

An Empirical Investigation of the Employee Work Passion Appraisal Model Using Self-Determination Theory

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Anaïs Thibault-Landry¹, Richard Egan²,
Laurence Crevier-Braud³, Lara Manganelli¹,
and Jacques Forest⁴

Abstract

The Problem.

Employee work passion theory offers an appraisal-based approach that explains how work passion is formulated in individuals. Self-determination theory postulates that the satisfaction of three basic psychological human needs (competence, relatedness, and autonomy) is essential for individuals to flourish and thrive at work. The role of basic psychological need satisfaction in the employee work passion appraisal process is yet to be examined.

The Solution.

We investigated the relations between employees' cognitive appraisals of their work environment characteristics (work cognitions), their basic psychological need satisfaction, and their work intentions. Our study provided empirical evidence showing that employees' cognitive appraisals of work characteristics such as job autonomy, task variety, meaningful work, and performance expectations were positively related to basic psychological need satisfaction, which, in turn, positively impacted their work intentions, thus indicating the subjective experience of work passion.

The Stakeholders.

Results suggest that organizational leaders, supervisors, and human resource development (HRD) practitioners could develop interventions that promote specific workplace characteristics and are aimed at contributing to the fulfillment of employees' basic psychological needs. In so doing, employees and stakeholders could

¹Université du Québec à Montréal, Canada

²University of Canberra, Australia

³SuccessFinder, Montreal, Québec, Canada

⁴Écoles des Sciences de la Gestion de l'UQAM

Corresponding Author:

Anaïs Thibault Landry Department of psychology UQAM C.P. 8888, Succ. Centre-Ville Montréal (Québec) Canada H3C 3P8

Email: DF891186@ens.uqam.ca

benefit from the individual and organizational outcomes that flow from employees experiencing greater work passion.

Keywords

employee work passion appraisal model, self-determination theory, psychological need satisfaction, work cognitions, work intentions

In the past two decades, the psychological construct of passion has attracted much research attention (Gorgievski & Bakker, 2010; Marsh & Collet, 1987; Vallerand & Houliort, 2003; Vallerand, Houliort, & Forest, 2014). Studied across a variety of contexts ranging from education (Stoeber, Childs, Hayward, & Feast, 2011) and health (St-Louis, Carboneau, & Vallerand, 2016), to sports (Vallerand et al., 2008) and leisure (Lafreniere, Vallerand, Donahue, & Lavigne, 2009), passion is defined as a strong inclination toward an activity that one values and to which one devotes time and energy (Vallerand, 2008). By pursuing and engaging in activities regularly, some become self-defining and a core feature of one's identity (Murnieks, Mosakowski, & Cardon, 2014; Vallerand, 2008; Vallerand et al., 2003). Harmonious passion stems from an internal drive and conscious choice to engage in an enjoyable activity (Vallerand et al., 2003). Research demonstrates that harmonious passion predicted individuals' behavior such as players' gaming engagement (Wang & Chu, 2007), athletes' performance (Li, 2010), and students' persistence (Maranville, 2001).

Despite its intuitive appeal to human resource development (HRD) practitioners, research investigating harmonious work passion is scarce (Perrewé, Hochwarter, Ferris, McAllister, & Harris, 2014). Harmonious passion has found to be positively associated with organizational outcomes such as job satisfaction (Thorgren, Wincet, & Sirén, 2013), performance (Ho, Wong, & Lee, 2011) and organizational commitment (Permarupan, Saufi, Kasim, & Balakrishnan, 2013). Research investigating harmonious passion and an individual's sense of identity has shown that employees who are harmoniously passionate about their work activities feel a greater sense of cohesion between what they do and who they are, and consequently thrive in their workplace (Forest, Mageau, Sarrazin, & Morin, 2011). Notwithstanding, HRD scholars have highlighted a need to identify, create, and maintain conditions in organizational cultures that strengthen the fit between employees' sense of self and their work (Chalofsky & Cavallaro, 2013; Sambrook, 2012).

In addition, authors (e.g., Vallerand et al., 2014) called for research to increase understanding of the development of passion in the work domain. Vallerand et al. (2007) stated that when considering work passion, research is needed to "understand the intricacies of the psychological process through which passion contributes to performance" (p. 530). We posit that a deeper understanding of the formulation of work passion at the individual, psychological level could assist HRD scholars and practitioners to respond to the challenge of creating optimal work environments.

The employee work passion appraisal (EWPA) model (Zigarmi, Nimon, Houson, Witt, & Diehl, 2009) was developed to provide HRD practitioners with a theoretical framework to explain the formulation of employee work passion with the hope that it could be used to improve the overall quality of employee work experience. These authors hypothesize that individuals make continuous appraisals of characteristics of the work environment (work cognitions) and then form conscious intentions, that is, mental representations of behavior one might use to cope with one's appraisal (Bagozzi, 1992). Some empirical examination of relations between EWPA model work cognitions and work intentions has been conducted (for a detailed review, see Zigarmi, Nimon, Shuck, & Roberts, 2018). However, research has yet to investigate how established psychological theories could explain relations between EWPA model antecedent and outcome variables.

Rooted in social psychology, self-determination theory (SDT) provides insights relating to the psychological elements that need to be in place for individuals to feel psychologically connected with what they do, and to experience an activity as self-determined, that is, entirely driven by their own internal sense of identity and desire (Deci & Ryan, 1985). According to SDT, the essential psychological elements to foster strong, positive, and healthy environments revolve around the satisfaction of three basic psychological human needs for autonomy, competence, and relatedness (Deci & Ryan, 1985). We propose that SDT (Deci & Ryan, 1985) can help HRD practitioners better understand the psychological process that employees experience when they become harmoniously passionate about their work, and more specifically explain how positive work cognitions can lead to positive work intentions reflecting greater work passion.

The purpose of this study is to explore the psychological process that contributes to the formulation of harmonious work passion. We propose that a deeper understanding of how work passion emerges within individuals through the satisfaction of basic psychological needs will enable HRD practitioners to foster work environment factors that facilitate the integration of self and work, thus enabling individuals to flourish and thrive in the workplace.

In the following section, we review the EWPA model (Zigarmi et al., 2009) and discuss relations between work cognitions and work intentions. We discuss basic psychological needs as conceptualized by SDT and hypothesize that need satisfaction contributes to the psychological process that explains how positive cognitive appraisals of work environment characteristics give rise to positive work intentions that are indicative of passion in employees.

An Appraisal-Based Model of Employee Work Passion

Zigarmi and colleagues (2009) define employee work passion "as an individual's persistent, emotionally positive, meaning-based, state of well-being, stemming from reoccurring cognitive and affective appraisals of various job and organizational situations that result in consistent and constructive work intentions" (p. 310). To explain the development of work passion, these authors proposed the EWPA model (see Figure 1) and posited that at the individual level, employees continuously engage in cognitive and affective appraisals of three groupings of characteristics within the work environment:

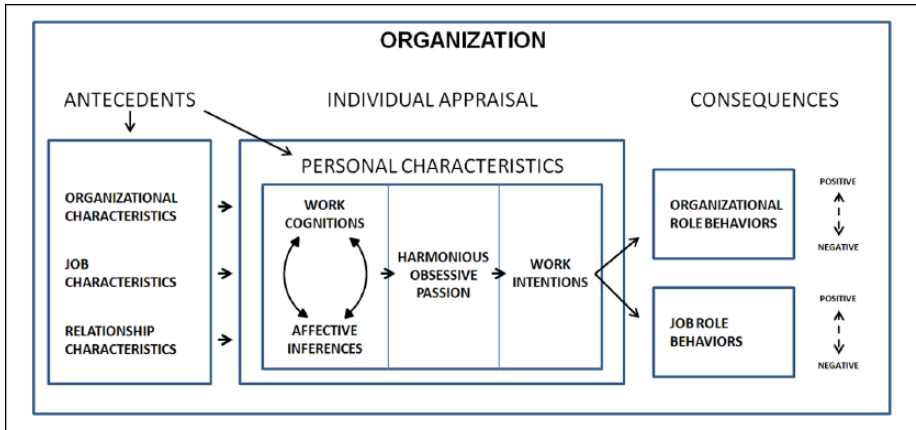


Figure 1. The employee work passion appraisal (EWPA) model updated by Zigarmi and Roberts (2017).

(a) organizational characteristics such as procedural justice, distributive justice, growth, and performance expectations; (b) job characteristics such as job autonomy, task variety, workload balance, and meaningful work; and (c) relationship characteristics such as feedback, collaboration, connectedness with colleagues, and connectedness with leader. Definitions of each work characteristic are provided in Table 1.

Zigarmi et al. (2009) suggested that positive appraisals of work environment characteristics (work cognitions) lead to positive work intentions such as intentions to perform, to use discretionary effort, to use organizational citizenship behaviors (OCBs), to endorse the organization, and to stay in the organization (see Table 3 for definitions). In the workplace, work intentions have been found to be central in the relation between individuals’ psychological processes such as cognitions and appraisals, and externalized behavior (e.g., Armitage & Conner, 2001; Webb & Sheeran, 2006) and, as such, are reliable predictors of the latter (e.g., Ajzen & Fishbein, 1980; Armitage & Conner, 2001; Bagozzi, 1992). For example, studies have shown that intentions to perform and show both in-role and extra-role behaviors, such as discretionary effort and OCBs, predict employees’ actual performance (e.g., Dubinsky & Skinner, 2002), while intentions to stay in the organization are associated with lower turnover rates (Steel & Ovalle, 1984; Tett & Meyer, 1993). Intentions to endorse the organization have also been shown to be positively associated with loyal boosterism, that is, employees’ identification with and partisanship for the organization’s image and reputation (e.g., Anderson & Bateman, 1997; Moorman & Blakely, 1995).

Preliminary studies investigating the EWPA model provided empirical evidence that employees’ positive appraisals of work cognitions lead to positive work intentions. For example, Zigarmi, Nimon, Houson, Witt, and Diehl (2011) reported that employees’ appraisals of eight work characteristics led to increased well-being, which then resulted in constructive work intentions. Using five diverse organizational samples, Zigarmi and Roberts (2018) found evidence of the relation between work cognitions, work intentions,

Table 1. Organizational, Job, and Relationship Characteristics That Give Rise to Employees' Work Cognitions as Identified by the Employee Work Passion Appraisal Model in Nimon and Zigarmi (2015b).

Category of work characteristics	Work characteristics	Definition	Sample item from the Revised Work Cognition Inventory	Coefficient alphas
Organizational characteristics	Procedural justice (PJ)	The extent to which employees perceive the organization's policies and procedures are consistently and fairly applied.	"Decisions, policies, and procedures are fairly and consistently applied to all"	.92
	Distributive justice (DJ)	The extent to which employees perceive resources, compensation, and workloads are fairly balanced.	"My hard work will usually result in fair payback"	.91
	Growth (Gr)	The extent to which employees perceive that the organizational work environment fosters expectations of learning, job growth, and career movement.	"This organization offers me options for discussing my future developments needs and interests"	.94
	Performance expectations (PE)	The extent to which individuals understand what is expected of them and feel that their work is compared to an agreed-upon standard.	"I am expected to meet agreed-upon standards"	.93
Job characteristics	Job autonomy (JA)	The extent to which employees can use their own judgment in the interpretation of the organization's expectations of their job and how they should accomplish their job tasks.	"I have the ability to choose how tasks are performed to accomplish my job"	.92
	Task variety (TV)	The extent to which individuals feel that they have variety in both the type of tasks and the complexity of tasks within their job role.	"My job changes enough to keep from me being bored"	.92
	Workload balance (VWB)	The extent to which individuals feel they have ample time to accomplish their work.	"My workload is just right most days"	.91
	Meaningful work (MW)	The extent to which employees view their work as having lasting worth for themselves and others.	"I am working on projects that matter to this organization"	.89
Relationship characteristics	Feedback (Fe)	The extent to which individuals perceive they have access to accurate and fairly judged information concerning their job performance.	"I receive enough feedback on my job performance to know how well I am doing"	.96
	Collaboration (Co)	The extent to which individuals perceive the organization encourages sharing of ideas, teamwork, and collaboration on projects and tasks.	"Most people who work with me are positive and collaborative"	.91
	Connectedness with colleagues (CC)	The extent to which employees perceive they have rewarding interpersonal work interactions with their coworkers.	"My colleagues make an effort to build rapport with me"	.95
	Connectedness with leader (CL)	The extent to which employees perceive a supportive and noncontrolling relationship with their leader, characterized by perceptions of interpersonal fairness and psychological safety.	"My boss makes an effort to build rapport with me"	.96

and harmonious and obsessive passion. Based on these empirical precedents, we chose to include measures of five work intentions in the current study.

Few studies have investigated relations between 12 work cognitions postulated by Nimon and Zigarmi (2015b) and work intentions. Furthermore, our review of the literature revealed no studies have examined relations between employees' cognitive and affective appraisals of work characteristics, basic psychological needs, and work intentions. Hence, in this study, we aimed to bridge a gap between the work passion literature and the psychological literature and utilized the well-established psychological theory of SDT as a mechanism to understand relations between work cognitions and work intentions as portrayed in the EWPA model.

In the following section, we review the postulates of SDT to explore how the concept of basic psychological needs can help explain the individual psychological process under which positive work cognitions can lead to positive work intentions.

SDT and the Basic Psychological Needs

Studied for more than 40 years in a variety of contexts, SDT is a psychological theory of human motivation that posits that certain elements are essential for an individual to pursue an activity, and influence an individual's feelings toward the activity as well as the time and energy the individual invests in it (Deci & Ryan, 1985, 2002). These elements are designated as basic psychological needs for competence, autonomy, and relatedness (see Table 2 for definitions). These three needs must be satisfied for an individual to reach optimal functioning in any given context (Reinboth, Duda, & Ntoumanis, 2004; Ryan & Deci, 2000, 2008; Sheldon, Cheng, & Hilpert, 2011). Research in the work setting has shown that psychological need satisfaction is positively associated with better functioning such as greater vitality, performance, engagement, commitment, and effort (Forest et al., 2011; Leroy, Anseel, Gardner, & Sels, 2015; Ntoumanis, 2005; Stone, Deci, & Ryan, 2009; Vansteenkiste, Niemiec, & Soenens, 2010), while its absence is associated with less optimal outcomes (Fernet, Austin, & Vallerand, 2012; Gagné et al., 2015).

According to SDT, when the three basic psychological needs for competence, autonomy, and relatedness are satisfied, an individual is more likely to feel that the activity he or she engages in is in line with his or her self-identity, congruent with his or her personal goals, and integrated in his or her self-concept, and that his or her desire to engage in the activity is self-determined (Deci & Ryan, 2002; Gagné & Deci, 2005). Considering the work passion appraisal process, when an individual engages in work activities and engages in positive appraisals of work environment characteristics (work cognitions), the more an individual experiences psychological need satisfaction, the more he or she should perceive his or her participation in the activity as self-determined, want to maintain his or her involvement in it, and develop a passion for it (Vallerand et al., 2014).

In this light, we hypothesize that basic psychological need satisfaction helps explain the psychological process occurring at the internal and individual level of the employee during the appraisal process. Specifically, the extent to which employees' cognitive appraisals of the work environment (work cognitions) relate to the satisfaction of the basic psychological needs for competence, autonomy, and relatedness will have consequences for work

Table 2. Psychological Need Satisfaction as Postulated by Self-Determination Theory in Deci and Ryan (2000).

Psychological needs	Definition	Sample item from the Basic Psychological Need Scale	Coefficient alphas
Competence	The need for the individuals to feel that they can overcome challenges using their skills and influence their environment in a desired way.	"I feel competent at work"	.88
Autonomy	The need for individuals to experience a sense of choice or volition when engaging in activities.	"My work allows me to make decisions"	.85
Relatedness	The need to feel connected to others in personally meaningful ways.	"When I am with the people from my environment, I feel understood"	.91

intentions that are indicative of work passion. In the next sections, we present an overview of the current study, including its purpose and the methodology used to test our hypothesis.

Study Purpose

The objective of this study is to conduct a partial test of the EWPA model by empirically examining relations between employees' cognitive appraisals of 12 work characteristics, their psychological need satisfaction (i.e., competence, autonomy, and relatedness), and their work intentions (i.e., intentions to perform, use discretionary effort, use OCBs, endorse the organization, and stay in the organization). By empirically testing this model, we aim to provide a deeper understanding of the psychological process underlying the formulation and emergence of work passion. In line with the EWPA model and SDT postulates, we hypothesize that positive work cognitions are positively related to psychological need satisfaction, which, in turn, are positively related to work intentions. Put simply, the more positively employees appraise characteristics in the work environment, the more basic psychological needs will be satisfied, which will lead to positive intentions to engage in in-role and extra-role workplace behavior, thus indicating the subjective experience of work passion.

Method

Participants and Procedure

The sample consisted of 1,456 full-time employees, mainly holding nonmanagerial roles (67%) in the United States. Of this sample, 79% were females, and 37% were younger than 35 years old, 51% were 35 to 50 years old, and 12% were 51 years old and above. In terms of organizational tenure, 31% of the sample had 1 year or less, 47% had 2 to 5 years, and 22% had 5 or more years. Questionnaires were distributed

Table 3. Work Intentions as Identified in Nimon and Zigarmi (2015a).

Work intentions (and abbreviation in Table 4)	Definition	Sample item from the Revised Work Intention Inventory	Coefficient alphas
Intention to perform (IP)	The extent to which an employee intends to do his or her job at a higher than average level, thereby helping the organization to succeed.	"I intend to work efficiently to help this organization succeed"	.93
Intention to use discretionary effort (ID)	The extent to which an employee expends effort on behalf of the organization, above and beyond agreed requirements.	"I intend to volunteer for things that may not be a part of my job"	.83
Intention to use organizational citizenship behaviors (IOCBs)	The extent to which an individual intends to behave in ways that are respectful, considerate, and sensitive to others and which support the welfare and effectiveness of the entire organization.	"I intend to support my fellow workers when I have an opportunity"	.94
Intention to endorse the organization (IE)	The extent to which an employee intends to endorse the organization and its leadership to others as a good place to work and as a quality supplier of goods and services.	"I intend to encourage people to do business with this organization"	.93
Intention to stay in the organization (IS)	The extent to which an employee intends to remain with an organization.	"I intend to stay with this organization even if offered a more appealing job elsewhere"	.91

by email through a management consulting firm's database, and the data were collected through a secure website. Participants took part in the study on a voluntary and anonymous basis, and received no compensation for their participation.

Measures

Work cognitions. Employees' cognitive appraisals were measured using the Revised Work Cognition Inventory (Nimon & Zigarmi, 2015b). In total, 36 items were used to assess the 12 work characteristics identified by the EWPA model: the four organizational characteristics, the four job characteristics, and the four relationship characteristics. Each characteristic was measured with three self-rated items on a 6-point scale, ranging from 1 "To no extent" to 6 "To the fullest extent." Sample items and alpha coefficients are provided in Table 1.

Psychological need satisfaction. Employees' psychological need satisfaction was measured using the Basic Psychological Needs at Work Scale (Brien et al., 2012). A total of 12 items were used as each psychological need was measured with four self-rated

items on a 5-point scale ranging from 1 “Strongly disagree” to 5 “Strongly agree.” Sample items and alpha coefficients are provided in Table 2.

Work intentions. Employees’ work intentions were measured using the Revised Work Intention Inventory (Nimon & Zigarmi, 2015a). In total, 15 items were used to assess five types of intentions as each type was measured with three self-rated items on a 6-point scale ranging from 1 “To no extent” to 6 “To the fullest extent.” Sample items and alpha coefficients are provided in Table 3.

Results

Means, standard deviations, and correlations for all the measured variables are presented in Table 4. Structural equation modeling analyses using maximum likelihood estimation procedure (EQS version 6.1; Bentler, 2005) were performed. To assess the fit of the model to the data, the comparative fit index (CFI), the normed fit index (NFI), the root mean square error of approximation (RMSEA), and the RMSEA 90% confidence interval were used. Values above .90 for the CFI and the NFI indicate excellent fit (Hoyle, 1995; Schumacker & Lomax, 1996), and values below .05 for the RMSEA indicate excellent fit (Browne & Cudeck, 1993; Hu & Bentler, 1999). A total of 17 hypothesized paths were specified, that is, one path between each of the 12 work cognitions and psychological need satisfaction, and one path between psychological need satisfaction and each of the five work intentions.

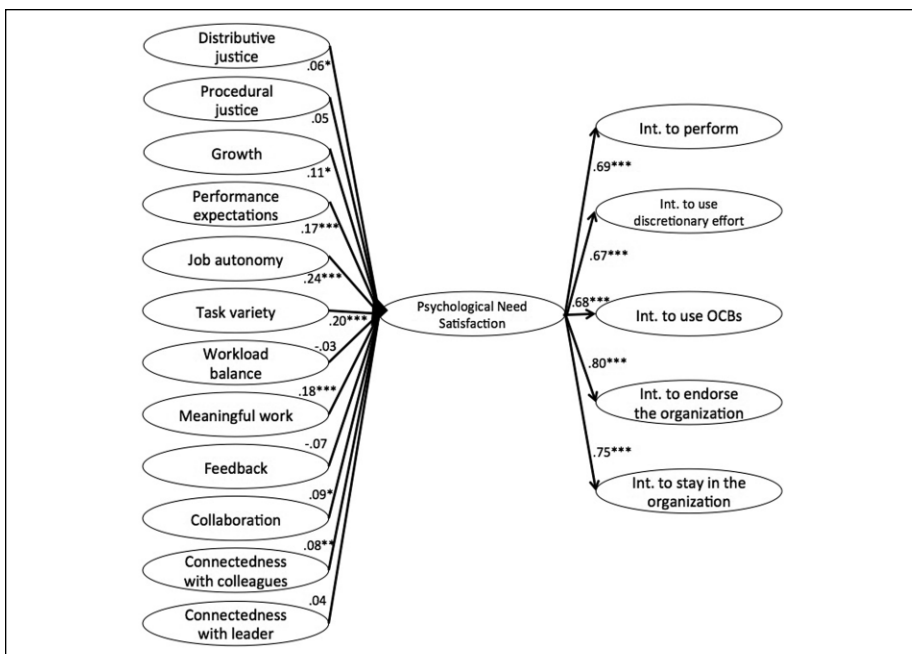


Figure 2. Results of the structural equation modeling analyses ($N = 1,456$).

Note. OCBs = organizational citizenship behaviors.

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

As shown in Figure 2, results for our model revealed a satisfactory fit to the data, $\chi^2(1,294) = 6,861.58, p < .001$, CFI = .93, NFI = .92, RMSEA = .05, RMSEA 90% confidence interval = [.05, .06], and indicated that all the specified paths, but four, were significant. More specifically, positive and significant paths were found between eight work cognitions and psychological need satisfaction (distributive justice: $\gamma = .06, p < .05$; growth: $\gamma = .11, p < .01$; performance expectations: $\gamma = .17, p < .001$; job autonomy: $\gamma = .24, p < .001$; task variety: $\gamma = .20, p < .001$; meaningful work: $\gamma = .18, p < .001$; collaboration: $\gamma = .09, p < .05$; connectedness with colleagues: $\gamma = .08, p < .01$), while nonsignificant paths were observed between the remaining four work cognitions and psychological need satisfaction (procedural justice: $\gamma = .05$; workload balance: $\gamma = -.03$; feedback: $\gamma = -.07$; connectedness with leader: $\gamma = .04$). Finally, psychological need satisfaction was positively and significantly related to the five work intentions (intention to perform: $\beta = .69, p < .001$; intention to use discretionary effort: $\beta = .67, p < .001$; intention to use OCBs: $\beta = .68, p < .001$; intention to endorse the organization: $\beta = .80, p < .001$; intention to stay in the organization: $\beta = .75, p < .001$).

Discussion

This study empirically examined the role of the basic psychological needs as the underlying psychological mechanism explaining the relations between employees' work cognitions and work intentions. Overall, results suggested that employees' positive evaluations of organizational, job, and relational work environment characteristics were related to greater satisfaction of their psychological needs for autonomy, competence, and relatedness. Psychological need satisfaction was positively related to work intentions reflecting the emergence of work passion. Specifically, eight of the 12 work cognitions investigated were significantly and positively related to psychological need satisfaction, which was, in turn, significantly and positively related to all five work intentions.

Scholars (e.g., Albrecht, 2010; Meyer, Gagné, & Parfyonova, 2010) have highlighted a need for multidisciplinary research that integrates theories and evidence from adjacent fields such as social psychology and organizational behavior. Doing so will allow HRD scholars and practitioners to better grasp, understand, and leverage the workplace characteristics that contribute to positive employee experiences of work leading to beneficial outcomes, including psychological well-being and increased performance. The results in this study provide support for integrating established psychological theories such as SDT to emergent theories such as employee work passion to better understand how employees feel and behave in the workplace.

Our finding that positive appraisals of specific work characteristics are related to basic psychological needs satisfaction which, in turn, are related to beneficial intentions is aligned with those in previous studies in both the HRD literature (e.g., work appreciation: Hackman & Oldham, 1980; performance, commitment, and intentions to stay in the organization: Humphrey, Nahrgang, & Morgeson, 2007) and the SDT literature (e.g., motivation and performance: Gagné, Senécal, & Koestner, 1997; Moran, Diefendorff, Kim, & Liu, 2012; Trépanier, Forest, Fernet, & Austin, 2015). It also

Table 4. Means, Standard Deviations, and Correlations of the 18 Variables Measured in the Current Study (N = 1,456).

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1. PJ	4.21	1.23																		
2. DJ	3.98	1.32	.63																	
3. Gr	3.94	1.41	.67	.69																
4. PE	4.85	1.03	.49	.47	.51															
5. JA	4.34	1.16	.61	.54	.58	.41														
6. TV	4.69	1.15	.43	.43	.56	.50	.46													
7. WB	3.27	1.17	.46	.50	.44	.34	.49	.25												
8. MW	5.04	0.89	.53	.48	.51	.49	.44	.53	.26											
9. Fe	4.24	1.33	.67	.60	.73	.57	.55	.45	.44	.47										
10. CO	4.62	1.04	.73	.60	.61	.48	.58	.46	.42	.56	.65									
11. CC	4.59	1.30	.64	.58	.69	.50	.57	.47	.41	.47	.70	.64								
12. CL	4.62	1.16	.55	.42	.49	.44	.44	.42	.36	.38	.49	.61	.53							
13. PNS	5.20	0.64	.53	.46	.53	.44	.64	.50	.37	.45	.51	.56	.53	.50						
14. IP	5.45	0.74	.36	.30	.35	.49	.35	.44	.19	.52	.37	.40	.34	.36	.41					
15. ID	4.26	1.20	.38	.37	.46	.41	.37	.50	.27	.44	.40	.35	.31	.39	.40	.47				
16. IOCBs	5.58	0.68	.37	.31	.34	.42	.33	.39	.19	.46	.32	.37	.36	.33	.40	.41	.68			
17. IE	5.35	0.94	.50	.45	.49	.44	.46	.48	.26	.54	.43	.51	.38	.46	.50	.46	.62	.67		
18. IS	4.47	1.38	.52	.63	.63	.43	.50	.51	.34	.49	.49	.51	.39	.53	.52	.45	.42	.43	.64	

Note. All correlations are significant at $p < .001$. PJ = procedural justice; DJ = distributive justice; Gr = growth; PE = performance expectations; JA = job autonomy; TV = task variety; WB = workload balance; MW = meaningful work; Fe = feedback; Co = collaboration; CC = connectedness with colleagues; CL = connectedness with leader; PNS = psychological need satisfaction; IP = intention to perform; ID = intention to use discretionary effort; IOCBs = intention to use organizational citizenship behaviors; IE = intention to endorse the organization; IS = intention to stay in the organization.

supports previous findings in the employee engagement literature (e.g., Shuck, Zigarmi, & Owen, 2015) that suggested the satisfaction of the basic psychological needs is critical to enrich employee work experience and functioning.

Implications for Stakeholders

The present findings provide valuable input and consideration for the HRD community. In terms of practical implications, this study provides insight relating to the work characteristics on which HRD practitioners should focus to foster and promote passion in the workplace. With greater understanding of the psychological processes that underpin the EWPA process, strategies, policies, and interventions can be developed and implemented to encourage the emergence of work passion. Given the strong positive relations found in this study between most work cognitions, basic psychological needs, and all five work intentions, HRD practitioners should design workplace strategies aimed at satisfying employees' psychological needs for autonomy, relatedness, and competence. By designing interventions in a way that enables employees to experience greater psychological need satisfaction, organizations should help employees experience a greater fit between their sense of self and work. Employees should feel that their tasks are enjoyable, voluntarily chosen, and intricate to their self-identity, and consequently, experience a greater willingness to invest time and energy in them. This would then increase the likelihood of employees wanting to work and to perform above and beyond agreed requirements. Consequently, organizations will reap the positive individual and organizational benefits associated with work passion (Ho et al., 2011; Zigarmi et al., 2011).

In terms of strategies and interventions, HRD practitioners should first focus on increasing employee, immediate supervisor, and organizational leader awareness of the importance and value of organizational, job, and relationship characteristics in the work environment, and acknowledge how the latter can influence psychological need satisfaction, and thus the emergence of work passion. In this sense, the current findings suggest that HRD practitioners should promote the development and facilitation of specific impactful work characteristics, particularly job autonomy, task variety, meaningful work, and performance expectations whenever possible. Considering that past research has shown that organizational leaders and immediate supervisors are key actors in the work environment (Baard, Deci, & Ryan, 2004; Piccolo & Colquitt, 2006), both can play an active role in positively influencing employee perceptions of these characteristics and to ensure employee psychological need satisfaction. We provide examples below.

Job autonomy. Organizational leaders as well as immediate supervisors can foster employee job autonomy by providing them with more decisional latitude. Considering the evolving nature of work where employees at all levels are increasingly asked to work in less traditional and hierarchical organizational structures (Grant & Parker,

2009; Griffin, Neal, & Parker, 2007; Rousseau, 1997) and deal with more virtual and remote teams (Hambley, O'Neill, & Kline, 2007), granting greater decision-making authority and latitude to subject matter experts should result in benefits to both supervisors and employees. Providing more opportunities for employees to exercise independent thinking and judgment could result in the dual benefit of fulfilling employee psychological needs and allowing leaders and supervisors to focus on strategic decisions as opposed to spending time and energy on day-to-day tactics.

Task variety. Both organizational leaders and immediate supervisors are well positioned to have a direct influence on the task variety offered to employees. Supervisors can reduce the prevalence of monotonous and unchallenging work environments by adapting the context in which routine and/or repetitive tasks are performed, for example, by creating a more stimulating and dynamic physical environment, leveraging technology to increase automation and efficiency, and assigning them on a rotational or shared basis. They can also broaden the scope of employee job-related tasks by assisting employees to explore new opportunities, by expanding and increasing the depth and reach of job tasks, activities, and projects in which employees are involved. Supervisors can further encourage employees to be proactive in multidisciplinary initiatives as research shows that it allows employees to become involved in a wider range of tasks, activities, and cross-functional projects, thereby increasing task variety (Grant & Parker, 2009). Finally, supervisors can encourage employees to seek additional training to learn new skills, thus increasing levels of knowledge and competence which will equip them to perform complementary tasks and take on adjacent responsibilities or more diverse aspects of their job.

Meaningful work. To highlight meaning in employee work, organizational leaders, supervisors, and HRD practitioners can clarify how work activities contribute to the accomplishment of collective goals, project deliverables, department strategies, and the overall organizational vision and mission. By reinforcing the meaning of individual contributions, they can positively influence employees' appraisal of the value of their work. Due to the proximal nature of their relation, immediate supervisors have a direct line of communication with and an influence on employees to positively shape how they perceive their role and how they approach specific tasks. At a more distal, strategic level, organizational leaders can inspire employees by explaining how employee duties and responsibilities positively impact on customers, mitigate risk, and make significant and meaningful contributions within the organization as well as in the socioeconomic context in which the organization operates (Anderson, Rungtusanatham, & Schroeder, 1994; Deming, 1981; Gartner & Naughton, 1988). Externally, leaders and HRD practitioners can facilitate communication and public relations between employees and end users of products and services to provide insight relating to how employee work activities make a positive difference in the lives of beneficiaries. Internally, they can improve internal communication by creating forums,

activities, and space within organizational life for employees to engage and align their personal values (Dyląg, Jaworek, Karwowski, Kożusznik, & Marek, 2013).

Performance expectations. Without even changing the nature of the task, immediate supervisors can increase the quality and quantity of the performance expectations they communicate to employees by ensuring that all employees have clear job descriptions. Numerous studies point to the influential nature of performance expectations, feedback, and appraisals as fundamental work characteristics that strongly impact on employee affect and behavior in the workplace (e.g., Carpentier & Mageau, 2013; Eby, Freeman, Rush, & Lance, 1999; Fried & Ferris, 1987; Humphrey et al., 2007). Recent research reported evidence of direct relations between appropriate and constructive performance discussions and the satisfaction of employee basic psychological needs (Moran et al., 2012; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008).

In summary, organizational leaders and immediate supervisors, in partnership with HRD practitioners, have within their reach (at their respective level and in their respective domain) the potential and resources to implement initiatives that can positively impact on employee work cognitions and subsequent psychological need satisfaction. Given that work characteristics are conceptually distinct in research, yet interrelated at an operational level in organizations, interventions targeting specific work cognitions are likely to have positive repercussions for other work cognitions, rendering these initiatives beneficial beyond their intended scope.

Limitations and Next Steps

The main limitation of this study stems from the use of a cross-sectional design and the indirect assessment of the relation between work cognitions, the basic psychological needs, and work intentions. Future research should specifically test the mediating role of basic psychological needs in the relation between work characteristics and work intentions. Other research should attempt to move from self-reported measures and leverage objective measures of the positive outcomes associated with increased psychological need satisfaction. In addition to assessing individuals' work intentions, future research could include objective measures such as employee turnover rates, which relate to intentions to stay; performance ratings, which are strongly associated with intentions to perform; and amount of overtime, which is linked to intentions to use discretionary effort. These measures could be complemented by other-reported assessments (e.g., by colleagues and supervisors). When setting up interventions, objective measures could be used as indicators of the presence of work characteristics. For instance, the number of interactions with colleagues and leaders could be assessed on a weekly basis; frequency, breadth, and depth of feedback could be measured during formal meetings; and variety of job tasks could be measured through the number of different tasks in which employees engage and so forth. From a theoretical

perspective, these methodological changes could further strengthen the current findings and provide greater support for the EWPA model. From a practical standpoint, they would help validate the usefulness and impact of the interventions set in place and give concrete indications relating to which work characteristics provide the most benefit and therefore should be prioritized in the workplace.

Conclusion

This study explored the role of the basic psychological needs in the emergence of employee work passion. The evidence found for the EWPA model deepens understanding of how work passion develops at the individual and psychological level and supports the postulate from SDT that basic psychological need satisfaction is core to its emergence. By validating a model of formulation and by providing examples of initiatives that could be implemented to positively influence employees' cognitive appraisals of the work environment, the current research should better equip organizational stakeholders to develop, promote, and sustain passion in the workplace.

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Author Biographies

Anaïs Thibault Landry is a fifth-year doctoral student in organizational psychology at Université du Québec à Montréal (UQAM). Her primary research focus is on the effects of compensation practices, including cash and noncash rewards, on employees' motivation, performance, and psychological health. She has also worked on projects examining the associations between preferences and motivations for making money and psychological well-being.

Richard Egan is an organizational development consultant and an adjunct lecturer in business management at the University of Canberra, Australia. His research interests include leadership, employee engagement, work passion, values, and learning organizations.

Laurence Crevier-Braud is a researcher in the fields of industrial and organizational psychology working in the Research & Development department of a human resources (HR) and management consulting firm. Her thesis focused on self-determination theory, employee motivation, and psychological well-being.

Lara Manganelli is a fourth-year doctoral student in organizational psychology at UQAM. Her current research pertains to the processes by which money leads to well-being and the ways in which individuals can develop a psychologically healthier relationship with money. She also works on projects investigating the effects of human resource management practices on organizational behavior.

Jacques Forest is a licensed psychologist and certified human resources professional (CHRP) as well as a professor-researcher at ESG UQAM. His primary research interests pertain to the antecedents and consequences of motivation in the workplace using self-determination theory (SDT). He has done research on the impact of compensation strategies, strengths management, job design, and leadership on workplace motivation, all in the aim of knowing how it is possible to simultaneously increase performance and well-being.