

Better Leveraging Monetary Rewards in the 21st Century Workplace Using Self-determination Theory

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Abstract

The purpose of this article is to understand how to better leverage monetary rewards at work using Self-Determination Theory (SDT). According to SDT research, employees can ascribe different functional meaning to monetary rewards. When rewards take on an informative meaning, they positively contribute to employees' basic psychological needs, leading to greater autonomous motivation, and better work outcomes, while when presented in a coercive way they negatively contribute to employees' basic psychological needs because they lead to greater controlled motivation. We propose that employers need to better understand employees' attributes, consider alternative forms of rewards and provide communication training, in order to better satisfy employees' psychological needs and avoid the negative outcomes of controlling monetary rewards. Our research contributes to the understanding of both employers' and employees' experience of workplace cash rewards and explores theoretical avenues on how rewards in modern work contexts need to be functionally contextualized by personal, organizational and cultural factors (e.g., the functional meaning of rewards, basic needs satisfaction).

Keywords: self-determination theory, meaning of monetary rewards, psychological needs, motivation, work outcomes

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1. INTRODUCTION: MONETARY REWARDS IN THE 21ST CENTURY

Compensation represents the single largest organizational cost in many industries. To illustrate, U.S. companies allocate more than one fifth of their budgets to wages and salaries, spending between \$38 and \$77 billion on cash rewards and incentives each year (Cancialosi, 2014). In this light, companies spend a major portion of their operating budget on compensation (salary, benefits, bonuses and other rewards, etc.) as they seek to attract, motivate, and retain top performing employees (Patnaik & Suar, 2019). However, human resource managers and reward professionals are often puzzled by the failure of reward strategies to increase productivity, boost job satisfaction, and enhance company performance (Kornelakis, 2018). Moreover, while the focus in the past seems to have been solely on the extrinsic function of money and financial payments, including monetary rewards, it now seems necessary to adjust perspectives as the new trends on the job markets have gradually turned to an intrinsic focus on incentives and motivation (Chen & Hsieh, 2006).

While earning a salary is fundamentally the basic premise for employment and monetary rewards are undeniably an important aspect of any employment relationship, such extrinsic monetary rewards have been critiqued for their 'hidden costs', such as a decline in the quality of the services provided (Qian & He, 2018), the reduced volitional behavior of intrinsically-motivated workers (Gerhart & Fang, 2015; Georgellis et al., 2011), and lower satisfaction with the work itself - especially when such rewards are provided 'ex-ante' for attaining specific standards of performance (Balkin et al, 2015). These findings support the notion of a motivational shift, in which a person's enjoyment of and interest in doing work they like (otherwise called intrinsic motivation) is replaced with a less powerful motivation to do the work in pursuit of an external reward (Frey & Jegen, 2001; Krug & Braver, 2014).

Many studies also suggest that monetary rewards that are contingent on performance enhance one's satisfaction with having a job that requires positive customer service (Grandey et al., 2013) and other studies provide evidence regarding the strong positive effects of extrinsic rewards, including instances of increased performance quality in complex tasks (e.g. Garbers & Konradt, 2014). On this point, several meta-analyses provide mixed results, suggesting more nuanced effects of monetary rewards on employees (e.g., Cerasoli, Nicklin, & Ford, 2014; Jenkins et al., 1998).

Thus, it is of relevance to use motivational theories to understand the meaning employees give to their monetary rewards and how this determines their behavior (Zhang, Hsee, & Yu, 2018). Taking all these research directions into account, the purpose of this article is twofold: First, we discuss the motivational power of monetary rewards using the lens of Self-Determination Theory (SDT; Ryan & Deci, 2000a), a motivational theory positing that if individuals' innate psychological needs for competence, relatedness, and autonomy are satisfied, optimal functioning and growth are likely to be achieved. Second, we formulate four suggestions to better align and leverage informative monetary rewards in the current reality of our 21st century workplace.

Our study contributes to the literature and the application of findings in the following ways. First, we contribute to the study of rewards in the workplace by providing concrete recommendations that have taken into account all relevant research studies. SDT research has consistently shown that whether rewards have a positive effect, no effect, or a negative effect on intrinsic motivation depends on their functional significance, which is influenced by the type of reward contingency, the type of rewards (positive feedback versus tangible rewards) and the interpersonal context within which they are administered (autonomy-supportive versus controlling) (Gerhart & Fang, 2015, Pink, 2009, Gagné & Forest, 2008; Moller & Deci, 2014; Olafsen et al., 2015; Deci, Olafsen, & Ryan, 2017; Thibault Landry et al., 2017, 2019) Nevertheless, while this is well documented, organizations have not utilized these findings since there is a lack of a conceptual framework of what to think and what to do while applying new approaches to reward strategies. Second, we summarize findings regarding the functional meaning of rewards, which is a matter of high theoretical and practical importance. A series of findings suggests that rewards can have a distinct effect on individuals' motivation and performance, depending on whether they take on a need- supportive or controlling meaning (e.g., Thibault Landry, Forest, Zigarmi, Houson, & Boucher, 2017; Thibault Landry, Zhang, Papachristopoulos, & Forest, 2019, Black & Deci, 2000; Grolnick & Ryan, 1989; Joussemet, Koestner, Lekes, & Houliort, 2004; Soenens, Vansteenkiste, Duriez, & Goossens, 2006; Williams & Deci, 1996). In this vein, we propose future avenues in terms of how the functional meaning of rewards can be incorporated in both research efforts as well as practical implications. Third, we provide a framework on how methodological concerns (e.g. SDT research to a great extent has solely made use of correlational cross-sectional designs) regarding rewards and SDT related research can be improved in the future.

2. MONETARY REWARDS THROUGH THE LENS OF SELF-DETERMINATION THEORY

One possible reason that influences monetary rewards' effect on employees' work attitudes and behavior could be that individuals may engage in an activity based on different motivations, either for the external, financial gain, or for its own sake and enjoyment (Frey & Jegen, 2001; Krug & Braver, 2014). Self-Determination Theory (SDT; Ryan & Deci, 2000a), an empirically derived theory of human motivation that differentiates motivation in qualitative terms as ranging from autonomous to controlled, can provide a theoretical lens to guide us in understanding the inconsistencies across research findings on the effectiveness of monetary rewards on employees' work outcomes. According to SDT, autonomous motivation is comprised of intrinsic and identified motivation. Controlled motivation, on the other hand, is comprised of extrinsic and introjected motivation (Deci & Ryan, 2000). Individuals are said to have autonomous motivation when they partake in an activity for fun (intrinsic motivation) and when they view it as in line with their values and identity (identified motivation). The inclusion of identified motivation is especially important when it comes to the workplace. Indeed, identified motivation (Bureau et al., 2018) would appear to be key when considering employee motivation since individuals' work is not solely comprised of tasks that are fun. On this point, any job is likely to have components that are less fun and intrinsically enjoyable, but that, nonetheless, are valuable and need to be completed. In this light, it is very likely that individuals would develop identified motivation for their job. Individuals are said to have controlled motivation when their participation is externally driven and instrumental in making gains (extrinsic motivation), avoiding punishment, alleviating feelings of guilt, or satisfying their ego (introjected motivation). The inclusion of introjected motivation is also important in the context of work, since many individuals on the job market are likely to take on jobs out of pride and reputation, and judge their work based on ego, guilt, or shame (Moran, Diefendorff, Kim, & Liu, 2012).

In addition to conceiving motivation in more nuanced, qualitative ways (i.e., autonomous and controlled motivation), a central assumption of SDT (Deci & Ryan, 2000) is that employee attitudes and behaviors are dependent on whether the activities they engage in - at work, in this case - contribute to the satisfaction of their three basic psychological needs for competence, autonomy, and relatedness. For competence, individuals must feel that they have all the skills required so as to influence their environment and achieve their goals (Deci & Ryan, 2000a). For autonomy, individuals have to feel that the activity they are pursuing is congruent with their personal values and have a sense of volition when exercising it (Sheldon & Bettencourt, 2002). For relatedness, individuals need to feel that they are and can be emotionally connected to other people in their (work) environment (Baumeister & Leary, 1995).

According to the theory, and supported by much empirical evidence collected over the span of 40 years across the globe, these three basic psychological needs can be more or less fulfilled depending on the context, and greater satisfaction of these needs generally leads to better outcomes (Ryan & Deci, 2008). Existing research conducted with workers occupying a wide range of positions in a variety of organizations and industries throughout the world supports SDT and shows that greater psychological need satisfaction at work is associated with more optimal functioning, as indicated by greater autonomous motivation, performance, affective commitment, job satisfaction, and psychological health (e.g., Ryan, Bernstein, & Brown, 2010; Trépanier, Forest, Fernet, & Austin, 2015; Vansteenkiste et al., 2007; Van den Broeck et al., 2008; Van den Broeck et al., 2016).

On the flip side of need satisfaction is need frustration. Studies investigating the role of psychological needs in individuals' lives 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 this is due to them feeling incompetent at what they are doing (i.e., competence need frustration), being coerced into behaving in a certain way (i.e., autonomy need frustration), or being rejected by their peers (i.e., relatedness need frustration), they typically experience more negative and suboptimal 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 et al., 2012; Trépanier et al., 2015; Van den Broeck et al., 2010). These negative employee attitudes in turn lead to negative employee behaviors, including lower performance (Van den Broeck et al., 2010), greater deviant behavior (Bureau et al., 2018), fewer prosocial, collaborative, and extracurricular efforts, such as lending assistance to colleagues, sharing information and knowledge, volunteering at the office, and participating in team initiatives (e.g., Bureau et al., 2018; Thibault-Landry et al., 2017).

SDT assumes that factors which facilitate need satisfaction may help mitigate the undermining effect of monetary rewards, creating the appropriate supportive conditions in which performance-contingent rewards can enhance, rather than crowd out, intrinsic motivation (Ryan & Deci, 2018). Such

supportive factors include, but are not limited to, perceived organizational support (Gillet et al., 2012), perceived supervisor autonomy support (Gillet et al., 2012), and the perceived meaning and usefulness of the job (Kosfeld, Neckermann, & Yang, 2017).

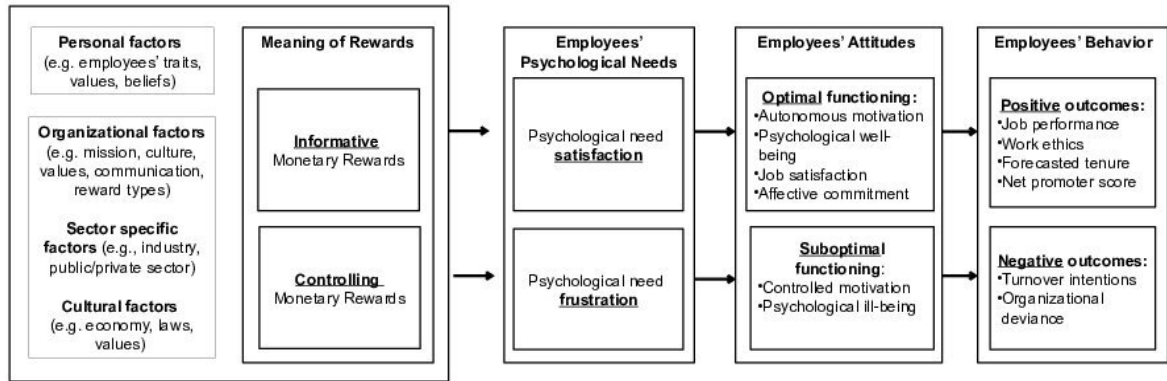
According to SDT, on the one hand, when employees feel their needs are satisfied, they are likely to be motivated and demonstrate desirable attitudes and behaviors. On the other hand, when employees feel their needs are frustrated, they are less likely to be motivated and demonstrate suboptimal attitudes and behaviors. So, the question becomes, when employees are presented with monetary rewards, do these rewards satisfy or thwart their needs and, as a result, lead to different attitudes and behaviors at work, thus explaining the inconsistent findings observed in the compensation literature so far? Research has shown that monetary rewards could have different functional meanings. Monetary rewards can be perceived as informative when presented in a supportive way so as to encourage individuals' efforts and participation in the activity, and convey appreciation and acknowledgement of their contribution. Thus, when monetary rewards are perceived as informative, they may positively contribute to employees' psychological needs (Gagné & Deci, 2005; Moller & Deci, 2014; Thibault-Landry et al., 2017; 2019a; Tremblay, Blanchard, Taylor, Pelletier, & Villeneuve, 2009). Conversely, monetary rewards can be perceived as controlling when presented in an oppressive, constraining way that pressures employees and emphasizes the performance goals that need to be reached (Deci et al., 1989; Kuvaas, Buch, & Dysvik, 2018). Hence, when monetary rewards are perceived as controlling, they may hamper psychological needs.

Thibault-Landry and her colleagues (2017; 2019a; 2019b) empirically tested these SDT-postulates, exploring the functional meaning of monetary rewards, and investigating how and why monetary rewards perceived as having an informative meaning and those perceived as having a controlling meaning could lead to different employee psychological experiences and functioning at work. They found empirical evidence that when it comes to informative monetary rewards, perceiving monetary rewards as informative appeared to be associated not only with feeling meaningfully connected, competent, and (even more so) autonomous at work, but they could potentially buffer against feelings of incompetence, oppression, and rejection in the workplace, thus leading to optimal functioning at work (Thibault-Landry et al. 2019a). When it comes to controlling rewards, their results suggest that perceiving monetary rewards as controlling is associated with more negative psychological experience in the workplace, beyond feeling restricted, to feeling actively pressured and coerced into behaving in certain ways at work, thus leading to suboptimal functioning at work (Thibault-Landry et al., 2019a). As explained by Ryan and Deci (2018), "performance-contingent rewards have a strong risk of having controlling functional significance insofar as one feels pressured to meet an externally specified standard to get the reward" (p.133). This type of controlling significance implies that employees no longer feel in control of the tasks that they consider important, but rather begin to shift their attention to those tasks that would dictate their reward allocation.

In the same stream of research, Thibault-Landry and her colleagues (2017; 2019a) found evidence of a significant association between the functional meaning of monetary rewards and employees' psychological needs, including specifically the need for relatedness. This suggests that monetary rewards can have an effect on one's sense of belonging and connection to others at work. This is consistent with past research findings linking monetary rewards with collaboration and teamwork, helping explain why, under some circumstances. That is, when perceived as controlling, monetary rewards can be associated with less cooperation amongst peers and colleagues, as well as a lower likelihood of engaging in pro-social behaviors like helping others. Further corroborating this, Papachristopoulos and Xanthopoulou (2019) found that relatedness need satisfaction moderated the relation between the informative and controlling meaning of rewards and deviant behavior in such a way that both meanings of monetary rewards related positively to deviant behavior under conditions of low relatedness need satisfaction, while they were unrelated to deviant behavior under conditions of high relatedness need satisfaction.

This emphasizes the point that offering a monetary 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. More specifically, together, these findings suggest that it is the functional meaning (informative or controlling) and the recipient's interpretation of the reward, not the reward itself, which can have motivating or de-motivating effects (Thibault-Landry et al., 2017; 2019b). Hence, for monetary rewards to be efficient tools to motivate employees in healthy and optimal ways, there has to be a genuine intent on behalf of the giver (i.e., the employer or the manager), and such an intent needs to be perceived by the recipient (i.e., the employees).

Figure 1: An SDT model explaining how to better leverage monetary rewards



3. THE NATURE OF REWARDS AND WORK OUTCOMES: SOME THEORETICAL AND PRACTICAL PROPOSALS

Monetary rewards can bring optimal or sub-optimal outcomes from employees based on the functional meaning of rewards for employees. How can organizations ensure that the monetary rewards they offer to employees are perceived as informative, and not controlling, in order to achieve the optimal outcomes? Such factors or boundary conditions may stem from the giver, the receiver or the social contexts. In Figure 1 a summary is provided regarding the research findings above as well as the potential factors and boundary conditions for the effectiveness of rewards.

3.1 The Employee

Given that employees' perceptions determine the functional meaning of monetary rewards, it is important to understand employees' predispositions, biases, and personality traits as they may influence whether employees perceive monetary rewards as informative or controlling. Indeed, given the same culture and the same organization, employees tend to interpret external events differently based on their personality, beliefs, values, and orientations (Jacobsen et al., 2014).

For example, personality traits such as individual trait competitiveness (the enjoyment of interpersonal competition and the desire to win and be better than others; Gläser & Van Quaquebeke, 2017; Spence & Helmreich, 1983), and beliefs such as the financial contingency of self-worth (the extent to which individuals base their self-worth on their financial success; Park, Ward, & Naragon-Gainey, 2017) and self-efficacy beliefs (the extent to which individuals believe in their own abilities to overcome situations; Bandura, 2010) may influence the way employees perceive and interpret the monetary rewards presented to them. On this point, research has shown that employees' self-efficacy beliefs positively affect the way they perceive their workplace monetary rewards (Bandura, 2010). Greater self-efficacy beliefs could buffer against perceiving monetary rewards as controlling, thus mitigating against the potential negative effects of such a practice (Park & Yang 2017). Research has also shown that employees with high financially contingent self-worth experienced less autonomy at work and perceived financial problems more negatively and employees with such beliefs may perceive monetary rewards to be more controlling (Park et al., 2017). On a related note, Gläser and Van Quaquebeke (2017) argued that pay for performance may increase employees' interpersonal deviance, particularly when employees are high in individual competitiveness.

Organizations should also take into account employees' personal characteristics, such as their extrinsic or intrinsic work values, and their causality orientations (the tendency to perceive actions as originating from the self) (Deci & Ryan, 1985). Extrinsic work values focus on the consequences or outcomes of work—the tangible rewards external to the individual, such as income, advancement opportunities, and status. In contrast, intrinsic work values focus on the process of work—the intangible rewards that reflect the inherent interest in the work, the learning potential, and the opportunity to be creative. (Ryan & Deci, 2000; Kasser, 2016; Twenge, Campbell, Hoffman, & Lance, 2010). Studies have reported that person-specific orientations towards autonomy and self-initiation tend to protect employees from the negative impact of performance-contingent rewards on intrinsic motivation (Hagger & Chatzisarantis, 2011, p.485). As such, Hagger and Chatzisarantis (2011) showed that causality orientations towards autonomy - as opposed to control - could effectively mitigate against the risk of suboptimal work behavior upon the use of rewards.

Last but not least, in light of today's increasingly age-diverse workforces, organizations face the challenges of fostering job satisfaction among both younger and older workers. Due to age-related differences in motives and career goals, younger versus older employees' job satisfaction vary differently in line with monetary rewards (Kollmann, Stöckmann, Kensbock, & Peschl, 2020). Kollmann and his colleagues (2020) suggest that there can be no "one size fits all" monetary reward approach to satisfy both younger and older employees (cf., Hornung, Rousseau, Weigl, Mueller, & Glaser, 2014). Researchers (Kollmann et al., 2020; Stone & Deadrick, 2015) have further indicated that based on the differential value and interpretation that younger and older employees place on monetary and non-monetary rewards, aligning reward and compensation systems with the values of the age-diverse workforces can be an effective way for organizations to attract, motivate, and retain age-diverse workforces.

3.2 The Type of Rewards

Employees nowadays put considerable thought into why they are working, what they are working in, and where they are working, as they have become more critical of their career choice and are looking 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 monetary rewards they get from their work (e.g., the annual bonuses and spot awards), but also the non-monetary rewards, such as additional time off, vacations, skill training, and a sense of meaning and purpose (Schweyer, Thibault-Landry, & Whillans, 2018. ; Esfahani Smith & Aaker, 2013; Whillans et al., 2016). While younger employees value recognition from peers and organizations, they also highly value autonomy at work and they might perceive the contingencies for some type of rewards as more controlling (Morell & Abston, 2018). Therefore, organizations should try to consider alternative forms of rewards that fulfill employees' needs for competence, autonomy, and relatedness. For example, organizations may leverage other types of rewards that are not necessarily based on money or that have a value that extends beyond money, as these may be more likely to be perceived as conveying genuine recognition and appreciation. Non-monetary rewards such as flexible work hours, paid and unpaid leave, skill development, a choice of assignments can thus be considered to avoid the drawbacks that come with more traditional forms of monetary rewards and may better fulfill their basic psychological needs (Thibault-Landry & Whillans, 2018).

Recent studies looking at non-monetary rewards, including gift certificates, travel, and luxury goods and products, suggest that they may better convey appreciation and sincerity than monetary rewards (e.g., Kelly, Presslee, & Webb, 2017). These forms of rewards are said to avoid "mental accounting" (Thaler, 1999), in which employees subconsciously deposit monetary rewards into "mental" accounts to pay routine bills, as these non-monetary rewards are consumed in fun, memorable ways, creating positive associations with the giver – the employer- which triggers a reciprocity effect, causing higher engagement and commitment to the organization. Of course, the efficiency of non-monetary rewards to palliate some of the problems associated with monetary rewards applies only to the extent that these non-monetary rewards are used in a different way, and not simply as an alternative commodity prone to the same setbacks as cash (such as in points systems). If used in a similar tit-for-tat mentality, non-monetary rewards based on points systems rewarding "good" behavior may have the same effect as monetary rewards used as carrots. Hence, replacing one with the other would most probably not solve the problems encountered when rewarding specific behaviors at work with money.

Presented more appropriately as a gift, non-monetary rewards may help foster stronger, positive associations between the employer and the employee, by creating opportunities for greater emotional attachment to the organization (Kelly et al., 2017). In a similar vein, researchers (e.g., Frey & Gallus, 2017; Gallus & Frey, 2017) also argue that rewards, ranging from the "employee of the month" title to prizes, decorations, orders, and other honors, even if they are purely symbolic without having significant monetary value, can significantly raise employee performance. Indeed, Bruni, Pelligra, Reggiani, and Rizzolli (2019) found that while both monetary and non-monetary rewards can increase employees' motivation to perform when presented publicly, only non-monetary rewards crowd-in intrinsic motivation and promote virtuous attitudes. Thus, organizations should leverage other types of rewards that are not necessarily based on cash or that have a value that extends beyond money and research should be conducted to test how different types of rewards can take on either informative or controlling meanings. This would help organizations, as increasing numbers of workers report their interest in both the tangible and financial benefits they get from their work (e.g., their salary), and the intangible benefits and rewards such as career advancement and promotions, meaning and purpose, a positive workplace culture, and alignment with their own values, aspirations and identities (Thibault-Landry et al., 2019b).

3.3 The Organizational Context

Most importantly, giving monetary rewards in a way that conveys recognition and appreciation is a complex relational task (White, 2017). Thus, the key players in the allocation and distribution of monetary rewards are the managers (as the givers). This points to the importance of managers in representing the organization. They act as significant leaders in their workplace, department, or unit, to whom employees turn in order to decipher and understand the norms, and rules of conduct (Bass, 1999). As such, they embody organizational values and build the workplace culture (e.g. Danna & Griffin, 1998; Rynes, Gerhart & Parks, 2005). Managers thus need be mindful of the way they treat their employees, given that this could have a considerable impact at different scales, including on the unit's work climate, the organization's culture, and, more broadly, the employer's image (Bass, 1990). This points 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 (Gostick & Elton, 2009).

Much research underscores the importance of employees' relationships with their immediate supervisors, whether it be in their daily experience of the workplace, or ultimately, in their decision to commit to and stay in the organization. For example, employees who experience more positive relationships with their managers report greater commitment to their organization and are less likely to quit their job, whereas the opposite appears to be true for employees who experience more negative relationships with their managers (Kang, Gatling, & Kim, 2015). Many studies corroborate this, showing that employees' trust in their managers, and positive perceptions of their treatment at work, are positively associated with their commitment to the organization and well-being at work, thus indicating how crucial managers are in how employees perceive rewards (e.g., Kelley et al., 2017; Wang & Yang, 2016).

From this perspective, similar to sports, where coaches' styles influence athletes' outcomes, in education, where parents and teachers influence children's behavior, and in healthcare, where caregivers, doctors, nurses and the like have a direct effect on patients' health and treatment adherence, managers have a direct influence on how monetary rewards are communicated and presented to employees, that is, in an autonomy-supportive or controlling way, and thus they significantly influence their perceptions of such rewards. Hence, it would be important to train managers to adopt an autonomy-supportive communication style – rather than a controlling one: take into account employees' psychological needs (Aguinis, Joo, & Gottredson, 2013) and foster quality relationships with their employees, so that employees are more likely to perceive the functional meaning of monetary rewards as informative rather than controlling.

Research from SDT offers guidelines in terms of the behaviors and attitudes for managers to adopt when seeking an autonomy-supportive communication style, as opposed to a controlling style. This includes: fostering inner sources of motivation, relying on non-controlling language, providing explanation and rationales, and acknowledging and accepting negative experiences and affect (e.g., Deci et al., 1989; Hardré & Reeves, 2009). In the specific case of reward programs, managers can support employees' psychological needs for autonomy by asking them for their perspective and providing a meaningful rationale when alternative choices are not possible. They can also support employees' need for competence by setting an optimal level of challenge (i.e., a realistic level aligned with employees' skills) without just focusing on ex-ante bonuses. On the other hand, by setting unrealistically high expectations, managers can undermine employees' sense of competence, even when rewards are possible and/or of high value. Managers can also support employees' relatedness needs by acknowledging feelings that are associated with rewards (e.g., "Do you feel fairly paid?") and by creating a context that does not threaten their need for connection (e.g., heightened competition, low transparency, fairness, or controllability). So far, the studies conducted in the workplace show that training managers is possible and leads managers to exhibit a more autonomy-supportive style, which then leads employees to report more autonomous motivation and workplace engagement (e.g., Deci et al., 1989; Hardré & Reeves, 2009). Ensuring that managers get adequate training and use an autonomy-supportive communication style with their employees can thus be a useful tool to create the necessary conditions for performance-contingent rewards to enhance, rather than crowd out, intrinsic motivation (Ryan and Deci, 2018).

3.4 The Cultural Context

Having established the interactional nature between employers as reward givers and employees as reward receivers, factors related to the workplace itself could influence the extent to which employees perceive rewards as informative or controlling (e.g., Cerasoli et al., 2014; Deci et al., 1999a; Deci & Ryan 1980; Gagné & Forest, 2008; Olafsen et al., 2015). Indeed, a study completed under an Incentive Research Foundation (IRF) grant (Kelly, Presslee, & Webb, 2017) studied the effects of performance-

contingent monetary rewards presented within distinct workplace culture conditions in organizations. Where monetary rewards were used in positive workplace cultures featuring employee inclusion, high trust, and autonomy, the rewards were perceived more positively, thus suggesting an informative meaning. On the other hand, where the workplace culture was less progressive, and even coercive (i.e., command & control style management, hierarchical, distrusting), the rewards were perceived more negatively, thus suggesting a manipulative and controlling meaning.

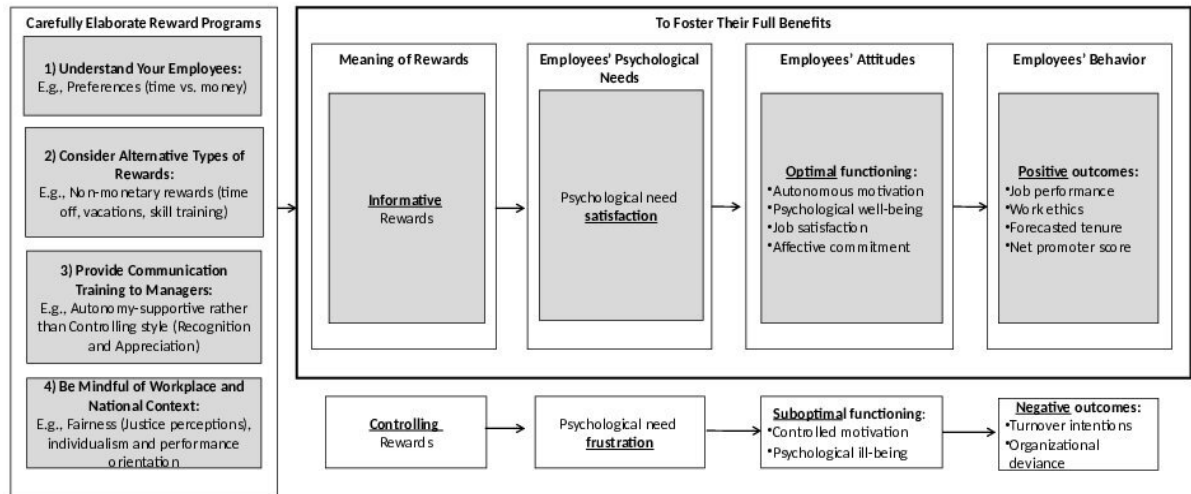
In a similar vein, the workplace culture could further encompass justice perceptions related to the process of reward allocation and distribution. To this end, one way to ensure procedural justice and thus increase the probability that monetary rewards are perceived as informative, rather than controlling, would be to maintain a credible linkage between performance and rewards. Employees want to know what to expect, and how fairness will be ensured (Rasher, 2014). Research shows that when employees are involved in the planning process and their opinions are considered, especially when problems surface, they are more likely to feel performance expectations are fair, feel committed to achieving the plans and look for constructive feedback and advice as the year unfolds (Rasher, 2014). This thus prevents any negative expectations or surprises at the end of the year - as the notion of procedural justice encompasses the entire process from the beginning of the year when performance plans are elaborated until the year-end discussion of development plans, salary increases, and bonus awards. In doing so, employees' needs for competence, relatedness, and autonomy are more likely to be satisfied and, as a result, monetary rewards are more likely to be perceived as informative.

The workplace culture can further be tainted by the glocalization of the organization. National culture might thus influence the degree to which monetary rewards are perceived as informative or controlling, since research shows that cultural dimensions systematically relate to differences in preferences for reward types, systems, and criteria as well as the occurrence of practices (Papalexandris & Panayotopoulou, 2004; Schuler and Rogovsky, 1998; Chiang & Birtch, 2007). For example, Nadeem, Raza, Kayani, Aziz, and Nayab (2018) indicated that monetary rewards, especially contingent compensation, are perceived differently by employees in different cultures. Similarly, rewards based on individual performance were found to be favored and perceived as self-fulfilling (informative) in cultures with high individualism and high-performance orientation (Chiang, Lemanski, & Birtch, 2017). Workplace rewards may also be perceived differently based on the distribution of power and/or the power-distance cultural background of the employees (e.g., Hofstede, 1980; Moe et al. 2018). Hence, cross-cultural scholars (e.g., Gelfand, Aycan, Erez, & Kwon, 2017) have recently urged both researchers and practitioners to explore the meaning of "universal" (i.e., etics) versus "culturally embedded" (i.e., emics) HR practices, as employees may attribute different meaning toward the same HR practices (i.e., rewards and compensation, performance evaluation). On this point, the motivational effects of pay systems should further be considered in a poly-contextual approach since cultural differences may also be confounded with the national legal restrictions and the economic/ institutional context (Tsui et al., 2007).

Finally, the organization's culture can reflect the nature of the organization, whether it is for profit or not-for-profit, and this is likely to have an impact on the use and perception of monetary rewards (Vansteenkiste, Ryan, & Soenens, 2020). Indeed, studies have shown that employees in public organizations tend to value lower-powered incentive structures and intrinsic rewards to a greater extent than those in the private sector (Crewson, 1997; Perry et al., 2010). Illustrating this, in for-profit organizations, compensation is more likely to be based on the entire organization's performance, and promotion is more likely to be based on the unit's performance, which may increase the expectation that managers will be aggressive in pushing their people to accomplish organizational goals (Bailey & Risher, 1996).

To be competitive, for profit organizations are more likely to signal controlling monetary rewards instead of informative monetary rewards. On the other hand, not-for-profit organizations are more likely to offer rewards that fulfill individual values and psychological needs. For example, for-profit organizations may be more likely to utilize monetary and/or tangible rewards, such as prizes and money, to reinforce the importance of performance and achievement, while not-for-profit organizations may be more likely to use non-monetary and/or intangible rewards, such as social impact, distinctions, and honors. The not-for-profit sector typically operates under different missions, motives and values, and realities than for-profit organizations. For example, they are usually devoted to social goals that diverge from those of for-profit organizations, and they may not face the competitive pressures felt by for-profit organizations. In short, practitioners in for-profit organizations may want to pay more attention to the above proposals to avoid the pitfalls of monetary rewards given the riskier landscape and different competitive environment of for-profit organizations. See Figure 2 for a summary of our suggestion about how to carefully elaborate reward programs.

Figure 2. Proposals for leveraging informative monetary rewards



4. FUTURE RESEARCH AVENUES

This current article has provided some suggestions both on a theoretical and practical level regarding a more functional way of providing rewards in the light of SDT related research findings. Recent articles (e.g., Olafsen & Deci, 2020, Deci, Olafsen & Ryan, 2017) have made suggestions for future research in terms of rewards strategy (e.g., examining how tangible rewards and pay affect the internalization of regulations for work behaviors) and in this current study we aimed at integrating these aspects in both a theoretical and applied way. In the previous section we highlighted the four pillars that future research and practice need to focus on so that rewards can play their role in an ever-changing work environment. With a more horizontal approach, this research suggests that more intervention studies (e.g., Lundmark, von Thiele Schwarz, Hasson, Stenling, & Tafvelin, 2018, Kuvaas et al., 2016) should be applied in the rewards domain in order to relate the functional significance of various pay contingencies to motivations and work outcomes. Moreover, future research needs to reconcile inconsistencies in the literature by considering particular conditions under which performance contingent incentives may effectively sustain motivation in the workplace (Corduneanu, Dudau & Kominis, 2020). On the same lines, since the functional meaning of rewards concept has lately attracted a great deal of interest (Thibault Landry et al., 2019, 2017) more research in the field is needed to investigate how monetary rewards are presented in the workplace, including how organizations present reward programs to their employees and to identify the best way to leverage monetary rewards to foster an informative meaning and intrinsic as well as identified motivation. Last but not least, SDT scholars should contribute so that the basic SDT model for rewards in the workplace should gain more confidence and nuance as well as theoretical establishment, with longitudinal studies (e.g., Fernet et al., 2019), multilevel studies (e.g., Gagné, Morin, et al., 2019) and relevant meta-analyses and metanalytic reports (e.g., Slemp et al., 2018, Deci, Olafsen & Ryan, 2017).

5. CONCLUSION

The current article aimed at strengthening 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, that is, its meaning, that provides it with a desirable nature. As such, we reviewed evidence for organizations to help better leverage their reward initiatives, and ensure that the rewards they offer to their employees are perceived as informative, rather than controlling. We argue that by better understanding employees' attributes, considering alternative forms of rewards, providing communication training to managers, and being mindful of the workplace and national context, organizations will be more likely to address employees' desires, drive optimal workplace functioning, and face the reality of the 21st century. Indeed, the reality of the workplace is becoming increasingly complex as there exists a broad spectrum of workplace tangible and intangible, monetary and non-monetary rewards. Reward programs in modern society are fast evolving and can now include much more solely base pay and monetary rewards like bonuses and stock options, but also cash-like rewards such as gift cards, non-monetary tangible rewards like luxury goods, and intangible rewards such as flexible work options.

With so many components, offering any type of reward, irrespective of its form or value, would appear to be no simple task, there is a growing need to better study, identify, understand, and implement specific organizational practices when giving out rewards at work to improve the likelihood of them being perceived by employees as informative. To remain on top of our field, we need to study these total reward strategies to help organizations best choose the specific types of rewards to include in their reward programs, and more importantly to ensure that these rewards are perceived as informative, contribute to satisfying employees' psychological needs, and, ultimately, generate a healthily motivated workforce.

REFERENCES

- Aguinis, H., Joo, H., & Gottredson, R. K. (2013). What monetary rewards can and cannot do: How to show employees the money. *Business Horizons*, 56, 241-249.
- Bailey, S. B., & Risher, H. (1996). "If the foot fits": Not-for-Profits Try Out New Compensation Plans: Not-for-profits are borrowing compensation plan designs from the for-profit sector. Here's a look at how some of these new pay concepts might fit. *Compensation & Benefits Review*, 28(3), 47-57.
- Balkin, D.B., Roussel, P. and Werner, S., (2015). Performance contingent pay and autonomy: Implications for facilitating extra-role creativity. *Human Resource Management Review*, 25(4), pp.384-395.
- Bandura, A. (2010). Self-efficacy. *The Corsini encyclopedia of psychology*, 1-3.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European journal of work and organizational psychology*, 8(1), 9-32.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological bulletin*, 117(3), 497-529.
- Black, A. E., & Deci, E. L. (2000). The effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: A self-determination theory perspective. *Science education*, 84(6), 740-756
- Bruni, L., Pelligra, V., Reggiani, T., & Rizzolli, M. (2019). The Pied Piper: Prizes, Incentives, and Motivation Crowding-in. *Journal of Business Ethics*, 1-16.
- Bureau, J. S., Mageau, G. A., Morin, A. J. S., Forest, J., Gagné, M., Papachristopoulos, K., Lucas, A., Thibault Landry, A., & Parenteau, C. (2018). Promoting autonomy to reduce employee deviance: The mediating role of identified motivation. *International Journal of Business and Management*, 20(2), 227-240.
- Cancialosi, C. (2014, June 7). The dark side of bonus and incentive programs. Forbes. Retrieved from <https://www.forbes.com/sites/grouphink/2014/06/07/the-dark-side-of-bonus-and-incentive-programs/#50a99cf2756d>
- Cerasoli, C. P., Nicklin, J. M., & Ford, M. T. (2014). Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-Year meta-analysis. *Psychological Bulletin*, 140(4), 980-1008.
- Chen, H. M., & Hsieh, Y. H. (2006). Key trends of the total reward system in the 21st century. *Compensation & Benefits Review*, 38(6), 64-70.
- Chiang, F. F. T., Lemanski, M. K., & Birtch, T. A. (2017). The transfer and diffusion of HRM practices within MNCs: lessons learned and future research direction. *International Journal of Human Resource Management*, 28(1), 234-258.
- Chiang, F.F.T., Birtch, T.A. (2007) The transferability of management practices: examining cross-national differences in reward preferences. *Human Relations*, 60 (9), 1293–1330.
- Corduneanu, R., Dudau, A. and Kominiis, G. (2020) Crowding-in or crowding-out: the contribution of self-determination theory to public service motivation. *Public Management Review*, 22(7), pp. 1070-1089.
- Crewson, P.E. (1997). Public-service motivation : building empirical evidence of incidence and effect. *Journal of Public Administration Research and Theory*, 7(4), 499-518.

- Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of management*, 25(3), 357-384.
- Deci, E. L., & Ryan, R. M. (1980). The empirical exploration of intrinsic motivational processes. In *Advances in experimental social psychology* (Vol. 13, pp. 39-80). Academic Press.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological inquiry*, 11(4), 227-268.
- Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology*, 74(4), 580-590.
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999a). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, 125(6), 627-668.
- Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organizations: The state of a science. *Annual Review of Organizational Psychology and Organizational Behavior*, 4, 19-43.
- Deci, E., L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Springer Science & Business Media.
- Desrumaux, P., Lapointe, D., Sima, M. N., Boudrias, J. S., Savoie, A., & Brunet, L. (2015). The impact of job demands, climate, and optimism on well-being and distress at work: What are the mediating effects of basic psychological need satisfaction? *Revue Européenne De Psychologie Appliquée/European Review of Applied Psychology*, 65(4), 179-188.
- Esfahani Smith, E., & Aaker, J. L. (2013). Millennial searchers. *The New York Times*.
- Fernet, C., Litalien, D., Morin, A. J. S., Austin, S., Gagné, M., Lavoie-Tremblay, M., & Forest, J. (2019). On the temporal stability of self-determined work motivation profiles: A latent transition analysis. *European Journal of Work and Organizational Psychology*, 29(1), 49-63.
- Frey, B. S., & Gallus, J. (2017). *Honours versus money: The economics of awards*. Oxford: Oxford University Press.
- Frey, B. S., & Jegen, R. (2001). Motivation crowding theory. *Journal of economic surveys*, 15(5), 589-611.
- Gagné, M., & Forest, J. (2008). The study of compensation systems through the lens of self-determination theory: Reconciling 35 years of debate. *Canadian Psychology/Psychologie Canadienne*, 49(3), 225-232.
- Gagné, M., Morin, A.J.S., Schabram, K. *et al.* Uncovering Relations Between Leadership Perceptions and Motivation Under Different Organizational Contexts: a Multilevel Cross-lagged Analysis. *J Bus Psychol* 35, 713-732 (2020).
- Gaines, J. (2016, October 11). Why are baby boomers staying employed? *Cornell HR Review*. Retrieved from Cornell University, ILR School site: <http://digitalcommons.ilr.cornell.edu/chrr/92>
- Gallus, J., & Frey, B. S. (2017). Awards as Strategic Signals. *Journal of Management Inquiry*, 26(1), 76-85.
- Garbers, Y. and Konradt, U., (2014). The effect of financial incentives on performance: A quantitative review of individual and team-based financial incentives. *Journal of occupational and organizational psychology*, 87(1), pp.102-137.
- Gelfand, M. J., Aycan, Z., Erez, M., & Leung, K. (2017). Cross-cultural industrial organizational psychology and organizational behavior: A hundred-year journey. *Journal of Applied Psychology*, 102(3), 514-529.
- Georgellis, Y., Iossa, E. and Tabvum, V. (2011). Crowding out Public Service Motivation. *Journal of Public Administration Research and Theory*, 21(3), pp.473-493.
- Gerhart, B., & Fang, M. (2014). Pay for (individual) performance: Issues, claims, evidence and the role of sorting effects. *Human Resource Management Review*, 24(1), 41-52
- Gerhart, B., & Fang, M. (2015). Pay, intrinsic motivation, extrinsic motivation, performance, and creativity in the workplace: Revisiting long-held beliefs. *Annual Review of Organizational Psychology and Organizational Behaviour*, 2(1), 489-521.
- Gillet, N., Fouquereau, E., Forest, J., Brunault, P., & Colombat, P. (2012). The impact of organizational factors on psychological needs and their relations with well-being. *Journal of Business and Psychology*, 27(4), 437-450.

- Gostick, A., & Elton, C. (2009). *The invisible employee: Using carrots to see the hidden potential in everyone*. Hoboken, NJ: John Wiley & Sons.
- Grandey, A.A., Chi, N.W. and Diamond, J.A., (2013). Show me the money! Do financial rewards for performance enhance or undermine the satisfaction from emotional labor?. *Personnel Psychology*, 66(3), pp.569-612.
- Hardré, P. L., & Reeve, J. (2009). Training corporate managers to adopt a more autonomy-supportive motivating style toward employees: an intervention study. *International Journal of Training and Development*, 13(3), 165-184.
- Hornung, S., Rousseau, D. M., Weigl, M., Mueller, A., & Glaser, J. (2014). Redesigning work through idiosyncratic deals. *European Journal of Work and Organizational Psychology*, 23(4), 608–626.
- Jacobsen, C.B., Hvitved, J. and Andersen, L.B., (2014). Command and motivation: How the perception of external interventions relates to intrinsic motivation and public service motivation. *Public Administration*, 92(4), pp.790-806.
- Jenkins Jr, G. D., Mitra, A., Gupta, N., & Shaw, J. D. (1998). Are financial incentives related to performance? A meta-analytic review of empirical research. *Journal of Applied Psychology*, 83(5), 777-787.
- Joussemet, M., Koestner, R., Lekes, N., & Houliort, N. (2004). Introducing uninteresting tasks to children: A comparison of the effects of rewards and autonomy support. *Journal of Personality*, 72(1), 139-166
- Kang, H. J., Gatling, A., & Kim, J. (2015). The impact of supervisory support on organizational commitment, career satisfaction, and turnover intention for hospitality frontline employees. *Journal of Human Resources in Hospitality & Tourism*, 14(1), 68-89.
- Kelly, K., Presslee, A., & Webb, A. (2017). The effects of tangible rewards versus cash rewards in consecutive sales tournaments: A field experiment. *The Accounting Review*, 92 (6): 165-185.
- Kollmann, T., Stöckmann, C., Kensbock, J. M., & Peschl, A. (2020). What satisfies younger versus older employees, and why? An aging perspective on equity theory to explain interactive effects of employee age, monetary rewards, and task contributions on job satisfaction. *Human Resource Management*, 59(1), 101-115.
- Kornelakis, A. (2018). Why are your reward strategies not working? The role of shareholder value, country context, and employee voice. *Business Horizons*, 61(1), 107-113.
- Kornelakis, A., (2018). Why Are Your Reward Strategies Not Working? The Role of Shareholder Value, Country Context, and Employee Voice. *Business Horizons*, 61 (1), 107-113.
- Kosfeld, M., Neckermann, S., & Yang, X. (2017). The effects of financial and recognition incentives across work contexts: The role of meaning. *Economic Inquiry*, 55(1), 237-247.
- Krug, M. K., & Braver, T. S. (2014). Motivation and cognitive control: Going beyond monetary incentives. In E. Bijleveld & H. Aarts (Eds) *The Psychological Science of Money* (pp. 137-162). New York : Springer.
- Kuvaas, B., Buch, R., & Dysvik, A. (2018, July). Individual variable pay for performance, incentive effects, and employee motivation. In *annual meeting of the Academy of Management, Chicago, USA*.
- Kuvaas, B., Buch, R., Gagné, M., Dysvik, A., & Forest, J. (2016). Do you get what you pay for? Sales incentives and implications for motivation and changes in turnover intention and work effort. *Motivation and Emotion*, 40(5), 667–680.
- Lazear, E. P. (2000). *Performance pay and productivity* (No. w5672). National bureau of economic research.
- Lundmark, R., von Thiele Schwarz, U., Hasson, H., Stenling, A., & Tafvelin, S. (2018). Making it fit: Associations of line managers' behaviours with the outcomes of an organizational-level intervention. *Stress and Health*, 34(1), 163–174.
- Moller, A. C., & Deci, E. L. (2014). The psychology of getting paid: An integrated perspective. In E. Bijleveld & H. Aarts (Eds.), *The psychological science of money* (pp. 137-162). New York, NY: Springer.
- Moller, A. C., & Deci, E. L. (2014). The psychology of getting paid: An integrated perspective. In E. Bijleveld & H. Aarts (Eds.), *The psychological science of money* (pp. 189–211). New York: Springer.

- Morrell, D. L., & Abston, K. A. (2018). Millennial Motivation Issues Related to Compensation and Benefits: Suggestions for Improved Retention. *Compensation & Benefits Review*, 50(2), 107–113.
- Olafsen, A. H., Halvari, H., Forest, J., & Deci, E. L. (2015). Show them the money? The role of pay, managerial need support, and justice in a self-determination theory model of intrinsic work motivation. *Scandinavian journal of psychology*, 56(4), 447-457
- Olafsen, A.H., & Deci, E.L. (2020). Self-determination theory and its relation to organizations. In *Oxford Research Encyclopedia of Psychology, Methods and Approaches in Psychology, Organizational and Institutional Psychology*.
- Olafsen, A.H., Niemiec, C.P., Halvari, H., Deci, E.L. and Williams, G.C., (2017). On the dark side of work: a longitudinal analysis using self-determination theory. *European Journal of Work and Organizational Psychology*, 26(2), pp.275-285.
- Papachristopoulos, K., & Xanthopoulou, D. (2019). Functional meaning of rewards and interpersonal deviance in the workplace: The moderating role of basic psychological needs satisfaction. *Int. Journal of Business Science and Applied Management*, 14(1), 1-16.
- Papalexandris, N. and Panayotopoulou, L. (2004) Exploring the mutual interaction of societal culture and human resource management practices: evidence from 19 countries. *Employee Relations*, 26 (5), 495–509.
- Park, J. & Yang, J., (2017). Performance-contingent rewards and self-efficacy: Moderating effects of timing of reward determination and performance standards. Retrieved from <https://ssrn.com/abstract=2956232>.
- Park, L. E., Ward, D. E., & Naragon-Gainey, K. (2017). It's all about the money (for some): Consequences of Financially Contingent Self-Worth. *Personality and Social Psychology Bulletin*, 43(5), 601–622.
- Patnaik, P., & Suar, D. (2019). Analyses of publications on compensation management from 2004 to 2017. *Compensation & Benefits Review*, 51(2), 55–76.
- Perry, J. L., Hondeghem, A., & Wise, L. R. (2010). Revisiting the motivational bases of public service: Twenty years of research and an agenda for the future. *Public Administration Review*, 70(5), 681–690.
- Pink, D. H. (2009). *Drive: The surprising truth about what motivates us*. New York, NY : Riverhead Books
- Qian, J. and He, A.J., (2018). The bonus scheme, motivation crowding-out and quality of the doctor-patient encounters in Chinese public hospitals. *Public Organization Review*, 18(2), pp.143-158.
- Ryan, R. M., & Deci, E. L. (2000a). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68-78.
- Ryan, R. M., & Deci, E. L. (2000b). When rewards compete with nature: The undermining of intrinsic motivation and self-regulation. Dans C. Sansone & J. M. Harackiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance* (p. 13-54). New York: Academic Press.
- Ryan, R. M., Weinstein, N., Bernstein, J., Brown, K. W., Mistretta, L., & Gagne, M. (2010). Vitalizing effects of being outdoors and in nature. *Journal of Environmental Psychology*, 30(2), 159-168.
- Rynes, S. L., Gerhart, B., & Parks, L. (2005). Personnel psychology: Performance evaluation and pay for performance. *Annual. Review of Psychology*, 56, 571-600.
- Schweyer, A., A. Thibault-Landry, and A. Whillans. (2018). Establishing the intangible, non-financial value of awards programs. *Incentive Research Foundation*. Retrieved from <https://sitecdn.perfectgift.com/wp-content/uploads/2018/06/part-2-min.pdf>
- Sheldon, K. M., & Bettencourt, B. A. (2002). Psychological need-satisfaction and subjective well-being within social groups. *British Journal of Social Psychology*, 41(1), 25-38.
- Shuck, B., Zigarmi, D., & Owen, J. (2015). Psychological needs, engagement, and work intentions: A Bayesian multi-measurement mediation approach and implications for HRD. *European Journal of Training and Development*, 39(1), 2-21.
- Soenens, B., Vansteenkiste, M., Duriez, B., & Goossens, L. (2006). In search of the sources of psychologically controlling parenting: The role of parental separation anxiety and parental maladaptive perfectionism. *Journal of Research on Adolescence*, 16(4), 539-559
- Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral decision making*, 12(3), 183-206.

- Thibault-Landry, A., & Whillans, A. (2018). The Power of Workplace Rewards: Using Self-Determination Theory to Understand Why Reward Satisfaction Matters for Workers Around the World. *Compensation & Benefits Review*, 50(3), 123-148.
- Thibault-Landry, A., Forest, J., & Zigarmi, D. (2019a). Revisiting the Use of Cash Rewards in the Workplace: Evidence of Their Differential Impact on Employees' Experiences in Three Samples Using Self-Determination Theory. *Compensation & Benefits Review*, 51(3), 92-111.
- Thibault-Landry, A., Forest, J., & Zigarmi, D. (2019a). Revisiting the Use of Cash Rewards in the Workplace: Evidence of Their Differential Impact on Employees' Experiences in Three Samples Using Self-Determination Theory. *Compensation & Benefits Review*, 51(3), 92-111.
- Thibault-Landry, A., Gagné, M., Forest, J., Guerrero, S., Séguin, M., & Papachristopoulos, K. (2017). The relation between financial incentives, motivation, and performance: An integrative SDT-based investigation. *Journal of Personnel Psychology*, 16(2), 61-76.
- Thibault-Landry, A., Zhang, Y., Papachristopoulos, K., & Forest, J. (2019b). Applying self-determination theory to understand the motivational impact of cash rewards: New evidence from lab experiments. *International Journal of Psychology*, 1-12.
- Trépanier, S.-G., Forest, J., Fernet, C., & Austin, S. (2015). On the psychological and motivational processes linking job characteristics to employee functioning: Insights from self-determination theory. *Work & Stress*, 29(3), 286-305.
- Tsui, A.S., Nifadkar, S.S. and Ou, A.Y. (2007) Cross national, cross-cultural organizational behavior research: advances, gaps, and recommendations. *Journal of Management*, 33 (3), 426-478.
- Twenge, J. M., Campbell, S. M., Hoffman, B. J., & Lance, C. E. (2010). Generational differences in work values: Leisure and extrinsic values increasing, social and intrinsic values decreasing. *Journal of management*, 36(5), 1117-1142.
- Van den Broeck, A., Ferris, D., Rosen, C., and Chang, C. (2016). A review of self-determination theory's basic psychological needs at work. *Journal of Management*. 42, 1195-1229.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & stress*, 22(3), 277-294.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., Soenens, B., & Lens, W. (2010). Capturing autonomy, competence, and relatedness at work: Construction and initial validation of the Work-Related Basic Need Satisfaction scale. *Journal of Occupational and Organizational Psychology*, 83(4), 981-1002.
- Vansteenkiste, M., & Ryan, R. M. (2013). On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle. *Journal of Psychotherapy Integration*, 23(3), 263-280.
- Vansteenkiste, M., Neyrinck, B., Niemiec, C. P., Soenens, B., Witte, H., & Broeck, A. (2007). On the relations among work value orientations, psychological need satisfaction and job outcomes: A self-determination theory approach. *Journal of Occupational and Organizational Psychology*, 80(2), 251-277.
- Wang, Y. D., & Yang, C. (2016). How appealing are monetary rewards in the workplace? A study of ethical leadership, love of money, happiness, and turnover intention. *Social Indicators Research*, 129(3), 1277-1290.
- Whillans, A. V., Weidman, A. C., & Dunn, E. W. (2016). Valuing time over money is associated with greater happiness. *Social Psychological and Personality Science*, 7(3), 213-222.
- White, P. (2017). How do employees want to be shown appreciation? Results from 100,000 employees. *Strategic HR Review*, 16(4), 197-199.
- Williams, G. C., & Deci, E. L. (1996). Internalization of biopsychosocial values by medical students: a test of self-determination theory. *Journal of personality and social psychology*, 70(4), 767-779
- Williams, G.C., Halvari, H., Niemiec, C.P., Sørøbø, Ø., Olafsen, A.H. and Westbye, C., (2014). Managerial support for basic psychological needs, somatic symptom burden and work-related correlates: A self-determination theory perspective. *Work & Stress*, 28(4), pp.404-419.
- Zhang, S., Hsee, C. k., & Yu, X. (2018). Small economic losses lower total compensation for victims of emotional losses. *Organizational Behavior and Human Decision Processes*, 144, 1-10.