Webster et al., 2011). In other words, it seems that workaholic Canadian workers see workload as a hindrance factor, thus decreasing their level of work engagement, while workers who are less or no workaholic at all see workload as a challenge factor, thus fostering their work engagement.

A better knowledge of these variables would allow managers to effectively face the challenges of adequately managing profitability and organizational performance, as well as protecting the physical and psychological well-being of their workforce.

From an organizational point of view, some studies have already shown how much work engagement positively influence individual performance and customer loyalty (Salanova et al., 2005), and also because, according to Schaufeli and Salanova (2007), work engagement is contagious and therefore transferable from one person to another. While, from an individual point of view, work engagement has often been shown to be associated

with individual well-being (Hakanen et al., 2008), other researchers have demonstrated a negative association between work engagement and psychophysical problems (Demerouti et al., 2001; Schaufeli and Bakker, 2004).

Our results have significant implications especially for Canadian organizations and workers, considering that the Italian sample showed unsignificant results. Canadian organizations should pay particular attention to job design, providing adequate and challenging work conditions, in order to foster their employees' levels of work engagement. This objective could be reached, for instance, through participatory practices aimed at promoting adequate working conditions, such as employees' suggestions system, quality circles, regular meetings, etc.

Moreover, additional attention should be paid to workaholic employees, given that being workaholic could depress the positive association between workload and work engagement. In this case, potential addictive work behaviors should be monitored constantly within the organizations through, for instance, regular interviews with counselors or clinical psychologists, as well as particular attention should be devoted during recruitment and selection processes, and to particular occupational groups as temporary workers (Lo Presti et al., 2019). Moreover, any work aspect that could foster addictive work behaviors should be removed.

Nevertheless, the current study has provided interesting insights, several limitations should be taken into consideration. First of all, given that little or sparse research has been carried out on the relationship between work engagement and workload, we could recur to few studies as a source for comparison. Secondly, there is the impossibility of being able to make causal inferences between the variables due to the cross-sectional nature of the study. The compositions of the two national samples, in particular the imbalance in terms of employees' roles and contract, age and educational level, may have partly affected our results and represents an issue to be take care of in future studies. This issue, coupled with cultural differences, may have prevented from obtaining acceptable evidence about further levels of measurement invariance apart from the configural one. Furthermore, it would be useful to further examine the relationship between work engagement and workaholism with respect to motivational constructs such as intrinsic and extrinsic motivation (Tremblay et al., 2009) and also with respect to the concept of self-determined motivation (Green-Demers et al., 1997) related to certain organizational behaviors.

Finally, it could be useful to extend the use of the Hofstede model to other dimensions (e.g., long-term orientation) examining differences, with regard to the variables we considered in our study or other related ones, between other diverse cultures.

Typically, studies require large sample sizes to guarantee that the sample used in the study is a representative of the whole population and can be generalized to a more significant population. The sample size used in this study have also included participants from other nationalities with diverse culture and beliefs, moreover the samples used were not homogeneous. So, it would be desirable to replicate this study to other countries and other occupational groups.

In general, from the results of our study, we can reiterate, also in line with other authors (Bakker, 2008), that organizations should provide a sufficiently challenging work

to promote and maintain work engagement and high performance of their employees. While, related to workaholism, as mentioned above, potential addictive work behaviors should be monitored constantly, since being workaholic could depress the positive association between workload and work engagement. Furthermore, from a cultural point of view this aspect is particularly important for the Canadian context.

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