UNIVERSITÉ DU QUÉBEC À MONTRÉAL

USING SELF-DETERMINATION THEORY TO BETTER UNDERSTAND THE ROLE OF CASH REWARDS IN FOSTERING A HEALTHY AND MOTIVATED WORKFORCE: A SERIES OF FIVE NATIONAL AND INTERNATIONAL STUDIES

THÈSE

PRÉSENTÉE

COMME EXIGENCE PARTIELLE

DU DOCTORAT EN PSYCHOLOGIE

PAR

ANAÏS THIBAULT LANDRY

MARS 2019

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MIEUX COMPRENDRE LE RÔLE DES RÉCOMPENSES MONÉTAIRES DANS LE MILIEU DU TRAVAIL SELON LE CADRE THÉORIQUE DE L'AUTO-DÉTERMINATION: UNE SÉRIE DE CINQ ÉTUDES NATIONALES ET INTERNATIONALES

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" I guess that's what happens in the end,
you start thinking about the beginning. "
– John Smith

As I first start writing my thesis, after five years into the program, I need a moment to pause and acknowledge where I stand and what I've come to do in the last twenty years of my life. All the books I've read, all the articles I've highlighted, all the papers I've written. From simple 50-word compositions in first grade all the way to this final thesis, that captures some of my strongest beliefs: nothing's black or white, and nothing's ever simple as good or bad. Relationships, decisions, money. It all depends on how you choose to see it. Context matters. People matter. How you behave, how others behave. It's all just a giant system, in which we operate, everything we do influences the world around us and leads us to where we are now.

For example, I would not be here if it wasn't for my parents: my mom, Lorraine, and my dad, Pierre, two small towners from Saint-Jean-sur-Richelieu, who could have spent their whole lives in peace of mind in a little cocoon with their families, but decided otherwise. My greatest academic, professional, and personal sponsors. They listened to me, through all the ups and downs of my academic life, always the first to cheer me up when I had a setback, and always the first to jump in when conferences, internships, and research in general required a little extra hand. I owe them so much that words cannot even begin to express how grateful I am for all the support they've provided me through all these years.

Undoubtedly, I would not have made it where I am today if it hadn't been for one very special person, who held me by the hand during my very first steps as a new graduate student, discovering the infinite world of readings, lectures, seminars, and earth-shattering, existencialist conversations. Never in my life have I met someone with such a crisp, sharp mind, capable of analyzing and delving into so much complexity, and so curious about human intricacies. Thank you for being so patient with me, for

sharing all your knowledge, and for teaching me so much about this very topic that I've dedicated my life to studying, human psychology.

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Finally, I cannot stand here today, smiling, without acknowledging my two companions who have made my last years so delightful, trusting my ability to do all that was necessary to get where I wanted, giving me the giggles and the energy to survive through long weeks of work. I would not have made it with such a smile on my face if you hadn't been there to help me turn the switch off, to breath once in a while and appreciate. Work hard. Play harder.

And as a very last word, a year later, when I finally write my thesis and read back upon what I had started in my fifth year, I cannot help but realize that a very important piece is missing. It would not feel right if I did not take at least a moment to acknowledge all the great people I have had the chance to meet and work with during my doctoral studies, from the great companions I had in my cohort (we've discovered and helped each other so much through the different milestones, some more difficult than others, #séminaire, #lookatusnow) to the some of the brightest minds and kindest hearts I've met and had the chance to say I was part of the family at some point (#Pathfinder, #vindredi). Thank you all for contributing to who, what and where I am today.

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ideas, and the theoretical and practical implications of my thesis are only as great as the unique contributions and critical thinking of the collaborators I had through my academic years.

DEDICATION

To my parents, who will follow, wherever I lead.

TABLE OF CONTENT

LIST OF FIGURES

LIST OF TABLES

LIST OF ABREVIATIONS

CAN	*Canadian*
CFI	*Comparative Fit Index*
CFA	*Confirmatory Factor Analysis*
CI	*Confidence Interval*
e.g.	*For example*
RMSEA	*Root Mean Square Error of Approximation*
N	*Sample Size*
NF	*Need Frustration*
NS	*Need Satisfaction*
SD	*Standard Deviation*
SDT	*Self-Determination Theory*
s.e.	*Standard Error*
SRMR	*Standardized Root Mean Square Residual*
TAD	*Théorie de l'Auto-Détermination*
US	*American*

LIST OF SYMBOLS

α	*Cronbach alpha*
β	*Unstandardized beta coefficients*
p	*P-value*
χ^2	*Chi-square*
$	*Dollar*

SUMMARY

Although money represents a major concern for most people, the topic remains taboo and controversial. Very few dare to talk about it openly, which may seem surprising when considering the extent and influence of financial preoccupations in peple's lives in today's North American society. Moreover, in work setting, the impact of money - in all its forms - on workers' motivation remains to be elucidated. This appears problematic given that compensation represents one of the most important organizational cost. Indeed, companies spend a fifth to half of their operating budget in this as they seek to attract top performing employees and increase their competiveness on the market. Growing in popularity and diversity, one particular compensation practice that has stirred much controversy is the use of financial incentives and cash rewards, with lab and field research revealing mixed, and even contradictory, evidence of its effectiveness in driving employee motivation and performance.

The current thesis is aimed at shedding light on usefulness of this practice using concepts from Self-Determination Theory (SDT) by exploring the subjective or *functional* meaning that employees attribute to the cash rewards offered in their workplace. In a series of five studies totalizing more than 570 national and 1750 international workers, a model based on SDT, investigating the relation between the functional meaning of cash rewards and employees' experience at work was elaborated and refined. More specifically, a model in which distinct functional meanings of cash rewards influence employees' psychological needs, which subsequently influence their motivation, commitment, psychological health, work ethics and turnover intentions, was tested to better understand how and why cash rewards perceived as having an informative meaning and tgose perceived as having a controlling meaning could lead to different psychological experiences and functioning at work.

Across the five studies, results suggest that as a compensation practice, using cash rewards isn't inherently "good" or "bad", but rather that its effectiveness seems to lie in the functional meaning that cash rewards take on for employees. Indeed, across a large variety of employees from different industries and countries in Asia, Europe, and North America, empirical evidence shows that the usefulness of cash rewards in fostering a healthy, motivated, and committed workforce resides in the functional meaning of such rewards. When presented in a supportive way, as to take on an informative meaning, cash rewards positively contribute to employees' basic psychological needs, leading them to report greater autonomous motivation, work ethics, affective commitment, and intentions to stay in the organization. On the other hand, when presented in a coercive way, as to take on a controlling meaning, cash rewards negatively contribute to employees' basic psychological needs, leading them to report greater controlled motivation, as well as lower work ethics, affective commitment, and intentions to stay in their organization.

Providing support for the theoretical and practical implications of the functional meaning of cash rewards, this research draws attention to the design, implementation, and presentation of cash reward programs to employees, as they can be perceived in more positive or negative light, and consequently be more or less efficient organizational tools depending on their informative or controlling meaning. This further stress the importance of generally well positioning any type of compensation practice so as to ensure that it reinforces healthy and positive workplace experiences and avoids any unwarranted outcomes for employees.

Keywords: Self-Determination Theory, basic psychological needs, cash rewards, financial incentives, functional meaning, motivation, psychological health.

RÉSUMÉ

MIEUX COMPRENDRE LE RÔLE DES RÉCOMPENSES MONÉTAIRES DANS LE MILIEU DU TRAVAIL SELON LE CADRE THÉORIQUE DE L'AUTO-DÉTERMINATION: UNE SÉRIE DE CINQ ÉTUDES NATIONALES ET INTERNATIONALES

Bien que l'argent occupe un rôle central dans la vie de tous, ce sujet demeure tabou et controversé. Bien peu de gens osent en parler ouvertement, ce qui peut paraitre surprenant si l'on considère l'ampleur et l'influence des préoccupations financières dans la société nord-américaine actuelle. En outre, dans le monde du travail, l'impact de l'argent -sous toutes ses formes- sur la motivation des travailleurs reste encore à élucider. Ceci est d'autant plus problématique dans la mesure où la rémunération représente l'un des coûts organisationnels les plus importants. En effet, les entreprises y consacrent en général une majeure partie de leur revenu, allant d'un cinquième à la moitié de leur budget annuel, et ce, dans l'espoir d'accroitre leur compétitivité sur le marché du travail et d'attirer les employés les plus performants. Une pratique qui gagne actuellement en popularité, mais dont l'utilisation demeure controversée et l'efficacité reste à démontrer, est l'offre de récompenses monétaires tels que les bonis et primes au rendement. Plusieurs recherches en laboratoire et sur le terrain révèlent des résultats mitigés, voire contradictoires, quant aux effets de cette pratique sur la motivation et la performance des travailleurs.

La présente thèse vise à mieux comprendre l'effet de cette pratique en rémunération sur l'expérience des travailleurs. Plus spécifiquement, la recherche réalisée s'est penchée sur l'expérience subjective des employés lorsque ceux-ci sont exposés à des récompenses monétaires dans le cadre de leur emploi. Elle se concentre donc sur le sens subjectif, ou *symbolique*, des récompenses offertes au travail par les employeurs en sondant la perception des employées face à ces dites récompenses. Dans une série de cinq études comptant plus de 570 travailleurs québécois et 1750 travailleurs à travers le monde, un modèle basé sur la théorie de l'auto-détermination (TAD), portant sur l'effet du sens subjectif des récompenses monétaires sur le vécu psychologique des travailleurs a été développé et validé. Plus spécifiquement, le modèle proposé teste si le sens subjectif informatif ou contrôlant des récompenses offertes en emploi influence différemment les trois besoins psychologiques des travailleurs, les menant ainsi à rapporter différentes attitudes et expériences au travail, incluant au niveau de leur motivation, leur engagement, leur éthique de travail, et leurs intentions de rester dans leur organisation.

Les résultats des cinq études suggèrent, qu'en elle-même, l'utilisation de récompenses monétaires ne constitue pas une "bonne" ou une "mauvaise" pratique en rémunération. En effet, pour la majorité des travailleurs, quelque soit leur industrie ou leur lieu de travail en Asie, en Europe ou en Amérique du Nord, l'utilité des récompenses

monétaires à promouvoir une attitude et des comportements sains au travail réside dans le sens subjectif que les employés attribuent aux récompenses. Lorsque les récompenses sont perçues par les employés comme étant "informatives", elles contribuent positivement aux besoins psychologiques de compétence, d'autonomie et d'affiliation sociale des employés. Ceci est en retour associé à une motivation plus saine, une meilleure santé psychologique, et un plus haut niveau d'engagement, d'éthique de travail, et de désir de rester dans l'organisation. À l'opposé, lorsque les récompenses sont perçues comme étant "contrôlantes", elles contribuent négativement aux besoins psychologiques de compétence, d'autonomie et d'affiliation sociale des employés, ce qui est associé à une multitude de retombés négatives non-escomptés, telles qu'une motivation moins saine, ainsi qu'un niveau plus bas d'engagement, de santé psychologique, d'éthique de travail et d'intentions de rester dans l'organisation.

D'un point de vue appliqué, les résultats de la présente thèse mettent en évidence l'importance de l'élaboration, de l'implantation et du positionnement des programmes de récompenses monétaires offertes en entreprise. En effet, cette recherche souligne l'importance non seulement de bien positionner toute pratique de rémunération afin qu'elle soit bien reçue par les employés, mais aussi de recadrer certaines pratiques si elles sont perçues comme étant "contrôlantes" par ces mêmes employés. Les résultats des études de la présente thèse semblent par ailleurs indiquer que les organisations devraient plutôt chercher à offrir des récompenses monétaires informatives aux employés en gage d'appréciation de leurs efforts et dans le but de les encourager, afin d'avoir l'effet escompté auprès de ces derniers.

Mots clés: théorie de l'auto-détermination, besoins psychologiques fondamentaux, récompenses monétaires, sens subjectif, motivation, santé psychologique.

INTRODUCTION

Since the turn of the new millenium, researchers and practitioners alike have expressed the need for additional research on employee compensation (Dulebohn & Werling, 2007; Gupta & Shaw, 2014; Shaw, 2014), especially in light of emerging and novel compensation strategies (Brown & Reilly, 2013; Hackman & Oldham, 1976; Morrell, 2011; Tims, Bakker, & Derks, 2013; Spreitzer, Bacevine, & Garrett, 2015; Srivastava, 2012). Indeed, across the world, including in Canada, organizations spend a minimum of 20% - and up to 50% - of their budgets in compensation as well as over $90 billion on reward programs each year, as they seek diverse strategies to attract and motivate their workforce (Fay & Thompson, 2001; Giancola, 2012; Igalens & Roussel, 1999; McNullen, 2013; Mudor, & Tooksoon, 2011; Williams, McDaniel, & Ford, 2007). To this point, organizations are increasingly using cash rewards to achieve their goal, be it to encourage employees' contribution, gain a competitive advantage, or ensure their business success (Delery & Roumpi, 2017; Gagné & Forest, 2008; Gerhart & Fang, 2014; Milkovich, Newman, 2017; Sparrow & Makram, 2015).

It thus appears that, in practice, cash rewards have become a common and valuable tool for organizations to attract and retain employees, and ultimately to drive performance in the market (Dulebohn & Werling, 2007; Fang & Gerhart, 2012; Rynes, Gerhart, & Minette, 2004). Supporting this, numerous field studies have linked positive quantifiable outcomes to the use of cash rewards with employees (Brown, Falk, & Fehr, 2004; Hannan, Kagel, & Moser, 2002; Riedel, Nebeker, & Cooper, 1988). However, research conducted in the field and in the lab diverges on this point, yielding inconsistent evidence on the effectiveness of using such rewards. Indeed, years of research in the lab suggest that using cash rewards may have a deleterious effect on individuals' motivation and subsequent attitudes and behaviour in the workplace, including on their performance (Cerasoli, Nicklin, & Ford, 2014; Deci, Connell, & Ryan, 1989).

Despite the growing interest in this topic, there is still a dearth of information to help organizations understand how to best leverage workplace rewards in order to

motivate employees in a sustainable and healthy way (Berber, Morley, Slavić & Poór, 2017). Specifically, more research is needed to understand employees' psychological experience and the resulting attitudes that emerge as employees are exposed to workplace rewards. The present research aims to address this issue and shed light on the divergent findings concerning the effectiveness of cash rewards by uncovering the psychological experience explaining why such rewards can have a beneficial influence or not on employees' attitudes and behaviours at work. Using postulates of Self-Determination Theory (SDT; Deci & Ryan, 1985), it is argued in the current thesis that this is largely attributable to the way rewards are perceived by employees in the context of their work. Thus, the goal is to provide an integrative framework to understand the role of cash rewards in contributing to employees' experience and functioning at work, investigating their influence on the satisfaction and frustration of employees' basic psychological needs for autonomy, competence, and relatedness.

To do this, the first section of this thesis exposes the relevance of studying compensation, and then presents a brief overview of the literature on the relation between cash rewards and motivation, as well as with employees' general functioning at work. Then, the theoretical concepts from SDT that serve as the foundation of the hypothesized model are described. Next, the five cross-sectional studies conducted in Canada and across the world to test the hypothesized model are presented in two articles (Studies 1 & 2 in Article 1, as published in *Compensation and Benefits Review*, and Studies 3, 4 & 5 in Article 2, as submitted to *Journal of Personnel Psychology*). Finally, a general discussion surrounding the similarities and disparities across the five studies is presented, followed by the theoretical and practical implications and limits of this doctoral research, and concluded with suggestions for future research in the broader field of compensation.

1. Why study compensation?

1.1 The importance of individuals' income in our modern-day society

Understanding the relation between individuals' income and psychological health is not only of academic interest, but also of general interest since it has important implications for the ways in which individuals choose to live their lives and spend their time (Carter, 2014; Diener & Diener-Biswas, 2002; Lea & Webley, 2014; Whillans, Weidman, & Dunn, 2016). So far, research suggests that the influence of income on individuals' psychological health depends on multiple factors, including specific life circumstances and personal beliefs about money, saving, and spending (e.g., Bijleveld & Aarts, 2014; Diener & Diener-Biswas, 2002; Whillans et al., 2016). While the current societal context strongly encourages individuals to believe that money can buy happiness (Lea & Webley, 2014; Whillans, Dunn, Smeets, Bekker, & Norton, 2017), research has repeatedly shown that the positive association between income and psychological health is generally overestimated, especially in developed countries where the majority of individuals' income exceeds what they need financially to be able to afford basic life necessities (e.g., Diener & Diener-Biswas, 2002; Mogilner, Whillans, & Norton, 2018). This is in opposition with findings in third-world countries where income can have a significant influence on individuals' level physical as well as psychological health (Löwy, 2008). Indeed, the positive association between money and happiness seems much less significant and much more limited in first-world countries, which suggests that additional financial resources passed a certain level of annual income only slightly influences individuals' level happiness (Diener & Diener-Biswas, 2002; Mogilner et al., 2018; Lea & Webley, 2014; Löwy, 2008).

Illustrating this, a study by Aknin, Norton and Dunn (2009) showed that individuals tended to underestimate the level of life satisfaction they would experience if they failed to reach high levels of income. More specifically, when asked to imagine perceiving lower levels of income, they imagined being dissatisfied and unhappy to a greater extent than individuals who actually earned these lower levels of income. Aknin

and colleagues (2009) conclude that the desire to avoid dissatisfaction and unhappiness that individuals mistakenly associate with lower levels of income motivates them to work more to earn higher incomes.

Ironically, findings from a study by Quoidbach, Dunn, Petrides and Mikolajczak (2010) indicate that higher income is associated with a greater difficulty to enjoy positive, albeit mundane experiences such as eating chocolate. According to the researchers, this would suggest that the quest for higher income hinders individuals' ability to appreciate simple pleasures of life. DeVoe and House (2012) further propose impatience as an explanatory mechanism underlying this effect. In three experimental studies, DeVoe and House (2012) tested the hypothesis that calculating time in financial terms leads individuals to feel more impatient, which then undermines their ability to enjoy positive experiences. Their results indicate that participants who calculated the hourly rate corresponding to their salaries reported feeling less patient and appreciative of their current activities than those who did not do this calculation. Interestingly, participants' negative affect was significantly reduced when they subsequently received financial compensation for their participation in the said activity. This thus points to the importance and relevance of income and compensation, as well as their meaning, on individuals' lives and general functioning (Aknin et al., 2009; DeVoe & House, 2012; Quoidbach et al., 2010).

1.2 Defining compensation and cash rewards nowadays

Compensation, including workforce salary, represents a major concern for organizations, in addition to constituting one of their biggest expenses, and is intimately tied to their success and survival (Milkovich & Newman, 2017). Generally speaking, compensation is defined as any form of financial retribution perceived by employees in exchange for their work from their employer (Milkovich & Newman, 2017). In a roaring war for talent (Schweyer, 2018), more and more organizations rely on their compensation systems to attract, retain, and motivate employees to perform (Bonner & Sprinkle, 2002; Thibault Landry, Schweyer & Whillans, 2018). In line with this, over the years, there has been a major evolution in compensation practices from

fix salary to pay-per-piece plans to individual and collective bonuses (Gupta, Conroy, & Delery, 2012; Lemieux, MacLeod, & Parent, 2009). For example, in 2009, Lemieux, MacLeod and Parent looked at job creation since 1970 in relation to evolving compensation practices and found, based on data collected as part of the Panel Study of Income Dynamics in North America, a significant increase of 10% in jobs involving a variable (i.e. performance-contingent) pay component.

One common compensation practice that has gained popularity in organizations, and consequently attracted researchers' attention, is the use of financial incentives, otherwise called cash rewards, which are allocated in addition to base pay, or salary, to employees (Gupta et al., 2012). Organizations are increasingly using these financial incentives to encourage their employees to meet and exceed established organizational and individual performance goals (Gupta et al., 2012; Kuvaas, 2006). In many cases, the use of such rewards is based on the premise that financially incentivizing and rewarding employees will encourage them to work more and thus increase overall company productivity (Bonner & Sprinkle, 2002; Milkovich & Newman, 2017). To this point, several studies have examined the effect of various forms of cash rewards, including bonus, spot rewards, shares, stock options and the likes, specifically on employee performance and motivation (e.g., Frey & Neckerman, 2008; Garbers & Konradt, 2014; Joseph & Kalwani, 1998; Mahoney, 1991).

1.3 The relation between cash rewards and employees' attitudes and behaviours

Numerous studies conducted since the introduction of pay-for-performance compensation plans indicate that employee performance increases when they are financially incentivized (Condly, 2003; Lazear, 2000; Mitchell, Lewin, & Lawler, 1989). In line with this, much research has been conducted to determine the optimal conditions for administrating cash rewards to maximize performance (e.g., Kuvaas, 2006). For example, researchers have investigated questions surrounding the amount and the process used to allocate rewards (e.g., percentage or ratio, individual- or collective- basis, cash- or cash-like options; Garbers & Konradt, 2014; Gupta et al., 2012). Illustrating this, a meta-analysis reviewing 45 studies conducted up to 2003 on

the use of cash rewards in organizations found an overall positive association between these rewards and employee performance, with the greatest effect being for team-based rewards followed by individually-based rewards (Condly, Clark, & Stolovitch, 2003).

However, research delving more deeply into the subject revealed more mitigated results, suggesting that the relation between cash rewards and motivation is more complex than other studies have portrayed it (Cerasoli et al., 2014). Specifically, cash rewards would have a more nuanced effect on employees' overall experience at work (Cerasoli et al., 2014; Ryan & Deci, 2000). For example, when looking closely at performance levels, using cash rewards to increase performance only seems to be efficient when first introduced since performance appears to revolve back to its baseline level after a few weeks (Deci, Koestner, & Ryan, 1999). Furthermore, its efficiency seems limited to performance quantity, and not quality (Jenkins, Mitra, Gupta, & Shaw, 1998). In other words, employees appear to produce greater output, but not necessarily of greater quality, which on the longer run could potentially risk hindering both individual and organizational performance (Gneezy, Meier, & Rey-Biel, 2011). This is in line with other studies conducted in the lab setting showing that offering cash rewards increased participants' performance, but only when evaluated in quantitative terms (e.g., Deci, Connell, Ryan, 1989). For example, in a lab experiment conducted by Johnson, Dickson and Huitema (2008), participants were asked to perform data entry tasks. Those who were incentivized with cash rewards performed more, as indicated by a greater quantity of entries and more time spent on the task. In a similar vein, a meta-analysis reviewing 39 experiments focusing on the effect of cash rewards on individual and objective performance found that such rewards were only positively associated with performance when measured quantitively (indicated by number of responses provided), but showed no bearings on performance when measured qualitatively, as assessed by either response accuracy or third party ratings (Jenkins et al., 1998).

Moreover, what makes imperative the need to understand the influence of cash rewards on employees is that research in related domains suggests that it could have

downstream implications for many other important aspects of employees' experience at work, above and beyond motivation and performance, including psychological health, satisfaction, and commitment. These are in turn associated with valuable outcomes that organizations care about, such as work ethics and turnover intentions (Hennig-Thurau & Paul, 2007; Kuvaas, Buch, Gagné, Dysvik & Forest, 2016; Murphy, 2004).

To this point, research on empoyees' compensation, including pay, raises, benefits, and rewards, has showed that in addition to being intimately tied to labour costs, satisfaction with one's compensation constitute a core determinant of the quality of companies' workforce (e.g., Singh & Loncar, 2010). Both applicants and employees consider organizations' compensations plans, including the plethora of workplace rewards offered, when deciding where to work (e.g., De Gieter & Hofman, 2015). Hence, reward programs and the affective reactions they spark influence the characteristics of the candidates who apply and who are hired, as well as the attitudes and behaviors of the employees who either stay or leave any particular organization (e.g., Way, Lepak, Fay, & Acker, 2010). To this point, a growing body of research shows that workplace rewards play a significant role in prospective employees' decisions to apply for a position as well as current employees' turnover intentions (e.g., Highhouse, Brooks-Laber, Lin & Spitzmuller, 2003; Messersmith, Guthrie, Ji & Lee, 2011; Riddell, 2011; Ali & Ahmed, 2009; Danish & Usman, 2010; Kuvaas, Buch, Gagné, Dyvsik & Forest, 2016).

This further ties in with research showing that employees who are highly committed to their organizations care more about the said organization and are less likely to behave in counter-productive or less ethical ways (Madhani, 2015; Murphy, 2004). In this light, using cash rewards as incentives for specific performance goals would potentially risk increasing employees' deviant, or counter-productive, behaviours, and lowering their work ethics (Madhani, 2015; Murphy, 2004). Researchers hypothesize that it could have a negative influence on employees' affective commitment and work ethics given its negative effect on their autonomous

motivation, the underlying rationale being that the heightened pressure on employees to deliver results would lead them to look for faster, and perhaps less ethical or more deviant ways to achieve their goals (Jourdan, 2010; Murphy, 2004).

Studies conducted by Murphy (2004) and Madhani (2015) further showed that employees motivated by the promise of cash rewards tend to behave less ethically, for example by lying about their sales, accepting suspicious transactions, neglecting some secondary tasks, and engaging in less teamwork. These results are corroborated by those of a study by Kouchaki, Smith-Crowe, Brief and Sousa (2013), showing that after being primed with images of money, participants endorsed lower work ethics and were more likely to lie and cheat. This is consistent with Murphy's (2004) suggestion that promising cash rewards for achieving performance goals leads employees to think in quantifiable and financial terms, and may shift their focus on increasing their productivity in order to benefit their personal wealth. Another study by Vohs and colleagues (2006) found that money increased task persistence, but at the expense of collaboration with others. Specifically, after being primed with symbols of money, participants spent more time on an impossible task. However, they were less likely to both offer and provide help to their colleagues, preferring to work alone rather than as a team, something the researchers took as indicating a solitary, self-sufficient, and independent mindset (Vohs et al., 2006). Finally, a series of studies by Kay and colleagues (2004) found that when primed with objects often found in the corporate setting (e.g. money, suits, conference room), participants endorsed more strongly a business mindset, as indicated by a stronger preference for competition and a lower preference for cooperation, as well as a stronger belief that others were also more competitive and less cooperative. The participants also engaged in more self-centered and aggressive decision-making strategies. These results have important implications for the workplace, as employees are regularly immersed in offices with images and messages priming them with money, and these could significantly influence the way employees feel and behave within the context of their job as well as with regards to others.

It would then appear that making money salient in employees' mind using cash rewards could have downstream implications for a multitude of attitudes and behaviours at work, going beyond motivation, performance, and role-specific behaviors to extra-role behaviors. From this perspective, there now appears to be a growing need for organizations to develop reward programs that foster employees' motivation in a healthy way, without doing so at the expense of their work ethics nor their commitment to the organization (Jourdan 2010; Kuvaas, 2006; Murphy 2004; Thibault Landry et al., 2018; Weibel et al., 2010).

To this point, an important gap in the study of workplace rewards further appears at the level of employees' psychological health. Despite much research looking at resulting pressure ermerging from variable compensation structure, little research has investigated specifically how employees' psychological health is related to the cash rewards offered in their workplace, even though psychological health constitutes an emerging concern for organizations (Schweyer, 2018; Whillans et al., 2016). Indeed, in recent years, organizations have shifted and gradually broadened their focus beyond role-specific outcomes to include employees' psychological experience in the workplace, including psychological health, given the growing evidence of its relation with employee retention (Walter, 2016). To this point, in a nationally representative survey of north americans, 54% of employees admitted that they would seek to change organization if they experienced psychological stress in their current position (Walters, 2016). With this in mind, organizations are increasingly seeking ways to foster employees' psychological health (Merril, Hyat, Aldana & Kinnersley, 2011; Optum, 2015; Salas, Kozlowski, & Chen, 2017). Thus, understanding how and why workplace rewards could contribute to psychological health, in addition to motivation and commitment, appears as a pressing concern for the 21st century.

2. The relation between cash rewards and motivation: What Self-Determination Theory has to say

2.1 Understanding types of motivation

Based on the research conducted thus far, cash rewards appear to have an

influence on the type of motivation that individuals come to experience for the activity, in this case, their work. According to Self-Determination Theory (SDT; Deci & Ryan, 2000), a universal motivational theory that has been tested and refined for the last four decades in a variety of settings with workers such as teachers, nurses, salespeople, and human resource professionals, and across the world in countries around Europe (e.g., Deci et al., 2001; Kuvaas, 2009; Van den Broeck et al., 2013), North America (e.g., Fernet et al., 2012), and Asia (e.g., Gagné et al., 2014), individuals' motivation is structured around two main poles: autonomous motivation (comprised of intrinsic and identified motivation) and controlled motivation (comprised of extrinsic and introjected motivation). Individuals are said to have controlled motivation when their participation is externally driven and instrumental in making gains and avoiding punishment (extrinsic motivation), and when alleviating feelings of guilt and satisfying their ego (introjected motivation; Deci, Vallerand, Pelletier & Ryan, 1991). In contrast, individuals are said to have autonomous motivation when they genuinely enjoy the activity for its own sake, they derive pleasure and fun from it (intrinsic motivation), and when they feel that it is congruent with their personal values, goals, and identity (identified motivation; Deci & Ryan, 2002). In line with these conceptualizations, autonomous motivation is often portrayed as a healthier form of motivation as it is associated with better functioning and thriving across contexts. In the workplace, studies conducted with employees in various industries and countries show that autonomous motivation is positively associated with greater employee psychological health and greater contribution, in terms of performance, in-role and extra-role efforts (e.g., Brien, Forest, Mageau, Boudrias, Desrumaux, Brunet, & Morin, 2012; Deci, Olafsen, & Ryan, 2017; Howard, Gagné, Morin, Wang & Forest, 2018; Ntoumanis, 2005; Sebire, Standage, & Vansteenkiste, 2009; Trépanier, Forest, Fernet, & Austin, 2015).

Based on SDT, whether individuals thrive and experience autonomous motivation depends on whether the activity they are pursuing positively contributes to the satisfaction of their three innate, universal, and basic psychological needs for

competence, autonomy, and relatedness (Deci & Ryan, 2000). To feel competent, individuals must believe that they have the necessary skills to overcome challenges, influence their environment, and achieve their desired outcomes (Deci & Ryan, 2000; White, 1959). To feel autonomous, individuals must have a sense of volition in choosing to partake in the activity and must feel like the activity allows them to act in concordance with their personal values (Sheldon & Bettencourt, 2002). Finally, to feel related to others, individuals must have the impression that they can emotionally connect with people in their surrounding in personally meaningful ways (Baumeister & Leary, 1995; Deci & Ryan, 2000). Across contexts, satisfaction of these three basic psychological needs facilitates greater autonomous motivation as well as greater psychological health and better functioning as individuals engage in the activity (Ryan & Deci, 2008).

In line with this theorizing, evidence in organizational settings corroborates the claim that greater psychological need satisfaction leads employees to thrive at work, as revealed in their attitudes as well as in their behaviours on the job (De Cooman, Stynen, Van den Broeck, Sels, & De Witte, 2013; Manganelli, Thibault Landry, Carpentier, & Forest, 2018; Olafsen, Halvari, Forest, & Deci, 2015; Ryan, Bernstein, & Brown, 2010; Thibault Landry, Egan, Crevier-Braud, Manganelli, & Forest, 2018; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008; Vansteenkiste, Neyrinck, Niemiec, Soenens, Witte, & Broeck, 2007; Van den Broeck, Ferris, Chang, & Rosen, 2016). For example, Van den Broeck and colleagues (2008) found among a sample of Belgium workers from diverse professional backgrounds that their psychological need satisfaction positively predicted their psychological health. Van den Broeck and colleagues (2010) later replicated these findings with two large samples of call centre agents and human resource professionals, and expanded on their findings by showing that psychological need satisfaction positively predicted employees' affective commitment, performance, and actual turnover six months later.

While extensive research has shown psychological need satisfaction to be a strong predictor of optimal functioning, a growing body of research indicates that it

may not constitute the best predictor of sub-optimal functioning since neither the mere absence of psychological need satisfaction nor the presence of need dissatisfaction may adequately explain why individuals do not thrive in a given context (Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011). Instead, psychological need frustration would appear to be a better predictor (Bartholomew et al., 2011; Vansteenkiste & Ryan, 2013) as it goes beyond low levels of psychological need satisfaction to include the active thwarting of individuals' psychological needs, meaning that individuals experience actual feelings of rejection (as opposed to not feeling related), incompetence (as opposed to not feeling competent) and oppression (as opposed to not feeling self-determined nor perceiving choice). Studies investigating this distinction concur and show that controlled motivation is generally traced back to lower psychological need satisfaction, and even more so to greater psychological need frustration (Trépanier et al., 2015; Vansteenkiste & Ryan, 2013).

In line with these postulates, incentivizing employees with cash rewards may have a negative effect on their motivation by increasing their controlled motivation while decreasing their autonomous motivation (Cerasoli et al., 2014; Frey & Jergen, 2001; Krug & Braver, 2014; Murphy, 2004). This phenomenon is generally tied to an effet coined in the literature as the "crowding out effect" (Frey & Oberholzer-Gee, 1997) or the "undermining effect" (Hagger & Chatzisarantis, 2011). More specifically, these terms have been used to describe the specific process by which individuals' original intrinsic motivation for an activity is subsequently reduced by the introduction of an external reward for that same activity, and "crowded out" or replaced by extrinsic motivation (Frey & Jergen, 2000)

Along with other researchers (e.g., Deci & Ryan, 1985; Frey, 1994; Lepper & Greene, 1978;), Frey and Jergen (2000) argue that using cash rewards heightens external sources of motivation, the saliency of the performance goals and the contingencies to get these rewards, which contributes to simultaneously eroding employees' intrinsic motivation and highlighting their extrinsic motivation for their work. More specifically, offering a cash reward for an activity that employees

previously enjoyed would lead them to become more motivated by the reward rather than by their appreciation of the activity. Furthermore, directly tying rewards to work output would send a clear message to employees about the specific behaviours to do in order to obtain the reward (Cerasoli et al., 2014). This would then be perceived as an external means of controlling employees' behaviour, consequently undermining their feelings of free choice, enjoyment and self-determination (Cerasoli et al., 2014; Deci, 2000; Frey & Jergen, 2001; Ryan & Hennig-Thurau & Paul, 2007). In other words, the main source of their motivation would shift from genuine appreciation of the activity to an external reason, and this would be experienced as being constraining, thus leading to a decrease in intrinsic motivation as well as an increase in extrinsic motivation (Frey & Jergen, 2001; Ryan & Deci, 2000). Findings from experimental studies provide empirical support that promising a cash reward for achieving specific performance goals decreases participants' intrinsic motivation and increases their extrinsic motivation (e.g., Weibel et al., 2010).

In addition, as employees' motivation would shift to being driven by external sources (i.e. by the cash rewards), their motivation would be at a greater risk of fading, making changes in attitudes and behaviours less sustainable if the rewards are withdrawn (Cerasoli et al., 2014; Deci & Ryan, 2000; Moller & Deci, 2014). However, this would not seem to be the case with intrinsic motivation since the source of such motivation comes from within the individual and/or the direct involvement in the activity. Individuals' attitudes and behaviour would thus feel as being more self-determined, and hence be more sustainable (Cerasoli et al., 2014; Deci, Koestner & Ryan, 1999; Moller & Deci, 2014). In this perspective, research indicates that autonomous forms of motivation, expecially intrinsic motivation, have more lasting, positive, and healthy effects on employees' attitudes and behaviour than controlled forms of motivation, including extrinsic motivation (Cerasoli et al., 2014; Deci et al., 1999; Moller & Deci, 2014).

2.2 The functional meaning of cash rewards

This thesis aims to better understand the role of cash rewards and conciliate findings supporting their benefits in the workplace with those indicating detrimental consequences on employees, such as lower performance quality and greater psychological stress, putting forth the argument that research must be conducted to investigate the psychological mechanism by which such rewards lead to different experiences for employees. In order to do so, two intertwined concepts from SDT, namely the *functional meaning* of rewards, and the three basic psychological needs, are leveraged to understand the influence of cash rewards on employees' attitudes and behaviours at work. More specifically, the functional meaning of rewards can shed light on how employees perceive these rewards, and the three basic psychological needs can help understand how these perceptions then give rise to particular types of employee motivation (controlled or autonomous), and influence employees' experience and functioning at work.

With regards to the functional meaning of rewards, SDT posits that external factors such as cash rewards can take on different meanings depending on how they are presented to and perceived by individuals (Deci et al., 1989; Deci, Eghrari, Patrick, & Leone, 1994). To this point, cash rewards can be presented in a supportive way as to encourage individuals' efforts and participation in the activity, thus conferring the rewards an informative meaning (Deci et al., 1989; 1994; Moller & Deci, 2014). Alternatively, they can be presented in an oppressive, constraining way that increases the pressure that individuals feel, giving rise to a controlling meaning (Deci et al., 1989; 1994; Moller & Deci, 2014).

Although research on the subject is relatively scarce, studies that have done so mainly in the lab, sports, health, and educational settings generally provide some evidence that specific functional meanings of external factors, such as instructions and feedback, lead to distinct attitudes and behaviours. Indeed, in lab studies, participants report feeling less authentic enjoyment, appreciation, and freedom as well as lower autonomous motivation when instructions are perceived as controlling rather than

informative (Deci et al. 1989; Hennig-Thurau & Paul, 2007; Ryan et al., 1983). In the educational setting, feedback perceived as supportive and encouraging, thus as having an informative meaning, is found to promote students' school enjoyment and academic performance (Black & Deci, 2000; Grolnick & Ryan, 1989; Joussemet, Koestner, Lekes, & Houlfort, 2004; Koestner, Ryan, Bernieri, & Holt, 1984; Soenens, Vansteenkiste, Duriez, & Goossens, 2006; Williams & Deci, 1996). Similarly, in the health sector, health care providers' feedback perceived as informative is positively associated with patients' adherence to healthy behaviour change (Williams, Deci, & Ryan, 1998), and in the sports context, coaches' informative feedback is associated with better athlete training (Bartholomew et al., 2010; 2011). Finally, one early study by Deci and colleagues (1989) conducted in the workplace corroborates these results and indicates that employees felt less pressure as well as more job satisfaction, organizational trust, and organizational support when supervisors' feedback was perceived as informative rather than controlling.

Together, these findings suggest that in the workplace, perceiving cash rewards as having an informative meaning may lead employees to hold more positive feelings about the work they engage in. For one, informative cash rewards may be perceived as an acknowledgement for good work, thus signalling competence and mastery to employees, and positively contributing to the satisfaction of their competence need. Second, informative cash rewards may emphasize encouragement and support on employers' behalf, therefore positively contributing to the satisfaction of employees' relatedness need. Finally, such rewards could positively contribute to their autonomy need by highlighting their choice in pursuing a specific goal, thus making them feel more capable, empowered, and in control of their work output. Overall, this should then be reflected in employees experiencing greater satisfaction of their three psychological needs for competence, autonomy, and relatedness, indicating a positive relation between the informative meaning of cash rewards and psychological need satisfaction.

On the other hand, controlling cash rewards may be perceived as coercive and

pressuring, leading employees to feel more negatively about their work, and forced to participate, thus actively thwarting their need for autonomy. Similarly, perceiving cash rewards as controlling may hinder employees' need for relatedness as they may not feel particularly appreciated nor valued. At last, employees may even come to feel overly stressed by the performance goals to reach, thus thwarting their need for competence. Hence, this could be reflected in them generally experiencing greater frustration of their three psychological needs, revealing a positive relation between the controlling meaning of cash rewards and psychological need frustration.

In line with this, informative cash rewards could be associated with greater thriving at work, including autonomous motivation, work ethics, psychological health, commitment, and desire to stay in the organization, in light of their positive influence on employees' psychological need satisfaction. This would have important implications for organizations as conveying an informative meaning when using cash rewards could help ensure that using such rewards does not lead to adverse consequences on employees. In order words, perceiving cash rewards as informative could have the dual benefit of enhancing the subjective value of these rewards without requiring an increase in the objective amount of these rewards, as well as increasing the chances of achieving long-term organizational goals associated with productivity and retention, without increasing the risks of adverse outcomes (Mickel & Baron, 2008).

In contrast, perceiving cash rewards as controlling could risk hindering employees' experience in their workplace and lead to unwarranted consequences such as heightened feelings of pressure and psychological distress, lower autonomous motivation and greater controlled motivation. Employees may come to feel overly stressed to meet the performance targets imposed on them, making them care less about their work ethics and the organization as a whole, and increasing their turnover intentions. Hence, controlling cash rewards may be associated with less sustainable and healthy employee attitudes and behaviour, thus rendering reward programs less efficient in the long run.

3. Structure of the current thesis and overview of the studies

In order to test these hypotheses concerning the functional meaning of cash rewards, a series of cross-sectional studies, in which an integrative model encompassing the informative and controlling meanings of cash rewards, the three basic psychological needs, types of motivation as well as various indicators of psychological health, work ethics, commitment and turnover intentions, was tested, were conducted.

With significant contribution from research collaborators in Canada and across the world, data from large, heterogeneous samples of workers (in terms of age and professional backgrounds) in a variety of industries (including agriculture, automotive, banking, communication, construction, consulting, education, engineering, government, insurance, manufacturing, pharmaceuticals, real estate, restaurants, retail and the technology sector) and countries (e.g., Argentina, Australia, Canada, China, Germany, India, Japan, Mexico, Singapore, South Africa, the United Kingdom, and the United States) were collected. By investigating such diversified samples, the aim was to build a solid argument in favour of the integration of SDT in the organizational setting, address an important call to action for researchers to study large heterogeneous samples to establish generalizability (Gilead, 2016), strengthen the validity of the proposed model, and provide empirical support for the universal importance of the functional meaning of cash rewards.

3.1 Overview of Chapter I

Chapter I presents the first article encompassing the first two studies in which the integrative model was originally elaboratored with a Canadian sample (Study 1) and later validated with a sample of international workers (Study 2). As part of this process, in Study 1, the focus was on the psychological needs for competence and autonomy, as these needs seemed to be the most directly and theoretically relevant to the study of workplace cash rewards. Indeed, at the time of the design of this study (and Study 2), many researchers in the field had suggested that these two psychological needs might

matter the most for the topic of compensation (Gerhart & Fang, 2015; Moller & Deci, 2014; Stone et al., 2009). Investigation of employees' functioning at work encompassed their motivation (autonomous and controlled motivation), their psychological health (psychological well-being and ill-being), and their work ethics (organizational deviance), as a literature review indicated those outcomes as well-established in the SDT literature, and one of the main goal of this first study was to establish the validity of the long-neglected concept of the functional meaning of cash rewards with in relation to well-established findings of SDT.

In Study 2, this model was then replicated with a broader, more heterogenous sample, and investigation of employee functioning was extended to affective commitment and turnover intentions. This study also included a different conceptualization of employees work ethics, namely their intentions for in-role and extra-role behaviour.

3.2 Overview of Chapter II

Chapter II presents the second article, comprised of three studies conducted with samples of similar sizes. With this set of studies, the original conceptual model was revised and adapted in several important ways in terms of the relation between the functional meaning of cash rewards and the psychological needs, and with regards to conceptualization and operationalization of employees' experiences and functioning at work.

First, the psychological need for relatedness was included, based on new theoretical perspectives suggesting that it may be of relevance to assess the interpersonal dimension of the informative and controlling meanings of cash rewards. Indeed, to the extent that cash rewards offered in the workplace require by nature a social interaction during which an exchange occurs between the giver (in this case, the organization) and the receiver (in this case, the employee), perceiving cash rewards as informative or controlling could be associated with employees feeling more or less that they are socially connected and appreciated by their organizations, thus contributing to

their psychological need for relatedness. Hence, it seemed important to capture employees' psychological need for relatedness, in addition to their psychological need for competence and autonomy.

In a similar vein, with recent development in SDT (e.g., Vansteenkiste & Ryan, 2016) -and in line with the theorizing laid out in the introduction of the current thesis- it also appeared as necessary to assessed both psychological need satisfaction and frustration. As a first step in investigating both poles (satisfaction and frustration) of employees' psychological needs in relation to the cash rewards offered in their workplace, two single constructs representing overall psychological need satisfaction and overall psychological need frustration were integrated in the model, and investigated in relation to the distinct informative and controlling meanings of the said rewards.

Third, conceptualization and operationalization of employees' thriving at work was refined. To this point, psychological health was tested as a direct outcome of psychological needs as it appeared more conceptually sound and aligned with previous research to envision psychological health as a distinct, i.e., independent, outcome rather than a consequence of individuals' motivation. Indeed, although motivation and health have been found to be strongly and positively associated with one another, it seemed less accurate to see the latter as the consequence of the first, as individuals could experience various degrees of psychological health (including psychological well-being and ill-being) irrespective of their motivation to work.

Similarly, commitment was also better conceived as being direct outcomes of employees' psychological need satisfaction and frustration, instead of being consequences of their motivation. As it was the case for psychological health, the rationale behind this conceptual change came from the insight that commitment could rise in parallel to, rather than as a result of, employees' motivation at work. On a related note, employees' intentions to stay in their organization were also conceptually differentiated and assessed as outcomes of their affective commitment, instead of being

outcomes of their motivation. The newly revised model was tested in two international samples, before being finally validated in a Canadian sample.

CHAPTER I

ARTICLE I

THE CARROT OR THE STICK? INVESTIGATING THE FUNCTIONAL MEANING OF CASH REWARDS AND THEIR MOTIVATIONAL POWER ACCORDING TO SELF-DETERMINATION THEORY

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Abstract

As much debate exists concerning the beneficial effect of using financial incentives to motivate employees in the scientific and practitioner literature, the current research explored employees' perceptions of the cash rewards they receive at work to better understand their motivational impact. A model based on Self-Determination Theory and its postulates concerning the functional meaning of rewards was tested in two studies, one with Canadians and another with a sample of international workers. Results from path analysis indicate that cash rewards perceived as informative have a positive influence on employees' psychological needs, which is then associated with healthier forms of motivation, greater psychological health, and better work ethics, than cash rewards perceived as controlling. These findings suggest that compensation plans must be carefully studied, designed, and implemented with the workforce to avoid overemphasizing the reward contingencies in employees' eyes, having deleterious implications for their motivation, and being associated with unwarranted consequences on their psychological health and work intentions.

Keywords: Self-Determination Theory, basic psychological needs, cash rewards, functional meaning, motivation, psychological health, work intentions.

Introduction

Compensation is one of the most important organizational cost; companies spend a fifth to half of their operating budget, representing billions in workforce salary (Milkovich & Newman, 2017) and they are increasingly seeking to leverage their compensation practices to attract top performing employees and increase their competitive edge and competiveness on the market (Bhattacharyya, 2015; Bryant, & Allen, 2013; Delery & Roumpi, 2017; Sparrow & Makram, 2015). One of these practices, the use of financial incentives and cash rewards has stirred much controversy, with research and application showing divergent results on employees' motivation, engagement, performance, and work ethics (e.g. Cerasoli et al., 2014; Gerhart & Fang, 2015; Glassman, Glassman, Champagne & Zugelder, 2010; Hennig-Thurau & Paul, 2007; Jenkins, Mitra, Gupta, & Shaw, 1998; Madhani, 2015a; Shafiq, Zia-ur-Rehman, & Rashid, 2013).

The current research aims to shed light on the effect of cash rewards using concepts from Self-Determination Theory (SDT; Deci & Ryan, 1985). Originating from social psychology, with its forty years of empirical research, SDT can help explain why using financial incentives can healthily motivate employees and be associated with beneficial outcomes under some circumstances, or be detrimental under other circumstances. Putting forth a long-neglected concept in SDT, we propose that this differential effect lies in the *functional meaning* of cash rewards, i.e., in the subjective meaning that employees attribute to the cash reward they receive. We first review and then empirically test in a set of two studies SDT's postulates that cash rewards can take on different meanings depending of employees' perceptions, and therefore be experienced as informative if they contribute to satisfying employees' basic psychological needs, or controlling if they contribute to the frustration of those same needs. The resulting psychological need satisfaction or frustration then determines whether the cash reward is healthily or unhealthily associated with employees experience at work. In doing so, we aim to bridge the gap between social psychological theories on human motivation and the organizational incentive literature

(DeWaal, 2012; Giancola, 2012; Winter-Palmer, 2013), thus helping the academic as well as the practitioner communities to conciliate the seemingly contradictory findings, and deepen our understanding as to how to best leverage cash rewards in the workplace.

Cash rewards and motivation according to SDT

Based on the premise that money is one of the best motivators, companies are increasingly using one form or another of financial incentives (Delery & Roumpi, 2017; Park, & Sturman, 2012; Winter-Palmer, 2013). Indeed, in the field and as reported in the organizational incentive literature, number of studies indicates that employee performance increases when using money as a reward such as bonuses, short-term incentives, and pay for performance plans, (e.g., Bhattacharyya, 2013; Ellig, 2011, 2014; Glassman et al., 2010; Lazear, 1996; Madhani, 2015a). However, research in the field of social psychology delving into the subject suggests more mitigated results: first, this boosting effect only seems to be temporary as performance quickly revolves back to its normal level after a few weeks (Deci, Koestner & Ryan, 1999); second, this boosting effect only impacts the quantity of output, and this, at the cost of its quality (Jenkins, Gupta, Mitra, & Shaw, 1998). In other words, due to a motivational shift, employees produce more, but of lesser quality, which on the longer run risks hindering both individual and organizational productivity (Frey & Jergen, 2001; Krug & Braver, 2014; Madhani, 2015b).

To better understand this motivational shift, SDT postulates that human motivation can best be qualified as a continuum that ranges from autonomous to controlled (Deci & Ryan, 1985). Accordingly, individuals experience intrinsic motivation when they engage in an activity for fun and pleasure, and identified motivation when they engage in it because they perceive it as coherent with their identity, their personal values, and goals (Ryan & Deci, 2000). Together, these two types of motivation comprise the autonomous pole of motivation, and in more general terms, individuals who are autonomously motivated are said to appreciate the activity in-and-of itself and partake in it voluntarily, without external pressure nor gain to make. In line with this definition, autonomous motivation is said to be a healthy form of

motivation as it relates positively to psychological health and optimal functioning, both in general and at work. To this point, many studies in the work setting have replicated the finding that autonomous motivation is positively associated with psychological health, as well as organizational commitment and performance (Brien, Forest, Mageau, Boudrias, Desrumeaux, Brunet, & Morin, 2012; Ntoumanis, 2005; Trépanier, Forest, Fernet, & Austin, 2015; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008).

Autonomous motivation is said to arise when individuals feel that their three basic psychological needs, namely the need for relatedness (or social affiliation and connectedness), the need for competence (or personal efficacy and belief in personal potential), and the need for autonomy (or self-reliance and appropriate guidance without interference), are fulfilled (Ryan & Deci, 2008). As such, satisfaction of these psychological needs in a single context leads to autonomous motivation for the said activity and many studies concur this finding (e.g., Van den Broeck et al., 2008), including in the work setting (e.g., Gillet, Fouquereau, Forest, Brault, & Colombat, 2012; Vansteenkiste, Neyrinck, Niemiec, Soenens, De Witte, & Van den Broeck, 2007). Conversely, active thwarting, or frustration, of these same needs has been found to be negatively associated with autonomous motivation, and even positively associated with increased levels of controlled motivation (Bartholomew, Ntoumanis, Ryan & Thørgersen-Ntoumani, 2011).

At the opposite end of the motivational spectrum, both introjected and extrinsic motivations are used to describe a means-to-an-end mindset, when individuals part-take in the activity to progress toward a goal, and together they form the controlled pole of motivation (Ryan & Deci, 2000). Hence, controlled motivation better describes motivation originating from external sources, such as external pressure, feelings of guilt or uneasiness, rewards and potential gains, and individuals with this type of motivation engage in the activity in anticipation of the expected return, either what they will get or avoid, thus leading them to view their participation as instrumental in reaching a finality.

In this light, controlled motivation is generally considered a less healthy form of motivation as it is associated with less optimal functioning and psychological health (Deci & Ryan, 2000). Several studies in a variety of settings, including the workplace, have shown that controlled motivation is associated not only with lower psychological well-being, but also with greater psychological ill-being (e.g., Thibault Landry, Kindlein, Trépanier, Forest, Zigarmi, Houson, & Brodbeck, 2016). More particularly at work, it has been related to diminished level of organizational commitment and engagement (Fernet, Austin, & Vallerand, 2012; Guay, Chanal, Ratell, Marsh, Larose & Boivin, 2011). To this matter, controlled motivation is generally traced back to lower psychological need satisfaction and greater need frustration (Vansteenkiste & Ryan, 2013). Indeed, many studies show that need frustration may be a better predictor of controlled motivation as it concerns specifically the direct impediment of individuals' psychological needs, and not a mere, passive lack of need satisfaction (e.g., Bartholomew et al., 2011; Trépanier et al., 2015).

In line with SDT postulates, using financial incentives, and more generally allocating cash rewards based on performance contingencies, would appear to create a dual effect by increasing controlled motivation, while simultaneously eroding autonomous motivation (Cerasoli et al., 2014; Frey & Jergen, 2001; Krug & Braver, 2014; Moller & Deci, 2014). The mechanism behind this effect would be that the increased saliency of the reward and its contingency would lead individuals to focus on it, thus operating a change from genuine appreciation of the activity to viewing it as accessory to get the reward (Cerasoli et al., 2014; Frey & Jergen, 2001). With time, the reward would gradually be perceived as a means to control their behaviour, as individuals experience diminished feelings of self-determination and intrinsic enjoyment toward the activity, and their autonomous motivation fades.

Interestingly, this motivational shift following the introduction of financial incentives has also been associated with organizationally deviant behaviour (Kouchaki, Smith-Crowe, Brief & Sousa, 2013). Indeed, research in specific job industries such as sales as well as with adults from a variety of other contexts (e.g., sports, education) has

shown that overly stressing financial incentives can increase problematic work behaviours such as dishonest reporting, manipulative sales, cheating, and lying in order to get the cash reward (Aguinis, Gottfredson, & Joo, 2013; Bonini, Biel, Gärling & Karlsson, 2002; Glassman et al., 2010; Kay, Wheeler, Bargh & Ross, 2004; Madhani, 2014a; 2015; Vohs, Mead & Goode, 2008). This suggests that by overly focusing on the rewards, individuals with controlled motivation are prompted to adopt a "the-end-justifies-the-means" mentality and try to game the system. Taken together, these findings imply non-negligible consequences for the work setting as the impact of financial incentives on performance could be greater than originally anticipated, influencing not only employees' work attitudes and behaviour in terms of the efforts, and commitment they choose to invest in their job and, but also increasing their propensity for deviant behaviour.

The functional meaning of cash rewards

Despite the evidence from laboratory studies and other contexts (e.g., sports, education) showing the detrimental effect of using cash rewards, these practices remain popular as many studies from the business field have shown that they can help organizations reach their performance goals (Gerhart & Fang, 2014). How then can these seemingly contradictory findings be conciliated? And more importantly, how can financial incentives be leveraged to foster healthy forms of motivation and avoid unhealthy ones? To answer this question, SDT proposes that external factors such cash rewards can take on different meanings depending on how they are presented to employees (Deci, Connell & Ryan, 1989; Deci, Eghrari, Patrick & Leone, 1994). More specifically, cash rewards can be presented in a supportive way, thus conferring them an informative meaning, or in an oppressive way, giving rise to a controlling meaning (Deci et al., 1989; Deci et al., 1994; Ryan, Mims & Koestner 1983).

In general, rewards are experienced as informative when they are presented in a way that encourages individuals' efforts and participation in the activity (Moller & Deci, 2014). This would subsequently fulfill individuals' basic psychological needs, suggesting a direct link between the informative meaning of rewards and satisfaction

of the basic psychological needs. On the other hand, rewards are experienced as controlling when they are presented in a way that constraint individuals, enhance the pressure they feel (Moller & Deci, 2014). This would consequently thwart their basic psychological needs, thus reflecting a direct link between the controlling meaning of rewards and frustration of the basic psychological needs.

With regards to the workplace, previous research has shown that the psychological needs for competence and autonomy are the most relevant and directly targeted by current compensation practices (e.g., Del Vecchio & Wagner, 2011; Houlfort, Koestner, Joussemet, Nantel-Vivier, & Lekes, 2002; Moller & Deci, 2014; Thibault Landry, Gagné, Forest, Séguin, & Papachristopoulos, 2017). The rational behind this would be that offering cash rewards for reaching specified levels of performance should heavily weight on individuals' need for autonomy as it influences whether they feel pressure or volitionally chose to engage in the stipulated behaviour (Gagné & Forest, 2008; Moller & Deci, 2014). More precisely, in line with the concept of functional meaning, when perceived as informative, financial incentives should be experienced as encouraging employees to demonstrate the expected behaviour and to feel that its demonstration is self-determined; whereas when perceived as controlling, financial incentives should be experienced as coercing employees to meet the organizational requirements, constantly reminding them of what they ought to do, and forcing them to endorse behaviours that are purely accessory to getting the reward.

The need for competence also appears directly relevant to the issue at hand to the extent that cash rewards are provided as a token of one's ability to reach the specified goal (Gagné & Forest, 2008; Moller & Deci, 2014). As such, when perceived as informative, cash rewards should help fulfill employees' need for competence as they are emblematic of goal attainment, representing an acknowledgement of skills and ability at work. However, when perceived as controlling, cash rewards should thwart employees' competence need as they constantly remind employees of the goal to attain and the required level of skills and ability needed to reach it.

The present research

Based on the current review of the literature and postulates from SDT, the present research investigates the empirical validity of the functional meaning of cash rewards. Exploring employees' perceptions, we tested a model in which cash rewards experienced as informative are associated with increased satisfaction of employees' psychological needs, which is then associated with healthier motivation and better work outcomes, while cash rewards experienced as controlling are associated with increased frustration of employees' psychological needs, which is then associated with less healthy forms of motivation and more detrimental work outcomes. More precisely, we focused specifically on the psychological needs for competence and autonomy, and we formulated the following hypotheses:

H1a: The informative meaning of cash rewards will be associated with greater competence and autonomy need satisfaction, and conversely, lower competence and autonomy need frustration, which will then be associated with greater autonomous motivation and lower controlled motivation.

H1b: In turn, greater autonomous motivation and lower controlled motivation will lead to greater and more positive work attitudes and behaviour, and psychological health.

H2a: The controlling meaning of cash rewards will be associated with lower competence and autonomy need satisfaction, and conversely, greater competence and autonomy need frustration, which will then be associated with lower autonomous motivation and greater controlled motivation.

H2b: In turn, lower autonomous motivation and greater controlled motivation will lead to lower and more negative work attitudes and behaviour, and psychological health.

Study 1

In Study 1, we focus on negative work-related behaviours, namely organizational deviance, and psychological health. As recent studies show that autonomous motivation is a better predictor of positive outcomes, and controlled motivation, a better predictor of negative outcomes (Bartholomew et al., 2011; Thibault Landry et

al., 2016), we included in our study design indicators of both dimensions of psychological health, namely psychological well-being and ill-being.

Methodology

Participants and procedure

This first study was conducted locally in a single Canadian province with French-speaking workers. The sample was comprised of 236 adults (63.6% women and 36.4% men) working in the greater Montréal region. They all spoke French and were aged between 19 and 63 (mean = 34.8, SD = 10.4). Seventy-seven percent of the sample worked full-time, 73% had a bachelor or more in terms of education, and 66.9% worked in the private sector. Average organizational tenure was 5.7 years old (SD = 6.2), while average job tenure was 3.3 (SD = 3.7). Average annual salary was $ 74, 869 CAN (SD = $ 54, 531 CAN). Questionnaires were distributed by email through different online mediums, including two private companies' listserv, as well as a university's psychology social psychology participant pool, and local classified ads. In order to be eligible to participate, respondents had to indicate that they occupied a job in which they could get cash rewards, as defined as any extra monetary gain allocated by their employer in addition to their base pay and benefits, and based on their performance. Respondents' reported jobs from various industries and field, including sales, customer service, management, consulting services, information and technology, accounting, finances, insurance, and personal services. Data were collected through a secure website. Respondents participated in the study on a voluntary and anonymous basis, and received no compensation for their participation.

Measures

Measures with validated French versions were used, with the exception of the ones for functional meanings of cash rewards. For these particular ones, the standard back-to-back procedure (Vallerand, 1989) was used to create the French translation. Reliability coefficients for all measures are presented along the diagonal in Table 1.

Informative meaning of cash rewards. Employees' perceptions of the informative meaning of the cash rewards offered at their workplace were assessed using

items from the Perceived Autonomy Support Scale For Exercise Settings (Hagger, Chatzisarantis, Hein, Pihu, Soós & Karsai, 2007). In the sports setting, this scale is used to assess the different styles used by physical instructors with their students. The four items selected were adapted to the work setting (e.g., "My physical educator displays confidence in my ability to work when he gives me a cash reward"; see Appendix 1). Participants rated the extent to which they agreed with each statement on a 7-point Likert scale ranging from 1 "Strongly disagree" to 7 "Strongly agree".

Controlling meaning of cash rewards. Employees' perceptions of the controlling meaning of the cash rewards offered at their workplace were assessed using the Controlling use of rewards subscale of the Controlling Coach Behaviour Scale (Bartholomew et al., 2011). In the sports setting, this subscale is used to measure the extent to which coaches rely on external rewards to motivate their athletes. The three items were adapted to the work setting (e.g., "My boss only uses cash rewards so that I stay focused on tasks during work"; see Appendix 2). Participants rated the extent to which they agreed with each statement on a 7-point Likert scale ranging from 1 "Strongly disagree" to 7 "Strongly agree".

Autonomy and competence need satisfaction. Employees rated their autonomy and competence need satisfaction using the Work-Related Basic Needs Scale on a 7-point Likert scale ranging from 1 "Strongly disagree" to 7 "Strongly agree" (autonomy 4-items: "I feel like I can be myself at my job"; competence 4-items: "I really master my tasks at my job"; Van den Broeck, Vansteenkiste, Witte, Soenens, & Lens, 2010).

Autonomy and competence need frustration. Employees rated their autonomy and competence need frustration using the Psychological Need Thwarting Scale on a 7-point Likert scale ranging from 1 "Strongly disagree" to 7 "Strongly agree" (autonomy 4-items: "I feel pushed to behave in certain ways"; competence 4-items: "There are occasions where I feel incompetent because others impose unrealistic expectations upon me"; Bartholomew et al., 2011).

Autonomous and controlled motivation. Employees reported their motivation using the Motivation at Work Scale (Gagné, Forest, Gilbert, Aubé, Morin, & Malorni,

2010) and indicated the degree to which each statement represented a reason why they chose to invest effort in their current job using a 7-point Likert scale ranging from 1 "Not at all" to 7 "Completely". An overall index was created for autonomous motivation based on the three items of the Identified motivation subscale (e.g., "Because this job fits my personal values") and the three items of the Intrinsic motivation subscale (e.g., "Because I enjoy this work very much"). An overall index for controlled motivation was created based on the four items of the Introjected motivation subscale (e.g., "Because I would feel ashamed if I did not succeed at this job") and the six items of the Extrinsic motivation subscale (e.g., "Because it allows me to make a lot of money").

Psychological health. Employees' psychological well-being was measured using the Positive Affect subscale of the work-adapted version of the Positive affect and Negative affect Scale – Short form (Watson, Clark & Tellegen, 1988). Participants were asked to indicate the extent to which they felt "alert", "inspired", "determined", "attentive" and "active" at work in the past month using a 7-point Likert scale ranging from 1 "Not at all" to 7 " Strongly ". Employees' psychological ill-being was assessed using the Shirom-Melamed Burnout Scale (Shirom & Melamed, 2006), which measures emotional, cognitive and physical exhaustion. Employees were asked to rate the extent they felt the way described in each of the twelve statements in the past month using a 5-point scale ranging from 1 "Never or almost never" to 5 "Always or almost always" (e.g., "I have no energy for going to work in the morning").

Organizational deviance. Employees indicated the extent to which they engaged in unethical work behaviours over the past month on a 7-point Likert scale ranging from 1 "Never" to 7 "Everyday", using the 6-item Organization subscale of the Workplace Deviance Scale (Bennett & Robinson, 2000; e.g., " I have taken an additional or longer break than is acceptable at my workplace").

Results and discussion

Descriptive statistics and correlations for the eleven variables under study are presented in Table 1, and results of hypothesis testing are visually presented in Figure

1. Preliminary analysis of the correlation matrix revealed that the controlling meaning of cash rewards was significantly and positively correlated with autonomy need frustration, yet the informative meaning of cash rewards appeared unrelated to any need satisfaction nor need frustration. Both autonomy and competence need satisfaction were positively correlated to autonomous motivation, and both autonomy and competence need frustration were negatively associated with it. Only competence need satisfaction appeared to be negatively correlated to controlled motivation. Finally, autonomous motivation was positively associated with psychological well-being, and negatively with psychological ill-being and organizational deviance, whereas controlled motivation was positively associated with the latter two, thus lending preliminary support to our hypotheses.

We tested a model with the hypothesized paths through path analysis using M*plus* version 7.31 (Múthen & Múthen, 2014). The informative and controlling meaning of cash rewards, as well as competence and autonomy need satisfaction, and autonomous and controlled motivation were allowed to covary. Three goodness-of-fit indices were used: the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residual (SRMR). Generally, values above .90 for the CFI indicate a satisfactory fit (Hoyle, 1995; Schumacher & Lomax, 1996), and values below .09 for the RMSEA as well as for the SRMR suggest an adequate fit (Browne & Cudeck, 1993; Hu & Bentler, 1999). Overall, the hypothesized model provided a satisfactory fit to the data, χ^2 (22) = 73.24, $p < 0.05$, CFI = 0.93, RMSEA = 0.09, and SRMR = 0.06.

Most results supported our hypotheses concerning the differential effect of the functional meaning of cash rewards on employees' psychological needs. More specifically, perceiving cash rewards as informative was significantly associated with greater autonomy need satisfaction ($\beta = .10$, *s.e.* = .04, $p < .05$), and lower autonomy need frustration ($\beta = -.08$, *s.e.* = .05, $p = .09$); yet it did not appear to reach significance for either competence need satisfaction nor frustration ($\beta = .03$, *s.e.* = .04, $p = .46$; $\beta =$

-.07, *s.e.* = .03, p =.12), offering partial support for *H1a*. On the other hand, perceiving cash rewards as controlling was significantly associated with lower autonomy need satisfaction, (β = -.16, *s.e.* = .06, p < .01), but not significantly with lower competence need satisfaction (β = -.07, *s.e.* = .05, p = .15) and with both greater competence and autonomy need frustration, (β = .10, *s.e.* = .06, p =.08) and (β = .17, *s.e.* = .07, p < .01), thus partially supporting *H2a*.

Autonomy need satisfaction was significantly related to greater autonomous motivation (β = .52, *s.e.* = .09, p < .01) as expected, as well as to greater controlled motivation (β = .18, *s.e.* = .08, p < .05). Conversely, autonomy need frustration was negatively associated with autonomous motivation (β = -.14, *s.e.* = .07, p < .05) and positively associated with controlled motivation (β = .15, *s.e.* =.07, p < .05). In terms of the need for competence, its satisfaction was negatively associated with controlled motivation (β = -.28, *s.e.* =.09, p < .01), yet it did not reach significance for autonomous motivation (β = .15, *s.e.* = .10, p =.18), and its frustration appeared unrelated to either forms of motivation (β = .07, *s.e.* = .07, p = .65; β = .04, *s.e.* = .07, p =.97).

Finally, empirical support was found for *H1b* and *H2b*. As such, autonomous motivation was significantly related to greater psychological well-being (β = .36, *s.e.* = .04, p < .01), lower psychological ill-being (β = -.41, *s.e.* = .05, p < .01), and lower organizational deviance (β = -.39, *s.e.*= .05, p < .01); while the opposite pattern was found for controlled motivation (psychological ill-being: β = .19, *s.e.*= .05, p < .01; organizational deviance: β = .15, *s.e.* = .05, p < .01) with the exception of psychological well-being, for which the path did not reach significance (β = -.03, *s.e.* = .04, p = .56).

Given that results of this first study generally supported all four hypotheses, it was deemed necessary to gather additional empirical evidence from a different sample in order to increase the generalizability and validity of our findings. In order to achieve this, a broader and more diversified international working sample was used, along with measures assessing positive work outcomes.

Study 2

As our goal was to replicate our findings from Study 1 using different variable operationalization to increase conceptual validity, in Study 2, in addition to measuring psychological health, we measured employees' positive work intentions. More specifically, we assessed their intentions to provide in-role and extra-role effort and to commit and stay in their organization. For this second study, we also voluntarily chose to focus on self-reported intentions rather than ratings of actual performance to avoid self-distortion and presenter bias, and because measures of attitudes have been found to be reliable predictors of actual behaviour (Armitage & Conner, 2001; Bagozzi, 1992; Webb & Sheeran, 2006).

Methodology

Participants and procedure

The sample was comprised of 934 English-speaking workers from across the globe, including 56.1% women and 43.9% men. Participants were aged between 22 and 82 years old (mean = 50.7, SD = 10.5), and came from the US (66.6%), Canada (4.4%), Latin America (3%), Europe (14.5%), the Asian Pacific Rim (6.2%), and other countries (5.3%). Overall, 94.6% worked full time, 92.3% had two years or more of college education, and 52.1% worked in the private sector. Average organizational tenure was 12.1 years (SD = 9.8), while average job tenure was 4.1 years (SD = 4.2). Questionnaires were distributed by email through an American management firm's contact list and data were collected through a secure website. As in Study 1, respondents were eligible to participate if they occupied a job in which they could obtain cash rewards. Respondents participated in the study on a voluntary and anonymous basis, and received no compensation for their participation.

Measures

For this particular study, all the original versions of the measures in English were used. The same measures as in Study 1 were used (see Table 2 for reliability coefficients), with the exception of psychological health, for which only the measure

for psychological well-being was used, and organizational deviance, which was replaced with measures of employees' positive work intentions.

Intentions to provide in-role and extra-role effort. Employees rated on 6-point scale ranging from 1 "To no extent" to 6 "To the fullest extent" their intentions to provide efforts in their job (e.g., "I intend to spend my discretionary time finding information that will help this organization.") and to engage in organizational citizenship behaviours (e.g., "I intend to watch out for the welfare of others at work"), using respectively the 3-item Intention to use discretionary efforts subscale and Intention to use organizational citizenship behaviours subscale from the Work Intention Inventory (Nimon & Zigarmi, 2015).

Intentions to commit and to stay in the organization. Employees reported their affective commitment to their organization on a 7-point scale with 1 corresponding to "Strongly disagree" and 7 corresponding to "Strongly agree", using the 6-item Affective Commitment subscale from the Work Commitment Scale (Allen & Meyer, 1990; e.g., "This organization has a great deal of personal meaning for me"). Employees reported their intentions to stay in their current organization on a 6-point scale ranging from 1 "To no extent" to 6 "To the fullest extent", using the 3-item Intentions to stay in the organization subscale from the Work Intention Inventory (Nimon & Zigarmi, 2015; e.g., "I intend to stay with this organization even if offered a more appealing job elsewhere").

Results and discussion

Descriptive statistics, reliability coefficients, and correlations for the thirteen variables under study are presented in Table 2, and results of hypothesis testing are visually presented in Figure 2. Preliminary analysis of the correlation matrix provided support to our hypotheses by revealing that the informative meaning of cash rewards was positively associated with autonomy need satisfaction, and negatively with both autonomy and competence need frustration. Conversely, the controlling meaning of cash rewards was positively associated with the frustration of both needs. As expected, satisfaction of both needs was positively associated with autonomous motivation, while

frustration of these same needs was negatively associated with it as well as positively to controlled motivation. Autonomous motivation was positively correlated with all five work outcomes. Surprisingly, controlled motivation was also positively related to psychological well-being and employees' intentions to provide in-role effort, commit and stay in the organization.

As in Study 1, the same model representing all four hypotheses was tested through path analysis. The informative and controlling meanings of cash rewards, competence and autonomy need satisfaction and frustration as well as autonomous and controlled motivation were allowed to covary. The model yielded a very good fit to the data, $\chi^2(34) = 254.71, p < .05$, CFI = .95, RMSEA = .06, and SRMR = .08. In line with results from Study 1, perceiving cash rewards as informative was significantly associated with greater autonomy need satisfaction ($\beta = .28$, *s.e.* = .04, $p < .01$), lower autonomy need frustration ($\beta = -.22$, *s.e.* = .04, $p < .01$), and lower competence need frustration ($\beta = -.24$, *s.e.* = .04, $p < .01$), but not greater competence need satisfaction ($\beta = .03$, *s.e.* = .03, $p = .39$), thus lending partial support to *H1a*. Supporting *H2a*, perceiving cash rewards as controlling was significantly associated with both lower competence and autonomy need satisfaction, respectively ($\beta = -.07$, *s.e.* = .04, $p = .08$) and ($\beta = -.23$, *s.e.* = .05, $p < .01$), and both greater competence and autonomy need frustration, respectively ($\beta = .22$, *s.e.* = .05, $p < .01$) and ($\beta = .31$, *s.e.* = .05, $p < .01$).

Competence and autonomy need satisfaction were both significantly related to greater autonomous motivation ($\beta = .08$, *s.e.* = .03, $p < .01$; $\beta = .35$, *s.e.* = .03, $p < .01$). Competence need satisfaction was not significantly associated with controlled motivation ($\beta = .08$, *s.e.* = .03, $p = .24$), while its frustration was significantly associated with it ($\beta = .09$, *s.e.* = .03, $p < .01$) and unrelated to autonomous motivation ($\beta = .00$, *s.e.* = .03, $p = .99$). There was also no significant association between autonomy need frustration and any form of motivation ($\beta = -.02$, *s.e.* = .03, $p = .56$; $\beta = .04$, *s.e.* = .03, $p = .16$); however, similar to Study 1, autonomy need satisfaction was associated with greater controlled motivation ($\beta = .09$, *s.e.* = .03, $p < .01$).

Finally, in terms of *H1b* and *H2b*, autonomous motivation was positively related to greater psychological well-being ($\beta = .33$, *s.e.* = .02, $p < .01$), and greater intentions to provide in-role and extra-role efforts ($\beta = .35$, *s.e.* =.03, $p < .01$; $\beta = .15$, *s.e.* = .02, $p < .01$) and to commit and stay in the organization ($\beta = .88$, *s.e.* = .04, $p < .01$; $\beta = .66$, *s.e.* = .03, $p < .01$). With regards to controlled motivation, we only found evidence for its negative relation with employees' intention to commit to the organization ($\beta = -.08$, *s.e.* = .05, p =.09) (psychological well-being: ($\beta = -.02$, *s.e.* = .02, =*.46*; intentions to provide in-role and extra-role efforts: $\beta = .04$, *s.e.* =.04, $p = .31$; $\beta = -.02$, *s.e.* = .02, p = .31; intentions to stay in the organization: $\beta = .04$, *s.e.* = .04, p =. 28).

General discussion

The overall findings of this research support SDT's postulates that cash rewards take on different meanings and that it is this meaning per se that determines the impact of the reward on employees' behaviours. In two studies, we found evidence that employees' perceptions of cash rewards as informative, thus encouraging their efforts and participation, was associated with greater satisfaction and conversely lower frustration of their autonomy need. At the other end of the spectrum, employees' perceptions of cash rewards as controlling, thus coercing them into specific ways and stressing particular behaviours, was associated with lower satisfaction and greater frustration of that same need. Perceptions of cash rewards as controlling also predicted greater frustration of the need for competence, and Study 2 indicated some support for its association with lower competence need satisfaction. In both studies, psychological need satisfaction, as opposed to need frustration, was a better predictor of autonomous motivation, and conversely, psychological need frustration was a better predictor of controlled motivation than need satisfaction, which is in line with the current literature on the topic (Unanue, Rempel, Gómez, & Van den Broeck, 2017). Finally, in terms of motivation, autonomous motivation appeared to be a better predictor of psychological health and positive work intentions, such as intentions to provide in-role and extra-role efforts, and to commit and stay in the organization. Controlled motivation was related

to less optimal functioning at work, including psychological ill-being and organizational deviance, and both of these observations are coherent with general findings in the SDT literature (Van den Broeck, Ferris, Rosen, & Chang, 2016) as well as the organizational literature (Glassman et al., 2010; Madhani, 2014a; 2015).

In light of these findings, much points towards the significant impact of cash rewards on employees' psychological need for autonomy. Perhaps the lesser support observed for the psychological need for competence results from the conditional effect of obtaining the reward. As such, it could be that when financial incentives are initially presented to employees, they directly influence their autonomy need as employees chose to engage towards the goal prescribed by the reward in place. However, it may only be once distributed that cash rewards have an impact on employees' competence need, as obtaining the reward may be key for employees to attribute an informative meaning to the reward. From this perspective, initial presentation of the potential cash reward may not be sufficient to fulfill employees' need for competence. Alternatively, the effect of cash rewards on employees' competence need may be influenced by individual characteristics such as personal feelings of self-efficacy and locus of control. This would then suggest an indirect effect of cash rewards on employees' competence need satisfaction and frustration, whereby their perception of their competence need, whether it be its satisfaction or its frustration, is partly contingent on what they think and feel about themselves and their abilities (Risher, 2013; 2014a; 2015).

In summary, there definitely is a necessity for additional research investigating the particular mechanism whereby each psychological need is affected by cash rewards and their functional meaning. Nonetheless, this research provides preliminary support for the importance of the specific meaning of rewards emerging from the design, implementation, and communication of financial incentives and compensation plans to employees, including the intent, or at least the perceived intent, behind their use by employers (Giancola, 2012; Shafiq, Zia-ur-Rehman, & Raschid, 2013; Risher, 2014). This research suggests that it is not using money per se to reward employees that is detrimental and that money in and of itself that is negative or evil, but rather that it is

how it is used and how individuals perceive it – the subjective meaning employers and employees attribute to it– that matter (Baeten & Verwaeren, 2012; Winter-Palmer, 2013). Most importantly, it raises the question as to whether or not some compensation practices may give rise to less favourable or beneficial outcomes if not well-intended, well-communicated, or well-received by the workforce (Madhani, 2015b). Our research bridges the gap between two distinct literatures, from social psychology and from the organizational incentive community (Giancola, 2012; 2014; Gibbs, 2016; Winter-Palmer, 2013), and compels researchers to rethink their conception of cash rewards and investigate them with the new focus to understand how to better leverage the objective and subjective components of compensations systems in place to bring employees to perform more and be more healthily motivated.

Limitations and future research

Notwithstanding its contribution to the issue of using financial incentives in the workplace, this research presents some limitations worth noting, including the fact that its findings are based on cross-sectional study designs with self-reported measures exclusively. As such, the cumulative effect of perceiving cash rewards as informative or controlling should be investigated in longitudinal study designs with repeated measures to better assess if perceiving cash rewards as informative leads to healthier motivation in the long-run, and confers an objective advantage to employees' psychological health and ultimately performance. Moving beyond a cross-sectional design relying solely on participants' reported intentions and supplementing this with objective data would allow to strengthen the present results by examining, for example, if the informative meaning of cash rewards is associated with fewer days of sick leave, medical bills, and health insurance claims, thus indicating better general health. The functional meaning of cash rewards could also be linked back to objective qualitative and quantitative performance measures to further validate the finding that perceiving cash rewards as informative can be associated with greater work intentions. In this vein, deeper investigation using objective data and longitudinal or experimental designs could help determine whether with time, informative cash rewards increase

autonomous motivation and result in not only increased levels of performance, but also better quality of job output.

In a similar line of idea, future research should also address more specifically the various compensation practices and plans currently used on the market to determine if some pay strategies, such as all-commission base pay, are inherently experienced as more controlling than others. This may especially be the case and worth exploring by type of industries (e.g., production and manufacturing vs sales and customer service, private vs public sectors) as compensations practices are often said to reflect crucial job requirements. Specific job realities may have led to the emergence and predominant adoption of certain types of compensation structures that lead to less optimal functioning and increase the risk of detrimental consequences on the workforce in the long run (Madhani, 2014a).

Finally, when taking into account industries and activity sectors in relation to compensation practices, it may be worth looking at the interaction with individual preferences and styles such as extrinsic orientation and self-efficacy beliefs. For example, individuals with lower self-efficacy beliefs or with external locus of control may experience cash rewards as more controlling compared to individuals with greater self-efficacy beliefs or internal locus of control, regardless of the actual structure of their organizations' compensation plans.

Conclusion

The current research explored whether cash rewards are "good" or "bad" for employees' functioning at work, and showed in a set of two studies that their effect on employees' motivation varies according to the functional meaning employees attribute to them. On one hand, informative cash rewards, i.e. those that are presented in a supportive way and perceived by employees as contributing to the satisfaction of their psychological needs for competence and autonomy, can have downstream benefits and contribute to motivating employees in healthy ways, experiencing greater psychological well-being, commitment, and intentions for their work. On the other hand, controlling cash rewards, i.e. those presented in a pressuring way and perceived

by employees as thwarting their psychological needs, accentuate the notion of reward contingencies, thus can have potential a negative influence and contribute to motivating employees in less healthy ways and feeling more psychologically distressed, less committed to their workplace, and more tempted to engage in organizationally deviant behaviour.

These findings stress the importance of well positioning any type of compensation practice as to ensure that it only reinforces the desired behaviour and to avoid any unwarranted effects on employees. Practitioners and researchers alike are encouraged to carefully consider the diverse compensation practices existing in the workplace and to take into account the specificities of each in relation with the targeted workforce and the job design to leverage cash reward programs in ways that are better aligned with the organizational culture and values they seek to put forth. Alternatives to cash rewards in all shapes and forms, including non-cash rewards and benefit programs, such as paid vacations or time-saving coupons (e.g., Baeten & Verwaeren, 2012; Brown, 2013; 2014; Custer, 2013; Giancola, 2014; Morrell, 2011; Risher, 2013; Van Dyke & Ryan, 2013; Whillans, Dunn, Smeets, Bekkers, & Norton, 2017) should also be researched and encouraged as they may provide a healthier and beneficial venue to motivating employees and ensuring a committed workforce.

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Appendix 1

Informative meaning of cash rewards

(Hagger, Chatzisarantis, Hein, Pihu, Soós & Karsai, 2007)

Question

Indicate to what extent you agree with the following statements. Use the scale to record your answers.

1	2	3	4	5	6	7
Strongly disagree			Neither agree nor disagree			Strongly agree

1. My boss displays confidence in my ability to work when s/he gives me a cash reward.
2. My boss encourages me to work when s/he gives me a cash reward.
3. My boss provides me with positive feedback when s/he gives me a cash reward.
4. My boss cares about my work when s/he gives me a cash reward.

Appendix 2

Controlling use of rewards

(Bartholomew, Ntoumanis, Ryan, & Thøgersen-Ntoumani, 2011)

Question

Indicate to what extent you agree with the following statements. Use the scale to record your answers.

1	2	3	4	5	6	7
Strongly disagree			Neither agree nor disagree			Strongly agree

1. My boss tries to motivate me by promising to reward me financially if I do well.
2. The only reason my boss rewards me financially is to make me work harder.
3. My boss only uses cash rewards so that I stay focused on tasks during work.

Table 1. Study 1 descriptives, coefficient alphas (along the diagonal), and correlations between variables (N=236)

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1- Informative meaning	3.64	2.39	(.94)										
2- Controlling meaning	2.36	1.80	.61**	(.88)									
3- Autonomy NS	5.52	1.19	.05	-.12	(.81)								
4- Competence NS	5.93	.94	-.01	-.10	.58**	(.93)							
5- Autonomy NF	3.34	1.39	-.02	.13*	-.49**	-.15*	(.83)						
6 - Competence NF	2.80	1.39	-.04	.06	-.46**	-.35**	.63**	(.85)					
7 - Autonomous motivation	5.19	1.26	-.13	-.28**	.61**	.39**	-.39**	-.32**	(.93)				
8 - Controlled motivation	3.72	1.06	-.15*	.05	-.03	-.16*	-.13	.11	.06	(.81)			
9 – Psychological well-being	4.23	.77	.00	-.13*	.46**	.37**	-.24**	-.25**	.59**	.00	(.70)		
10 – Psychological ill-being	2.74	.99	.12	.15*	-.43**	-.40**	.36**	.41**	-.51**	.18**	-.42**	(.92)	
11 – Organizational deviance	2.15	.99	.09	.18*	-.49**	-.28**	.28**	.21**	-.48**	.14*	-.39**	.47**	(.77)

Note. **p < .01; *p < .05, ᵗp < .10.

Table 2. Study 2 descriptives, coefficient alphas (along the diagonal), and correlations between variables (N=934)

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1- Informative meaning	3.68	1.77	(.91)												
2- Controlling meaning	2.41	1.42	.42**	(.82)											
3- Autonomy NS	5.79	1.97	.18**	-.06	(.84)										
4- Competence NS	6.83	1.62	.00	-.05	.40**	(.90)									
5- Autonomy NF	3.77	1.86	-.11**	.15**	-.63**	-.16*	(.83)								
6 - Competence NF	3.18	1.92	-.15**	.07*	-.63**	-.28*	.70**	(.89)							
7 - Autonomous motivation	5.07	1.25	.15**	.01	.61**	.33**	-.38**	-.39**	(.94)						
8 - Controlled motivation	4.07	1.02	.16**	.16**	.03	.05	.08*	.11**	.22**	(.79)					
9 – Psychological well-being	4.02	.71	.10**	-.05	.44**	.25**	-.34**	-.34**	.56**	.10**	(.75)				
10 – Intention to commit to the organization	4.57	1.75	.15**	.00	.58**	.21**	-.42**	-.40**	.62**	.09**	.49**	(.83)			
11 – Intention to stay in the organization	3.69	1.47	.13**	-.03	.53**	.19**	-.41**	-.40**	.57**	.16**	.43**	.73**	(.91)		
12 – Intention to provide in-role effort	3.98	1.20	.13**	.01	.28**	.13**	-.25**	-.24**	.37**	.11**	.40**	.44**	.40**	(.76)	
13 – Intention to provide extra-role effort	5.48	.71	.10**	-.11**	.24**	.24**	-.16**	-.20	.24**	.02	.37**	.31**	.25**	.35**	(.86)

Note. **p < .01; *p < .05, ᵗp < .10.

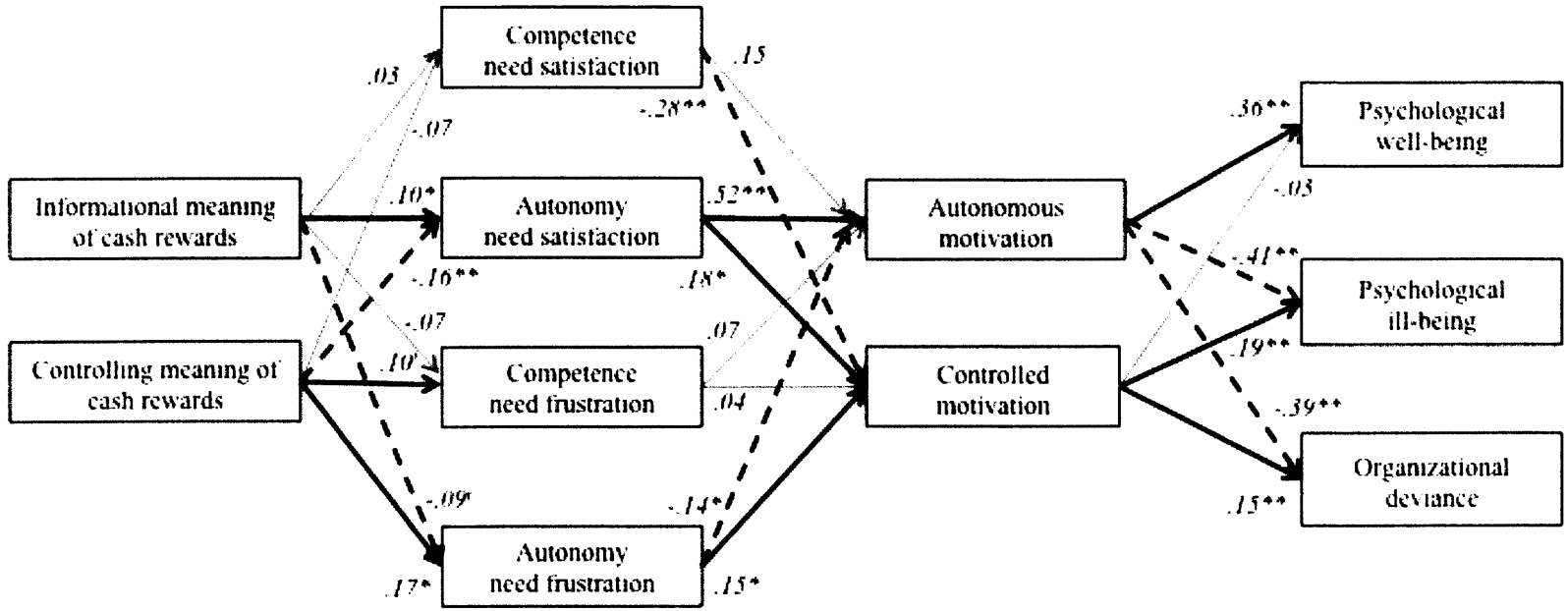

Figure 1. Results for Study 1. Unstandardized path coefficients are shown. Continuous gray lines indicated non-significant relations between the connected variables, while black lines represent significant positive relations between the connected variables, and dotted black lines represent significant negative relations between the connected variables. *Note.* **p < .01; *p < .05, ᵗp < .10.

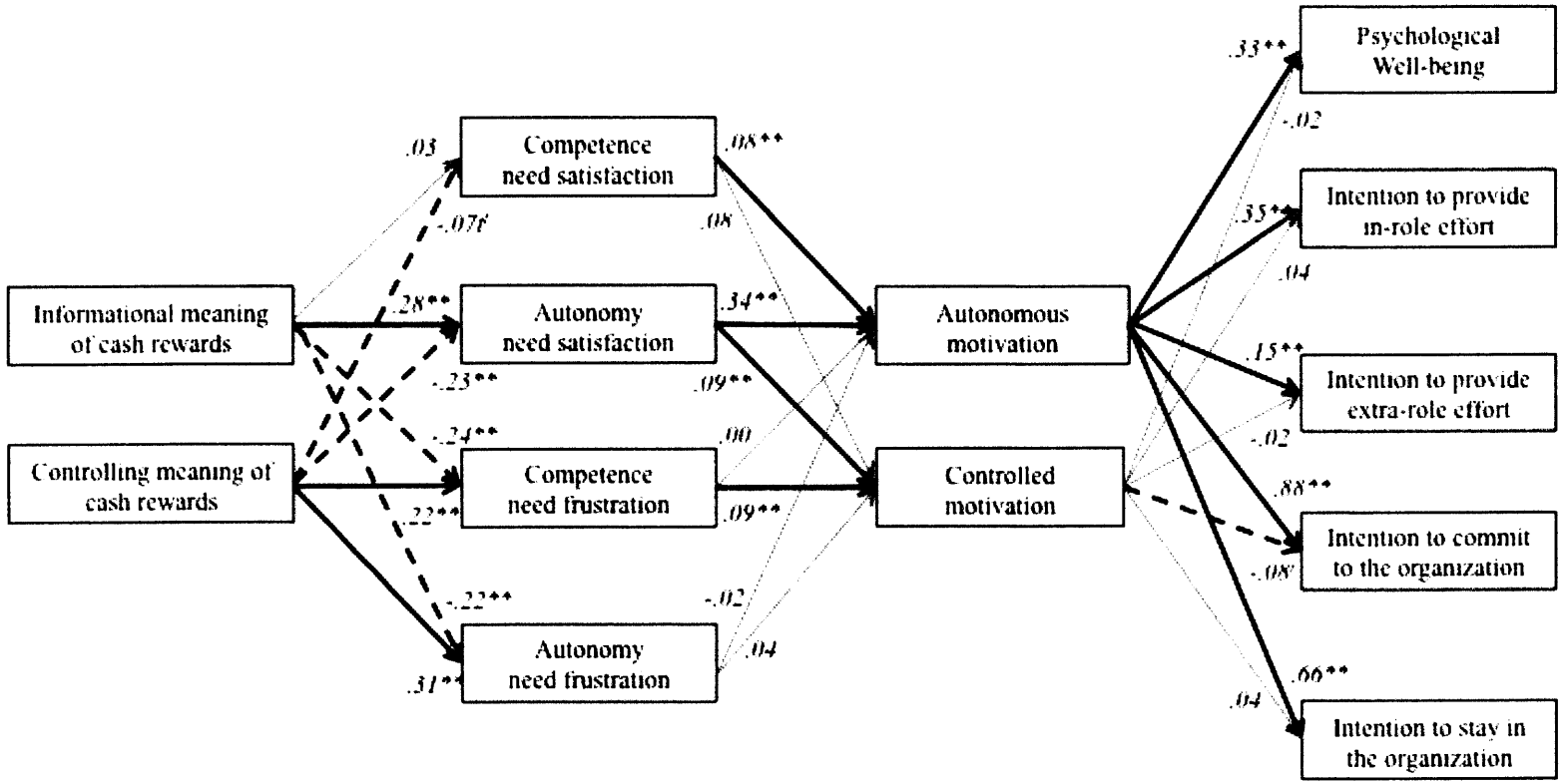

Figure 2. Results for Study 2. Unstandardized path coefficients are shown. Continuous gray lines indicated non-significant relations between the connected variables, while black lines represent significant positive relations between the connected variables, and dotted black lines represent significant negative relations between the connected variables.

Note. **p < .01; *p < .05, ᵗp < .10.

CHAPTER II

ARTICLE II

REVISITING THE USE OF CASH REWARDS IN THE WORKPLACE: AN EMPIRICAL INVESTIGATION OF THEIR MEANING AND ROLE IN EMPLOYEES' EXPERIENCE AT WORK

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Abstract

Using Self-Determination Theory (SDT), this research sheds light on the role of different subjective, or *functional*, meanings of cash rewards on employees' psychological experience and functioning at work, including downstream implications for their psychological health as well as qualitatively better motivation and commitment. Based on three samples of workers from across the world in a variety of industries, the current research provides empirical evidence that cash rewards perceived by employees as having an informative meaning positively contribute to their psychological needs, which is then associated with better functioning at work, whereas cash rewards perceived as having a controlling meaning negatively contributed to their psychological needs, which is then associated with suboptimal functioning. These findings highlight the theoretical and practical relevance of considering employees' perceptions to understand the influence of cash reward programs on their subjective experience in their workplace and subsequent attitudes and behaviors, as well as to better design these programs, including their roll out strategies, if organizations set those in place to drive employee healthier forms of motivation and commitment.

Keywords: Self-Determination Theory, basic psychological needs, functional meaning, cash rewards, motivation, commitment, psychological health.

Introduction

Since the turn of the 21st century, academics and practitioners alike have expressed the need for additional research on compensation to gain a better understanding of the downstream implications of incentives and rewards offered by organizations (Dulebohn & Werling, 2007; Gupta & Shaw, 2014; Shaw, 2014), especially in the light of the emerging compensation practices, including total reward strategies (Brown, & Reilly, 2013; Morrell, 2011; Spreitzer, Bacevine, & Garrett, 2015; Srivastava, 2012; Tims, Bakker, & Derks, 2013). Indeed, nowadays, organizations use increasingly diverse compensation plans and reward programs with multiple types of financial incentives to attract and motivate employees (Fay & Thompson, 2001; Giancola, 2014; Igalens & Roussel, 1999; McNullen, 2013; Mudor & Tooksoon, 2011; Williams, McDaniel, & Ford, 2007). Hence, in our modern-day economy, these practices have significant influence on organizations' workforce, impacting both prospective candidates and those hired, as well as current employees staying and those leaving the organization (e.g., Gerhart & Fang, 2015; Gupta & Shaw, 2014; Way, Lepak, Fay, & Acker, 2010). Thus, organizations struggle to understand how to best leverage the financial incentives they offer to differentiate themselves, attract candidates, and foster employee's healthy motivation and commitment quality (Berber, Morley, Slavić, & Poór, 2017).

A first step to better designing reward programs resides in improving our understanding of employees' psychological experience with regards to the financial incentives offered in their workplace, and to investigate how their psychological experience then influences their functioning at work. To do so, Self-Determination Theory – with its postulates concerning the functional meaning of rewards and the three basic psychological needs for competence, autonomy, and relatedness – provides a theoretical framework to understand how employees' perceptions of the cash rewards offered at work influence their psychological experience and functioning, at times positively and at other times negatively contributing to their motivation and commitment quality, and psychological health.

These concepts as well as empirical studies supporting the theory are reviewed in the following sections, before describing the hypothesized model. Results from three samples of workers across the world are then presented and followed by a discussion of their theoretical and practical implications, as well as their limits and potential future direction.

Self-Determination Theory

The basic psychological needs

Originating from social sciences, Self-Determination Theory (SDT; Ryan & Deci, 2000) is a theory on human motivation and functioning that has been refined and tested for the past 45 years in a variety of life contexts, and is now increasingly used to understand individuals in their work setting and, more specifically, to study of the topic of compensation (Gagné & Forest, 2008; Moller & Deci, 2014; Olafsen, Halvari, Forest, & Deci, 2016; Thibault Landry, Forest, Zigarmi, Houson, & Boucher, 2018; Thibault Landry et al., 2017). SDT views individuals' motivation as ranging on a continuum from being autonomous to controlled, depending on the extent to which it emerges from internal or external sources (Ryan & Deci, 2000). When motivation emerges from internal sources such that individuals engage in an activity for fun and pleasure, or because they perceive it as coherent with their identity, personal values, and goals, individuals are said to have autonomous motivation and are more likely to experience optimal functioning (Brien et al., 2012; Ryan & Deci, 2008). Conversely, when motivation emerges from external sources such that individuals engage in the activity for an ulterior motive such as avoiding feelings of guilt, uneasiness, and pressure, or obtaining a reward, individuals are said to have controlled motivation and are more likely to experience suboptimal functioning (Ntoumanis, 2005; Rogstadius et al., 2011).

According to this theory, the type of motivation and the extent to which individuals thrive in a given context depends on the extent to which the activity contributes to the satisfaction of their three innate basic psychological needs for competence, autonomy, and relatedness (Ryan, 1995; Van den Broeck, Ferris, Chang,

& Rosen, 2016). In this light, to thrive at work, individuals must feel that they have the necessary skills to master what they do, thus satisfying their need for competence. They must also feel choice and freedom, within specific boundaries and guidance, to do their work as they see fit, to satisfy their need for autonomy. At last, employees must feel personally and meaningfully connected to people they work with, including their superiors, colleagues, and customers, in order to fulfill their need for relatedness.

Research conducted with workers in a wide range of jobs in various industries and organizations of different sizes across the world has provided empirical support to this theory and shows that greater psychological need satisfaction at work is associated with optimal functioning, as indicated by greater autonomous motivation, performance, affective commitment, satisfaction, and psychological health at work (e.g., De Cooman, Stynen, Van den Broeck, Sels, & De Witte, 2013; Desrumaux et al., 2015; Iles et al., 2017; Ryan, Bernstein, & Brown, 2010; Shuck, Zigarmi, & Owen, 2016; Trépanier, Forest, Fernet, & Austin, 2015; Vansteenkiste et al., 2007). For example, Van den Broeck and her colleagues (2008) showed in an initial study with close to 1200 workers in Belgium that greater psychological need satisfaction was associated with greater psychological health, including greater vigor and lower burnout. They later replicated and expanded their findings with four other European samples, further corroborating other studies' findings, by showing that psychological need satisfaction positively predicted autonomous motivation, affective commitment, and performance, while negatively predicting controlled motivation and actual turnover six months later (2010).

Studies investigating the importance of psychological needs also point to the finding that active infringement of these needs, otherwise called psychological need frustration, in any given setting, including the workplace, is associated with suboptimal functioning (e.g., Shuck et al., 2015; Vansteenkiste & Ryan, 2013). Indeed, when individuals' basic psychological needs are actively thwarted, whether it be due to feeling incompetent at what they do (i.e., competence need frustration), coerced into thinking or behaving a certain way (i.e., autonomy need frustration), or rejected by their

entourage (i.e., relatedness need frustration), they typically experience more negative and less optimal functioning. At work, employees who experience greater psychological need frustration report more controlled motivation and psychological ill-being, as well as less affective commitment and job satisfaction (Gillet, Fouquereau, Forest, Brunault, & Colombat, 2012; Trépanier et al., 2015; Van den Broeck et al., 2010). Recent research also shows that employees experiencing psychological need frustration engaged in more organizationally deviant behaviour such as taking longer breaks, stealing office supplies, and leaving early, and conversely in less prosocial, collaborative, and extra-role efforts, including helping out colleagues, volunteering at the office, and participating in team initiatives (e.g., Bureau et al., 2018; Thibault Landry et al., 2017).

The functional meaning of rewards

A second postulate from SDT that can further be helpful to understand the way cash rewards can consequently have downstream implications for employees' functioning at work is the subjective (i.e., functional) meaning of rewards. According to the theory, any type of reward can take on specific functional meanings depending on the way the reward is presented by the giver and perceived by the recipient (Deci, Connell, & Ryan, 1989), thus implying that at work, cash rewards could be perceived differently by employees. The theory further proposes that rewards can take on an informative meaning when they are perceived by the recipient as a token, or symbol, of the giver's appreciation, support and gratitude (Deci, Koestner, & Ryan, 1999a; 1999b). In this light, workplace cash rewards perceived as informative could positively contribute to employees' basic psychological needs. This would suggest that cash rewards perceived as informative are those perceived as used to acknowledge good work, communicate appreciation, and transmit greater empowerment and ownership of one's work, thus generating more satisfaction, and conversely less frustration, of employees' psychological needs for competence, autonomy, and relatedness.

Alternatively, rewards can take on a controlling meaning when they are perceived as coercive, pressuring, instrumental, transactional, and devoid of personal meaning

(Deci et al., 1989; Deci et al., 1999a; 1999b). In the workplace, this would include cash rewards associated with hardship, pression, and coercion from one's employer to reach performance standards. Thus, cash rewards perceived as controlling are those experienced as dangling prizes, devoid of personal meaning, and as a result, should be associated with greater psychological need frustration and lower psychological need satisfaction.

Despite these theoretically grounded postulates, little empirical work has been conducted to validate the extent to which the functional meaning of cash rewards is associated with employees' experience and thriving at work (Gagné & Deci, 2005; Gagné & Forest, 2008; Moller & Deci, 2014). Aside from recent work by Thibault Landry and colleagues (2018), most research on the functional meaning of rewards has been conducted in settings other than the workplace, such as in education with teachers and students (e.g., Joussemet, Koestner, Lekes, & Houlfort, 2004; Soenens, Vansteenkiste, Duriez, & Goossens, 2006), in sports with coaches and athletes (e.g., Bartholomew, Ntoumanis, & Thøgersen-Ntoumani, 2011), and in healthcare with care providers and patients (e.g., Williams, Deci, & Ryan, 1998). Although these studies provide support that rewards perceived by recipients, be they students, athletes or patients, as informative is associated with better psychological experience and functioning than rewards perceived as controlling, more research investigating this within the context of work is needed.

The present research

The present research aims to test the applicability of the concept of the functional meaning of rewards in the work setting, and empirically investigate, across sectors and industries worldwide, its relation to employees' psychological needs, and the downstream implications for their functioning. In doing so, it aims to replicate and further strengthen the well-established findings in SDT that psychological needs are associated with optimal functioning and thriving at work, hence testing the following hypotheses:

Hypothesis 1: Greater perceptions of cash rewards as informative is associated with greater psychological need satisfaction, and conversely lower psychological need frustration, whereas greater perceptions of cash rewards as controlling is associated with the opposite pattern.

Hypothesis 2: Greater psychological need satisfaction, and lower psychological need frustration, is associated with optimal functioning at work, including greater presence of healthier motivation, satisfaction, commitment, and psychological health at work, whereas lower psychological need satisfaction, and greater psychological need frustration, are associated with suboptimal functioning at work.

To do so, a model was elaborated and refined in two international worker samples, before being fully tested in a national sample of Canadian workers (see Figure 1). With the first sample of international workers, the model focused on employees' psychological health as it constitutes a commonly studied outcome in the SDT literature as well as a growing concern for organizations, given its positive association with employee recruitment and retention (Merril, Hyat, Aldana, & Kinnersley, 2011; Optum, 2015; Salas, Kozlowski, & Chen, 2017; Walter, 2016). Hence, in addition to motivation, satisfaction, and intention to recommend their organization, psychological well-being and ill-being were assessed.

With the second international sample, the focus of the model shifted from psychological health to employees' organizational deviance and commitment, including affective commitment and intention to stay in the organization, to contribute to the field's understanding as to why, under some conditions, past research has found cash rewards to be associated with lower work ethics (e.g., Jourdan, 2010; Kouchaki, Smith-Crowe, Brief, & Sousa, 2013; Madhani, 2014a; 2014b; Murphy, 2004). Lastly, the full model encompassing employees' psychological health as well as motivation, satisfaction, commitment, and intentions to stay and to recommend the organization, was tested with a third national sample of Canadian workers.

Methodology

Participants

To be eligible to participate, employees had to occupy a job in which they could obtain cash rewards in addition to their base pay. Employees were recruited by email through an international consulting firm's listserv for Samples 1 and 2, and a national human resource professional association's listserv for Sample 3. The email contained the invitation and the direct link to the study survey. Participants completed the survey on a voluntary and anonymous basis, and received no compensation for their participation.

Sociodemographic composition for Samples 1 and 2 was comparable. For Sample 1 (N = 417), 48.3% were men and 84.7% had a bachelor's degree or more. Average age was 50.3 years old (SD = 9.5), average tenure was 11.9 years (SD = 9.3) and average salary was $ 87,859 US (SD = $ 62,812 US). Finally, 97.1% were full-time, 88.5% were salaried, 54.4% were from the private sector. For Sample 2 (N = 399), 48.4% were men and 83.4% had a bachelor's degree or more. Average age was 51 years old (SD = 9.8), average tenure was 11.2 years (SD = 9.5), and average salary was $ 83,782 US (SD = $ 58,491 US). Much like Sample 1, 97.7% were full-time, 89% were salaried, and 50.6% were from the private sector.

For Sample 3 (N = 336 adults), characteristics were slightly different, representing a younger, earlier-stage career, professional sample. Indeed, 21.9% were men and 70.9% had a bachelor's degree or more. Average age was 34.6 years old (SD = 9.4), average organizational tenure was 5.3 years (SD = 5.3), and average salary was $ 56, 306 CAN (SD = $ 38,200 CAN). Finally, 78.9% were salaried, 67% were full-time, and 57.4% were from the private sector.

Measures

The original, well-validated French and English versions of the measures were used, except for the items assessing the functional meanings of cash rewards, which were translated from their original English version to French using the standard back-to-back procedure (Vallerand, 1989). Responses were rated using a 7-point Likert scale ranging from 1 "Strongly disagree" to 7 "Strongly agree" for all the measures, unless

indicated otherwise. Reliability coefficients are presented for each sample in Tables 1 to Table 3.

Functional meanings of cash rewards. Employees indicated the extent to which they perceived the cash rewards offered in their workplace as having an informative meaning using items from the Perceived Autonomy Support Scale for Exercise Settings adapted to the workplace (e.g., "My boss displays confidence in my ability to work when he gives me a cash reward"; Hagger & Chatzisarantis, 2007). Employees also indicated the extent to which they perceived the cash rewards offered in their workplace as having a controlling meaning using the Controlling Use of Rewards subscale of the Controlling Coach Behaviour Scale, adapted to the workplace (e.g., "My boss only uses cash rewards so that I stay focused on tasks during work"; Bartholomew et al., 2011). Then single composite scores were created to reflect respectively the informative and the controlling meanings of workplace cash rewards.

Psychological need satisfaction and frustration. Participants rated the extent to which they felt their psychological needs were satisfied and frustrated using the Basic Needs Satisfaction Scale (Van den Broeck, Vansteenkiste, Witte, Soenens, & Lens, 2010) and the Psychological Need Thwarting Scale (Bartholomew et al., 2011). Sample items include for competence: "I really master my tasks at work " vs "I feel incompetent because others impose unrealistic expectations upon me at work", for autonomy: "I feel like I can be myself at work " vs "I feel pushed to behave in certain ways at work", and for relatedness: "At work, I feel part of a group" vs "At work, I feel like other people dislike me ". Single composite scores representing respectively psychological need satisfaction and frustration were then created

Autonomous and controlled motivation. Using the Motivation at Work Scale (Gagné et al., 2010), employees indicated the extent to which each item represented a reason why they chose to invest effort in their current work. A composite score reflecting autonomous motivation was created using the Identified Motivation subscale (e.g., "Because this job fits my personal values") and the Intrinsic Motivation subscale (e.g., "Because I enjoy this work very much"), while a composite score reflecting

controlled motivation was created with the Introjected Motivation subscale (e.g., "Because I would feel ashamed if I did not succeed at this job") and the Extrinsic Motivation subscale (e.g., "Because it allows me to make a lot of money").

Satisfaction at work. Employees rated on a scale from 0 "Completely dissatisfied" to 100 "Completely satisfied" the extent to which they were satisfied with the tasks, the rewards, the leadership, and the culture in their workplace using four single items stemming from previous studies investigating employees' work satisfaction (Fisheer, Matthews, & Gibbons, 2015; Naggy, 2002; Thibault-Landry & Whillans, 2019; Wanous, Reichers, & Hugy, 1997).

Psychological health. Using the Positive Affect and Negative Affect Scale – Short form (Watson, Clark, & Tellegen, 1988), employees rated the extent to which they felt in the past month, in their workplace, "alert", "inspired", "determined", "attentive", and "active", thus reflecting their psychological well-being, and conversely, "upset", "hostile", "ashamed", "nervous", and "afraid", thus indicating their psychological ill-being. Using the Shirom-Melamed Burnout Scale (Shirom & Melamed, 2006), employees also rated the extent to which they felt exhausted in the past month on a 5-point scale ranging from 1 "Never or almost never" to 5 "Always or almost always". Sample items include "I feel I am not capable of being sympathetic to coworkers and/or customers" for emotional exhaustion, "I have difficulty thinking about complex things" for cognitive exhaustion, and "I feel physically drained" for physical exhaustion. An overall composite score was then created for burnout.

Organizational deviance. Employees indicated on a 7-point scale ranging from 1 "Never" to 7 "Everyday" the frequency at which they engaged in organizationally deviant behaviors over the past month using the Organization subscale of the Workplace Deviance Scale (Bennett & Robinson, 2000; e.g., "I have taken an additional or longer break than is acceptable at my workplace").

Organizational commitment. Employees rated the extent to which they felt committed to their organization using the Affective Commitment subscale from the

Work Commitment Scale (Allen & Meyer, 1990; e.g., "This organization has a great deal of personal meaning for me").

Intention to recommend the organization. Employees were asked to rate the likelihood that they would recommend the organization they worked for to others on a scale from 0 "Not likely at all" to 10 "Extremely likely".

Intention to stay in the organization. Employees completed the Intention to Stay in the Organization subscale from the Work Intention Inventory (Nimon & Zigarmi, 2015; e.g., "I intend to stay with this organization even if offered a more appealing job elsewhere").

Estimated tenure. Employees were asked to estimate the amount of time in months and years, they would remain employed in their current organization.

Results

Preliminary analyses

Descriptive statistics and correlations between variables for each sample are presented in Tables 1 to 3. Preliminary analyses of the correlation matrices for each sample provided initial support for the hypothesized model and granted further hypothesis testing through more sophisticated statistical analyses.

More specifically, preliminary analysis revealed that, as expected, in all three samples, the controlling meaning of cash rewards was significantly and positively associated with psychological need frustration. In Samples 2 and 3, it was further significantly and negatively associated with psychological need satisfaction. With regards to the informative meaning of cash rewards, it was significantly and positively associated with psychological need satisfaction in Samples 1 and 2.

In all three samples, psychological need satisfaction was significantly and positively associated with all facets of work satisfaction, and autonomous motivation, as well as psychological well-being in Samples 1 and 3 specifically, and organizational commitment in Sample 2. It was also significantly and negatively associated with controlled motivation, as well as psychological ill-being and burnout in Samples 1 and 3 specifically, and organizational deviance in Sample 2. Conversely, psychological

need frustration was significantly and negatively associated with all facets of work satisfaction, and autonomous motivation, as well as psychological well-being in Samples 1 and 3 specifically, and organizational commitment in Sample 2. On the other hand, it was significantly and positively associated with controlled motivation, as well as psychological ill-being and burnout in Samples 1 and 3 specifically, and organizational deviance in Sample 2.

Finally, in all three samples, intention to recommend the organization was significantly and positively associated with all facets of work satisfaction, and with organizational commitment in Samples 2 and 3. The same pattern was observed for intention to stay in the organization and for estimated tenure specifically in Samples 2 and 3.

Main analyses

The proposed model was tested in each sample through path analysis using the Bootstrapping Macro with 1,000 bootstrapped samples in M*plus* version 7.31 (Muthén & Muthén, 2014). Age was entered as a control variable and the informative and controlling meanings of cash rewards, as well as psychological need satisfaction and frustration, autonomous and controlled motivation, and all four facets of work satisfaction were allowed to covary. Three goodness-of-fit indices were used: the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residual (SRMR). Generally, values of .90 and higher for the CFI indicate a very satisfactory fit (Hoyle, 1995; Schumacher & Lomax, 1996), and values approximating .09 for the RMSEA and.06 for the SRMR suggest a satisfactory fit (Browne & Cudeck, 1993; Hu & Bentler, 1999). In all three samples, the hypothesized model provided an adequate fit to the data: Sample 1: χ^2 (42) = 252.14, $p < .05$, CFI = .94, RMSEA = .10, 90% confidence interval [.09-.12], and SRMR = .06; Sample 2: χ^2 (57) = 324.74, $p < .05$, CFI = .93, RMSEA = .10, 90% confidence interval [.09-.12], and SRMR = .07; and Sample 3: χ^2 (81) = 295.83, $p < .05$, CFI = .92, RMSEA = .09, 90% confidence interval [.07-.10], and

SRMR = .07. Table 4 summarizes all standardized β path coefficients with their significance level found in each sample.

Providing support for Hypothesis 1, in all three samples, greater perceptions of cash rewards as controlling was associated with greater psychological need frustration (Sample 1: β = .31**; Sample 2: β = .34**, and Sample 3: β = .41**), and conversely lower psychological need satisfaction (Sample 1: β = -.31**; Sample 2: β = -.24**, and Sample 3: β = -.16*). Further providing partial support for Hypothesis 1, greater perceptions of cash rewards as informative was associated with greater psychological need satisfaction and lower psychological need frustration in Sample 1 (respectively β = .30** and β = -.23**) and Sample 2 (respectively β = .25** and β = -.30**). No empirical support was obtained for these paths in Sample 3 (respectively β = .00 and β = .07).

As for Hypothesis 2, in all three samples, paths were positive and significant between psychological need satisfaction and autonomous motivation (Sample 1: β = .53**; Sample 2: β = .56**, and Sample 3: β = .53**), as well as between psychological need frustration and controlled motivation (Sample 1: β = .26**; Sample 2: β = .15*, and Sample 3: β = .36*). The path between psychological need frustration and autonomous motivation was negative, yet only reached significance in Sample 1 (β = -.17**; Sample 2: β = -.10, and Sample 3: β = -.09). Contrary to Hypothesis 2, the path between psychological need satisfaction and controlled motivation appeared positive and reached significance in two samples (Sample 1: β =.26**; Sample 2: β = .22**, and Sample 3: β = .10).

With regards to Hypothesis 2, in all three samples, paths were significant and in the expected direction between the psychological needs and all facets of work satisfaction. The only exception was in Sample 3 where psychological need satisfaction did not predict satisfaction with rewards (β = .00). Psychological need satisfaction positively predicted satisfaction with rewards (Sample 1: β = .37**; Sample 2: β =

.24**), while psychological need frustration negatively predicted it (Sample 1: β = -.27**; Sample 2: β = -.18**, and Sample 3: β = -.26**). The same patterns were observed for satisfaction with tasks (Psychological need satisfaction: Sample 1: β = .35**; Sample 2: β = .37**, and Sample 3: β = .43**; and Psychological need frustration: Sample 1: β = -.39**; Sample 2: β = -.37**, and Sample 3: β = -.22**), with satisfaction with leadership (Psychological need satisfaction: Sample 1: β = .24**; Sample 2: β = .26**, and Sample 3: β = .31**; and Psychological need frustration: Sample 1: β = -.45**; Sample 2: β = -.40 **, and Sample 3: β = -.33**), and satisfaction with culture (Psychological need satisfaction: Sample 1: β = .28**; Sample 2: β = .25**, and Sample 3: β = .28**; and Psychological need frustration: Sample 1: β = -.42**; Sample 2: β = -.40**, and Sample 3: β = -.31**)

In terms of psychological health, as measured and tested specifically in Sample 1 and 3, psychological need frustration positively predicted burnout (Sample 1: β = .33** and Sample 3: β = .41**) and psychological ill-being (Sample 1: β = .50** and Sample 3: β = .52**), thus further supporting Hypothesis 2. Empirical support for the negative association between psychological need frustration and psychological well-being was only found in Sample 1 (β = -.47** and Sample 3: β = .00). Finally, in both samples, psychological need satisfaction positively predicted psychological well-being (Sample 1: β = .47** and Sample 3: β = .43**) and negatively predicted psychological ill-being (Sample 1: β = -.16* and Sample 3: β = -.13**).

In terms of organizational deviance and commitment, as measured and tested specifically in Sample 2 and 3, psychological need frustration negatively predicted commitment (Sample 2: β = -.31** and Sample 3: β = -.16*) and positively predicted deviance (Sample 2: β = .19* and Sample 3: β = .16*), whereas empirical evidence for the opposite pattern was found for psychological need satisfaction (Commitment: Sample 2: β = .37** and Sample 3: β = .51**; Deviance: Sample 2: β = -.04 and Sample 3: β = -.21*).

Finally, in all three samples, all facets of work satisfaction, except satisfaction with rewards in Samples 1 and 2, significantly predicted greater intention to recommend the organization (Sample 1: Satisfaction with rewards: $\beta = .04$; with task: $\beta = .26^{**}$, with leadership: $\beta = .47^{**}$, and with culture: $\beta = .20^{**}$; Sample 2: Satisfaction with rewards: $\beta = .03$; with tasks: $\beta = .26^{**}$, with leadership: $\beta = .37^{**}$, and with culture: $\beta = .24^{**}$; Sample 3: Satisfaction with rewards: $\beta = .07^{*}$; with tasks: $\beta = .11^{*}$, with leadership: $\beta = .27^{**}$, and with culture: $\beta = .43^{**}$). In addition, in Samples 2 and 3 specifically, organizational commitment predicted greater intention to recommend the organization (both $\beta = .20^{*}$).

In Samples 2 and 3 specifically, organizational commitment also predicted greater intention to stay in the organization (respectively $\beta = .71^{**}$ and $\beta = .21^{*}$). In both samples, only satisfaction with tasks reached significance in predicting greater intention to stay in the organization (Sample 2: $\beta = .10^{t}$; with rewards: $\beta = .09$, with leadership: $\beta = .03$ and with culture: $\beta = .09$; Sample 3: satisfaction with tasks: $\beta = .60^{*}$; with rewards: $\beta = .00$, with leadership: $\beta = .09$ and with culture: $\beta = .00$). In turn, greater intention to stay in the organization predicted longer estimated tenure (Sample 2: $\beta = .22^{*}$ and Sample 3 $\beta = .40^{*}$).

General discussion

The findings from three different samples, including two international and one Canadian-based, provide empirical support for two distinct functional meanings of cash rewards offered in the workplace and their influence on employees' psychological needs. In this sense, when employees perceive the cash rewards offered by their employer as controlling, they report experiencing both lower need satisfaction and greater need frustration, indicating that controlling cash rewards are associated with them feeling less personally connected (and even rejected) by their colleagues and supervisors, less competent (and even incompetent) at their work, and less empowered to chose (and even controlled) to behave in certain ways. Conversely, some evidence from this study also suggests that when employees perceive the cash rewards offered

in their workplace as informative, they experience both greater satisfaction and lower frustration of their basic psychological needs, therefore suggesting that informative cash rewards positively contribute to employees' feelings and psychological experience of decisional latitude, skillfulness, and meaningful connection at work. Interestingly, greater support was found for the negative influence of controlling cash rewards on employees' psychological needs (associated with both greater psychological need frustration and lower psychological need satisfaction in all three samples) than for the positive influence of informative cash rewards. Absence of empirical support between informative cash rewards and psychological needs in Sample 3 could be due to specificities of the participants in this sample, which showed more limited characteristics in terms of gender, work background and location, thus restricting representativeness and generalizability.

Nevertheless, the current results lend credibility to the applicability of Self-Determination Theory and its postulates in the work setting, suggesting that the functional meaning that employees attribute to the cash rewards offered in their workplace has important downstream implications for their experience and functioning at work. To this point, the current findings replicate previous studies showing a positive association between satisfaction of the psychological needs for competence, autonomy, and relatedness, and thriving in a specific context (e.g., Gagné et al., 2014). As evidenced in all three samples, employees experiencing greater need satisfaction reported healthier forms of motivation (as indicated by greater autonomous motivation), and greater overall satisfaction at work (including satisfaction with tasks, rewards, leadership, and culture). Greater psychological need satisfaction was also associated with greater psychological health (as indicated by greater psychological well-being, and lower psychological ill-being and burnout in Samples 1 and 3), lower organizational deviance (as revealed in Samples 2 and 3) and greater organizational commitment (also indicated in Samples 2 and 3 by affective commitment and intention to stay in the organization, which then translated into longer estimated tenure). In most

instances, greater satisfaction at work then predicted greater intention to recommend the organization.

As hypothesized and previously observed in the literature, psychological need frustration was on the other hand associated with suboptimal functioning at work, as indicated in all three samples by its negative association with all facets of work satisfaction, but also with its positive association with controlled motivation (Samples 1, 2, and 3), burnout and psychological ill-being (Samples 1 and 3) and organizational deviance (Samples 2 and 3). Employees experiencing greater psychological need frustration thus reported lower psychological health, and more externally driven forms of motivation. They also reported lower commitment and intention to both recommend and stay in their organization.

Practical implications

The present findings provide preliminary support to the argument that cash rewards can be efficient motivators and drivers of employees' thriving in the workplace, benefitting to their psychological health and overall functioning when positively contributing to their psychological needs for competence, autonomy, and relatedness. Alternatively, they appear to be much less beneficial and even detrimental to employees' experience of their workplace when perceived as controlling, and lead employees to feel less competent, empowered or appreciated at work. Hence, the subjective value of cash rewards, above and beyond their objective, dollar value, should be carefully taken into consideration, as these cash rewards can have important downstream implications as to how employees experience their workplace and consequently feel about their work and organization.

The finding that informative cash reward, in other words, those perceived as signalling employers' appreciation of their workers' contribution, could have a significant influence on employees feeling more competent, autonomous, and meaningfully connected at work points to the importance of well designing reward programs, carefully choosing the reward options and the way they are presented to employees as to avoid feeling like simple, transactional exchanges, devoid of authentic

recognition. Controlling cash rewards, i.e., those perceived as a given in *tit-for-tat* or *the-carrot-or-the-stick* approach, could run the risk of having deleterious consequences in the workplace, or even deterring current and prospective employees. To this point, downsides of cash rewards perceived as controlling include their psychological toll, as employees experience less fulfillment and even active impingement of their psychological need for relatedness, competence and autonomy. This has further implications as employees are more likely to demonstrate lower work ethics, engaging in more organizationally deviant behaviours, such as taking undeserved breaks, and overly focusing on rewards and external gains (reflecting controlled motivation), instead of valuing the actual job and the enjoyment it procures (reflecting autonomous motivation). Lastly, this also has a downstream influence on their commitment quality to their employer, with them being less likely to stay or recommend their workplace, thus having the opposite effect of what rewards ought to promote.

The present research emphasizes the point that offering a cash reward, as well as any other type of rewards, occurs within the context of a social exchange between a giver and a recipient, and that as a result, this reward can take on different meanings for the recipients based on their perceptions of the giver's intention. This further suggests that this subjective, or functional, meaning can then become a potent driver and contribute to explaining the downstream consequences of the rewards with regards to how the recipients feel and behave subsequently.

With this in mind, employers should be careful when designing and implementing their reward programs to ensure cash rewards are perceived as informative and not controlling. This precludes instilling financial incentives and cash rewards based on the sole assumption that money is a sufficient motivator for workers. This research suggests that cash rewards offered by employers should be better presented as symbols of acknowledgement and recognition for employees' contribution (Baeten & Verwaeren, 2012; Brown, 2014; Van Dyke & Ryan, 2012). When offered as a token of appreciation, cash rewards should be more likely to be perceived as informative. Initiatives leveraging informative rewards to signal appreciation and

recognition for workers' contribution could constitute an opportunity to convey organizational values, becoming valuable tool at employers' disposition to attract and retain talent (Madhani, 2014a; 2014b; Schweyer, 2018). On the other hand, reward programs that capitalize on rewards perceived as controlling may signal different values to prospective and current employees, and deter them from wanting to work for the organization.

Future research

The implications of the current research tie in with recent trends involving new types of rewards such as non-cash or tangible rewards like gift certificates, travels, and luxury goods and products, and raise the question as to how these could be leveraged to communicate organizations' values such as appreciation and recognition (Morrell, 2011; Van Dyke & Ryan, 2012), and positively contribute to employees' psychological needs at work. Research needs to explore how the variety of workplace rewards offered as part of "Total Reward Strategies" (Brown, 2014; Greene, 2014; Risher, 2015), such as non-cash intangible rewards like flexible work hours and vacations, skill development and training, could positively contribute to employees' psychological needs for competence, autonomy, and relatedness, and ultimately lead them to thrive at work.

Future research should use longitudinal designs to assess the direct effects of these diverse workplace rewards and reward initiatives. Due to its cross-sectional nature, the current research provides only initial support for the importance of employees' perceptions of their workplace rewards and the downstream implications for their experience and functioning. Yet longitudinal designs are especially relevant in the context of reward programs, since the effectiveness of any type of reward would be better assessed after a lapse of time allowing proper program implementation, exposure to the reward, and subsequent tracking of motivation and performance.

In line with this, research is needed to identify which specific practices, strategies and reward types ensures that the rewards offered by the employer are perceived as informative, and not controlling, by employees. In other words, future research should

aim at understanding how to design workplace rewards to convey an informative meaning, and explicitly test the extent to which informative cash rewards are associated with greater feelings of recognition and appreciation, as the present research seems to suggest. This would help identifying how workplace rewards can contribute to building cultures of recognition in organization, an element very much sought after by modern-day organizations (Rischer, 2014; Schwerer, 2018; Thibault Landry et al., 2018).

Thus, conducting longitudinal field studies in which programs offering different cash and non-cash, tangible and non-tangible rewards are compared, and in which employees' psychological need satisfaction, motivation and commitment quality, and psychological health is tracked as they are exposed these different types of rewards, would help identify the specific conditions under which rewards are perceived as informative or controlling, influence the emerging organizational culture, and lead to optimal or sub-optimal functioning in the workplace. Such robust, longitudinal designs, with intensive and repeated measures, would significantly improve our understanding as to how internal, psychological processes at the individuals' level, such as psychological need satisfaction, influence the emergence and evolution of specific attitudes, such as motivation, and observable behavior, such as performance and turnover. This would also allow to uncover potential downsides of reward programs, such as demotivation and passive, or even active, disengagement from performance goals and organization at large, of resulting from exposure to controlling cash rewards or from not receiving any type of reward at all.

Conclusion

The present research offers empirical evidence that cash rewards can take on different meanings and thus represent tools at employers' disposal for communicating their values. Findings from three samples of workers from diverse professional and national backgrounds point to the importance of considering the functional (i.e., informative or controlling) meaning of rewards to understand how they can influence the extent to which employees thrive or not in their workplace. This suggests that while cash rewards can be powerful motivators, additional research with more robust and

intensive measurement designs is needed to better decipher how different workplace rewards can have positive downstream benefits or negative consequences for employees' psychological experience and subsequent functioning over the course of reward programs.

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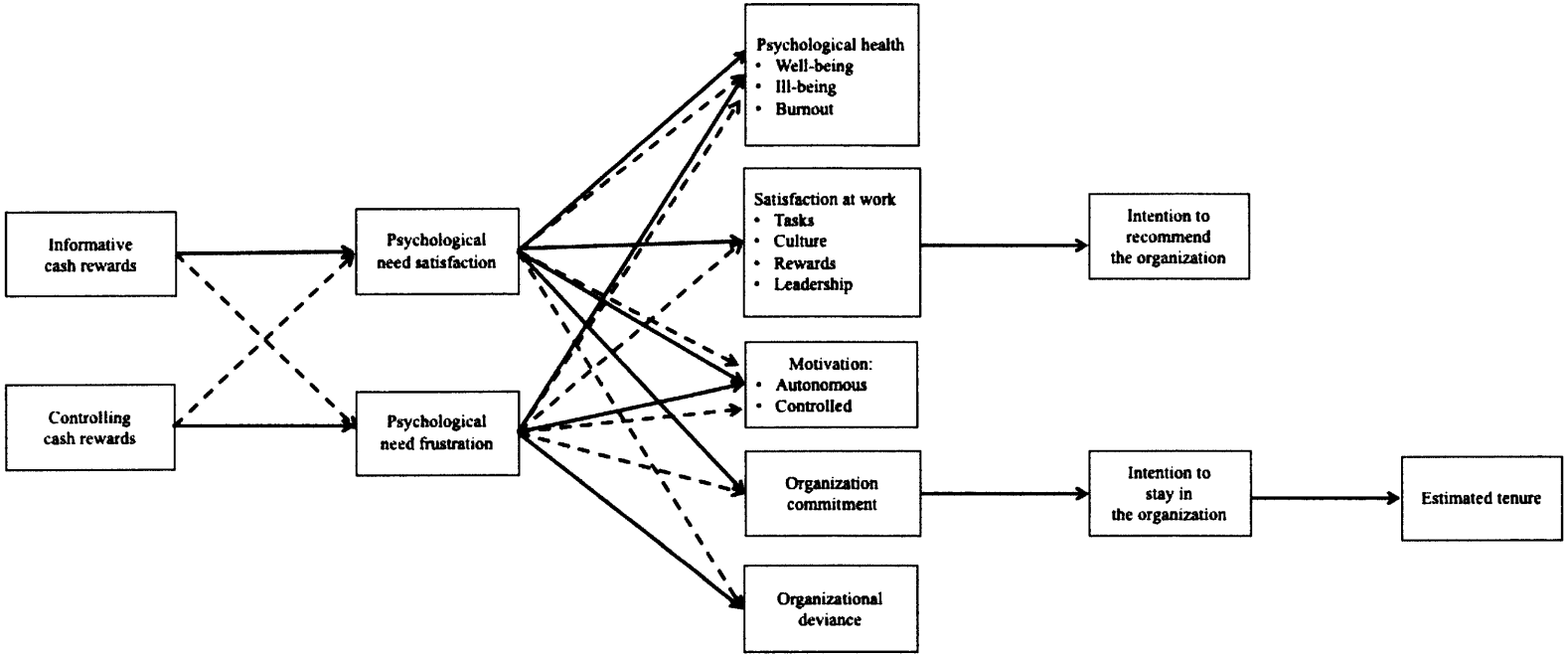

Figure 1. The proposed model. It depicts the hypothesized relations (paths) between the informative and controlling meanings of cash rewards, psychological need satisfaction and frustration, and indicators of employees' optimal and suboptimal functioning at work. Continuous lines indicate expected positive relations between the connected variables, and dotted lines indicate expected negative relations between the connected variables.

Table 1. Sample 1 descriptives, coefficient alphas (along the diagonal), and correlations between variables (N=417)

	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1-	Informative meaning	4.66	2.21	(.92)													
2-	Controlling meaning	3.16	2.28	.61**	(.87)												
3-	Need Satisfaction	5.93	1.42	.11*	-.09	(.86)											
4-	Need Frustration	3.21	1.50	-.10	.16**	-.60**	(.89)										
5-	Autonomous motivation	5.11	1.23	.02	-.11*	.62**	-.43**	(.95)									
6-	Controlled motivation	4.15	0.94	.00	-.05	.12*	.03	.28**	(.76)								
7-	Satisfaction - Rewards	59.11	31.59	.02	-.17**	.34**	-.32**	.31**	.28**	-							
8-	Satisfaction - Tasks	72.96	22.53	.11*	-.16**	.60**	-.60**	.57**	.13**	.52**	-						
9-	Satisfaction - Leadership	60.68	28.54	.12*	-.14**	.50**	-.56**	.42**	.13**	.49**	.74**	-					
10-	Satisfaction - Culture	62.19	27.68	.03	-.17**	.49**	-.55**	.42**	.19**	.53**	.74**	.83**	-				
11-	Intention to recommend	65.55	31.46	.11*	-.14**	.53**	-.58**	.45**	.18**	.52**	.79**	.85**	.82**	-			
12-	Organizational commitment	5.31	1.69	.13**	-.10	.56**	-.54**	.56**	.09	.33**	.67**	.67**	.62**	.71**	(.80)		
13-	Organizational deviance	2.62	1.32	.04	.04	-.16**	.22**	-.18**	.04	.02	-.17**	-.17**	-.12*	-.17**	-.23**	(.80)	
14-	Intention to stay	5.37	2.34	.06	.12	.55**	.46**	.56**	.14**	.40**	.64**	.62**	.61**	.70**	.81**	-.15**	(.93)
15-	Estimated tenure	7.00	6.67	-.03	-.08	.23**	-.19*	.15*	.10	.14	.30**	.24**	.26**	.30**	.28**	-.12	.22**

Note. **p < .01; *p < .05, ᵗp < .10.

Table 2. Sample 2 descriptives, coefficient alphas (along the diagonal), and correlations between variables (N= 399)

	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1-	Informative meaning	4.88	2.19	(.93)													
2-	Controlling meaning	3.45	2.42	.63**	(.89)												
3-	Need Satisfaction	5.94	1.48	.11*	-.12*	(.87)											
4-	Need Frustration	3.33	1.55	-.03	.17**	-.60**	(.90)										
5-	Autonomous motivation	4.95	1.35	.02	-.10	.64**	-.49**	(.95)									
6-	Controlled motivation	4.04	0.96	-.03	-.02	.06	.13*	.18**	(.74)								
7-	Satisfaction - Rewards	51.24	32.86	.00	-.17**	.30**	15**	.37**	.23**	-							
8-	Satisfaction - Tasks	68.53	24.32	.06	-.16**	.58**	-.60**	.66**	.10*	.54**	-						
9-	Satisfaction - Leadership	55.79	29.08	.06	-.12*	.50**	-.58**	.51**	.14**	.56**	.75**	-					
10-	Satisfaction - Culture	58.59	27.81	.09	-.08	.53**	-.59**	.55**	.14**	.52**	.76**	.88**	-				
11-	Intention to recommend	60.63	32.23	.07	-.13**	.54**	-.57**	.63**	.12*	.56**	.81**	.87**	.84**	-			
12-	Psychological well-being	3.98	0.74	.03	-.10*	.56**	-.41**	.65**	.10*	.36**	.60**	.49**	.49**	.55**	(.77)		
13-	Psychological ill-being	1.90	0.83	-.04	.12*	-.47**	.59**	-.35**	.15**	-.21**	-.52**	-.43**	-.50**	-.47**	-.27**	(.81)	
14-	Burnout	2.34	0.85	.01	.18**	-.53**	.53**	-.47**	0.06	-.16**	-.51**	-.41**	-.40**	-.42**	-.46**	.60**	(.94)

Note. **p < .01; *p < .05, ᵗp < .10.

Table 3. Sample 3 descriptives, coefficient alphas (along the diagonal), and correlations between variables (N= 336)

	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1-	Informative meaning	4.33	1.51	(.84)																	
2-	Controlling meaning	2.74	1.52	.22**	(.82)																
3-	Need Satisfaction	5.42	0.86	-.08	-.20*	(.79)															
4-	Need Frustration	3.14	1.29	.16	.41**	-.63**	(.90)														
5-	Autonomous motivation	4.95	1.49	.02	-.15	.59**	-.40**	(.94)													
6-	Controlled motivation	3.67	0.98	.24**	.22**	-.13*	.29**	.08	(.76)												
7-	Satisfaction - Rewards	41.63	36.2	.18*	.00	.17**	-.26**	.04	-.10	-											
8-	Satisfaction - Tasks	67.63	22.82	-.02	-.22*	.56**	-.48**	.63**	-.07	.26**	-										
9-	Satisfaction - Leadership	60.56	28.29	.12	-.16	.49**	-.51**	.39**	-.03	.29**	.59**	-									
10-	Satisfaction - Culture	60.13	27.22	.03	-.21*	.46**	-.48**	.43**	-.06	.25**	.64**	.79**	-								
11-	Intention to recommend	68.55	27.7	.15	-.16	.49**	-.48**	.43**	-.04	.32**	.67**	.79**	.83**	-							
12-	Organizational commitment	4.64	1.36	.05	-.21*	.61**	-.48**	.54**	-.06	.27**	.61**	.59**	.63**	.68**	(.87)						
13-	Organizational deviance	2.46	1.11	-.08	.20*	-.33**	.27**	-.44**	.06	-.02	-.28**	-.26**	-.25**	-.24**	-.26**	(.77)					
14-	Intention to stay	3.67	2.09	.05	.22*	-.48**	.42**	-.52**	.09	-.23**	-.73**	-.51**	-.53**	-.52**	-.58**	.25**	(.88)				
15-	Estimated tenure	5.57	7.41	.06	-.09	.27**	-.11	.31**	-.04	.08	.35**	.23**	.23**	.25**	.31**	-.20**	-.42**	-			
16-	Psychological well-being	3.66	0.69	-.05	-.22*	.44**	-.25**	.63**	.05	.04	.46**	.32**	.30**	.32**	.41**	-.41**	-.39**	.25**	(.75)		
17-	Psychological ill-being	1.78	0.69	.12	0.12	-.46**	.61**	-.22**	.27**	-.15*	-.38**	-.39**	-.34**	-.38**	-.28**	.17**	.27**	-.12*	-.08	(.79)	
18-	Burnout	3.20	1.15	.02	.23**	-.48**	.54**	-.36**	.29**	-.19**	-.47**	-.38**	-.40**	-.40**	-.35**	.35**	.41**	-.15**	-.28**	.56**	(.94)

Note. **p < .01; *p < .05, ᵗp < .10.

Table 4. Standardized coefficients for each path in the model in each sample

Paths	*Sample 1*	*Sample 2*	*Sample 3*
Informative meaning -> Need satisfaction	.30**	.25**	.00
Informative meaning-> Need frustration	-.23**	-.30**	.07
Controlling meaning -> Need satisfaction	-.31**	-.24**	-.16*
Controlling meaning-> Need frustration	.31**	.34**	.41**
Need satisfaction -> Autonomous motivation	.53**	.56**	.53**
Need frustration -> Autonomous motivation	-.17**	-.10	-.09
Need satisfaction -> Controlled motivation	.24**	.22**	.01
Need frustration -> Controlled motivation	.26**	.15*	.36**
Need satisfaction -> Satisfaction - Rewards	.37**	.24**	.00
Need frustration -> Satisfaction - Rewards	-.27**	-.18**	-.26**
Need satisfaction -> Satisfaction - Tasks	.35**	.37**	.43**
Need frustration -> Satisfaction - Tasks	-.39**	-.37**	-.22**
Need satisfaction -> Satisfaction - Leadership	.24**	.26**	.31**
Need frustration -> Satisfaction - Leadership	-.45**	-.40**	-.33**
Need satisfaction -> Satisfaction - Culture	.28**	.25**	.28**
Need frustration -> Satisfaction - Culture	-.42**	-.40**	-.31**
Need satisfaction -> Burnout	-.31**	-	-.22**
Need frustration -> Burnout	.33**	-	.41**
Need satisfaction -> Psychological well-being	.47**	-	.43**
Need frustration -> Psychological well-being	-.12*	-	.00
Need satisfaction -> Psychological ill-being	-.16*	-	-.13*
Need frustration -> Psychological ill-being	.50**	-	.52**
Need satisfaction -> Organizational comitment	-	.37**	.51**
Need frustration -> Organizational commitment	-	-.31**	-.16*
Need satisfaction -> Organizational deviance	-	-.04	-.21**
Need frustration -> Organizational deviance	-	.19**	.16*
Satisfaction - Rewards -> Intention to recommend	.04	.03	.07*
Satisfaction - Tasks -> Intention to recommend	.26**	.26**	.11*
Satisfaction - Leadership -> Intention to recommend	.47**	.37**	.27**
Satisfaction – Culture -> Intention to recommend	.20**	.24**	.43**
Organizatinal commitment -> Intention to recommend	-	.20	.20**
Satisfaction - Rewards -> Intention to stay	-	.09[t]	.00

Satisfaction - Tasks -> Intention to stay	-	.10[t]	.60**
Satisfaction – Leadership -> Intention to stay	-	.03	.09
Satisfaction - Culture -> Intention to stay	-	.09	.00
Organizational commitment -> Intention to stay	-	.71**	.21**
Intention to stay -> Estimated Tenure	-	.22**	.40**

Note. **p < .01; *p < .05, [t]p < .10.

CHAPTER III

GENERAL DISCUSSION

1. Discussion of the findings across the two articles

The findings of the current thesis suggest that cash rewards can have significant downstream implications for employees' functioning at work when considering their influence on employees' psychological needs. Indeed, the findings from all five samples totalling 2,320 surveyed workers, including three international and two Canadian-based samples, presented in the two articles of this thesis, provide converging cross-cultural evidence supporting the conceptual validity of SDT's postulate of the *functional meaning* of external factors, such as cash rewards offered in the workplace, and its relation to the three basic psychological needs, to better understand how it contributes to individuals' overall functioning and thriving in the specific context of work. Lending support to the universal nature of SDT with more 570 workers in Canada (in the province of Quebec more precisely) and 1750 workers in countries around the world such as Australia, China, Germany, England, and the United States, this empirical investigation highlights that the relation between the functional meaning of cash rewards and the psychological needs does not appear to be specific to any particular countries nor limited to North America.

Moreover, it supports the applicability and relevance of those concepts specifically within the context of work. Indeed, across the two articles, similar findings were obtained with employees around the world from organizations of various sizes, and from various industries (as diverse as education, government services, healthcare, technology, retail, manufacturing, and banking), further illustrating that the functional meaning of rewards and the basic psychological needs are not idiosyncratic to any particular organizational setting.

These findings further suggest that what matters when it comes to rewards is the affective reactions that these rewards elicit, leading to unique and distinct individual

psychological experiences (Jeffrey, 2017; Thibault Landry et al., 2018). This further suggests that workplace cash rewards should be designed to reinforce employees' psychological needs of auonomy, competence and relatedness (e.g., Gagné & Forest, 2008). To this point, the current research highlights how workplace cash rewards can take on specific meanings that not only significantly contribute to the satisfaction, but also to the frustration, of the three universal psychological needs.

More specifically, evidence in two international samples in Article II indicate that informative cash rewards positively contribute to psychological need satisfaction, thus suggesting that they positively contribute to employees feeling more competent, autonomous, and connected at work, and evidence from the two studies presented in Article I suggest that this may be driven in part by their greater contribution to the satisfaction of employees' psychological need for autonomy. Interestingly, the oppositve pattern is observed for the informative meaning of cash rewards and employees' psychological need frustration, with the two international samples in Article II providing evidence for its negative relation, further supported by the results in Article I showing its negative relation with autonomy need frustration (in both international and national samples), and with competence need frustration (in the international sample only). Together these findings seem to indicate that perceiving cash reward offered in one's workplace is associated not only with feeling meaningfully connected, competent, and (even more so) autonomous at work, but also could potentially buffer against increased feelings of incompetence, oppression, and rejection in the workplace.

Conversely, perceiving cash rewards as controlling was associated in all five samples with greater psychological need frustration, and specifically competence and autonomy need frustration in both samples in Article 1, as well as lower psychological need satisfaction, with specific evidence for autonomy need satisfaction in both samples in Article 1, and for competence need satisfaction in the national sample in Article 1. The significant association with both lower psychological need satisfaction and greater psychological need frustration reveals that cash rewards perceived as

controlling contribute to employees' negative experience in their workplace as less personally and meaningfully related to colleagues and supervisors, and importantly less competent and autonomous at work, and can even lead them feel isolated, incompent, and oppressed. It is also noteworthy to point out that the current findings seem to indicate that the controlling meaning of cash rewards may be more potent in harming employees' psychological experience of their workplace. To this point, evidence from all samples corroborate the negative effect of controlling cash rewards on employees' psychological needs, especially for their autonomy need and to some extent, their competence need. This could potentially suggest that cash rewards perceived in more neutral ways, such as those not perceived as being particularly controlling nor informative, may not contribute as much to employees' experience of the workplace, with regards to either the satisfaction or frustration of their psychological needs.

Notwithstanding, these results highlight the importance of the psychological needs in the relation between the functional meaning of rewards and employees' functioning to understand how they come to thrive or not at work. This research is one of the few to offer empirical evidence that conferring cash rewards an informative meaning can promote employees' need satisfaction for competence, autonomy, and relatedness, which then leads to healthier experiences and attitudes in their workplace, including autonomous motivation, work ethics, affective commitment, and desire to stay in the organization, whereas conferring them a controlling meaning risks eliciting the opposite reaction in employees. Cash rewards perceived as having an informative meaning could thus be efficient tools to leverage for employees to feel more competent, autonomous, and connected to others, while conversely, feeling less incompetent, oppressed, and rejected, as they engaged in the activity for which they are being rewarded. This corroborates other SDT researchers' arguments about the potential benefits of using financial incentives for employees' psychological needs for competence and autonomy (e.g. Gagne & Forest, 2008; Stone et al., 2009). Our current research further extends this argument by providing empirical evidence that they can positively contribute to their relatedness need since perceiving cash rewards as

informative can positively influence one's sense of belonging and connection to others at work, including but not limited to, one's peers and colleagues, customers, supervisors and employer at large.

The results indicate that when cash rewards positively contribute to employees' psychological needs, positive and healthier outcomes follow, revealing that employees thrive more in psychologically healthy ways in their work. To this point, optimal functioning includes healtier motivation (as evidenced by greater autonomous motivation in all samples and lower controlled motivation in all three international samples), and better work ethics (as evidenced by lower organizational deviance in the national sample in Article I, and in samples 2 and 3 in Article II, as well as greater intentions for in-role and extra-role efforts in the international sample in Article II). It also includes greater affective commitment, which closely relates to greater intentions to stay and recommend the organization (as found in all the samples where measured), and greater psychological health (as indicated by psychological well-being and ill-being in the two international and the two national samples where measured).

Overall, these findings highlight the critical importance of cash rewards in fostering employees' functioning and influencing key outcomes that organizational value. In doing so, these results corroborate past findings showing that employees' satisfaction with financial compensation has a significant influence on their attitudes and behaviors at work (Gerhart & Milkovich, 1992; Heneman & Schwab, 1985; Lawler, 1971; Shaw, 2014; Williams et al., 2006; Brown, 2001; Petrescu & Simmons, 2008; Trevor & Wazeter, 2006) and that satisfaction with one's compensation has downstream benefits for organizations, such as leading employees to express a greater desire to invest themselves and stay in their current job (Williams et al., 2006; Dulebohn & Werling 2007 Carraher, 2011; Miceli & Mulvey, 2000; Motowildo, 1983; Weiner, 1980; Currall, Towler, Judge & Kohn; 2005).

All together, the present findings strengthen the claim that it is the subjective meaning conveyed and derived from the act of giving and receiving a cash reward that matters and influences employees' subsequent reactions, in terms of intenral

psychological processes, attitudes as well as behaviors. This further suggests that in order for cash rewards to be efficient tools to motivate employees in healthy ways, there must be an intent on behalf of the giver (i.e., the employer), and such intent must be perceived by the recipient (i.e. the employees), otherwise, the act of exchanging cash rewards within the work context could fall short. This is in line with psychological theories of human behavior arguing for the power of subjective experiences, including perceptual processes, interpretations, and affective reactions (e.g., Fiske & Neuberg, 1990; Lewicki, Hill, & Sasaki, 1989; Tajfel & Forgas, 2000). To the extent that any social behavior occurs within a given context, this interpersonal context significantly influences how the behavior is encoded by both the doer and the observer (e.g., Fiske & Neuberg, 1990; Tajfel & Forgas, 2000). It has then been said that it is this encoding, within the individual's unique, subjective experience and internal process, that determines the effect that the event has on subsequent reactions, be they affective, cognitive or behavioral.

It is interesting to note than in all five samples, psychological need satisfaction was associated positively with controlled motivation. From an analytical perspective, it could potentially have been due to the way the variables were operationalized and measured; however, scales used respectively for each construct are well-validated and commonly found in the SDT literature (e.g., Bartholomew et al., 2011; Gagné et al., 2010; 2014; Van den Broeck et al., 2010; Vansteenkiste & Ryan, 2013; 2016), rending it very unlikely that these associations were spuriously due to methodological artefacts. Similarly, although large sample sizes have been found to be associated with greater risk of paths between constructs reaching significance level, the fact that not all the paths in the model across the samples reached the significance level of $p < .05$ makes this explanation unlikely to apply in this case, and provides little apparent reason to believe it occurred due to an inflation resulting from sample sizes.

Finally, an alternative explanation could be that since a single composite score for psychological need satisfaction was used in Article II, this may have masked the specific, or stronger, effect of a particular need. In line with the results from Article I,

it could be that satisfaction of the psychological needs for relatedness and competence are both unrelated to controlled motivation, but that given earlier SDT postulates concerning the importance and centrality of the psychological need for autonomy in individuals' thriving and general functioning, its satisfaction could be positively associated with all types of motivation, thus leading to an overall positive and significant association with controlled motivation when integrated into a single composite score, as in the present case. This would warrant more investigation in future (as will be elaborated in later sections of this thesis). For the purpose of the current discussion of the findings, all three psychological needs were combined into an overall indicator of psychological need satisfaction in Article II, in spite of SDT's argument for the uniqueness of each need, given that composite scores are justified in the face of highly correlated measures (e.g. Van den Broeck et al., 2016) and for better fit when dealing with more complex models (Rosen et al., 2014).

There could be also be theoretical underpinings from new trends in SDT research that could help provide a conceptual understanding as to the reason why psychological need satisfaction was found to be positively associated with controlled motivation. To this point, although it has generally been argued and found in research from different contexts that need satisfaction is more strongly associated with autonomous forms of motivation rather than controlled forms of motivation, and that its frustration tends to be more strongly associated with controlled forms of motivation rather than autonomous forms (Ryan & Deci, 2000; Vansteenkiste & Ryan, 2013; 2016), psychological needs should in theory be associated with all types of motivation on the continuum. To this point, recent development in motivational research in SDT shows that it may be more appropriate to study motivational profiles of employees, thus suggesting that employees can concomittently hold more than one type of motivation at work, including of different quality and levels (Howard, Gagné, Morin, Wang, & Forest, 2016; Litalien, Gillet, Gagné, Ratelle, & Morin, 2019; Gillet, Morin, & Reeve, 2017). This would then suggest that employees could have unique profiles, including some having both high autonomous and controlled motivation at

work, which would make it possible for them to experience high levels of psychological need satisfaction, and render it possible for psychological need satisfaction to be positively associated with controlled motivation, as well as with autonomous motivation. While the current research did not allow the closer investigation of employees' motivation profiles in the specific samples collected, therefore making it impossible to test whether this could consist of the phenomenon at play, it does point to the need for future research better investigate the unique contribution of psychological need satisfaction and frustration in the development of these motivational profiles.

The current discussion surrounding motivational profiles as they may relate to the findings in this thesis further ties in with the "crowding out effect" or "undermining effet", whereby the introduction of extrinsic motivators such as money is said to diminish, - in other words, *crowd out*-, one's original intrinsic enjoyment and motivation for pursuig the activity (e.g., Frey & Obelhozer-Gee, 1997; Irlenbusch & Sliwka, 2005; Frey, 1994; Frey & Jegen, 2001). In light of this definition, some have argued over the relevance and applicability of this phenomenon in the work setting, claiming that this only applies to intrinsic motivation, and that individuals' motivation at work should at best be described as identified, intrinsic motivation excluding by definition the valuing of other motivators than pure enjoyment of the activity.

Despite number of studies, including in SDT, indicating the presence of intrinsic motivation at work (e.g., Bellé, 2015; Osterloh & Frey, 2001; Georgellis, Iossa, Tabvuna, 2010; Gagné et al., 2014; Howard, Gagné, Morin, & Van den Broeck, 2016), as defined within the specific context of the workplace - which could arguedly be viewed as adapted and diverging to a certain extent from pure intrinsic motivation-, more recent development looking at motivational profiles in the workplace could help understand the crowding out effect. Indeed, with this new conceptualization of motivation (Howard et al., 2016), employees could be conceived as having identified as well as intrinsic motivation at work, and more precisely, for specific components of their job. As an example, an academic professor could be intrinsically motivated for

research- or teaching-related tasks, yet have identified motivation for grant applications, and introjected motivation for departmental meetings. Hence, these new developments in motivation research could further help understand how extrinsic rewards, such as cash rewards, could influence individuals' motivation within a given context by shifting the composition of their motivational profile. As such, with the previous example, offering cash rewards as to confer them a controlling meaning by emphasing the relation between the number of courses taught in a semester and yearly bonuses, could lead academic professors to experience less intrinsic motivation for their teaching task, and come to feel more extrinsicly motivated to take on additional courses in a semester.

2. Theoretical and Practical implications

The findings in the present thesis raise the important question as how organizations can ensure that the cash rewards they offer to employees are perceived as informative, and not controlling. Indeed, a pressing research question stremming from the current thesis concerns the antecedents of the distinct functional meanings of cash rewards, and more specifically, of employees' perceptions. This then appears to involve understanding the conditions and processes under which the act of giving a cash reward, or any other type of reward, is more likely to be interpreted in a way that accurately conveys the giver's intention. Answering this could therefore entail, but not be limited to, possibilities on the giver's end, as well as on the processes surrounding the act of giving, including the allocation and distribution of the rewards.

For instance, in terms of processes related to the allocation and distribution of rewards, future research could investigate the relation between different types of justice and the functional meaning of rewards that emerge, as launching and implementation of reward programs are likely to be associated with perceptions of justice. As such, employees' perceptions, – *or lack thereof*- of procedural, distributive, interpersonal, and informational justice could influence the extent to which they perceive the rewards offered in their workplace as informative. In this light, past research has shown that employees exhibit different reactions, attitudes, and functioning at work as a result of

different perceptions of procedural and distributive justice with regards to their financial compensation (e.g., Corgnet, Martin, Ndojang, & Sutan, 2019; Olafsen et al., 2015; Thibault Landry et al., 2016). For example, a large meta-analysis on the effect of financial incentives found that at work, team members react more favorably to equitably distributed cash rewards than to equally distributed rewards (Gabers & Konradt, 2004). It would thus appear revelant to consider the extent to which greater or lesser perceptions of different types of justice could act as distinct antecedents for different functional meanings of cash rewards used in the workplace. This could then be tied back to the well-established literature and long withstanding discussion concerning different types of performance-contingent, engagement-contigent, and completion-contigent rewards (e.g., Deci & Ryan 1980; Deci et al., 1999; Cerasoli et al., 2012; 2014).

Another potential venue to uncover antecedents of informative and controlling cash rewards at work could stem from the SDT literature on autonomy-supportive and controlling interpersonal styles. Specifically, future research should investigate whether offering cash rewards in an autonomy-supportive, as opposed to in a controlling way, significantly impacts how cash rewards are perceived by individuals. In the work context, this would directly imply looking into managers' styles and behaviors as the reward "givers". From this perspective, similar to sports where coaches' styles influence athletes' outcomes, in education setting where parents' and teachers' behaviors influence children's own behavior, and in healthcare where caregivers, doctors, nurses and the likes have a direct influence on patients' health and treatment adherence (e.g., Amorose, & Anderson-Butcher, 2007; Reeve, 2006; Reeve, Bolt, & Cai, 1999; Stebbings, Taylor, & Spray, 2011; Vansteenkiste, Simons, Lens, Soenens, & Matos; 2005; Williams, Cox, Kouides, & Deci; 1999), managers could have a direct influence on how cash rewards are communicated and presented to employees, i.e. in an autonomy-supportive or controlling way, and thus significantly influence their perceptions of such rewards (Hardré, & Reeve, 2009).

To this point, this highlights the fact that in almost every organizations, whether

it be small, medium, or large, private or public, managers act as signifcant leaders in their workplace, department, or unit, standing as references to which employees turn to in order to decipher and understand the organizational culture, values, norms, and rules of conduct in place (Bass, 1990; 2007). This suggests that managers should be mindful of the way they treat their employees, given that this could have considerable impacts at different scales, including on the unit's work climate, the organization's culture, and more broadly, the employer's image (Bass, 1990; 2007).

Due to their direct and constant interaction with employees, research throughout the years have found managers to have a significant impact on their employees' experience at work, and mch empirical evidence points to the importance of employees' relationship with their immediate supervisors, whether it be in their daily experience of the workplace, or ultimately in their decision to commit and stay in the organization (e.g., Bass 2007; Danna & Griffin, 1998; DeConinck, & Johnson, 2009; Huo, Boxall, & Cheung, 2018; Joo, 2010; Kumar, Jauhari, Rastogi, & Sivakumar, 2018; Locke & Latham, 2002; Rynes, Gerhart & Parks 2005; Maertz, Griffeth, Campbell, & Allen, 2007; Ng, Butts, Vandenberg, DeJoy & Wilson, 2006; Saw & Barsade, 1993). Illustrating this, studies in various organizational settings have shown that employees who report experiencing more positive relationships with their managers tend report greater affective commitment to their organization and be less likely to quit their job, whereas the opposite appears to be true for employees who experience more negative relationships with their managers, and this positive association between the quality of employees' supervisor relationship and tenure appears to hold irrespective of employees' performance levels (e.g., Basu & Green 1995; Duchon, Green, & Taber, 1986).

To this point, managers hold a core position to exert significant influence on their employees' experience as well as contribution in their workplace, that is not limited to the objective tasks and work they provide, but also includes their subjective impressions and experiences that factor into softer aspects of their contribution to the organization (Bass, 2007; Kumar et al., 2018). For instance, studies such as a large

multi-sample study by Farndale and Kelliher (2013) corroborate this and shows that employees' trust in their managers, as well as their positive perceptions of how their managers treat them, are positively associated with their affective commitment to the organization. In this sense, managers have been said to bare the responsibility of conveying the organizational values to the employees reporting to them (e.g., Shafiq, Zia-ur-Rehman, & Raschid, 2013), which, as the current research suggest, could include those of recognition and appreciation. As researchers and practitioners have argued (e.g., Murphy, 2015; Shweyer, 2018; Whillans et al., 2018), managers are in a privileged, yet delicate position, to foster workplace cultures that highlight and celebrate employees' contribution, and convey genuine appreciation, recognition, and a sense of meaningful work.

This appears to be of heightened importance in our modern society as the evolution of the job market in the recent years has revealed a collective urge towards increased meaning and purpose at work (Pink, 2009). In this new era where self-awareness and introspection are emphasized, work is increasingly perceived as being core to individuals' self-identity, as they seek jobs and organizations that are in line with their own values and aspirations (Hogg & Terry, 2000; Pratt, Rockmann & Kaufmann, 2006). Individuals now put considerable thoughts into why they work, and where they work, as they become more critical of their career choice and look for deeper and more personal sources of motivation (Ibarra, 1999; Iyengar, Wells, & Schwartz, 2006; Shamir, 1991). This is especially the case for younger professionals entering the job market who care not only about the cash rewards they get from their work (e.g., the annual bonuses and spot awards), but also the non-cash rewards, such as additional time off, vacations, skill training, and sense of meaning and purpose (Perez, 2014; Rafter, 2017; Schweyer, 2017; Smith & Aaker, 2013; Whillans et al., 2016). In this light, they appear to strive to work for organizations in which they feel their contribution makes a difference and is recognized amongst their colleagues, peers, and supervisors (Van Dyke & Ryan, 2012).

In this perspective, many experts in the field and study of compensation

practices agree that managers could play a critical role in driving employee reward and recognition programs (Campbell, Campbell & Chia, 1998; Gupta & Shaw, 2014; Gerhart & Fang, 2014). As the competition to attract and retain high performing employees becomes a growing concern, organizations realize more and more how important it has become for them to offer rewards in a way that conveys genuine appreciation and recognition to employees to ensure their perenity (Ariely, 2016; Chen & Fu, 2011; Larson, 2017; Rischer, 2014). Highlighting this, a survey by the American Psychological Association (2016) found that only half the employees surveyed felt they were appreciated in their workplace and that their contribution were recognized. Consequently, there is a need for a developing a better understanding as to how to foster meaning and purpose at work, which includes identifying ways for organizations to convey recognition and appreciation to employees as part of their total reward strategies (Baetan & Verwaeren, 2012; Brown & Reilley, 2013; McMullen, 2013; White, 2017).

This then ties in with the argument that organizations could try to leverage other types of rewards that are not necessarily based on cash or that have a value that extends beyond money, as these may be more likely to be perceived as conveying genuine recognition and appreciation. For example, a study by found that employees who received non-cash tangible rewards felt more supported and valued by their organizations, which led them to report better work ethics, including greater in-role efforts and attendance (Silbert, 2005). As originally intended, the current findings strengthen the general claim that money in and of itself has little value when taken in isolation, and that it is the social construct surrounding it, and its instrumentality in achieving other goals such as buying and spending that provides it a desirable nature (Mahoney, 1991; Mickel & Baron, 2008; Zelizer, 1989; Whillans et al., 2016). To this point, in our modern-day economy, money is a necessity as a minimum amount is required to ensure that basic life necessities are acquired and financial stress and strain is alleviated (Bijleveld & Aarts, 2014; Carter, 2014; Diener & Diener-Biswas, 2002; Lea & Webley, 2014; Mogilner et al. 2018).

Hence, leveraging alternative forms of rewards in the workplace may have the advantage of fostering stronger and more positive associations between the employer, or organization, and the employee, by creating opportunities for greater emotional attachment to the organization offering a valuable, personalized, and meaningful reward such as trips or skills training (Jeffrey, 2017; Jeffrey & Shaffer, 2007; Kelly, 2017; Schaffer & Arkes, 2009). At the same time, the alternative forms of rewards may help prevent employees from cognitively associating the cash rewards to their regular salary, and avoid one of the downfalls of using money as a commodity, devoid of personal attachment to the source, and used for utilitarian purposes such as everyday purchases, paying utilities and buying groceries (Dunn & Norton, 2014; Presslee, 2017). To this point, cash rewards perceived in more transactional ways may be experienced as less memorable and thus be less likely to be positively associated with employees' pscychological experience at work and outside of work (Allen, Shore, & Griffeth, 2003; Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). Alternatives forms of workplace rewards may be more likely to be perceived and experienced as actual gifts on behalf of employers, due to their distinctive, unique personalized nature, and be less likely to lead to habituation (Pressley, 2017; Kelly, 2017; Schweyer, 2018; Winter-Palmer, 2013). Finally, this would suggests that rewards of all types, whether they be cash or non-cash rewards, should aim at sparking positive affective reactions in employees (Ariely, 2016; Chen & Fu, 2011; Larson, 2017; Rischer, 2014). The better employers understand what motivates their employees to work and the better aligned their workplace reward strategies are to their employees' psychological needs, the more appealing and effective these reward strategies should be in fostering employees' optimal and healthy functioning in their workplace (Parsons, 2017; Blank & Schweyer, 2017).

In conjunction with the current findings, arguments and claims such as the one just raised also point to the importance of providing managers with the appropriate training and resources to be able to take on what has been described as a "critical" role, and convey genuine appreciation and recognition when leading reward initiatives

(Golstick & Elton, 2009). Giving cash rewards in a way that conveys recognition and appreciation is a complex relational task (White, 2017). This can be done in a variety of ways, such as publicly or privately, in a written or verbal form, on an individual or collective basis, to acknowledge overall or specific contribution. Furthermore, due to its highly relational nature, and in line with the findings in the current research, it could be argued that giving cash rewards should be done in a careful and thoughtful way to be experienced and perceived as informative (and by extension, genuine and authentic), rather than instrumental, transactional, and controlling to employees. With so many components, offering any type of rewards, indiscriminant of its form or value, would appear to be no simple task, and the present findings suggests that there may be a growing need to better study, identify, understand, and implement specific managerial behaviors when giving out rewards at work to improve the likelihood of them being perceived by employees as informative.

Consistent with the current findings, training managers to give cash rewards to employees in a way that fulfills employees' basic psychological needs would appear to be a relevant extension, with broad implications for the workplace, of the present thesis.The next step to this research should therefore begin with the investigation and identification of the specific managerial practices and styles associated with greater perceptions of workplace rewards as informative, instead of controlling, that positively contribute to employees' psychological needs for competence, autonomy, and relatedness, in the hopes of eventually contributing to the design of workplace interventions. To do so, much research from SDT conducted in other settings such as sports, education, and healthcare (Amorose, & Anderson-Butcher, 2007; Reeve, 2006; Stebbings et al., 2011; Vansteenkiste et al., 2005), and to some extent in the workplace (e.g., Deci et al., 1989; Hardré & Reeve, 2009) offers guidelines in terms behaviors and attitudes to adopt when seeking an autonomy-supportive style, as opposed to a controlling style.

Upon further research, and provided that empirical evidence is found for the positive association between managers' autonomy-supportive style, including informative cash rewards, and employees' feelings of recognition and optimal functioning in the workplace, interventions could then be designed on the basis of the literature on the best practices to provide feedback in hierarchical relationships, whether it be at work between supervisors and employees, in sports between coaches and athletes, at school between teachers and students, or at home between parents and children (e.g., Burney & Moore, 2015; Deci et al., 1989; Deci & Ryan, 1985; Humphrey et al., 2007; Mouratidis et al., 2010; Ryan, 1982; Willyerd, 2014). As an exemple, many studies have found that feedback based on individual consideration and observable facts, communicated with empathy and respect, and offering alternatives and choices is associated with superiors' autonomy-supportive style and generally associated with better subordinate outcomes (e.g., Carpentier & Mageau, 2013, 2016).

3. Limitations and future research

This doctoral research provides a first step into better understanding how cash rewards can be presented and perceived in a way such as to foster healthy and sustainable motivation, as well as positively contribute to greater thriving in the workplace. Nonetheless, it rests solely on cross-sectional data reported directly from employees at a single point in time during their employment. To this point, in the current thesis, there were no objective measures of employees' functioning to indicate whether (or not) motivation and work ethics endorsed by employees at the time they were surveyed led to any concrete, quantifiable, and/or observable returns for their organizations.

Additionally, since the concept of functional meaning rests on employees' perceptions of the cash rewards offered in their workplace, this research only constitutes preliminary evidence of the concept's relevance and applicability to the workplace. As mentioned in previous sections, the current investigation did not consider the antecedents of the informative and controlling meanings of cash reward;

hence, future studies should look into concrete ways that organizations can use to ensure that the cash rewards they offer are perceived as informative, and not controlling. As briefly alluded to in previous sections, this would entail, but not be limited to, testing different framings of cash rewards to convey specifically encouragement, support, and recognition for good work (as hypothesized to be indicators of an informative meaning), instead of heightened pressure, control, and contingencies (as hypothesized to be indicators of a controlling meaning). This also highlights the possibility that there may exist some limits to the malleability of the functional meaning that cash rewards can take on. More precisely, there may be specificities, in some industries for example, where compensation practices have come to reflect requirements of the said industry or sector, such as in sales and retail where commissions are more often seen as being highly contingent on performance, rendering these cash rewards more likely to being perceived as controlling.

Furthermore, this thesis focused on a single compensation practice, namely the use of cash rewards, to ensure the feasibility and completion of the research program as part of the PhD requirement. However, the reality of the workplace is much richer and complex as there exists a broad spectrum of workplace tangible and intangible, cash and non-cash rewards, and research on this in industrial and organizational psychology is scarce (Whillans et al., 2016; Schweyer, 2018). Indeed, as stated at many different occasions, reward programs in modern society have trememdously evolved in the last decade and now include not only cash rewards like bonuses, spot awards, and stock options, but also cash-like rewards such as pre-paid cash cards and gift cards, non-cash tangible rewards like merchandise and luxury goods, and intangible rewards such as flexible work options, skill training and developmental opportunities (Brown, & Reilly, 2013; Hackman & Oldham, 1976; Morrell, 2011; Spreitzer, Bacevine, & Garrett, 2015; Srivastava, 2012; Tims, Bakker, & Derks, 2013). As illustrated by the long list above, the different types of rewards offered by organizations are growing by the day and recent trends in the market are increasingly talking about "total reward

strategies", consisting of broad varieties of cash and non-cash, tangible and intangible rewards, rather than solely base pay.

In this light, future research should investigate these total reward strategies to understand how to best choose the specific types of rewards that organizations should include in their reward programs, and more importantly, as mentioned before, to ensure that these rewards are perceived as informative, contribute to satisfying employees' psychological needs, and ultimately, generate a healthily motivated workforce. The need for additional research to understand the antecedents of an informative meaning of rewards such as distributive justice, pay transparency and pay equity, and to disentangle how specific types of rewards may influence employees is further justified by the fact that total reward strategies constitute a core determinant of the quality of organizations' workforce (Highhouse, Brooks-Laber, Lin & Spitzmuller, 2003; Messersmith, Guthrie, Ji & Lee, 2011). Studies show that applicants and employees alike consider the plethora of workplace rewards when deciding for which organizations to work. Hence, total reward strategies and reward programs matter for prospective and current employees' decision-making process, thus supporting the necessity for field research aimed at understanding which and how reward types, and combinations of rewards, influence workers' attitudes and intentions to stay or to leave their organization (e.g., Ali & Ahmed, 2009; Danish & Usman, 2010; Riddell, 2011; Schneider, 1987; Way, Lepak, Fay, & Acker, 2010).

In line with this suggestion, one of the next steps should be to delve into how specific types of rewards offered as part of total reward strategies can be used to foster employees' psychological need satisfaction (in other words, what contributes to the informative meaning of workplace rewards of all types) and, conversely identify if some types of rewards risk thwarting employees' psychological need satisfaction (i.e., what contributes to the controlling meaning of workplace rewards of all types). Research comparing not only *specific types* of cash and non-cash rewards, such as tangible rewards like gift certificates, vouchers, luxury goods, and products, and non-tangible rewards such as flexible work hours, skill development and training and the

likes, but also *modes and ways* of presentating, framing, positioning, allocating and distributing these rewards may reveal significant differences, and/or potential interactions between types of rewards and processes, on employees' psychological needs for competence, autonomy, and relatedness, and subsequent workplace experience and thriving.

In a similar vein, more robust experimental testing should be conducted in the field, in order to provide ecologically valid results. Field experiments assessing actual changes in employees' attitudes and behaviors would provide more convincing empirical evidence of the importance of the functional meaning of workplace rewards. Moreover, in line with suggestions stemming from meta-analytic studies (e.g., Cerasoli et al,, 2014, Weibel et al., 2010), field experiments could take into consideration not only parameters related to the rewards offered, for instance specific contigencies (i.e. engagement-contingent, completion-contingent, and performance-contingent rewards) but also parameters related to work outcomes such as the qualitative and quantitative dimensions of employee performance.

In line with the previous point, since employees' work attitudes and behaviours take time to develop and can fluctuate over time (Boudrias, Gaudreau, Savoie, & Morin, 2009; Boudrias, Morin, & Lajoie, 2014; Chandler & Connell, 1987; Gillet et al., 2012; Guay et al., 2010; Guzman & Kingston; Morin, Maïano, et al., 2011; 2013; Morin, Morizot, Boudrias, & Madore, 2011; Morin, Rodriguez et al., 2012; Sheldon et al., 2006), longitudinal studies spanning over several months and years, and conducted in the field, across many organizations and industries, are needed. Longitudinal designs with baseline measures of employees' subjective intentions and objective outputs taken at the onset of reward programs, followed by close monitoring throughout the programs' duration, would provide much richer insight as to how employees' psychological needs, autonomous and controlled motivation, psychological health, affective commitment, and work ethics, unfold over time in relation to the rewards offered in their workplace. In contrast with cross-sectional studies, these more robust and intensive study designs would allow to investigate in

more depth the internal, psychological processes at the employees' individual level, such as psychological need satisfaction, that then generate quantifiable returns that organizations care about. For example, with such design, the field would get closer to understanding how employees' experience of their workplace influences not only their desire to stay, or conversely their turnover intentions, but also whether or not employees actually provide more in-role and extra-role effort with time, beyond purely reporting such positive work ethics. This may also provide some insight as to how workplace rewards influence turnover intentions, and how different types of commitment, namely affective, continuance and normative commitment, may play into this relation and fluctuate accordingly. For instance, perceiving cash rewards as informative may enhance affective commitment as the current findings indicate, but not the other types of commitment, while perceiving cash rewards as controlling may show the opposite pattern.

Finally, future research should expand onto studying workplace recognition and explicitly investigate the relation between workplace rewards and employees' feelings of recognition. In the current doctoral research, it was assumed that the informative meaning of cash rewards stemmed from employees perceiving these rewards as tokens of appreciation on behalf of employers, and that it was this perception that conferred an informative meaning to the cash rewards. However, future studies should investigate more closely how employees derive feelings of being supported, encouraged, appreciated, and recognized in their workplace through the rewards they get, and how this then influences their experience and desire to engage in their organization. Just as some types of rewards may foster greater psychological need satisfaction, some types of rewards may contribute to a greater extent to employees' feelings of recognition. Studying this would be of considerable value for both theoretical and practical reasons as in North America, close to 20% workers report feeling a lack of recognition for their contribution, and close to 40% report being willing to work harder if they felt greater recognition for their contribution (Achor, 2016). Such additional research would then contribute to the SDT literature in other settings on the benefits of adopting autonomy-

supportive interpersonal styles, instead of controlling styles, which suggests that controlling styles may be associated with more immediate returns and outcomes such as immediate increases in performance, whereas autonomy-supportive styles may be associated with better outcomes on the longer run such as increased trust, collaboration, security, and other less tangible benefits. In this light, research on this matter could provide additional argument in favor of the intangible, longer-term benefits of training managers to adopt autonomy-supportive styles with their employees to enhance employees' experience and functioning in their workplace.

CONCLUSION

The findings from this doctoral research contribute to the lingering debate surrounding the role and importance of cash rewards offered in the workplace, and suggest that using such rewards is not inherently beneficial or detrimental for employees, but rather varies based on the functional meaning that these rewards take on in their eyes. Indeed, it appears to be the meaning that employees attribute to the cash reward given by their employers that determines the influence of the said reward on their psychological experience and subsequent attitudes and behaviours in their workplace. Cash rewards perceived as coercive and pressuring risk taking on a controlling meaning, leading them to be negatively associated with employees' psychological needs for competence, autonomy, and relatedness. On the other hand, cash rewards perceived as encouraging and supportive are more likely to take on an informative meaning and positively contribute those same needs. The extent to which employees feel that their psychological needs are fulfilled or thwarted then influences the type of motivation they experience at work (autonomous vs controlled), as well as their psychological health, their work ethics and their organizational commitment.

This research is one of the first to show that by conceptualizing workplace cash rewards through an SDT lens, researchers can better understand the psychological process that employees experience when exposed to cash rewards across work settings. By providing empirical evidence for the hypothesized model in five different samples across distinct world regions, this doctoral research lends support to the claim that cash rewards offered in the workplace can positively contribute to employees' psychological needs for competence, autonomy, and relatedness, and be leveraged to foster greater employee functioning and thriving. In terms of its practical implications, the present research points to the importance for organizations to carefully position the cash rewards they use as part of their reward programs since misrepresentation, and conversely misperceptions from employees, of these rewards could prevent them from generating the downstream benefits sought after when using this compensation practice. Indeed, the beneficial effect of financial incentives to motivate employees and

attract potential applicants seems to stem from these workplace cash rewards being perceived as having an informative meaning, i.e., as signaling encouragement and acknowledgment for good work, and as positively contributing to employees' psychological need satisfaction. On the other hand, perceiving those rewards as controlling, i.e., as a means to control and pressure employees into reaching performance goals, would thus risk having a negative influence on employees' experience at work, leading them to feel incompetent, oppressed, and isolated from their colleagues. As a result, such rewards would then be less likely to be efficient motivators and could be associated with suboptimal functioning. If organizations present cash rewards in a way that employees come to perceive them as controlling, they run the risk of missing the point of reward programs since these initiatives are more likely to fall short while less likely to generate the desired outcome.

In this perspective, the current findings suggest that organizational leaders, managers, and human resource practitioners should focus on presenting workplace cash rewards in a way that conveys an informative meaning and that contributes to fulfilling employees' basic psychological needs. Specifically, the current research suggests that as long as workplace cash rewards are perceived as token of appreciation and encouragement and satisfy employees' psychological needs for competence, autonomy, and relatedness, they can positively contribute to employees' optimal functioning and thriving in their workplace. This can further benefit organizations in reaching the over-arching outcomes that they value, namely greater work ethics, commitment and retention. Presented in such a way, informative cash rewards - and generally, reward programs - can become valuable and attractive assets for organizations to attract prospective employees and retain current ones. Current findings suggest that employers should give careful thought when elaborating and launching reward programs as to avoid instilling financial incentives and cash rewards simply on the premise that money is a sufficient motivator for their employees.

From these results, it appears that an organization's ability to offer employees more than a transactional relationship based solely on cash rewards and monetary

exchanges devoid of meaning can distinguish organizations from their competitors (Baetan & Verwaeren, 2012; Brown & Reilley, 2013). This resonates with recent observations in the workplace indicating that an increasing number of employees are seeking recognition and appreciation for their work. This then emphasizes the importance for organizations to concentrate their efforts into clearly communicating their intent and providing feedback, as a way of conveying recognition meaning, with the cash rewards that they offer, and suggest leveraging previous research done in other settings in SDT to provide guidance. Designing and rolling out reward programs should be done with forward and strategic thinking, respecting principles layout by SDT, to ensure that the rewards positively contribute to employees' psychological need satisfaction. By so doing, organizations and stakeholders will benefit from the valuable outcomes such as productivity and retention that can arise from employees thriving at work. The present research therefore highlights the importance for organizations to carefully design and position their reward programs. It also points to the need for additional research to better understand the role of different types of rewards included in existing and emerging reward programs on employees' psychological experience and subsequent functioning over time.

APPENDIX A

CONSENT FORMS

FRENCH VERSION

Formulaire de consentement

IDENTIFICATION

Chercheur principal : Anaïs Thibault Landry, doctorante.
Université : Université du Québec à Montréal
Courriel : thibault-landry.Anaïs@courrier.uqam.ca
Superviseur de recherche : Jacques Forest, Ph.D.

BUT GÉNÉRAL DU PROJET

Vous êtes invité(e) à prendre part à un projet de recherche visant à comprendre les attitudes des employés au travail. Ce projet de recherche reçoit l'appui financier du Fonds de recherche sur la société et la culture du Québec.

PROCÉDURE ET TÂCHES DEMANDÉES AU PARTICIPANT

Votre participation consiste à répondre à un court questionnaire en ligne sur vos attitudes au travail (p.ex. motivation, conditions de travail). Répondre aux questions devrait prendre environ 25 minutes.

AVANTAGES ET RISQUES

Il n'y a pas de risque d'inconfort important associé à votre participation à cette rencontre. Vous demeurez libre de ne pas répondre à une question que vous estimez embarrassante, et ce, sans avoir à vous justifier.

ANONYMAT ET CONFIDENTIALITÉ

Il est entendu que les renseignements recueillis dans le cadre de cette étude sont confidentiels et que seuls les membres de l'équipe de recherche auront accès à vos données. Le matériel de recherche ainsi que votre formulaire de consentement seront conservés séparément sous clé au laboratoire du chercheur responsable pour la durée totale du projet. Les données ainsi que les formulaires de consentement seront détruits 5 ans après les dernières publications.

PARTICIPATION VOLONTAIRE

Votre participation à ce projet est volontaire. Cela signifie que vous acceptez de participer au projet sans aucune contrainte ou pression extérieure, et que par ailleurs vous être libre de mettre fin à votre participation en tout temps au cours de cette recherche. Dans ce cas, les données vous concernant seront détruites. De plus, vos réponses aux questions n'affecteront en aucun cas votre emploi.

Votre accord à participer implique également que vous acceptez que l'équipe de recherche puisse utiliser aux fins de la présente recherche (articles, mémoires, thèses, conférences et communications scientifiques) les renseignements recueillis à la condition qu'aucune information permettant de vous identifier ne soit divulguée publiquement.

QUESTIONS SUR LE PROJET OU SUR VOS DROITS

Pour des questions additionnelles sur le projet, sur votre participation et sur vos droits en tant que participant de recherche, ou pour vous retirer du projet, vous pouvez communiquer avec Anaïs Thibault Landry, doctorante, à l'adresse suivante : thibault-landry.Anaïs@courrier.uqam.ca.

Le Comité institutionnel d'éthique de la recherche avec des êtres humains de l'UQAM (CIÉR) a approuvé le projet de recherche auquel vous allez participer. Pour des informations concernant les responsabilités de l'équipe de recherche au plan de l'éthique de la recherche avec des êtres humains ou pour formuler une plainte, vous pouvez contacter la présidence du CIÉR, par l'intermédiaire de son secrétariat au numéro (514) 987-3000 # 7753 ou par courriel à CIEREH@UQAM.CA

REMERCIEMENTS

Votre collaboration est importante pour la réalisation de notre projet et l'équipe de recherche tient à vous en remercier. Si vous souhaitez obtenir un résumé écrit des principaux résultats de cette recherche, veuillez ajouter vos coordonnées ci-dessous.

En sélectionnant « J'accepte de participer à ce projet de recherche »,

1) Je reconnais avoir lu le présent formulaire de consentement et consens volontairement à participer à ce projet de recherche.
2) Je reconnais aussi que le chercheur a répondu à mes questions de manière satisfaisante et que j'ai disposé de suffisamment de temps pour réfléchir à ma décision de participer.
3) Je comprends que ma participation à cette recherche est totalement volontaire et que je peux y mettre fin en tout temps, sans pénalité d'aucune forme, ni justification à donner.

SIGNATURE VIRTUELLE :

[ ] J'accepte de participer à ce projet de recherche
[ ] Je n'accepte pas de participer à ce projet de recherche.

Vous pouvez imprimer un exemplaire du formulaire d'information et de consentement pour les conserver dans vos dossiers.

ENGLISH VERSION

Consent form

IDENTIFICATION

Principal investigator: Anaïs Thibault Landry, PhD student.
University : Université du Québec à Montréal
Email : thibault-landry.Anaïs@courrier.uqam.ca
Other research members : Jacques Forest, Ph.D.

Before participating in this study, it is important that you take the time to read and understand all the information below. If you have any concerns, questions or comments about this research project, please do not hesitate to contact us.

RESEARCH OBJECTIVES

The goal of this study is to understand how different attitudes at work are related to work outcomes. This research project is funded by the Fonds de recherche sur la société et la culture du Québec.

PROCEDURE AND TASKS

The study takes approximately 25 minutes to complete. In this study, you will be asked to provide basic information about yourself (e.g. attitudes, preferences) and your work context (e.g. motivation, commitment).

RISKS

There are no foreseeable risk nor discomfort associated with your participation in this study.

PARTICIPATION AND CONFIDENTIALITY

Participation in this study should be done on a voluntarily basis. There will be no adverse consequence in choosing not to participate in the research project. You should not feel obliged to answer any question that you find objectionable or that makes you feel uncomfortable. You may withdraw your participation in this study at any time without consequence. If you withdraw your participation prior to completing and submitting the survey, all data entered will be permanently removed.
All the information we receive from you will be kept strictly confidential. No one except the research team (Anaïs Thibault Landry and Jacques Forest) will have access to the information you provide. Your name will not appear on any of the forms or

questionnaires nor will it appear in any publication. Please note that information collected during this study (presented as group data and with no identifiable personal information) may be disseminated in presentations at academic meetings, in scientific articles and in articles for the popular media.

LIABILITY CLAUSE

Your participation in this research project does not require that you give up any of your rights nor does it liberate the researchers and the institutions involved from their legal and professional obligations.

ADDITIONAL QUESTIONS OR CONCERNS

If you have any additional questions or concerns about the project, your participation or your rights, you can communicate with Anaïs Thibault Landry (thibault-landry.Anaïs@courrier.uqam.ca)

The Comité institutionnel d'éthique de la recherche avec des êtres humains of the Université du Québec à Montréal has approved the present research project. For any additional information about responsibilities of the research team regarding ethics matter or to formulate a complain, you can contact the president of the Comité through his secretary at (514) 987-3000 # 7753 or at the following email : CIEREH@UQAM.CA

We wish to thank you as your collaboration is important to achieve our team project.

Please print this consent form or save a copy of this page to your computer if you wish to keep a copy.

VIRTUAL SIGNATURE

By checking the box "YES, I AGREE TO PARTICIPATE IN THIS STUDY" below,

a) I certify I have read the previous information regarding the research project;
b) I certify I voluntarily consent to participate in the research project;
c) I understand what is required based on reading the letter of information;
d) I understand that my participation is voluntary and I am free to withdraw at any time.

[ ] YES, I AGREE TO PARTICIPATE IN THIS STUDY
[ ] NO, I DO NOT AGREE TO PARTICIPATE IN THIS STUDY

APPENDIX B

SCALES USED

FRENCH VERSION

FUNCTIONAL MEANING OF CASH REWARDS

Items 1 to 3 from the " Controlling use of rewards Subscale" of the Controlling Coach Behaviour Scale (Bartholomew, Ntoumanis & Thogersen-Ntoumani, 2010)

Items 4 to 7 from the Perceived Autonomy Support Scale For Exercise Settings (Hagger, Chatzisarantis, Hein, Pihu, Soós & Karsai, 2007)

Veuillez indiquer dans quelle mesure vous êtes d'accord ou en désaccord avec chaque énoncé.

1	2	3	4	5	6	7
Fortement en désaccord	En désaccord	Légèrement en désaccord	Ni en accord ni en désaccord	Légèrement en accord	En accord	Fortement en accord

1. Mon superviseur essaie de me motiver en me promettant des récompenses monétaires si je fais bien mon travail.
2. Mon superviseur me donne uniquement des récompenses monétaires pour que je travaille plus fort.
3. Mon superviseur utilise les récompenses monétaires pour que je demeurre concentré(e) au travail.
4. Mon superviseur exprime sa confiance en mes capacités lorsqu'il/elle me donne une récompense monétaire
5. Mon superviseur m'encourage au travail lorsqu'il me donne une récompense monétaire.
6. Mon supervsieur me donne une rétroaction positive lorsqu'il me donne une récompense monétaire.
7. Mon superviseur démontre qu'il tient à moi lorsqu'il me donne une récompense monétaire.

WORK-RELATED BASIC NEED SATISFACTION SCALE

(Van den broeck, Vansteenkiste, De witte, Soenens, & Lens, 2010)

Les énoncés ci-dessous parlent de vos expériences au travail. Veuillez indiquer dans quelle mesure vous êtes en accord avec ces énoncés en indiquant le numéro correspondant à votre opinion.

1	2	3	4	5	6	7
Fortement en désaccord	En désaccord	Légèrement en désaccord	Ni en accord ni en désaccord	Légèrement en accord	En accord	Fortement en accord

1. J'ai le sentiment de pouvoir être moi-même dans mon travail.
2. Mes tâches au travail correspondent à ce que je veux vraiment faire.
3. Je me sens libre de faire mon travail comme je crois qu'il est bon de le faire.
4. Je maîtrise bien les tâches à mon travail.
5. Je me sens capable dans mon travail.
6. Je suis bon(ne) dans les choses que j'ai à faire dans mon travail.
7. J'ai le sentiment de pouvoir accomplir même les tâches les plus difficiles à mon travail.
8. Au travail, j'ai le sentiment de faire partie d'un groupe.
9. Dans mon travail, je peux parler avec d'autres personnes de choses qui sont réellement importantes pour moi.
10. Certaines personnes avec qui je travaille sont de vrais amis.

PSYCHOLOGICAL NEED THWARTING SCALE

(Bartholomew, Ntoumanis, Ryan & Thøgersen-Ntoumani, 2011)

Veuillez indiquer dans quelle mesure vous êtes d'accord ou en désaccord avec chaque énoncé

1	2	3	4	5	6	7
Fortement en désaccord			Ni en accord ni en désaccord			Fortement en accord

1. Je me sens empêché(e) de faire des choix en ce qui concerne la façon dont je fais les choses.
2. Je me sens poussé(e) à me comporter de certaines façons.
3. Je me sens obligé(e) de suivre des décisions qui sont prises pour moi.
4. Je me sens forcé(e) d'être d'accord avec ce que les autres attendent de moi.
5. Il y a des situations qui me font sentir incompétent(e) parce que d'autres m'imposent des attentes irréalistes.
6. Il y a des moments où l'on me dit des choses qui me font sentir incompétent(e)s.
7. Il y a des situations me font sentir inadéquat(e).
8. Je me sens inadéquat(e) parce que l'on ne me donne pas d'opportunités pour réaliser mon plein potentiel.
9. Je me sens rejeté(e) par ceux qui m'entourent.
10. Je sens que les autres peuvent être méprisants envers moi.
11. Je crois que les autres ne m'aiment pas.
12. Je pense que certaines personnes qui m'entourent sont jalouses quand je réussis.

MULTIDIMENSIONAL WORK MOTIVATION SCALE

(Gagné et al., 2014)

Les individus peuvent faire des efforts au travail pour différentes raisons. Ce questionnaire permet de comprendre avec précision ces raisons. Pour chaque proposition qui suit, veuillez indiquer votre degré d'accord en ce qui concerne les différentes raisons qui vous conduisent à déployer des efforts dans votre travail actuel. Nous entendons ici les efforts intellectuels, physiques et mentaux que vous déployez dans votre travail.

1	2	3	4	5	6	7
Pas du tout pour cette raison	Très peu	Un peu	Modéré-ment	Fortement	Très fortement	Exactement pour cette raison

1. Pour les multiples bénéfices que ce travail m'apporte.
2. Parce que je dois être très performant dans ce travail, sinon je me sentirais mal face à moi-même.
3. Parce que cet emploi me permet d'atteindre des buts personnels importants.
4. Parce que j'apprécie beaucoup ce travail.
5. Parce que ce travail me permet d'avoir un certain niveau de vie.
6. Parce que je dois être le meilleur à mon travail, je dois être un " gagnant ".
7. J'ai choisi ce travail parce qu'il me permet d'atteindre mes buts de vie.
8. Parce que ce travail est très intéressant.
9. Parce que cela me permet de faire beaucoup d'argent.
10. Parce que j'aurais honte si je ne réussissais pas dans mon travail.
11. Parce que ce travail comble mes plans de carrière.
12. Parce que je m'amuse en faisant ce travail.
13. Je fais ce travail pour la paie.
14. Parce que mon travail est ma vie et que je ne veux pas échouer.
15. Parce que ce travail correspond à mes valeurs personnelles.
16. Pour les moments de plaisir que ce travail m'apporte.
17. Parce que ce travail m'apporte une sécurité.
18. Parce que ma réputation en dépend.
19. Parce que ce travail a du sens à mes yeux.
20. Pour la joie que je ressens quand je complète des tâches intéressantes dans le cadre de mon travail.

POSITIVE AFFECT AND NEGATIVE AFFECT SCALE

(Gaudreau, Sanchez & Blondin, 2006)

Ce questionnaire contient des adjectifs qui décrivent des sentiments et des émotions. Lisez chacun de ces adjectifs. Pour chacun de ces adjectifs, vous devez indiquer à quel point il décrit comment vous vous sentez au travail. Pour ce faire, vous devez utiliser le choix de réponses suivant :

1	2	3	4	5
Très peu ou pas du tout	Peu	Modérément	Beaucoup	Énormément

1. Fâché
2. Hostile
3. Alerte
4. Honteux
5. Inspiré
6. Nerveux
7. Déterminé
8. Attentif
9. Effrayé
10. Actif

SHIROM-MELAMED BURNOUT SCALE

(Shirom & Melamed, 2006)

Voici des déclarations que vous feriez peut-être si vous vous sentiez mal au travail. Veuillez indiquer combien de fois vous avez ressenti quelques-uns des sentiments proposés, au cours des derniers trente jours de travail.

1	2	3	4	5	6	7
Jamais ou Presque jamais	Très rarement	Assez rarement	Parfois	Assez souvent	Très souvent	Toujours ou Presque toujours

1. Je me sens fatigué(e).
2. Je n'ai pas d'énergie pour aller au travail le matin.
3. Je me sens physiquement épuisé(e).
4. J'en ai assez.
5. Mes batteries sont à plat.
6. Je suis brûlé(e).
7. J'ai le cerveau lent.
8. J'ai du mal à me concentrer.
9. Je n'ai pas les idées claires.
10. Je n'arrive pas à me focaliser sur mes pensées.
11. J'ai de la difficulté à penser les choses complexes.
12. Je pense que je suis incapable d'être à l'écoute des besoins de mes collègues et de mes clients.
13. Je pense que je ne suis pas capable de m'investir émotionnellement avec mes collègues et mes clients.
14. Je pense que je ne suis pas capable d'être sympathique avec mes collègues et mes clients.

WORKPLACE DEVIANCE SCALE - ORGANIZATION SUBSCALE

(Bennett & Robinson, 2000)

À l'aide de l'échelle suivante, veuillez indiquer à quel point vous avez émis les comportements suivants durant la dernière année.

1	2	3	4	5	6	7
Jamais	Une fois par an	Deux fois par an	Plusieurs fois par an	À chaque mois	À chaque semaine	À chaque jour

1. J'ai passé trop de temps à fantasmer ou à révasser plutôt qu'à travailler.
2. J'ai pris des pauses supplémentaires ou plus longues que ce qui est acceptable au travail.
3. Je suis arrivé(e) en retard au travail sans autorisation.
4. J'ai négligé de suivre les instructions de mon superviseur.
5. J'ai intentionnellement travailler plus lentement que ce que je suis capable.
6. J'ai mis peu d'efforts dans mon travail.

QUESTIONS SOCIODEMOGRAPHIQUES

Veuillez s'il-vous-plaît répondre aux questions suivantes concernant votre situation actuelle.

1. Quel âge avez-vous? _____

2. Quel est votre sexe?
   - Femme
   - Homme

3. Quel est le titre de votre emploi ?

4. Depuis combien de temps travaillez-vous pour votre employeur actuel ?
_____ ans et _____ mois

5. Dans quel secteur travaillez-vous?
   - Secteur public
   - Secteur privé, organisme à but lucratif
   - Secteur privé, organisme à but non-lucratif

6. Quel est le montant de votre salaire brut (avant impôts), incluant toute forme de rémunération y compris les bonus provenant de votre employeur.
_____$ / an

7. Quel type de salaire avez-vous?
   - Salaire fixe
   - Salaire variable

8. Combien d'heures travaillez-vous par semaine?
   - 35 heures et plus
   - Entre 25 et 34 heures
   - Entre 15 et 24 heures
   - Moins de 15 heures

9. Quel est votre diplôme obtenu le plus élevé?
   - Aucun/Sans diplôme d'études secondaires
   - Diplôme d'études secondaires
   - Diplôme de formation professionnelle/DEP
   - Diplôme d'études collégiales (DEC)
   - Baccalauréat
   - Maîtrise
   - Doctorat

ENGLISH VERSION

FUNCTIONAL MEANING OF CASH REWARDS

Items 1 to 3 from the "Controlling use of rewards Subscale" of the Controlling Coach Behaviour Scale (Bartholomew, Ntoumanis & Thogersen-Ntoumani, 2010)

Items 4 to 7 from the Perceived Autonomy Support Scale For Exercise Settings (Hagger, Chatzisarantis, Hein, Pihu, Soós & Karsai, 2007)

Indicate to what extent you agree with the following statements. Use the following scale to record your answers.

1	2	3	4	5	6	7
Strongly disagree			Neither agree nor disagree			Strongly agree

1. My boss tries to motivate me by promising to reward me financially if I do well.
2. The only reason my boss rewards me financially is to make me work harder.
3. My boss only uses cash rewards so that I stay focused on tasks during work
4. My boss displays confidence in my ability to work when he gives me a cash reward.
5. My boss encourages me to work when he gives me a cash reward
6. My boss provides me with positive feedback when he gives me a cash reward
7. My cares about my work when he gives me a cash reward.

WORK-RELATED BASIC NEED SATISFACTION SCALE

(Van den Broeck, Vansteenkiste, De witte, Soenens, & Lens, 2010)

The following statements concern your experiences at work. Please indicate to what extent you agree with these statements.

1	2	3	4	5	6	7
Strongly disagree			Neither agree nor disagree			Strongly agree

1. I feel like I can be myself at my job.
2. The tasks I have to do at work are in line with what I really want to do.
3. I feel free to do my job the way I think it could best be done.
4. I really master my tasks at my job.
5. I feel competent at my job.
6. I am good at the things I do in my job.
7. I have the feeling that I can even accomplish the most difficult tasks at work.
8. At work, I feel part of a group.
9. At work, I can talk with people about things that really matter to me.
10. Some people I work with are close friends of mine.

PSYCHOLOGICAL NEED THWARTING SCALE

(Bartholomew, Ntoumanis, Ryan & Thøgersen-Ntoumani, 2011)

The following statements concern your experiences at work. Please indicate to what extent you agree with these statements.

1	2	3	4	5	6	7
Strongly disagree			Neither agree nor disagree			Strongly agree

In my work . . .

1. I feel prevented from making choices with regard to the way I work
2. I feel pushed to behave in certain ways.
3. I feel obliged to follow work decisions made for me.
4. I feel under pressure to agree with the work regimen I am provided.
5. There are occasions where I feel incompetent because others impose unrealistic expectations upon me.
6. There are times when I am told things that make me feel incompetent.
7. There are situations where I am made to feel inadequate.
8. I feel inadequate because I am not given opportunities to fulfill my potential.
9. I feel I am rejected by those around me.
10. I feel others can be dismissive of me.
11. I feel other people dislike me.
12. I feel some of the coworkers around me are envious when I achieve success.

MULTIDIMENSIONAL WORK MOTIVATION SCALE

(Gagné et al.., 2014)

Using the scale below, please indicate for each of the following statements to what degree they presently correspond to one of the reasons for which you are DOIng this specific job. Why do you or would you put efforts into your current job?

1	2	3	4	5	6	7
Not at all	Very little	À little	Moderately	Strongly	Very strongly	Completely

1. For the various fringe benefits this job provides.
2. Because I really ought to be very good at this job or I would feel down on myself.
3. Because this job allows me to attain important personal goals that I have.
4. Because I enjoy this work very much.
5. Because this job affords me a certain standard of living.
6. Because I have to be the best in my job, I have to be a 'winner'.
7. I chose this job because it allows me to reach my life goals.
8. Because this job is very interesting.
9. Because it allows me to make a lot of money.
10. Because I would feel ashamed if I did not succeed at this job.
11. Because this job fulfills my career plans.
12. Because I have fun DOIng my job.
13. I do this job for the pay-check.
14. Because my work is my life and I don't want to fail.
15. Because this job fits my personal values.
16. For the moments of pleasure that this job brings me
17. Because this job provides security.
18. Because my reputation depends on it.
19. Because this job is personally meaningful to me.
20. For the joy I feel while DOIng interesting tasks as part of this job.

POSITIVE AFFECT AND NEGATIVE AFFECT SCALE – SHORT FORM

(Watson, Clark & Tellegen, 1988)

This scale consists of a number of words that describe different feelings and emotions. Please read each item. Indicate to what extent you feel this way at work. Use the following scale to record your answers.

1	2	3	4	5
Not at all	Very little	À little	Moderately	Strongly

1. Upset
2. Hostile
3. Alert
4. Ashamed
5. Inspired
6. Nervous
7. Determined
8. Attentive
9. Afraid
10. Active

WORK COMMITMENT – AFFECTIVE COMMITMENT

(Allen & Meyer, 1990)

Indicate to what extent you agree with the following statements. Use the following scale to record your answers.

1	2	3	4	5	6	7
Strongly disagree			Neither agree nor disagree			Strongly agree

1. I would be very happy to spend the rest of my career with this organization.
2. I enjoy discussing my organization with people outside it.
3. I really feel as if this organization's problems are my own.
4. I think that I could easily become as attached to another organization as I am to this one.
5. This organization has a great deal of personal meaning for me.
6. I do not feel a strong sense of belonging to my organization.

WORK INTENTION INVENTORY

(Zigarmi, Nimon, Houson, Witt, & Diehl, 2012)

Intention to stay in the organization Subscale – items 1 to 3
Intention to use discretionary efforts Subscale – items 4 to 6
Intention to use OCBs Subscale – items 7 to 9

To what extent do the following statement reflect how you intend to behave while performing within your organization?

1	2	3	4	5	6
To no extent	To a litlle extent	To some extent	To a great extent	To a very great extent	To the fullest extent

1. I intent to stay with this organization even if offered a more appealing job elsewhere.
2. I intend to continue to work here because I believe it is the best decision for me.
3. I intend to stay with this organization even if I were offered a similar job with slightly higher pay elsewhere.
4. I intend to volunteer for things that may not be a part of my job.
5. I intend to take home work when I know it will make me more effective the next day.
6. I intend to spend my discretionary time finding information that will help this organization.
7. I intend to respect this organization's assets.
8. I intend to consider the impact of my own actions on others in this organization.
9. I intent to watch out for the welfare of others at work.

SOCIODEMOGRAPHIC QUESTIONS

1. How old are you ?
   (Please enter the number of years.) _____

2. What is your gender ?
   - ☐ Male
   - ☐ Female
   - ☐ Other

3. What is your job title? _____

4. How long have you been working for your current employer? _____years _____ months

5. What is your salary before income taxes (i.e including stocks, shares, cash, insurance, etc)?
   (Enter your salary in dollars per YEAR.) _____

6. How would you describe your pay system?
   - ☐ Fix pay ratio
   - ☐ Variable pay ratio

7. What level of education have you completed?
   - ☐ Elementary school
   - ☐ High school
   - ☐ Collegiate
   - ☐ Undergraduate
   - ☐ Graduate

8. How many hours do you spend at work per WEEK?
   - ☐ 35 hours or more
   - ☐ Between 25 and 34 hours
   - ☐ Between 15 and 24 hours
   - ☐ Less than 15 hours

9. In which type of organization do you work?
   - ☐ Public organization
   - ☐ Parapublic organization
   - ☐ Small or medium private business
   - ☐ Large private entreprise
   - ☐ Non-profit organization
   - ☐ Autonomus worker

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