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A Comprehensive Understanding of the Relationships Between Passion for Work and Work–Family Conflict and the Consequences for Psychological Distress

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This article explores the relationships between passion for work and work–family conflicts (WFC). Using a multidimensional perspective of WFC, 2 studies (Study 1 = 91 civil servants; Study 2 = 679 teachers) tested a model in which passion for work predicted psychological distress through 4 types of WFC. In Study 1, results revealed that harmonious and obsessive passion for work negatively and positively predicted psychological distress, respectively, and that these relationships were mediated by strain-based work-to-family conflict (WIF). In Study 2, another potential mediator was added to our model, namely, work satisfaction. Results showed that harmonious passion negatively predicted psychological distress through enhanced work satisfaction and reduced strain-based WIF. Obsessive passion for work positively predicted psychological distress through enhanced strain-based WIF and strain-based family-to-work (FIW). Obsessive passion was positively related to all four types of WFC, whereas harmonious passion seemed to protect workers from experiencing WFC. Important contributions made to the passion and work–family conflict literatures are discussed.

Keywords: passion for work, work–family conflict, psychological distress

Work is notorious for interfering with family life: The surgeon who is called away from a family gathering to perform quadruple bypass surgery, or the professor who is not fully present at her son's hockey game because she is preoccupied by a statistical problem. At the same time, however, family life can intrude in one's professional activities: The nurse who misses a day of work to stay home and care for his elderly parents, or the lawyer who cannot concentrate on her work tasks because she was up all night with her young infant. Hence, work–family conflict (WFC) is bidirectional

(Carlson, Kacmar, & Williams, 2000; Greenhaus & Beutell, 1985). Using a multidimensional approach to WFC, which takes into account both the direction (work-to-family conflict [WIF] or family-to-work conflict [FIW]) and the nature (time-based or strain-based) of WFC can provide a more comprehensive understanding of workers' experience juggling work and family demands.

WFC is perhaps inevitable for everyone, but it appears that for workers who are characterized by passion for their work, WFC may constitute a way of life. For over a decade now, the dualistic model of passion (DMP; Vallerand et al., 2003; Vallerand & Houlfort, 2003) has pointed to the existence of two types of passion, namely, harmonious passion and obsessive passion. Both types of passion lead to distinct phenomenological experiences and outcomes. The DMP proposes that nurturing an obsessive passion leads to conflict between the passionate activity and other life spheres, whereas having a harmonious passion allows for better integration and thus less conflict. To date, three studies (Caudroit, Boiché, Stephan, Le Scanff, & Trouilloud, 2011; Thorgren, Wincent, & Sirén, 2013; Vallerand, Paquet, Philippe, & Charest,

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2010) have investigated how passion for work relates to WFC, confirming the positive relationship between obsessive passion and WFC. However, none of these studies used a multidimensional approach to WFC, which leaves us with an incomplete understanding of how passion for work affects WFC, and how WFC mediates the relationship between passion and workers' well-being. Such an in-depth investigation is necessary to provide a complete portrayal of how passion for work contributes to WFC or helps to prevent it.

The present studies aimed to expand previous research on passion for work and WFC in three ways, namely, by (a) evaluating the relationship between passion for work and WFC using a multidimensional approach to WFC (direction and nature of the conflict), (b) examining how four types of WFC (time-based or strain-based WIF or FIW) mediate the relationship between passion for work and workers' psychological distress, and (c) assessing how age and gender affect the hypothesized model. Hence, the present research extends previous empirical work on passion and WFC (Caudroit et al., 2011; Thorgren et al., 2013; Vallerand et al., 2010), and provides a more comprehensive understanding of how WFC is differentially experienced by workers who have a harmonious passion versus an obsessive passion for their work.

Passion for Work

The DMP (Vallerand et al., 2003; Vallerand & Houliort, 2003) defines passion as a strong inclination toward an activity (e.g., work) that the person values and finds important, and in which he or she invests a significant amount of time and energy. Passion is also self-defining, in that passionate workers define themselves as being teachers, nurses, or architects, and not merely people who teach, provide medical care, or design houses. Passionate workers identify with their job and endorse its meaning holistically.

Additionally, the DMP proposes the existence of two types of passion, namely, harmonious passion and obsessive passion. Harmonious passion is the result of a self-determined internalization process, that is, the person has experienced no external or internal pressure to internalize the activity; it has become part of his or her self-concept freely and volitionally (Vallerand, 2015; Vallerand, Houliort, & For-

est, 2014). When harmonious passion is at play, work occupies a significant, but not overpowering, space in the person's identity and is in harmony with other aspects of the person's life. In other words, with harmonious passion, the person fully partakes in one's work in a mindful (Brown & Ryan, 2003) and open way (Hodgins & Knee, 2002) that are conducive to flexible persistence, adaptive self-processes, maintaining and generate resources, and positive outcomes. Consequently, workers with a harmonious passion are more likely to establish adaptive boundaries between their work and other life domains.

Conversely, obsessive passion results from a controlled internalization process. Internal pressure (i.e., from the person him/herself) or external pressure (e.g., from his or her family or environment) was placed upon the person to internalize the activity within his or her self-concept. As a result, aspects of the self (e.g., self-esteem) are contingent on the activity (Vallerand, 2015; Vallerand et al., 2014). People with an obsessive passion can thus find themselves in the position of experiencing an uncontrollable urge to engage in their work that they view as important and enjoyable. Consequently, they risk engaging in their work with a rigid persistence, experiencing conflicts with other life activities, as well as negative affective, cognitive, and behavioral consequences during and after work engagement (Vallerand et al., 2014). Hence, workers with an obsessive passion are more likely to experience difficulties in establishing boundaries between their work and other important life spheres, as well as expending more resources trying to maintain these boundaries.

The distinction between harmonious passion and obsessive passion is critical because they have been found to have different relationship patterns with important consequences (for a review, see Vallerand et al., 2014). For instance, harmonious passion is positively related to psychological well-being (Carbonneau, Vallerand, Fernet, & Guay, 2008; Houliort, Philippe, Vallerand, & Ménard, 2014; Philippe, Vallerand, & Lavigne, 2009), psychological adjustment to retirement (Houliort et al., 2015), job satisfaction (Vallerand & Houliort, 2003; Vallerand et al., 2010), optimal commitment toward organizational changes (Houliort, Rinfret, & Duchesne, 2008), high-quality interpersonal re-

relationships at work (Philippe, Vallerand, Houli- fort, Lavigne, & Donahue, 2010), and flow (Forest, Mageau, Sarrazin, & Morin, 2011). Harmonious passion is also positively related to job creativity (Liu, Chen, & Yao, 2011). Conversely, obsessive passion is positively related to rumination (i.e., cannot stop thinking about the passionate activity) when the person is pre- vented from engaging in the passionate activity (Ratelle, Vallerand, Mageau, Rousseau, & Provencher, 2004), ill-advised persistent behav- ior (Rip, Fortin, & Vallerand, 2006), and nega- tive emotions during task engagement (Valler- and et al., 2003). Obsessive passion is negatively related or unrelated to indices of psychological well-being (Rousseau & Valler- and, 2003, 2008; Vallerand & Houli- fort, 2003).

These studies suggest that harmonious pas- sion for work is related to positive outcomes, whereas obsessive passion is related to more negative outcomes. This pattern of results has been found in different domains: work, sports, education, and personal relationships (for a re- view, see Vallerand, 2015). However, one im- portant organizational issue that has yet to gen- erate much research in the passion literature is WFC.

Work–Family Conflict

WFC originates from competing demands between personal and professional roles (Greenhaus & Beutell, 1985). Several theories have contributed to a better understanding of WFC. According to the conservation of re- sources (COR) theory (Hobfoll, 2002), individ- uals possess a limited amount of resources and energy. When resources are invested in one role, fewer are available for other roles. When resources are loss or threatened, a stress reac- tion occurs and individuals will try to protect or recover the loss by investing more of their re- sources (e.g., time, knowledge, money) into the role that is under threat (Grandey & Cropan- zano, 1999). COR theory further suggests that individuals differ in the amount of resources they possess (Hobfoll, 2011). Hence, those with “greater resources are less vulnerable to re- sources loss and more capable of orchestrating resource gain” (Hobfoll, 2011, p. 117). Hence, workers with more resources should be less likely to experience WFC, and experience less

distress if one role ever interferes with another role.

Boundary theory (Ashforth, Kreiner, & Fu- gate, 2000; Nippert-Eng, 1996) stipulates that juggling work and other life spheres requires setting boundaries or “fences” between our mul- tiple life domains. These boundaries can be more or less flexible and permeable, allowing individuals to manage the relationships between work and other activities as they see fit. Hence, some workers will prefer to separate their pro- fessional life from their personal life: using separate agendas, never bringing work at home, not dealing with personal issues at work, and so forth (Nippert-Eng, 1996). Alternatively, some workers will prefer to integrate both spheres: taking personal calls at work, working from home, participating in social activities orga- nized by one’s organizations, and so forth (Nip- pert-Eng, 1996). When individuals’ preferences for either segmenting or integrating one’s roles and activities are respected, well-being is ex- pected.

Additional research suggests that WFC can take different forms and directions (Carlson et al., 2000; Duxbury, Higgins, & Mills, 1992; Greenhaus & Beutell, 1985; Netemeyer, Boles, & McMurrian, 1996), and that taking these as- pects into account is necessary to provide a comprehensive understanding of WFC. In addi- tion to the direction of WFC (WIF or FIW), WFC can also take different forms, that is, it can be time-based, strain-based, or behavior-based (Carlson et al., 2000; Greenhaus & Beutell, 1985). Time-based conflict occurs when time invested in one role prevents the person from fully participating in another role (e.g., having to work overtime might preclude the worker from attending a family diner). When the strain experienced in one role thwarts engagement in another role, strain-based conflict arises. For instance, when a mass layoff is announced in a company, workers may be so preoccupied about whether or not they will keep their job that they have a hard time being present and fully in- volved in their family activities. Behavior-based conflict occurs when behaviors performed in one role are at odds with what is expected in another role (i.e., being firm and directive with one’s employees are behaviors that may be con- trary to those expected from a loving partner). This multidimensional view of WFC adds depth and complexity to the concept, which was once

perceived simply as work interfering with family life. For the purpose of our research program, we chose to focus on time-based and strain-based WIF and FIW, as these are the most frequently measured and studied conflict dimensions (Carlson et al., 2000).

The negative consequences of WFC are important both for the individual and the organization. Meta-analyses have shown that WFC is positively related to absenteeism and burnout, as well as to decreases in job satisfaction and life satisfaction (Allen, Herst, Bruck, & Sutton, 2000; Byron, 2005; Ernst Kossek & Ozeki, 1998). Grant-Vallone and Donaldson (2001) found that WFC is a longitudinal negative predictor (6-month interval) of workers' well-being. Higher levels of WFC are associated with a higher prevalence of mood, anxiety, and substance dependence disorders (Frone, 2000). Increased turnover intention is also associated with higher levels of WFC (Haar, 2004), particularly with WIF (Greenhaus, Parasuraman, & Collins, 2001).

Although many studies have examined the differential impact of WIF and FIW on workers' well-being, few have actually looked at the possible distinctive associations between time-based and strain-based WIF or FIW and workers' psychological outcomes. Carlson et al. (2000) found that strain-based WIF and FIW negatively predicted family satisfaction and life satisfaction. Strain-based FIW negatively predicted job satisfaction. Other researchers who have focused on time-based or strain-based conflict (Greenhaus, Parasuraman, Granrose, Rabino-witz, & Beutell, 1989; Higgins, Duxbury, & Irving, 1992; Loerch, Russell, & Rush, 1989; O'Driscoll, Ilgen, & Hildreth, 1992) have obtained similar results. Because the correlates of time-based and strain-based WFC are somewhat different, it appears important to distinguish between these forms of conflict in order to gain a more in-depth understanding of WFC.

Previous Research on Passion and Work-Family Conflict

Ever since the introduction of the DMP (Vallerand et al., 2003), it has been suggested that obsessive passion, but not harmonious passion, leads to conflict with other, nonpassionate activities. It appears that the rigid commitment to work activities that characterizes obsessive

passion for work may lead to WFC. Leaving one's professional goals unchanged when they are interfering with one's family goals and not changing work schedules or plans to accommodate one's spouse or children appear to generate conflict between the professional and family spheres. The negative affect related to obsessive passion for work also appears to contribute to WFC through a negative spillover effect. Indeed, the affect experienced in one domain can spill over into other domains (Grzywacz & Marks, 2000; Hammer, Kossek, Yragui, Bodner, & Hanson, 2009). According to Cropley and Purvis (2003), ruminative thoughts from one domain are a form of cognitive spillover that can intrude in activities in other domains, potentially leading to WFC. Because obsessive passion is related to rumination about the passionate activity (Ratelle et al., 2004), workers who harbor such a passion for work could experience strain-based WFC as a result of negative spillover.

Vallerand et al.'s (2003) theoretical work on passion also points to the possibility that obsessive passion for work is positively related to FIW. In other words, because of the rigid commitment toward work and ruminative thoughts about work, family activities can be perceived as requiring time and energy that passionate workers would rather spend on professional activities. Assessing both WIF and FIW would make it possible to test whether obsessive passion is, in fact, positively related to both WIF and FIW.

Vallerand and his colleagues (2010) were the first to examine how passion is related to WFC. They investigated the relationship between passion for work and burnout, using WFC and work satisfaction as mediators. Of particular interest, in their longitudinal study (Study 2), harmonious and obsessive passion, respectively, were negatively and positively related to WFC over time. WFC was positively related to burnout, whereas work satisfaction was negatively related to burnout. WFC was found to significantly mediate the relationship between obsessive passion and burnout, but did not significantly mediate the relationship between harmonious passion and burnout. In the latter case, work satisfaction acted as a significant mediator. These results show that obsessive and harmonious passion for work relate differently to WFC and highlight the process

through which passion for work can prevent or lead to burnout. However, Vallerand et al. used a unidirectional measure of WFC (work as an intrusion in the workers' personal life), without considering the opposite dimension of WFC (i.e., FIW) or the various forms of WFC (time-based or strain-based). In light of the recent literature on WFC, such a measure limits the scope and understanding of the passion–WFC relationship.

Although Caudroit et al. (2011) used a scale that assessed both time-based and strain-based WIF (Grandey, Cordeiro, & Crouter, 2005), answers were summed and a mean score was used. Nonetheless, with a sample of elementary school teachers, their findings show that harmonious and obsessive passion, respectively, negatively and positively predicted WIF. The relationship between obsessive passion and WIF was partially mediated by work time.

Finally, Thorgren and colleagues (2013) used the concepts of off-task thoughts at work and on-task thoughts off work to examine the relationship between passion and WFC. The former refers to “engaging in cognitions unrelated to a task when one is at work” (p. 474), whereas the latter refers to “engaging in strategies, self-instructions, and coping related to a work task when one is not at work” (p. 474). Their findings suggested that harmonious passion positively predicted off-task thoughts at work, whereas obsessive passion negatively predicted off-task thoughts at work and positively predicted on-task-thoughts off work. In other

words, the thoughts of individuals with an obsessive passion for work are almost exclusively directed toward their passionate activity (i.e., work), whether they are in their working environment or at home with their families. Having an obsessive passion can also preclude the onset of non-work-related thoughts when working. Hence, obsessive passion could be negatively related to strain-based FIW but positively related to strain-based WIF. Additionally, it appears that harmonious passion allows for the intrusion of non-work-related thoughts while working. This could mean that harmonious passion is positively related to strain-based FIW.

Present Research

The aims of the present studies were threefold: (a) to evaluate the relationship between passion for work and WFC, using a multidimensional approach to WFC (direction and nature of the conflict); (b) to examine how four types of WFC (time-based and strain-based WIF and FIW) and work satisfaction (Study 2) mediate the relationship between passion for work and workers' psychological distress; and (c) to assess how age and gender affect the hypothesized model.

In relation to these objectives, a hypothesized model in which passion for work is related to workers' psychological distress through time-based or strain-based WIF or FIW was tested (see Figure 1).

Our use of a multidimensional measure of WFC contributes significantly to past research on

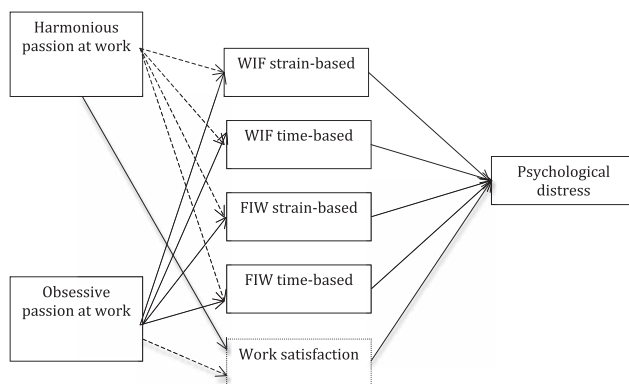


Figure 1. Hypothesized model. WIF = work-to-family; FIW = family-to-work. Full arrow = anticipated positive relationships; Dotted arrow = anticipated negative relationships; Dotted box = Variable included in Study 2 only.

passion for work and WFC. By differentiating between time-based and strain-based WIF and FIW, we aimed to provide a more fine-grained analysis of how passion for work relates to WFC and contributes to workers' psychological distress.

Study 1

The purpose of the first study was to test the proposed model using a cross-sectional design with civil servants. It was posited that harmonious passion for work would be negatively related to all types of WFC, whereas obsessive passion for work would be positively related to all types of WFC. All four types of WFC were expected to be positively related to psychological distress and to mediate the passion for work/psychological-distress relationship.

Method

Participants and procedure. Participants were 91 francophone Canadian federal civil servants in management positions (30% response rate). Sixty women and 27 men (four unspecified), aged between 23 and 56 years ($M = 32.31$ years, $SD = 6.51$ years), completed an online questionnaire. Participants were members of a professional network and received an electronic invitation from their network to participate in a study that aimed to assess their emotional experiences at work. The study was presented with the researcher's contact information, and interested members could follow a hyperlink to the questionnaire. Participants had been civil servants for an average of 6.04 years ($SD =$

5.13 years). All participants signed an electronic consent form.

Measures.

Passion for work. The Passion for Work Scale (Vallerand & Houliort, 2003) used in this study was an adapted version of the Passion Scale (Vallerand et al., 2003). It was composed of two six-item subscales: Harmonious Passion (e.g., "The new things I discover within the confines of my work allow me to appreciate it even more.") and Obsessive Passion (e.g., "I have a hard time controlling my need to do my work"). Workers responded to each item using a Likert-type scale ranging from 1 (*do not agree at all*) to 7 (*very strongly agree*). This scale (both English and French versions) has systematically demonstrated support for the two-factor structure through confirmatory factor analysis and high internal consistency (see Marsh et al., 2013). Alpha coefficients for all scales in this study were above .80 and can be found in Table 1.

Work-family conflict. A French version of the scale developed by Carlson et al. (2000) was used. A back-translation procedure was used to translate the scale (Vallerand, 1989) in which one researcher translated the items in French and a second bilingual researcher did a back translation of these items to the original language. Minor discrepancies were discussed and settled. For the purposes of this study, four dimensions were assessed: time-based FIW (three items; e.g., "The time I spend with my family often causes me not to spend time in activities at work that could be helpful to my career"), strain-based FIW (three items; e.g., "Because I am often stressed from family re-

Table 1
Means, Standard Deviations, Cronbach's Alpha Coefficients, and Correlations for Psychological Distress, Passion, and Work-Family Conflict: Study 1

Variables	Mean	SD	Alpha	1	2	3	4	5	6
Psychological distress (1)	1.79	.55	.90	—					
Harmonious passion (2)	4.89	1.00	.85	-.31**	—				
Obsessive passion (3)	1.93	.89	.84	.23*	-.01	—			
Time-based WIF (4)	2.05	1.01	.92	.19	-.29**	.36**	—		
Time-based FIW (5)	1.88	.82	.83	.10	-.08	.17	.55**	—	
Strain-based WIF (6)	2.39	.93	.84	.46**	-.39**	.40**	.47**	.23*	—
Strain-based FIW (7)	1.88	.78	.95	.27**	-.26*	.07	.22*	.56**	.40**

Note. $n = 91$. WIF = work-to-family; FIW = family-to-work.

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

sponsibilities, I have a hard time concentrating on my work”), time-based WIF (three items; e.g., “My work keeps me from my family activities more than I would like”), and strain-based WIF (three items; e.g., “When I get home from work I am often too frazzled to participate in family activities/responsibilities”). Workers were asked to rate each item on a scale from 1 (*totally disagree*) to 5 (*totally agree*).

Psychological distress index. The French version (Préville, Boyer, Potvin, Perrault, & Légaré, 1992) Anxiety and Depression subscales from Ilfeld’s (1976) Psychiatric Symptoms Index were used to create a psychological distress index. All the questionnaire items began as follows: “Over the last week, how often . . .” The Anxiety subscale was made up of three items (e.g., “. . . did you feel stressed or under pressure?”), and the Depression subscale was composed of six items (e.g., “. . . did you feel desperate when thinking about the future?”). Answers were rated on a scale from 1 (*never*) to 4 (*often*).

Results and Discussion

Table 1 presents the means, standard deviations, Cronbach’s alpha coefficients, and correlations for all the variables in Study 1. As hypothesized, harmonious passion was negatively correlated with both types of strain-based WFC. However, harmonious passion was negatively correlated with time-based WIF but not with time-based FIW. Obsessive passion was positively correlated with all types of WFC, but not significantly with time-based or strain-based FIW. Harmonious passion and obsessive passion were significantly negatively and positively associated with psychological distress, respectively.

To test the hypothesized model, we conducted a path analysis using AMOS (Arbuckle, 2012). The hypothesized model comprised two exogenous variables (harmonious and obsessive passion at work) and five endogenous variables (time-based and strain-based WIF, time-based and strain-based FIW, and psychological distress). The model included indirect paths from harmonious and obsessive passion for work to psychological distress through the four types of WFC. Covariances were allowed between all four types of WFC. The model was tested using maximum likelihood estimation with robust standard errors.

After investigating the initial model,¹ to provide a more parsimonious model, the nonsignificant paths were removed. The subsequent model provided an excellent fit to the data, $\chi^2(11) = 14.92$, $p = .19$, comparative fit index (CFI) = .976, Tucker-Lewis index (TLI) = .954, root mean square error of approximation (RMSEA) = .06, and standardized root mean square residual (SRMR) = .039. Results are summarized in Figure 2. Results show that harmonious passion for work negatively predicted time-based and strain-based WIF and strain-based FIW, whereas obsessive passion positively predicted time-based and strain-based WIF. Only strain-based WIF positively predicted psychological distress. In addition, harmonious and obsessive passion for work positively and negatively predicted psychological distress, respectively, through strain-based WIF.

We used bootstrapping to determine whether strain-based WIF mediated the paths between (harmonious and obsessive) passion for work and psychological distress. Bias-corrected bootstrap 95% confidence intervals were computed from 5,000 bootstrap samples (Preacher & Hayes, 2008). Results indicated significant indirect relationships between harmonious 95% CI [−.290, −.065] and obsessive 95% CI [.033, .224] passion and psychological distress through strain-based WIF.

Results from Study 1 confirm that harmonious and obsessive passion for work have distinctive associations with WFC. Indeed, harmonious passion for work appears to prevent both types of WIF and strain-based FIW, whereas obsessive passion for work contributes to both types of WIF. Interestingly, only strain-based WIF predicted workers’ psychological distress and acted as a significant mediator between passion for work and psychological distress, suggesting that time-based WFC, as well as WFC that derives from family intrusions in the work domain, are not as challenging as (strain-based) work intrusions in family life. These findings also point to the importance of taking into account the multidimensionality of WFC in order to gain a more comprehensive understanding of the distinctive experience of har-

¹ Because of our small sample size, the nonsignificant paths were deleted from the original model to increase its parsimony and obtain a more realistic evaluation of the fit indices.

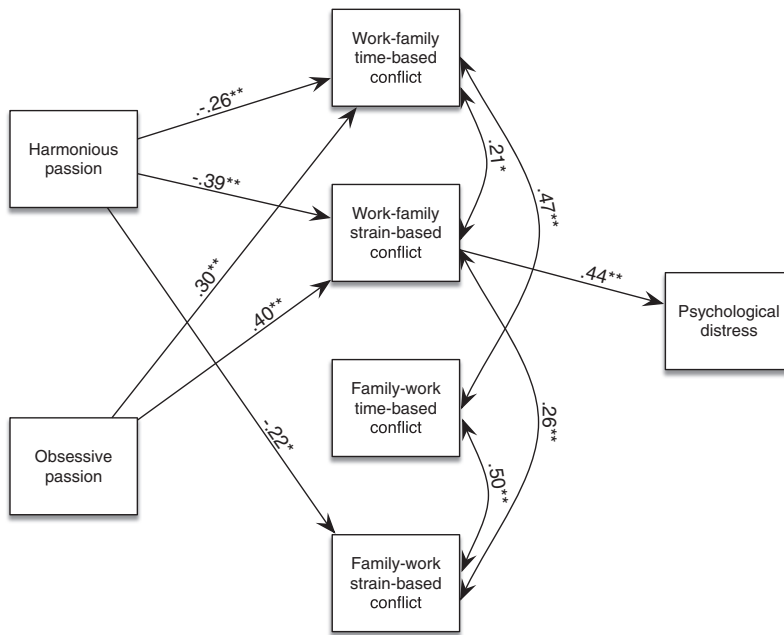


Figure 2. Path analysis for passion, types of WFC, and psychological distress. * $p < .05$. ** $p < .01$.

monious and obsessive workers when it comes to work–life balance.

Study 2

Results from Study 1 provided partial support for the proposed model. However, one important limitation of this study was the small number of participants. The purpose of Study 2 was to provide a second test of our model, using a larger sample. In addition, we wished to test for gender and age variance, as these variables have previously been shown to affect WFC (e.g., Byron, 2005; Ernst Kossek & Ozeki, 1998; MacEwen & Barling, 1994; Martins, Eddleston, & Veiga, 2002).

Also, an additional mediator was added to our model: work satisfaction. In Vallerand et al.'s (2010) study, work satisfaction, as well as WFC, mediated the relationship between passion for work and burnout, thereby confirming that work satisfaction is a mechanism to consider when accounting for the differential consequences of harmonious and obsessive passion on workers' psychological well-being. We thus hypothesized that harmonious and obsessive

passion for work would be positively and negatively related to work satisfaction, respectively. We also hypothesized that work satisfaction would mediate the relationship between harmonious passion and workers' psychological distress.

Lastly, we wished to enlarge the applicability of our results by looking at the passion/WFC/psychological-distress relationships among another category of workers, namely, teachers, who represent one of the professional groups most affected by psychological distress (Schonfeld, 1990).

Method

Participants and procedure. Participants were 679 francophone teachers—elementary, high school, and adult education teachers—in the province of Quebec, representing a 33% response rate of our population. The teachers' mean age was 40.98 years ($SD = 9.77$ years) (ranging between 23 and 66 years); 533 were women and 146 were men. Tenure ranged from less than one year to 43 years, and average tenure was 14.16 years ($SD = 8.48$ years).

With the collaboration of the teachers' unions, the teachers received an invitation letter and a questionnaire through their schools' internal mail system. The letter described the study and provided the researcher's contact information. All participants signed an informed consent form. The teachers returned the completed questionnaires directly to the researcher in prestamped envelopes. As an incentive, three prizes of 100\$CAN (138\$ US) were drawn among participants.

Measures.

Passion for work, work-family conflict, and psychological distress index. The scales used in Study 1 were used again in Study 2 to assess the teachers' passion for work, WFC, and psychological distress.

Work satisfaction. We used the French-validated version of the Work Domain Satisfaction Scale (Béribé, Donia, Gagné, Houffort, & Lvina, 2016) to assess participants' work satisfaction. A sample item was "The conditions in which I do my work are excellent." Items were scored on a 7-point Likert scale, ranging from 1 (*do not agree at all*) to 7 (*very strongly agree*).

Results and Discussion

Means, standard deviations, Cronbach's alpha coefficients, and correlations for the variables in Study 2 are provided in Table 2. Harmonious passion was negatively and significantly related to all four types of WFC and to psychological distress, whereas obsessive passion was positively and significantly related to all four types of WFC and psychological distress. Harmonious passion, but not obsessive passion, was

positively and significantly associated with work satisfaction. All types of WFC were positively and significantly related to the teachers' self-reported psychological distress, and work satisfaction was negatively and significantly related to this variable.

A structural equation model, conducted in LISREL 8 (Jöreskog & Sörbom, 2003) with maximum likelihood as the method of estimation, was used to assess whether WFC and work satisfaction mediated the relationship between passion and psychological distress. Observed variables were computed using random item parceling for each construct (Bandalos, 2002), except for the different types of WFC, which were each measured using three items. Covariances were drawn between all four types of WFC and between the types of WFC and work satisfaction. Paths were drawn from the two types of passion to all types of WFC and to work satisfaction. In addition, all these latter variables were modeled to predict psychological distress. Direct paths from passion to psychological distress were also included to test for mediation.

Testing this model (see Figure 3) revealed adequate fit indices, $\chi^2(df = 181) = 597.66$, $p < .001$, normed chi square = 3.30, non-normed fit index = .97, CFI = .98, RMSEA = .058 [.053, .064], goodness-of-fit index = .93, SRMR = .058. In addition, all factor loadings were significant and adequately high. Results revealed that harmonious passion was negatively and significantly associated with all types of WFC, except for a nonsignificant negative association with strain-based FIW ($\delta = -.08$,

Table 2

Means, Standard Deviations, Cronbach's Alpha Coefficients, and Correlations for Psychological Distress, Passion, and Work-Family Conflict: Study 2

Variables	Mean	SD	Alpha	1	2	3	4	5	6	7
Psychological distress (1)	1.94	.63	.88	—						
Harmonious passion (2)	4.95	1.05	.87	-.45**	—					
Obsessive passion (3)	2.23	1.02	.78	.12**	-.04	—				
Time-based WIF (4)	2.78	1.12	.89	.35**	-.32**	.40**	—			
Time-based FIW (5)	2.41	.92	.73	.20**	-.11**	.15**	.46**	—		
Strain-based WIF (6)	3.21	1.11	.89	.57**	-.43**	.23**	.60**	.43**	—	
Strain-based FIW (7)	1.93	.83	.90	.20**	-.11**	.12**	.20**	.49**	.27**	—
Work satisfaction (8)	4.37	1.22	.86	-.51**	.62**	.03	-.32**	-.13**	-.45**	-.06

Note. $n = 679$. WIF = work-to-family; FIW = family-to-work.

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

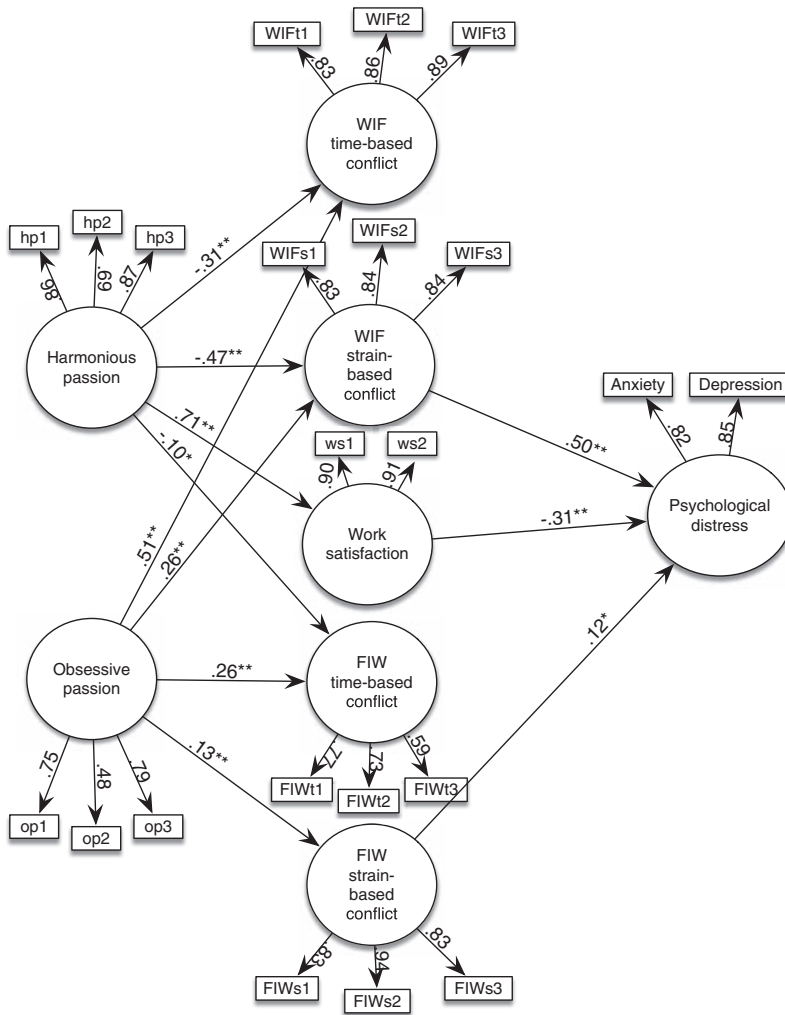


Figure 3. Structural equation model for passion, types of WFC, work satisfaction, and psychological distress. Nonsignificant paths and all covariances are not shown for the sake of clarity. WIF = work-to-family; FIW = family-to-work. * $p < .05$. ** $p < .01$.

$p > .05$). Obsessive passion was positively and significantly associated with all four types of WFC. Moreover, harmonious passion was strongly and positively associated with work satisfaction, whereas obsessive passion was not correlated with this variable. Lastly, the two strain-based types of WFC and work satisfaction, respectively, were positively and negatively associated with psychological distress, whereas the two time-based types of WFC were unrelated to psychological distress.

Mediation analyses using bias-corrected bootstrap 95% confidence intervals based on

5,000 bootstrap samples (Preacher & Hayes, 2008) revealed that the relationship between harmonious passion and psychological distress was significantly mediated by strain-based WIF 95% CI [-.167, -.090] and work satisfaction 95% CI [-.165, -.073]. The relationship between obsessive passion and psychological distress was significantly mediated by strain-based WIF 95% CI [.042, .095] and strain-based FIW 95% CI [.001, .019].

We tested an alternative model examining whether work satisfaction could be considered to be a consequence of the different types of

WFC, as suggested by Ford, Heinen, and Langkamer (2007) and Ernst Kossek and Ozeki (1998). Results of this model revealed fit indices that were acceptable, but less adequate, than those of our original model. In addition, the modification indices showed that paths should be drawn (freely estimated) from the WFC variables to psychological distress. Finally, the AIC criterion for our original model, $AIC_o = 741.66$, was lower than that for this alternative model, $AIC_A = 821.88$, thus indicating that the original model was preferable.

Model invariance was tested across gender. Results showed adequate and similar fit indices for both the male and female models. The result for the fully unconstrained models examined concomitantly was $\chi^2(362) = 810.47$. All parameters of the male model were then fully constrained to equal those of the female model. The result for this fully constrained model was $\chi^2(434) = 920.59$, thus rejecting the null hypothesis of invariance across gender, $\Delta\chi^2(72) = 110.12, p < .05$. Specific invariance tests for the measurement errors, variances, factor loadings, and path coefficients showed that there were only two significant differences across gender and that they pertained to the path coefficients. The path from harmonious passion to psychological distress was significantly different between the two groups, $\Delta\chi^2(1) = 6.64, p < .05$, as this direct effect remained significant for males, $\delta = -.29, p < .05$, but not for females, $\delta = -.02, ns$. The second significant difference pertained to the path from strain-based WIF to psychological distress, $\Delta\chi^2(1) = 12.48, p < .05$, which proved to be much stronger for females, $\delta = .60, p < .01$, than for males, $\delta = .14, p < .05$. Taken together, these differences imply that the indirect effects of the harmonious passion \rightarrow strain-based WIF \rightarrow psychological distress and obsessive passion \rightarrow strain-based WIF \rightarrow psychological distress mediations were stronger for females than for males ($ts > 3.83, ps < .01$).

Model invariance was also tested as a function of age. The sample was divided into two groups in order to assess the difference between younger teachers (under 40 years of age) and older teachers (40 years of age and older). Results showed adequate and similar fit indices for both the younger and older participant samples. The result for the unconstrained models examined concomitantly was $\chi^2(362) = 795.76$. All

parameters of the younger sample model were then fully constrained to equal those of the older sample model. The result for this fully constrained model was $\chi^2(434) = 894.18$, thus rejecting the null hypothesis of invariance between younger and older teachers, $\Delta\chi^2(72) = 98.42, p < .05$. Measurement errors of the observed variables and variances of the observed and latent variables were then allowed to vary freely across the two age groups. The result for this model, $\chi^2(393) = 837.39$, did not differ significantly from the fully unconstrained model, $\Delta\chi^2(31) = 41.63, ns$, thus implying invariance between the two age groups for all factor loadings and path coefficients in our model.

General Discussion

The present studies aimed to broaden our understanding of the association between passion for work, WFC, and workers' psychological distress by expanding previous research on passion for work and WFC in three ways, namely, by (a) evaluating the relationship between passion for work and WFC, using a multidimensional approach to WFC (direction and nature of the conflict); (b) examining how four types of WFC (time-based and strain-based WIF and FIW) mediate the relationship between passion for work and workers' psychological distress; and (c) assessing how age and gender affect the hypothesized model.

Results suggest that having harmonious passion for work protects workers against WFC, whereas obsessive passion facilitates such conflict. Interestingly, the results show that passion for work relates differently to time-based and strain-based WIF and FIW as a function of the type of passion. In Studies 1 and 2, harmonious passion for work negatively predicted both time-based and strain-based WIF. In Study 1, although harmonious passion negatively predicted strain-based FIW, but not time-based FIW, the opposite was true in Study 2. Moreover, Study 1 revealed that obsessive passion positively predicted both types of WIF, but neither time-based nor strain-based FIW. In Study 2, obsessive passion positively predicted all four types of WFC. Disparities between the two studies may be due to several factors. First, the civil servants sample is younger ($M = 32.31$ years) than the teachers sample ($M = 40.98$

years). Therefore, family responsibilities may be more challenging among our teachers sample, and they may be more likely to experience family work conflicts when they have an obsessive passion for their work. Other factors that could be taken into account in future research are the type of work and work design. Although more research is needed to understand these differences, this set of findings highlights that passion for work matters in terms of how workers experience conflict between their professional lives and family lives, and that using a multidimensional conceptualization of WFC provides a deeper understanding of this experience.

In light of COR theory, these results suggest that workers with a harmonious passion have more resources to manage work–life balance issues and are less vulnerable to resource loss than workers with an obsessive passion. This interpretation is in line with previous research on passion. Having a harmonious passion results in a flexible and mindful (Brown, Ryan, & Creswell, 2007) investment in one’s work allowing individuals to keenly engage in other activities, such as sports, family activities and gatherings, and so forth (Vallerand, 2015). This involvement in other life spheres permits the opportunity to revive and recharge one’s cognitive, affective, and behavioral repertoire (Houltfort et al., 2015), thus developing and building resources to face adversity and perhaps better manage work–life balance issues. In the present studies, harmonious passion was negatively related to three types of WFC. Thus, workers with harmonious passion did not perceive an overinvestment—whether in terms of time or cognitive and emotional energy—in their work, or that the strain experienced (Study 1) or time invested (Study 2) in their family lives interfered with their jobs. It was as if harmonious passion protected these workers from experiencing WFC, perhaps because such passion allows for resources building and gathering.

Results obtained with Carlson et al.’s (2000) WFC scale suggest that workers with an obsessive passion reported that the time invested in their jobs prevented them from participating—as much as they would like—in their family lives. Similarly, the cognitive and emotional energy devoted to their work precluded investment and participation in family activities. Because of their overinvolvement in their work,

their inability to separate themselves from their passion and the rigid persistence they demonstrate, workers with an obsessive passion are more likely to be limited in terms of resources (Vallerand, 2015) and experience WFC. Their passion seems to preclude the opportunity to build and gather important resources that are needed to manage work–life balance issues in an efficient manner. Future research is needed to investigate these propositions and specifically assess how COR theory’s principles tie in with the DMP.

This pattern of results converges with previous research showing that obsessive passion leads to rigid and almost exclusive engagement in the passionate activity (e.g., Vallerand et al., 2003). Such commitment to an activity is bound to generate conflict with other life spheres. Interestingly, workers with obsessive passion also reported that their family lives interfered with their jobs. Indeed, in Study 2, obsessive passion predicted both time-based and strain-based FIW. This relationship has never previously been assessed and provides a unique understanding of how workers with obsessive passion experience WFC. Based on their answers to items from Carlson et al.’s (2000) scale, these workers seemed to perceive that their family lives prevented them from investing in their work and attaining important professional and career goals. At the same time, they acknowledged that their work precluded a deeper investment in their family lives. Hence, workers with this type of passion appeared to be torn between their work and family lives.

According to boundary theory (Ashforth et al., 2000; Nippert-Eng, 1996), passionate workers would express a preference for integrating their professional and personal life. However, results from the present studies suggest that workers with a harmonious passion are more successful at integrating their different life spheres. In light of the DMP (Vallerand, 2015; Vallerand et al., 2003), this could be attributed to the autonomous internalization process of the passionate activity within the person’s identity that characterizes harmonious passion (Vallerand et al., 2003, 2014). This type of internalization emanates from the intrinsic and integrative tendencies of the self (Deci & Ryan, 2000; Ryan & Deci, 2003). With such internalization, personal endorsement and a sense of volition in pursuing the activity are experienced. In other

words, workers with a harmonious passion feel free and are more flexible in the way they integrate their different life spheres, whereas workers with an obsessive passion are more likely to experience pressure while trying to integrate their various life spheres. Although research is needed to investigate how boundary theory can be linked with the DMP, and contribute to further explain passionate workers' experience with WFC, we think that this is a promising avenue to explore.

Amazingly, previous studies have repeatedly shown that harmonious and obsessive workers put the same number of hours into their jobs (e.g., Forest et al., 2011). Thus, it appears that time-based WIF resides in workers' perception rather than in the objective measure of the number of hours invested in their work. Future research should further investigate this finding, perhaps by closely monitoring passionate workers' time investment at work and at home (e.g., gathering factual data, peers' or spouse's reports).

Findings also showed that not all types of WFC were related to psychological distress. Indeed, the results suggest that only strain-based WFC—WIF in Study 1 and WIF and FIW in Study 2—were associated with the workers' psychological distress. These studies significantly expand previous research on passion for work (i.e., Caudroit et al., 2011; Thorgren et al., 2013; Vallerand et al., 2010). Moreover, the mediating role of WFC in the relationship between passion for work and psychological distress differed according to the type of passion at play. Indeed, in Study 2, harmonious and obsessive passion for work affected psychological distress through their respective influence on strain-based WIF. However, strain-based FIW experienced by workers with obsessive passion also significantly contributed to their psychological distress. Thus, the cognitive energy expended, preoccupation with work, and inability to let go associated with WFC are more likely to explain the psychological distress experienced than a lack of time.

Another interesting finding is that harmonious passion for work positively predicted work satisfaction, which, in turn, negatively predicted psychological distress, thus suggesting that both pathways were involved in protecting workers' from psychological distress. Ernst Kossek and Ozeki (1998) suggested that WFC leads to

lower work satisfaction. Similarly, Ford et al. (2007) confirmed Frone, Russell, and Cooper's (1992) model, in which WIF and FIW led to lower family satisfaction and job satisfaction, respectively. However, the results of Study 2 (like those obtained by Vallerand et al., 2010) suggest a different relationship. Work satisfaction—along with WFC—was found to be a mediating variable between harmonious passion for work and psychological distress. The alternative model in which work satisfaction acted as a mediator between WFC and psychological distress offered fewer satisfying fit indices. Future research should further investigate the role of work satisfaction in the relationship between WFC and workers' psychological distress using prospective designs. This set of findings provides a novel and original standpoint for understanding the role of WFC in the passion/psychological-distress relationship, and significantly contributes to the passion and WFC literature.

Gender Differences

A final contribution of this set of results is the gender differences found in our model. First, a direct negative path between harmonious passion and psychological distress was found for men, and full mediation was obtained for women (harmonious passion → WFC and work satisfaction → psychological distress). Second, compared with men, it appears that women are more affected by strain-based WIF. Indeed, the path between strain-based WIF and psychological distress was found to be significantly stronger for women than for men. Cinamon and Rich (2002) proposed that family is more central to the identity of women. Thus, an intrusion in the family domain, as when WIF occurs, would create more distress for women. However, it also implies that for men, the relationship between harmonious passion and psychological distress may be mediated by a factor that was not accounted for in our set of studies. Future studies are needed to clarify this issue.

Practical Implications and Limitations

Results from these studies suggest that passion for work can actually protect workers from experiencing WFC and, in turn, psychological distress. However, not all passions are the same. Hence, organizations should facilitate the devel-

opment of a harmonious passion for work among their employees, while avoiding the development of an obsessive passion. Simple means can be established to encourage the development of harmonious passion: using and promoting workers signature strengths, providing an autonomy-supportive management style, increasing workers' emotional intelligence at work, and so forth (see Vallerand et al., 2014, for a review). Overall findings advise for a flexible and mindful investment in one's professional life, enabling passionate individuals to participate and get involved in other, nonpassionate activities. This is possible with a harmonious passion.

In addition, the findings strongly suggest that in regard to WFC, strain-based conflicts are primarily responsible for workers' psychological distress. Hence, limiting this type of conflict, in which workers feel exhausted and depleted from their engagement in one role (either work or family), could help prevent the appearance of symptoms of psychological distress. Not that maintaining time conflicts should be encouraged, but the first step in helping workers preserve their psychological well-being should be to reduce strain-based conflicts.

Some limitations of the present studies need to be considered. First, both studies were cross-sectional and used a correlational design; therefore, causality cannot be inferred. Future research using experimental designs is needed to strongly establish the role of passion for work in the chain of events leading to workers' psychological distress. Prospective designs are also needed to ascertain the long-term effects of passion for work on WFC and psychological distress. Second, both studies relied solely on self-reported data. Future research should attempt to replicate the present findings based on the assessment of WFC and psychological distress from an informant (e.g., spouse or friends).

Conclusion

Passionate workers invest a significant amount of time and energy in their jobs. Such an investment could eventually lead to conflict with other activities, including, in particular, their family lives, which, in turn, could lead to psychological distress. It is harder to envision that a person's passion could actually protect them from WFC. The present results suggest

that the reality lies somewhere in between—obsessive passion leads to WFC, whereas harmonious passion appears to protect workers from such conflict. The findings also reveal different pathways to psychological distress depending on the type of passion. For harmonious passion, protection from psychological distress results from enhanced work satisfaction and decreased strain-based WIF. For obsessive passion, psychological distress results from enhanced strain-based WIF and FIW. These findings confirm the importance of using a multidimensional conceptualization of WFC in order to gain a more comprehensive understanding of how individuals who are passionate about their work experience WFC and how this experience contributes to their psychological distress.

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