Three essays on social resources and work engagement : examining the role of gratitude and promotion focus

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THREE ESSAYS ON SOCIAL RESOURCES AND WORK ENGAGEMENT:
EXAMINING THE ROLE OF GRATITUDE AND PROMOTION FOCUS

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A dissertation submitted to the
faculty of Nanyang Technological University, Singapore
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy (Organizational Behavior)
in the Strategy, Management and Organization department
at the Nanyang Business School

2019

Statement of Originality

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SUMMARY

Three Essays on Social Resources and Work Engagement: Examining the Role of Gratitude and Promotion Focus

Kapil Verma

(Under the direction of Assoc. Prof. Yu K.Y. Trevor and Assoc. Prof. Marilyn A. Uy)

The motivational effect of social job resources is well established. Yet we know little about the causal mechanisms or the boundary conditions of the association between these resources and work engagement. In this dissertation, I integrate the social exchange theory with research on discrete emotions to investigate why and for whom social resources have a positive influence on work engagement.

In the first essay, I present a qualitative review of the work engagement literature. Through the review, I identify the important gaps that need to be addressed to improve our understanding of the ways in which organizations can improve engagement levels. At the end of this essay, I present a framework that can help us better understand the emotional mechanisms and the boundary conditions of the relationship between job resources and work engagement.

In the second essay, I study the association between a key social resource, the social aspect of justice i.e. interactional justice, and work engagement. Using the social exchange theory, I posit that interactional justice impacts work engagement via the emotion of gratitude, and this mediated relationship is significant only for low promotion focus individuals. The hypothesized model of relationships is tested in a two-wave study by recruiting 241 full-time working professionals. Results show that after controlling for work engagement at time 1, interactional justice has indirect effects on work engagement at time 2 via gratitude. Moreover, these mediation effects remain significant even when testing for

simultaneous mediation by gratitude and LMX. Results of the moderated-mediation hypothesis indicate that the indirect effects of interactional justice via gratitude were significant only for low promotion focus individuals.

In the third essay, I provide a robust test of the effects of social resources, as I examine the relationships between social support at work and task interdependence, and state work engagement. I hypothesize that state gratitude is the emotional mechanism through which these resources affect daily engagement levels, and trait promotion focus can moderate these mediated relationships. A diary study conducted over five consecutive working days with two measurement occasions per day ($N = 116$ employees) provides support for most of the hypotheses. Results indicate that at the within-individual level, previous day's social support at work affects current day's work engagement via current day's morning's gratitude. Task interdependence also predicts work engagement through state gratitude, and this mediated relationship is significant only for employees with low promotion focus. These results provide fresh insights on why and for whom social job resources have a positive influence on work engagement.

Introduction

“There are only three measurements that tell you nearly everything about your organization’s overall performance: *employee engagement*, customer satisfaction and cash flow. It goes without saying that no company, small or large, can win over the long run without energized employees who believe in the mission and understand how to achieve it.”

- Jack Welch, former Chairman and CEO, General Electric (“Three questions”, 2015)

Over the past two decades, research surrounding the area of work engagement has exploded. Industry leaders and researchers have realized that top-performing organizations are those with the highest level of employee engagement (Harter, Schmidt, & Hayes, 2002; Schwartz, 2012; Shuck, Reio Jr, & Rocco, 2011). Even though practitioners understand the benefits of engagement, Gallup study reports indicate that only 13% of the employees (worldwide) are engaged, implying that “the world has an employee engagement crisis” (Crabtree, 2013; “The Worldwide Employee Engagement Crisis”, 2016). This fact leads us to the question, “Do we really know how to enhance engagement levels at the workplace?” This dissertation is an attempt to develop greater understanding of work engagement, and identify the mechanisms through which job and personal resources influence engagement. Through this research, I hope to provide empirical evidence that can guide practitioners on promoting engagement at the workplace.

The concept of *engagement* was introduced by Kahn (1990, 1992), who defined personal engagement as “the harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively and emotionally during work role performances” (p. 694). *Work engagement* is regarded as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli, Salanova, González-Romá, & Bakker, 2002). Scholars have

identified a variety of positive outcomes of work engagement. Christian, Garza, and Slaughter (2011) used meta-analytic path modeling techniques to examine 91 studies on employee engagement, and found that engagement is significantly related to task performance as well as contextual performance, and more importantly, it carries incremental validity over job satisfaction and organizational commitment in predicting performance. Engaged employees are known to (a) experience positive emotions such as joy and enthusiasm, (b) have better psychological and physical health, and (c) transfer their engagement to other employees (Bakker, 2011).

The *job demands-resources* (JD-R) theory (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) states that working conditions can be categorized into two broad categories – job demands and job resources. Job resources are those physical, social, psychological or organizational aspects of the job that are functional in achieving work goals, reducing job demands and the related costs, and stimulating personal growth and development (Bakker & Demerouti, 2007; Demerouti et al., 2001). Job resources are classified as (a) structural or core job resources, and (b) social job resources. The structural/ core resources are essentially the core job characteristics identified by Hackman and Oldham, (1976), and include task variety, task significance, task identity, autonomy, feedback from job, and job complexity. Social job resources are those characteristics that involve the social/ relational dimensions of work, and include the characteristics of social environment, e.g. feedback from others, coaching, social support, and transformational leadership (Bakker, Demerouti, & Sanz-Vergel, 2014; Hobfoll, Johnson, Ennis, & Jackson, 2003; Humphrey, Nahrgang, & Morgeson, 2007).

According to the JD-R model, job resources are recognized as the key drivers of work engagement (Bakker & Demerouti, 2007; Demerouti et al., 2001). Past research largely supports the JD-R perspective, and it has been found that both structural resources as well as social resources are significant predictors of work engagement (Bakker et al., 2014; Bakker,

Hakanen, Demerouti, & Xanthopoulou, 2007; Christian et al., 2011; Schaufeli, Bakker, & Van Rhenen, 2009; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009b). However, the question that is still unanswered is *why* these job resources increase work engagement. To date, we know very little regarding the underlying mechanisms through which job resources affect engagement. The few studies that have examined the reasons behind the beneficial effects of job resources on work engagement focused predominantly on the cognitive side of the employees (Saks, 2006; Schaufeli & Bakker, 2004). Secondly, extant research is yet to fully investigate the boundary conditions of the job resources – work engagement relationship. It is possible that different employees could react differently to job resources based on their personality traits (Oldham & Fried, 2016).

This dissertation is an attempt to advance research and develop greater understanding of the relationships between job resources and work engagement. Specifically, I examine the positive association between *social job resources* and work engagement. The emphasis on social resources is consistent with the emerging importance of relational perspectives at the workplace i.e. jobs and tasks are now much more socially embedded, based on greater interdependence with coworkers as well as frequent interactions with customers (Grant & Parker, 2009). As a result, there is a much greater need for all of today's employees to acquire interpersonal and decision-making skills (Barley & Kunda, 2001). Thus, relational perspectives deserve greater attention from research scholars since social characteristics of work influence employees' attitudes and behaviors.

The first essay provides a critical review of the core concept of work engagement. I discuss the main definitions and conceptualization of work engagement. Next, I review the most important antecedents and consequences of work engagement. And finally, I assess the key theories and arguments utilized till now to explain the relationships between the job resources and work engagement. In the process, I identify the critical gaps in the literature

that need to be addressed to improve our understanding of the ways in which organizations can enhance engagement levels at the workplace. In the end, I propose a broad framework that can explain the mechanisms and the boundary conditions of the job resources – work engagement relationship.

In the second essay, I investigate the beneficial effects of an important social resource, the social aspect of justice i.e. *interactional justice*, on work engagement. Interactional justice reflects the quality of interpersonal treatment employees receive from others at work. It includes the extent to which employees are treated with dignity and respect, and the extent of adequacy of explanations provided by the authorities while executing procedures (Bies & Moag, 1986; Greenberg & Cropanzano, 1993). In this between-person two-wave empirical study, I investigate *why* and *for whom* interactional justice has a positive impact on work engagement.

The third essay aims to provide stronger evidence of the relationship between social resources and work engagement. Thus, I conduct a within-person experience sampling study to examine work engagement as a proximal consequence of social resources. Specifically, I examine the effects of two social resources – social support at work and task interdependence, on work engagement. Social support from supervisor and colleagues is recognized as an important social job characteristic, and several studies have found that social support at work positively impacts work engagement (Bakker et al., 2007; Hakanen, Perhoniemi, & Toppinen-Tanner, 2008; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009a). Moreover, Parker and colleagues (2008) suggested that we need to expand the range of work design variables that can have positive effects on employee attitudes because such research would enable providing comprehensive recommendations for redesigning work in organizations. In this essay, I intend to expand that list by including task interdependence, whose association with work engagement has not been investigated. Task interdependence

refers to the extent to which the employee perceives that his/ her job depends on others and others depend on it to accomplish the work goals (Kiggundu, 1981). Disregarding interdependence limits our understanding of social resources, because if interdependence can indeed foster engagement, then that provides organizations with another tool (beyond social support, feedback and coaching) to improve employees' engagement.

Overall, this dissertation has implications for both theory and practice. By investigating the emotional mechanism through which social resources benefit employees, I provide a deeper understanding of the antecedents of work engagement. Furthermore, this dissertation demonstrates that certain individuals are more influenced by social job resources, contributing to research on boundary conditions of job resources. Pertaining to practice, this dissertation has considerable value as work engagement is viewed as a critical factor behind the success of organizations. Through the two empirical studies, I discuss different ways through which organizations can increase engagement levels of their employees. By identifying the type of employees who may be more affected by social resources, these studies help managers develop targeted strategies for specific employees to improve work engagement.

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Essay 1

Work Engagement: A Qualitative Review

The concept of work engagement

The notion of work engagement was initially promoted by human resource (HR) consulting organizations as a tool that directly impacts bottom-line results. It was claimed that organizations with highly engaged employees have higher profitability, productivity, and customer satisfaction (“Employee engagement”, 2013). Our understanding of work engagement was considerably improved when academic researchers joined the movement towards having organizations develop an engaged workforce.

Kahn (1990) suggested that *personal engagement* is a motivational state in which employees contribute their “personal selves” at work. Such employees tend to be energetic and are emotionally connected with their jobs. Engaged employees “express themselves physically, cognitively and emotionally during role performances” (Kahn, 1990; p.694). They are attentive, focused, fully present at the workplace, and open to themselves and others. In order to demonstrate engagement, individuals are physically involved, cognitively vigilant, and are connected to others who are benefitted by their work (Kahn, 1990, 1992; Rich, Lepine, & Crawford, 2010). A dynamic relationship exists between the person who drives personal energies (physical, cognitive, emotional) into the work role, on one hand, and the work role that allows this person to express himself or herself, on the other. Work engagement is thus, a motivational concept in which personal resources are allocated at work, and then, intensely and persistently applied (Rich et al., 2010).

Two different but related views exist that explain work engagement as an affective, motivational state of well-being at the workplace. According to Maslach, Schaufeli, & Leiter, (2001), there is a continuum between the experience of burnout (negative) and the experience

of engagement (positive). The three inter-related dimensions that elucidate both these related concepts are exhaustion-energy, cynicism-involvement and inefficacy-efficacy (Leiter, 1997). Thus, engagement is defined as an energetic state of involvement with personally fulfilling experiences that enhance one's sense of professional efficacy (Maslach, Leiter, & Schaufeli, 2008). According to this view, engagement provides a thorough perspective on people's relationships with their work, beyond other similar concepts such as commitment or satisfaction.

The alternative view considers 'work engagement' as an independent concept that is negatively related to burnout. Here, work engagement is defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Salanova, González-Romá, & Bakker, 2002). Vigor is characterized by high levels of energy and resilience, the desire to invest one's energies in work, and perseverance in the face of adversities. Dedication includes being involved in the work and feeling a sense of significance and enthusiasm. Such employees are proud of their work, and are inspired to excel in their jobs and contribute toward the society. Absorption refers to a state of being fully immersed in one's work, such that time passes quickly and it is difficult for such employees to detach themselves from work. For the purpose of this dissertation, I use this definition of engagement by Schaufeli and colleagues (2002) since it remains the most widely used definition of engagement in the literature (Christian, Garza, & Slaughter, 2011).

An important characteristic of work engagement is that it refers to a psychological connection with the *performance of work tasks*, not an attitude towards the organizational or job-related characteristics (Christian et al., 2011; Maslach et al., 2008). Another key characteristic is the *self-investment of all personal resources* in work, i.e. engaged employees invest their physical, emotional and cognitive energies, and not the investment of any single aspect of the self (Rich et al., 2010). Work engagement is hence, representative of an

investment of multiple dimensions (physical, emotional and cognitive) leading to a holistic and simultaneous experience (Kahn, 1990, 1992).

Work engagement has also been conceptualized at the group level. Barnes and colleagues (2015) argued that work engagement occurs collectively within a team as a leader's influence is likely to produce shared responses within a group (George, 2000; Siegel Christian, Christian, Garza, & Ellis, 2012). Research on groups has shown that group members tend to converge in their emotions, attitudes, and behaviors as they interact among themselves to develop a collective understanding of the work environment and the organization (Felps et al., 2009; Sy & Choi, 2013). Members within a work group share the same leader, same resources and same customers, and thus, work engagement is likely to be relevant at the team level. Costa, Passos, and Bakker, (2014) defined team work engagement as a “shared, positive and fulfilling motivational emergent state of work-related well-being” (p.418). As an emergent state, team engagement originates in the cognition, affect and behaviors of individuals, and then, is amplified by their interactions to become a shared, collective degree of work engagement.

State vs. trait work engagement

Initial research on work engagement considered it as a relatively stable individual difference variable (Maslach et al., 2008; Rothbard, 2001). However, Sonnentag, (2003) argued that since work engagement is essentially a work-related affective experience, it should also have significant within-person fluctuations. Other studies have shown significant within-person variations in work-related affective experiences (Fisher, 2000). The experience of work engagement should vary on a daily basis also because physical, emotional and psychological resources are a necessary pre-requisite for employee engagement (Kahn, 1992). And such resources are expended at work, and then have to be recovered and restored in order to experience engagement again (Sonnentag, 2003). While an employee's general

level of engagement may be fairly stable over time, the same employee's day-specific engagement level fluctuates significantly around his/ her average engagement level (Sonnentag, Dormann, & Demerouti, 2010). This state-like approach helped in investigating the more proximal, situational factors that impact engagement on a day-to-day basis. Numerous studies have used experience sampling techniques to demonstrate this state-view of engagement (Bakker & Xanthopoulou, 2009; Kühnel, Sonnentag, & Bledow, 2012; Tadić, Bakker, & Oerlemans, 2015; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009)(Breevaart, Bakker, & Demerouti, 2014).

Work engagement vs. other job attitudes

Some researchers have questioned whether engagement is simply a repackaging of similar constructs (Macey & Schneider, 2008). Job satisfaction refers to an evaluative judgment an employee makes about his/ her job (Weiss, 2002). The key difference between job satisfaction and work engagement is that satisfaction is a passive construct similar to satiation (Macey & Schneider, 2008), and engagement is regarded as an active, motivational state that explains the extent to which the employee feels dedicated, energetic and absorbed at work (Schaufeli et al., 2002). Job satisfaction is simply an evaluation of job conditions and characteristics (Brief & Weiss, 2002), and engagement describes how the employee actually feels while working.

Work engagement has also been compared with affective commitment, which is defined as an emotional attachment to one's organization due to similar values and goals (Mowday, 1998). So, the first difference between affective commitment and engagement is that in the case of commitment, the attachment is to the *organization* as a whole, engagement is based on the employee's perceptions about the *job or work* (Maslach et al., 2001). And secondly, affective commitment only includes an emotional attachment with the organization, but work engagement includes an investment of emotional, physical and cognitive energies

(entire self) during work performances. Hence, at best, affective commitment might be one single facet of engagement but it cannot represent the whole of work engagement (Macey & Schneider, 2008).

Job involvement is another job attitude which refers to the belief that the job satisfies an employee's needs. It is the extent to which an employee identifies with the work done (Brown, 1996). One major difference between involvement and engagement is that job involvement is regarded as a purely cognitive concept (Kanungo, 1982), whereas engagement includes emotional and physical involvement as well.

In their meta-analytical review of work engagement, Christian and colleagues (2011) found that the correlations between these job attitudes (job satisfaction, affective commitment and job involvement) and work engagement was around $r = 0.50$, implying that work engagement is a unique construct even though it may share some conceptual space with these attitudes. In addition, Christian and colleagues (2011) found that engagement explained incremental variance in task performance over these attitudes, which meant that work engagement is indeed a different and important concept.

Consequences of work engagement

Work engagement is regarded as an affective-motivational state, and thus, is expected to have a positive impact on the employees' job performance as well as organizational outcomes. Christian and colleagues (2011) used meta-analytic path modeling techniques to examine 91 studies on employee engagement, and found that engagement is significantly related to task performance as well as contextual performance, and more importantly, it carries incremental validity over job satisfaction and organizational commitment in predicting performance. Demerouti & Cropanzano (2010) argued that work engagement plays an extremely important role in moving the employee from thoughts to actions, resulting in better performance. In another meta-analysis, Nahrgang, Morgeson, and Hofmann, (2011)

found that engagement motivated employees toward working safely in high risk and hazardous environments. Highly engaged employees tend to experience positive emotions such as joy, show high levels of self-efficacy and have better psychological and physical health. Moreover, engaged employees can even transfer their engagement to other employees (Bakker, 2009).

In other studies, it was found that engaged employees have healthy cardiac and autonomic activity (Seppälä et al., 2012) probably because engaged employees succeed in relaxing themselves as they get psychologically detached from work and engage in leisure-time activities, such as sports, exercise, hobbies and social activities (Sonnentag, Mojza, Demerouti, & Bakker, 2012; ten Brummelhuis & Bakker, 2012). In their study on off-job activities, ten Brummelhuis & Bakker (2012) found that work engagement had significant positive correlations with social activities ($r = 0.13$, $p < .05$), and physical activities ($r = 0.16$, $p < .05$). In a diary study, Rodríguez-Muñoz, Sanz-Vergel, Demerouti, and Bakker, 2014) found that on the days when employees were more engaged at work, they and their intimate partners tended to be happier at home. Other studies have reported that engaged employees are more likely to be creative as they explore their environments and are more willing to learn new things (Bakker & Xanthopoulou, 2013). Sonnentag (2003) conducted a diary study and results indicated that daily work engagement was significantly related with daily initiative and pursuit of learning. Parker and colleagues (2010) demonstrated that high levels of engagement are significantly associated with proactive behaviors such as job crafting.

At the team level, research indicates that work engagement is positively related with team performance, collective positive affect, and team-efficacy (Torrente, Salanova, Llorens, & Schaufeli, 2012). Unit level work engagement also has beneficial effects on team service climate, customer loyalty and firm performance (Barrick, Thurgood, Smith, & Courtright,

2015; Salanova, Agut, & Peiró, 2005). High levels of team engagement have cross level effects on individual engagement and burnout (Bakker, Emmerik, & Euwema, 2006).

Work engagement is also known to have a positive impact on customer satisfaction and organizational performance. Xanthopoulou and colleagues (2009) conducted a diary study on a Fast Food Company and found that daily work engagement had a positive impact on daily financial returns. Harter and colleagues (2002) conducted a meta-analysis to examine the business-unit-level relationships and results showed that work engagement is associated with improved productivity, profitability, customer satisfaction, loyalty, and safety.

Antecedents of work engagement

As discussed above, scholars and practitioners have agreed that work engagement has significant positive effects at the individual, team as well as organizational level. Then, it becomes important to find out ways to boost work engagement. Research on investigating the predictors of work engagement would be helpful as scholars can make practical recommendations to organizations and managers on how they can enhance engagement levels at work. Now, I discuss the two key theories used to identify the antecedents of work engagement.

Job demands-resources theory – In order to identify the antecedents to work engagement, the most widely used framework remains the *job demands-resources* (JD-R) theory (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). This model originated from the demand-control model (Karasek, 1979), according to which high job demands (e.g. work load, time pressure) and low job control (e.g. decision latitude) lead to job strain among employees. Extending that research, Demerouti and colleagues (2001) introduced the job demands-resources model that initially focused on exhaustion and disengagement. The JD-R model proposes that working conditions can be categorized into two broad categories – job

demands and job resources. Job demands are those physical, social or organizational aspects of the job that require sustained physical or mental effort, and thus, demands are related with physiological or psychological costs. Examples of job demands include work pressure, emotional demands, time pressure, etc. Job resources are those physical, social, psychological or organizational aspects of the job that are functional in achieving work goals, reducing job demands and the related costs, and stimulating personal growth and development (Bakker & Demerouti, 2007; Demerouti et al., 2001). Job resources are classified as (a) structural or core job resources, and (b) social job resources. The structural/ core resources include task variety, task significance, task identity, autonomy, feedback from job, and job complexity. Social job resources include the characteristics of social environment, e.g. feedback from others, coaching, social support, and transformational leadership. (Bakker, Demerouti, & Sanz-Vergel, 2014; Hobfoll, Johnson, Ennis, & Jackson, 2003).

The JD-R model proposes that job demands and resources initiate two independent processes. First, job demands are positively associated with burnout due to a health-impairment and energy sapping process, which exhausts employee's physical and mental resources. Second, job resources trigger a positive, motivational process and thus, are the key predictors of work engagement and organizational commitment (Bakker et al., 2014; Schaufeli & Bakker, 2004). This dual process model of employee well-being has been widely investigated and supported in numerous studies as well as reviews. Schaufeli & Bakker, (2004) were among the first to report that (a) burnout and engagement are negatively related, (b) burnout is predicted by job demands as well as a lack of job resources, and (c) engagement is only predicted by job resources. In their meta-analysis, Nahrgang and colleagues (2011) reported that job demands such as hazards and risks lead to burnout, and job resources such as safety climate lead to work engagement, which in turn causes lower accidents. In another meta-analysis focused exclusively on work engagement, Christian et al.,

(2011) found that job resources (autonomy, task variety, task significance, feedback, social support, leader-member exchange) are all significantly associated with work engagement. Halbesleben (2010) conducted a meta-analysis job demands, resource, burnout and work engagement, and results revealed that autonomy, feedback, social support, and positive organizational climate were positive predictors of engagement. And lastly, in their exhaustive review of burnout and engagement, Bakker et al., (2014) declared that job demands are significantly related with burnout and health problems, and job resources are associated with work engagement and positive, motivational outcomes.

The JD-R model was extended through the inclusion of personal resources, which are positive self-evaluations related with resiliency and the employee's ability to influence their environments. Xanthopoulou and colleagues (2007) found that three personal resources (self-efficacy, optimism and organizational-based self-esteem) mediated the relationship between job resources (autonomy, social support and coaching) and work engagement, thereby suggesting that job resources promote the development of personal resources. In another study, Rich and colleagues (2010) found that core self-evaluations are positively related with engagement. Bakker and colleagues (2014) reviewed the engagement literature and categorized the antecedents of work engagement into two broad factors – (a) job resources, including social support, performance feedback, supervisory coaching, task variety, task significance, autonomy, organizational climate, and so on; and (b) personal resources, including conscientiousness, emotional stability, self-efficacy, self-esteem, optimism, core self-evaluation, positive affect and proactive personality.

The JD-R perspective also argues that job resources are especially beneficial for work engagement, when the employee experiences high job demands. Bakker, Hakanen, Demerouti, and Xanthopoulou (2007) conducted a study among teachers, and results showed that job resources such as appreciation, supervisory support and autonomy, had a positive

impact on engagement when job demands were high. Bakker and Sanz-Vergel (2013) further divided job demands into two categories: (a) challenge demands, which are seen as obstacles to be overcome in order to learn and excel on the job, and (b) hindrance demands, which are seen as unnecessary and thus, negatively affect personal growth and achievement. In their study of healthcare nurses, it was found that personal resources such as self-efficacy and optimism had a positive impact on weekly work engagement, when emotional demands (i.e. challenge demands) were high. On the other hand, the same personal resources positively related with engagement, when work pressure (i.e. hindrance demand) was low.

Schaufeli and Bakker (2004) argued that job resources enhance work engagement through “the motivational process”. In this process, job resources such as feedback, decision latitude and social support, satisfy the individual’s needs for competence, autonomy and relatedness, respectively, which leads to higher levels of intrinsic motivation (Ryan & Deci, 2000). Job resources could also play an extrinsic motivational role since they are instrumental in achieving work goals. When employees work in an environment that offers many resources, they are more likely to be optimistic about completing their tasks, due to which they would exert greater efforts to their jobs (Meijman & Mulder, 1998). For example, an employee who receives constructive feedback and has supportive coworkers will also be more confident of being successful at work. Thus, such an employee would invest his/her physical, emotional and psychological energies at work.

Social exchange theory – The *social exchange theory*, which is regarded as one of the most dominant conceptual paradigms in organizational behavior literature (Cropanzano & Mitchell, 2005), has also been used to examine why job resources positively affect engagement. According to the social exchange perspective, individuals are involved in a series of interdependent transactions and when such transactions are successfully carried out following the reciprocity rules (Gouldner, 1960), high quality relationships are generated

(Blau, 1964; Cropanzano & Mitchell, 2005). The reciprocity rules or the rules of exchange (Gouldner, 1960) imply that actions of one party result in corresponding response or actions by the other party. Such reciprocal exchanges do not include explicit bargaining, rather both parties' actions are voluntary and thus, the interdependence encourages cooperation (Molm, 1994). Social exchange theory has been helpful in improving our understanding of diverse topics, such as organizational justice (Konovsky, 2000; Masterson, Lewis, Goldman, & Taylor, 2000), social networks (Brass, Galaskiewicz, Greve, & Tsai, 2004), psychological contracts (Dulac, Coyle-Shapiro, Henderson, & Wayne, 2008; Rousseau, 1995) and leadership (Liden, Sparrowe, & Wayne, 1997; Wayne, Shore, & Liden, 1997).

Using this perspective, Saks (2006) argued that employees can choose to engage themselves to varying degrees depending on the resources received at work. When employees receive economic and socioemotional resources from their organization, they are likely to repay the organization through high levels of engagement. Such arguments are consistent with Kahn's (1990) idea of engagement, in which employees feel obliged to fully invest their energies into role performances as a way to pay back the organization for the resources they receive. And if the employee doesn't receive the resources, employees would tend to withdraw from their jobs. In support of these arguments, Saks (2006) found that job resources (autonomy, task identity, skill variety, task significance, feedback) as well as perceived organizational support, predict job engagement.

In another recent study, Breevaart, Bakker, Demerouti, and van den Heuvel, (2015) showed that leader-member exchange (LMX) leads to higher engagement levels. LMX reflects the quality of the social exchange relationship between the employee and his/her supervisor (Graen & Uhl-Bien, 1995). Breevaart and colleagues (2015) followed the social exchange view and suggested that in high-quality LMX relationships, supervisors reward their follower employees with appreciation, empowerment and salary raise, which in turn

contributes to followers' intrinsic motivation and motivates them to invest their fuller selves into work i.e. demonstrate high levels of work engagement.

Development and integration of theory

Thus far, I have reviewed the concept of work engagement along with its consequences and antecedents. In the section above, I discussed the job demands-resources theory and the social exchange theory to understand the arguments used to explain the job resources – work engagement relationship. However, the above arguments, which are very much reasonable, provide an incomplete understanding of the processes through which job resources impact work engagement. In particular, such arguments assume that individuals are unemotional or emotionally vacuous as they only pay attention to the cognitive side of individuals. Whenever scholars have used the JD-R perspective or the social exchange view to investigate the predictors of work engagement, there is little mention of affect or emotions. On the other hand, we now have overwhelming evidence that employees do experience and express emotions at work, which in turn influence their behaviors and performance (Barsade, Brief, Spataro, & Greenberg, 2003). Barsade & Gibson, (2007) stated that affect is present in relationships, deadlines, projects, processes and everywhere else at the workplace, and concluded that an “affective revolution” is taking place wherein both researchers and practitioners have acknowledged that affective processes (or emotions) are fully capable of creating and sustaining motivation. A better understanding of human emotions can help managers and employees themselves predict and even modify attitudes and behaviors in organizations. Lyubomirsky, King, and Diener, (2005) found in their meta-analysis that individuals who tend to experience positive emotions also perform better at work in many ways, including higher income, supervisory evaluations, and better negotiating skills. Affect is also known to influence decision-making, turnover intention, prosocial behavior, conflict resolution behavior and leadership (Barry, Fulmer, & Van Kleef, 2004; George &

Bettenhausen, 1990; Isen & Labroo, 2003; Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003). Barsade and Gibson (2007) observed that a large number of studies are based on affect, and much lesser on moods and emotions. They called for greater research on discrete emotions in terms of their influence on employee attitudes and behaviors. The importance of affect and emotions was also highlighted in the affective events theory, as Weiss & Cropanzano, (1996) suggested that features of work environment can directly increase the likelihood of experiencing affective events which can impact employee attitudes and behaviors. A number of studies have supported the basic tenets of affective events theory, demonstrating that emotional experiences at work affect job satisfaction, counterproductive behaviors, and organizational withdrawal (Spector & Fox, 2002; Zhao, Wayne, Glibkowski, & Bravo, 2007). Within the engagement literature, dispositional positive affect is known to enhance work engagement (Christian et al., 2011), and a few studies have examined positive mood as a predictor of state engagement (e.g. Ouwenel, Blanc, Schaufeli & van Wijhe, 2012), but there is little research that examines the association between job resources, positive *discrete* emotions and work engagement.

Secondly, it is important to investigate how employees could react differently to job resources based on their personality traits i.e. individual difference characteristics could moderate the beneficial effects of job resources (Oldham & Fried, 2016). More accurate suggestions on boosting work engagement can be given to managers, if we know more about what kind of people are more/ less affected by job resources. In the past, researchers have argued that employees can react to job resources as a function of their individual differences. For instance, Grant (2008) found that task significance had a stronger effect on performance for employees who were low in conscientiousness. Grant (2008) argued that individuals high on conscientiousness are ambitious and display high effort in a wide range of circumstances; thus, task significance may exert lesser influence on such employees. In another study, Raja

and Johns (2010) investigated the big 5 personality traits as moderating factors, and found that neuroticism moderated the relationship between core job characteristics and employee outcomes. Results showed that only individuals low in neuroticism benefit from the core job characteristics. Extending such findings, we need greater research to investigate *for whom* job resources can have a positive relationship with employee outcomes such as engagement.

Proposed framework

In this dissertation, I address some of the above mentioned gaps by proposing a framework that can enhance our understanding of work engagement. Figure 1 presents the broad framework. I integrate the social exchange theory (Blau, 1964, Lawler, 2001) with research on discrete emotions, and suggest that the positive emotions of gratitude and pride are important but overlooked emotional mechanisms through which job resources could influence work engagement. And using the self-regulation perspective, I further posit that an employee's regulatory focus or goal orientations can act as key boundary conditions in the relationship between job resources and work engagement. I discuss the role played by gratitude, pride and self-regulation in the next section.

Positive emotions

Gratitude – Gratitude is viewed as a moral emotion since it is linked to the welfare of persons other than the agent (Haidt, 2003; McCullough, Kilpatrick, Emmons, & Larson, 2001). The emotion of gratitude emerges out of social exchanges when beneficiaries attribute their positive circumstances to the voluntary and intentional efforts of another person (Blau, 1964; Grant & Gino, 2010). Gratitude comes out of interpersonal contingencies when individuals acknowledge that they have received benefits and their own power is limited (Emmons & McCullough, 2004). In the context of social exchange, gratitude can play a critical role because when individuals receive resources from others, they are more likely to

experience this emotion of gratitude, which would then possibly affect their levels of work engagement.

McCullough et al., (2001) explained gratitude has three specific functions – a moral barometer function, a moral motive function and a moral reinforce function. As a moral barometer, gratitude is sensitive to valuable benefits received from another person who has expended effort on their behalf. Gratitude is also a moral reinforcer because when a beneficiary expresses gratitude, then the benefactor is encouraged to act morally in future as well. As a moral motive function, when a person feels grateful, s/he would tend to behave in a prosocial manner. Thus, grateful people are likely to contribute to the welfare of the benefactor or even a third party in the future. In support of these arguments, past empirical research has found that feelings of gratitude can translate into greater efforts to help not just the benefactor but also strangers (third party) (Bartlett & DeSteno, 2006; Grant & Gino, 2010).

In their study on aggression, DeWall, Lambert, Pond Jr, Kashdan, and Fincham, (2012) argued that the grateful persons are fully aware of the thoughts and actions that bring about the useful contributions from others, due to which they are less inclined to be overly self-interested and aggressive. Across multiple studies, results showed that gratitude motivates people to behave compassionately toward the benefactor as well as toward third parties, and such grateful individuals demonstrate lower aggression even when feeling hurt or insulted (Dewall et al., 2012). In another study on gratitude, Williams & Bartlett (2015) provided evidence that feeling of gratitude promote affiliation even among previously unacquainted colleagues because gratitude signals interpersonal warmth of the grateful person. Moreover, in a study of young employees, it was found that employees with high perceived respect at the workplace felt grateful because they viewed respect as a positive job experience. Results further showed that such feelings of gratitude resulted in a stronger and

deeper bond with the organization in the form of higher perceived organizational embeddedness (Ng, 2016).

Initially, gratitude was conceptualized as a relatively stable dispositional trait, as McCullough, Emmons, and Tsang (2002) argued that certain people are predisposed to feeling more grateful than others i.e. individuals high on trait gratitude experience this emotion more frequently, more intensely and to more entities simultaneously. However, in a recent study, Spence, Brown, Keeping, and Lian (2014) stated and demonstrated that gratitude has a state component as well because gratitude is an emotional response that is caused by an experience/ event (e.g. receiving a resource). This state level of gratitude refers to the actual experience of gratitude, which is episodic in nature. In other words, the same individual can feel more or less grateful depending on his/her experiences at different times.

Importantly, the role of gratitude in social exchange processes was emphasized by scholars several decades back. In his well-known book on *Sociology*, (Simmel, 1950) wrote, “gratitude... establishes the bond of interaction, of the reciprocity of service and return service, even when they are not guaranteed by external coercion” (p.387). And in his seminal work on social exchange, Blau (1964) explained in the book’s very first chapter, “A person for whom another has done a service is expected to express his gratitude and return a service when the occasion arises. Failure to express his appreciation and to reciprocate tends to stamp him as an ungrateful man who does not deserve to be helped” (p.4). Supporting these arguments, Lawler and colleagues (Lawler, 2001; Lawler & Thye, 1999) stated that emotions have to be a central feature of social exchange processes and such emotions are critical to an understanding of how social exchanges can promote or impede solidarity in relationships. When successful social exchanges occur, the individuals experience emotional ‘uplifts’ (Lawler & Yoon, 1996). Consequentially, individuals feel grateful when they attribute such pleasant feelings to others’ behaviors (Lawler, 2001).

Based on the above arguments, I posit that when an employee receives resources from the organization, the employee is likely to experience the emotion of gratitude. And this emotion of gratitude would cause the employee to work harder, thereby experiencing higher levels of engagement at work. The effects of gratitude go far beyond the benefactor as the focal person (beneficiary), being grateful, wants to contribute to the welfare of all others (McCullough et al., 2001). For many employees, work is directly seen in terms of making a difference in the lives of others (Colby, Sippola, & Phelps, 2001). When employees care about the welfare of others, they are likely to invest greater time and energy in work related activities (Grant, 2007). By investing their physical, emotional and cognitive energies, the grateful employees would be able to reciprocate the favorable treatment received from the organization in the form of job resources. Notably, gratitude is associated with experiencing more optimism and vitality (Froh, Yurkewicz, & Kashdan, 2009; Watkins, Woodward, Stone, & Kolts, 2003) which are strongly associated with higher levels of work engagement (Ouweneel et al., 2012; Xanthopoulou et al., 2009b).

Pride – Pride is a self-conscious emotion that is associated with taking credit for an achievement and feelings of superiority (Gooty, Gavin, Ashkanasy, & Thomas, 2014; Tracy & Robins, 2007). It is a self-attribution emotion when one attributes positive outcomes or achievements to one's own behavior, efforts or oneself (as a person) i.e. the locus of causality is internal (Tracy & Robins, 2004; Weiner, 1985). Past research indicates pride predicted highly divergent outcomes; on one hand feelings of pride were found to promote prosocial behaviors (Hart & Matsuba, 2007; Weiner, 1985), and on the other hand, pride was also linked to narcissism, leading to aggression, hostility and interpersonal conflicts (Bushman & Baumeister, 1998; Lewis, 2000; McGregor, Nail, Marigold, & Kang, 2005). This paradox was resolved when Tracy and Robins, (2007) suggested that there are two facets of pride – (a) hubristic pride, which comes from attributions to internal, stable, uncontrollable causes

(one's global self), and (b) authentic pride, which is a result of attributions to internal, unstable, controllable causes (one's efforts). In other words, while the locus of causality remains internal, the emotion of pride can be viewed as authentic or hubristic, depending on whether the causal attribution is variable or stable, respectively (Weiner, 1985). Authentic pride is based on specific accomplishments and typically leads to feelings of self-worth and high self-esteem. And hubristic pride is due to distorted and self-aggrandized views of self ("I do everything well"). Thus, authentic pride is characterized by words such as "accomplished" and "confident", and hubristic pride is characterized by words such as "arrogant" and "conceited" (Carver, Sinclair, & Johnson, 2010).

Lawler (2001) stated that the positive emotion of pride could also play an important role in social exchange. Following Weiner (1986), it was argued that successful social exchange transactions generate pleasant feelings, and when such pleasant feelings from the exchange task are attributed to one's own behavior, the individual experiences the emotion of pride. In the context of work engagement and job resources, it might be that when an employee is granted autonomy, then the employee attributes the same to his/her own skills and capabilities, and perceives a higher social status within the organization which could lead to feelings of pride (Tracy & Robbins, 2007). Similarly, employees who perceive high levels of task significance could also feel proud of themselves and their work. When the employees understand that their job makes a significant impact in others' lives, they would attribute such feelings to the organization's faith in their skills, attitudes and behaviors, leading to feelings of pride in themselves as well as the organization.

Pride is accompanied by genuine self-esteem and self-efficacy when the locus of causality is internal and the cause is seen as variable (Tracy, Cheng, Robins, & Trzesniewski, 2009). Authentic pride is also associated with a more adaptive and achievement-motivated personality profile (Tracy & Robbins, 2007). Such self-confident and achievement-oriented

individuals tend to have higher goal self-concordance (Judge, Bono, Erez, & Locke, 2005; Luthans & Youssef, 2007) which motivates them to experience higher engagement levels at work. Past research has shown that self-efficacy is a key personal source that is known to facilitate higher daily engagement levels (Bakker & Demerouti, 2008; Xanthopoulou et al., 2009b).

Self-regulation

Self-regulation reflects the ability to guide one's goal-directed activities over time and across different situations, and it includes modifying one's thought, action and behavior (Kanfer, 1990). Self-regulation is extremely important for adaptive functioning as employees need to regulate their behaviors during goal pursuit (Carver & Scheier, 2001; Higgins & Spiegel, 2004). Kanfer (1990) argued that motivation is essentially a self-regulating mechanism that emphasizes the relationships between intentions, goals, behaviors and performance. Individual differences are known to play a critical role in affecting the extent to which individuals can modify what emotions they express behaviorally as well as how they feel inside (Gross & John, 2003).

Regulatory focus – The regulatory focus theory explains self-regulation via two systems – *promotion focus* regulates nurturance needs and involves striving for ideals through accomplishment, and *prevention focus* regulates security needs and involves fulfilling obligations through vigilant and responsible behaviors (Higgins, 1997). Regulatory focus is critical in performance domains as promotion and prevention foci can influence the strategies used to attain achievement goals or to evade obstacles that hinder achievement of those goals. Higgins (1997) stated that the critical characteristic of regulatory focus as a means of self-regulation is its emphasis on distinguishing approach and avoidance motivation. Thus, according to the regulatory focus theory, self-regulation differs across individuals with respect to strong ideals (nurturance needs) vs. strong oughts (security needs).

Promotion focused individuals aim to attain achievement goals, and thus engage in activities that are consistent with such goals. Prevention focused individuals, on the other hand, aim to evade obstacles that hamper attainment of goals i.e. they look at ways to avoid failure.

Regulatory focus is known to influence employees in a diverse areas such as negotiations and buying decisions (Appelt & Higgins, 2010; Tuan Pham & Chang, 2010). At the workplace, both promotion and prevention focus could be helpful, depending on the kind of tasks and responsibilities. If the tasks emphasize achievement (e.g. sales targets), having a promotion focus is important, but if the tasks focus on being disciplined (e.g. wearing equipment for safety), then, having a prevention focus would be helpful (De Cremer, Mayer, Van Dijke, Schouten, & Bardes, 2009; Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008).

Regulatory focus theory (Higgins, 1997, 1998) has received considerable amount of research attention in psychology as well as organizational behavior (Lanaj, Chang, & Johnson, 2012). In their meta-analysis, Lanaj and colleagues (2012) found that promotion focus was positively related with task performance, OCB and innovative performance, and prevention focus was not related to task performance but it was significantly related to safety performance. The same meta-analysis also revealed that promotion focus was positively associated with job satisfaction, affective commitment and work engagement. Next, I argue that regulatory focus could affect the extent to which employees are influenced by the presence or absence of job resources.

Even though past research indicates that promotion focus could directly enhance work engagement (as discussed above), in this dissertation, promotion focus is treated as a moderating variable. This is in line with the overall objective of the dissertation, which is to examine the underlying mechanisms and boundary conditions of the relationship between *social resources* and work engagement. Several studies have shown that job resources may not be equally beneficial for different employees, and individual difference variables could

act as the moderating factors. For instance, Grant (2008) found that task significance has a positive effect on performance for only those employees who are low in conscientiousness. In their review of job design literature, Oldham and Fried (2016) discussed that individuals could react to job resources as a function of various personality traits. This dissertation is an attempt to contribute to this literature and hence, I consider promotion focus as a stable individual difference variable that could moderate the extent to which social job resources could be beneficial for employees. As a self-regulatory characteristic, promotion focus (Higgins, 1997) is likely to influence when social resources influence work engagement via gratitude because individuals high on promotion focus strive for their ideal selves (e.g. hopes and aspirations) and are known to make every effort towards higher achievement levels (Higgins, 1997, 1998). Such individuals are achievement-oriented, hardworking, responsible and persistent, which results in stronger motivation to achieve goals. Because low promotion focus employees have lower levels of self-esteem, self-efficacy and affective commitment (Lanaj et al., 2012), I argue that external cues, such as job resources and the resulting positive emotions, may play a greater role in motivating them to exert high levels of effort. By cultivating feelings of gratitude, job resources such as social support or coaching can enable low promotion focus employees to realize that their organization values their contributions, and they should also reciprocate by exerting greater effort, and thus, experience engagement in their jobs.

Goal orientation – Goal orientation reflects an individual's dispositional goal preferences in achievement situations. Dweck (1986) suggested that a learning orientation is about approaching a task purely for the sake of learning something. In contrast, a performance orientation is aimed at gaining favourable judgments from others by performing well. Later, it was argued that goal orientations differ along an approach-avoidance dimension where behavior can be oriented towards the achievement of success (i.e. approach)

or the avoidance of failure (Elliot & Church, 1997; Elliot & Thrash, 2002). Thus, we have four types of goal orientations: learning-approach orientation, learning-avoid orientation, performance-approach orientation, and performance-avoid orientation (Elliot & McGregor, 2001).

Within the context of work engagement, individual goal orientations can affect how employees react to the availability or non-availability of job resources. Individuals high on learning-approach orientation are keen to acquire new skills and master new situations, due to which they tend to exert efforts to not just achieve current tasks but also develop their capability to perform future tasks (Elliott & Dweck, 1988; Farr, Hofmann, & Ringenbach, 1993). Due to such high intrinsic motivation, such individuals could possibly be much lesser affected by job resources, relative to individuals with a low learning goal orientation. A shortage of job resources presents a challenging work situation, and high learning orientation employees would see that as an opportunity for growth and development (VandeWalle, Brown, Cron, & Slocum Jr, 1999), due to which they would engage themselves fully in the jobs. In such a way, learning orientation could moderate the relationship between job resources and work engagement.

Brief overview of the other two essays

As mentioned earlier, job resources are broadly categorized as core/ structural resources and social resources (Bakker, Demerouti, & Sanz-Vergel, 2014; Humphrey, Nahrgang, & Morgeson, 2007). This dissertation focuses specifically, on the relationship between *social resources* and work engagement. The emphasis on social resources is consistent with the emerging importance of relational perspectives at the workplace i.e. jobs and tasks are now much more socially embedded, based on greater interdependence with coworkers as well as frequent interactions with customers (Grant & Parker, 2009). Due to the global shift from manufacturing to services, employees perform their jobs interdependently

(Griffin, Neal, & Parker, 2007), teams are used to perform increasingly complex jobs (Osterman, 2000) and employees are directly responsible for meeting the expectations of customers (Schneider & Bowen, 2010). As a result, there is a much greater need for all of today's employees to acquire interpersonal and decision-making skills (Barley & Kunda, 2001). Thus, relational perspectives deserve greater attention from research scholars since social characteristics of work influence employees' attitudes and behaviors. In their review article on job design research, Oldham & Fried, (2016) suggested that more research is needed to identify the mediators and moderators for the relationships between social job characteristics and favorable workplace outcomes, especially in the services sector.

In the next two essays, I investigate the underlying emotional mechanism through which social job resources influence work engagement. It is proposed that gratitude is an important but overlooked mediator in the social resources – work engagement association. The framework discussed earlier argued that both gratitude and pride could act as the emotional mechanisms (mediators) in the job resources – work engagement relationship. But *gratitude* is chosen as the key mediator because these essays utilize *social exchange theory* as the overarching lens for examining the mechanisms of the job resources – engagement relationship. As mentioned earlier, Blau (1964) specifically discussed the role played by gratitude in the social exchange process. McCullough and colleagues (2001) also stated that gratitude is a discrete moral emotion that can be useful in explaining the phenomenon of reciprocity in social exchange relationships. Hence, the next two essays investigate whether gratitude can act as the underlying mechanism in the social resources – work engagement relationship.

In the second essay, I investigate the beneficial effects of a social resource – the social aspect of justice i.e. *interactional justice*, on work engagement. Organizational justice remains one of the most frequently researched topics in organizational behavior, and there is

strong evidence of the positive impact of justice perceptions on employee's job satisfaction, organizational commitment, citizenship behaviors and performance (Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Colquitt et al., 2013). Interactional justice reflects the quality of interpersonal treatment employees receive from others at work. It includes the extent to which employees are treated with dignity and respect, and the extent of adequacy of explanations provided by the authorities while executing procedures (Bies & Moag, 1986; Greenberg & Cropanzano, 1993). It is important to note that organizational justice is recognized as a symbolic *resource* that can foster reciprocative actions on the part of employees (Colquitt et al., 2013; Cropanzano & Byrne, 2000; Cropanzano & Rupp, 2008). Social exchange theory (Blau, 1964) has been the dominant perspective used to explain the relationships between justice perceptions and employee attitudes and behaviors (Colquitt et al., 2013), wherein it is argued that justice or fairness is a symbolic resource that can be exchanged for high levels of task performance as well as helping behaviors. Thus, interactional justice is regarded as the social aspect of justice or a social resource (Bies, 2015), that can potentially affect employee attitudes and behaviors.

In the third essay, I aim to provide stronger evidence of the social resources – gratitude – work engagement relationship, and thus, I conduct a within-person experienced sampling study to examine the effects of two social resources – task interdependence and social support at work, on work engagement. Social support from supervisor and colleagues is recognized as an important social job characteristic, and several studies have found that social support at work positively impacts work engagement (Bakker & Demerouti, 2007; Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Hakanen, Perhoniemi, & Toppinen-Tanner, 2008; Xanthopoulou et al., 2009). However, Bakker and Bal, (2010) conducted a week-level within-person study and did not find social support as a significant predictor of weekly work engagement. In this essay, I investigate the mechanism and the boundary

condition for the social support – work engagement relationship. Parker and colleagues (2008) suggested that we need to expand the range of work design variables that can have positive effects on employee attitudes because such research would enable providing comprehensive recommendations for redesigning work in organizations. In this essay, I intend to expand that list by including task interdependence, whose association with work engagement has not been investigated yet. Task interdependence refers to the extent to which an employee perceives that his/ her job depends on others and others depend on it to accomplish the work goals (Kiggundu, 1981). Disregarding interdependence limits our understanding of social resources, because if interdependence can indeed foster engagement, then that provides organizations with another tool (beyond social support, feedback and coaching) to improve employees' performance. In this essay, I attempt to explain why task interdependence should be regarded as another social resource capable of enhancing work engagement through the emotional mechanism of gratitude. Lastly, I again test whether promotion focus can moderate the effects of both the social resources (social support at work, task interdependence) on work engagement via state gratitude.

Figure 1

**A framework for examining the relationships between job resources and
work engagement**

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Essay 2

Interactional Justice and Work Engagement – Investigating the Role of Gratitude and Promotion Focus

Scholars have been interested in the concept of justice for a very long time. Aristotle looked at fairness in the distribution of resources among people (Ross, 1925), Locke (1836) wrote about human rights (Locke, 1836) and later, Mill revisited fairness in the classic notion of utilitarianism (Mill, 1861). While these philosophical perspectives took a normative approach toward fairness, today's scholarly research on justice takes a descriptive approach to understand what people perceive to be fair, and how those justice perceptions affect their attitudes and behaviors. Fairness issues remain critical across various disciplines, such as acquisition and use of wealth and power (Marx, 1971), opportunities for education (Darling-Hammond, 2015), and access to quality health care (Daniels & Light, 1996).

Organizational justice remains one of the most frequently researched topics in organizational behavior and human resource management (Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Cropanzano & Greenberg, 1997). The study of fairness at the workplace was initially concerned with *distributive justice* – employees see whether one's rewards are proportional to one's contribution or 'inputs', and then, compare that ratio with that of other employees (Adams, 1965; Leventhal, 1976). The study of process was introduced to the justice literature by Thibaut & Walker, (1975) in the form of *procedural justice* – employees consider the fairness of the processes used to decide the outcomes in terms of whether the processes are consistent across people and time, unbiased, accurate, ethical and have some mechanism to correct any flawed decisions (Leventhal, 1980). Later, the social aspects were included in organizational justice, as Bies and Moag, (1986) stated that *interactional justice* is focused on the interpersonal treatment and communication by the supervisors to

employees. Several meta-analyses have concluded that these justice perceptions have a positive impact on employees' job performance, extra role behavior as well as work attitudes such as job satisfaction, trust and organizational commitment (Cohen-Charash & Spector, 2001; Colquitt et al., 2001; Colquitt et al., 2013).

In order to explain *why* justice perceptions have beneficial effects, scholars have extensively relied on the social exchange theory (Colquitt et al., 2013; Cropanzano & Rupp, 2008). According to the social exchange perspective, individuals are involved in a series of interdependent transactions in which they exchange different kinds of resources. And when these individuals abide by certain rules, high quality relationships are generated (Blau, 1964; Cropanzano & Mitchell, 2005). Justice is viewed as a *symbolic* resource (symbolic because it involves an exchange of intangible assets such as status, recognition or information) that is capable of promoting reciprocative actions by the employees through cultivating a social exchange relationship between the employees and the supervisors/ organization (Cropanzano & Rupp, 2008; Moorman, 1991). Utilizing this perspective, researchers have found that justice judgments impact employee performance through social exchange mediators such as leader-member exchange (LMX) and trust (Colquitt et al., 2013; Cropanzano & Mitchell, 2005).

In recent years, justice scholars have given increased attention to *affect*, defined as a condition of feeling (Watson, Clark, & Tellegen, 1988), as another key mechanism through which fairness perceptions can impact employee attitudes and behaviors (DeCremer, 2007; Fortin, Blader, Wiesenfeld, & Wheeler-Smith, 2015). This increased focus on affect and emotions is essential because it provides a more complete understanding of *why* justice perceptions impact employee outcomes. The explanations provided by social exchange mediators are largely cognitive, relying on the employee's rational assessment of social exchange quality. By incorporating emotions, scholars acknowledge individuals as not just

cognizing but also emoting, and thus, provide a balanced understanding for justice effects. In their meta-analytical review, Colquitt et al., (2013) found that distributive justice and procedural justice had significant indirect effects on task performance and OCB via state positive and negative affect.

However, some important gaps are yet to be addressed regarding the affective implications of justice. One of the unanswered questions is about the relationship between justice perceptions and discrete *positive* emotions. Scholars have suggested that we need to develop greater understanding of discrete emotions, since specific emotions can lead to distinct cognitive, psychological and behavioral reactions (Barsade & Gibson, 2007; Gooty, Gavin, & Ashkanasy, 2009). For instance, if the employee feels ‘contented’ after experiencing fairness at work, it may lead to a sense of relief and low degree of effort (Taylor, Medvedev, Owens & Siegert, 2017). On the other hand, if just treatment triggers the emotion of ‘gratitude’, the employee may feel more connected to the organization and be motivated to reciprocate the treatment by exerting greater effort (Algoe, Haidt & Gable, 2008). Moreover, in his review of interactional justice, Bies, (2015) argued, “our understanding and analysis of the emotions of (in)justice begin and end with anger” (p.21), and thus, called for greater research on the emotions of justice. While negative emotions such as anger may be useful in explaining the (negative) consequences of organizational injustice, such as counterproductive work behavior (Fox, Spector, & Miles, 2001; Jones, 2009), it is equally important to examine whether positive emotions can explain the beneficial outcomes of justice. Secondly, Colquitt and colleagues (2013) suggested that we need research on justice that can integrate the exchange-based and affect-based perspectives. For instance, it is possible that specific emotions resulting from justice-related experiences can influence the strength of social exchange quality (Lawler, 2001); or it might be the case that perceiving high quality exchange relationship (e.g. LMX) can cause specific emotions such as gratitude

or pride. Hence, by examining such types of linkages, scholars can provide a more nuanced understanding of the interplay between social exchange indicators and discrete emotions.

In line with the overall objective of this dissertation, which is to investigate the relationship between social resources and work engagement, I examine the association between interactional justice and engagement in this essay. Work engagement is characterized by high investment of employees' physical, cognitive and emotional energies to meet and exceed role expectations (Kahn, 1990; Macey & Schneider, 2008), and is expressed as an affective-motivational state characterized by high levels of vigor, dedication and absorption during work performances (Schaufeli, Salanova, González-Romá, & Bakker, 2002). Interactional justice reflects the overall quality of interpersonal treatment at the workplace (Bies, 1986) and it includes two specific types of treatment. The first is interpersonal justice, which refers to the extent to which employees are treated with respect and dignity. And the second is informational justice, which is about the adequacy of explanations provided to the employees about the procedures used or the outcomes distributed in the organization (Greenberg, 1990, 1993). However, consistent with majority of past research, I examine interactional justice as one construct in this study (Bies, 2015). Interactional justice has been found to be an important factor for understanding various organizational processes, such as feedback and evaluation, negotiations, conflict resolution, and change management (Baron, 1990; Cob, Wooten & Folger, 1995; Greenberg, Bies & Eskew, 1991; Shapiro & Bies, 1994; Sitkin & Bies, 1993). Interactional justice is associated with a variety of consequences including anger, psychological distress, occupational stress, job satisfaction and organizational commitment (Aryee, Budhwar & Chen, 2002; Barlings & Phillips, 1993; Bies & Tripp, 1996; Cropanzano, Bowen & Gilliland, 2007; Elovainio, Kivimäki & Helkama, 2001; Laschinger, 2004; Tepper, 2000). Despite justice being an established field of research for several decades, there is a lack of empirical research

examining the relationship between justice perceptions and work engagement. While there has been some research investigating the impact of distributive and procedural justice on engagement (Haynie, Mossholder, & Harris, 2016; Strom, Sears, & Kelly, 2014), much lesser is known about the effects of interactional justice on work engagement (Moliner, Martinez-Tur, Ramos, Peiró, & Cropanzano, 2008). It is important to examine whether interactional justice can be beneficial for work engagement, because that could provide managers an additional social resource through which they could boost employees' engagement. Moreover, interactional justice is already known to have a motivational effect on employees in the form of higher job satisfaction and affective commitment (Colquitt, et al., 2001). Work engagement being an affective-motivational construct, it would be worthwhile to investigate if interactional justice improves engagement as well. If these beneficial effects of interactional justice are confirmed, then it would give the supervisors yet another reason to treat their follower employees with respect, and provide them with sufficient and timely information.

The first objective of this study is to investigate whether the positive emotion of *state gratitude* can explain why interactional justice has a beneficial effect on work engagement. The emotion of gratitude emerges out of social exchanges when beneficiaries attribute their positive circumstances to the efforts of another person (Blau, 1964; Grant & Gino, 2010). As an affective state, feelings of gratitude enhance subjective well-being and health (Seligman, Steen, Park & Peterson, 2005). It motivates not just the beneficiaries, but also the helpers to engage in prosocial behaviors (Grant & Gino, 2010; Tsang, 2006). At the workplace, state gratitude is known to have significant positive effects on daily OCB (Spence, Brown, Keeping & Lian, 2014). Gratitude is regarded as a moral emotion since it is linked to the welfare of persons other than the agent (Haidt, 2003; McCullough, Kilpatrick, Emmons, & Larson, 2001). Feelings of gratitude are viewed as a consequence of moral acts of the

benefactor (Tangney, et al., 2007). At the same time, justice is also regarded as a moral act (Folger, 1998). Organizational justice is concerned with what people view as morally appropriate at the workplace (Cropanzano, Goldman & Folger, 2003), and thus, employees respond to acts of fairness partly because they have an explicit need for morality, which goes beyond their desire for economic benefits and group affiliation (Folger & Glerum, 2015).

Building on the above dynamics, I argue that interactional justice has a beneficial effect on employees because such fair treatment could make the employees feel grateful, which in turn motivates them to work harder and thus, experience greater engagement in their jobs. Integrating the social exchange theory with research on emotions, I posit that when an individual receives a useful resource (in this case, interactional justice), he/she tends to feel grateful (Blau, 1964; Lawler, 2001) and then, wants to reciprocate by exerting more effort at work, thus demonstrating high levels of absorption, dedication and vigor. Thus, gratitude is presented as a key moral and emotional mechanism through which interactional justice affects employees' engagement.

While justice perceptions have the ability to enhance work engagement levels, Colquitt, Scott, Judge, & Shaw (2006) suggested that personality-based factors could moderate the extent to which employees are influenced by justice perceptions. By identifying the type of individuals who are more/ less influenced by fairness-related experiences, more precise suggestions can be given to managers on how to increase engagement levels for different employees. In their study, Colquitt and colleagues (2006) found that justice perceptions had stronger effects on task performance for individuals low in trust propensity. Supporting this perspective, other scholars have also found significant interaction between justice perceptions and individual difference factors in predicting employee outcomes (Andrews, Kacmar & Harris, 2009; He, Zhu & Zheng, 2014). Aggressiveness, impulsivity and self-esteem are known to moderate the effects of interactional justice (Aquino, Galperin,

& Bennett, 2004; De Cremer, Van Knippenberg, Van Dijke, & Bos, 2004; Henle, 2005). In this study, I examine *promotion focus* as the boundary condition in the relationship between justice perceptions, gratitude and work engagement. It is worthwhile to consider promotion focus as the moderator because an individual's regulatory focus is known to influence the strategies used to achieve one's goals (Higgins, 1997). In this essay, I study whether the beneficial effects of interactional justice would still hold for individuals who are high in promotion focus. Such individuals have strong ideals (nurturance needs), and therefore, it is possible that they are less affected by an external resource i.e. interactional justice experiences. Such an investigation would significantly improve our understanding of the boundary conditions of the justice – engagement association. As a self-regulatory characteristic, promotion focus (Higgins, 1997, 1998) is likely to influence when justice perceptions influence work engagement via gratitude because individuals with a high promotion focus tend to be achievement-oriented, hardworking and persistent, and thus, have a greater ability to control their emotions. High promotion focus is associated with an intrinsic motivation towards one's advancement and gain (Higgins, 1998), and such individuals are known to regulate their affective states to help achieve work-related goals (Arnold & Reynolds, 2009). Given that justice judgments can evoke substantial emotional experience (Fortin, Blader, Wiesenfeld & Wheeler-Smith, 2015), the ability to understand and control one's emotions should play an important role. Building on these arguments, I posit that interactional justice perceptions have a stronger effect on engagement via gratitude for individuals who are low in promotion focus.

Interactional justice and work engagement

Social exchange theory provides a fundamental perspective that has been used extensively for understanding workplace behaviors. According to this perspective, employees in an organization are involved in a series of *interdependent* transactions that can potentially

create high quality relationships (Blau, 1964; Kelley & Thibaut, 1978). Such relationships can lead to mutual trust and commitment if employees follow certain “rules” of exchange, one of which is the rule of reciprocity (Gouldner, 1960). Reciprocal interdependence highlights interpersonal transactions, whereby if one person supplies a resource, then the receiving person is likely to respond in kind. And such behaviours encourage cooperation among the employees (Cropanzano & Mitchell, 2005). Social exchange theory suggests that exchanges which are social in nature are based on a trust that gestures of goodwill will be reciprocated at some point in the future (Blau, 1964; Cropanzano & Mitchell, 2005). Social exchange theory and the norm of reciprocity have been used many times to explain the motivational basis behind employee attitudes and behaviors (Gouldner, 1960; Settoon, Bennett, & Liden, 1996; Wayne, Shore, & Liden, 1997).

Within the organizational justice literature, social exchange theory has been the dominant perspective used to understand the effects of justice (Colquitt et al., 2013; Cropanzano & Rupp, 2008). In the social exchange framework, a “resource” is seen as anything that can be transacted in an interpersonal context. Resources are categorized as either *concrete* or *symbolic*, and also, according to the relevance of the identity of the provider. Concrete resources are tangible and thus, can be easily observed, e.g. giving an object or performing an activity; and symbolic resources are intangible in nature, e.g. smile, status or information. Resources with high provider relevance are *particularistic*, whereas resources with low provider relevance are *universal* (Foa & Foa, 1980). Justice, then, is viewed as a symbolic and particularistic resource that can be exchanged for reciprocative actions on the part of employees (Colquitt et al., 2013; Cropanzano & Rupp, 2008).

Kahn, (1990, 1992) defined engagement as an affective-motivational state involving the expression of an employee’s ‘preferred self’ in job behaviors, wherein the employee simultaneously invests physical, cognitive and emotional energies during task performances.

Work engagement is viewed as a positive work-related state of mind that is characterized by vigor, dedication and absorption (Schaufeli & Bakker, 2004). Vigor implies high levels of energy and resilience while working; dedication refers to having a sense of significance, enthusiasm and challenge; and absorption implies that the worker is fully engrossed at work.

Bies & Moag, (1986) stated that employees are highly concerned about the fairness of the interpersonal treatment that they receive from their supervisors, and they referred to it as interactional justice. Regarded as an extension of procedural justice, interactional justice implies that employees are sensitive to the quality of interpersonal treatment and communication they experience during the enactment of organizational procedures. Truth and human dignity are identified as the core properties of interactional justice (Bies, 2001).

Interactional justice is known to have two dimensions – interpersonal and informational justice. Interpersonal justice is defined as the perceived fairness of the interpersonal interactions that happen when procedures are implemented. Respect (treating employees with dignity) and propriety (confirming to appropriate language and behavior) are recognized as the two rules that govern interpersonal justice (Bies & Moag, 1986). When supervisors treat their employees with respect, it validates the employee's standing within the work group (Tyler & Bies, 1990; Lind, Greenberg, Scott, & Welchans, 2000). Past research indicates that when interactional justice is high, both supervisors and employees report high levels of trust in each other and consequently, often go the extra mile to help each other (Cropanzano, Prehar, & Chen, 2002; Masterson et al., 2000). I posit that such employees are likely to reciprocate the acts of interpersonal fairness by working harder and as a result, feel more dedicated, absorbed and vigorous in their jobs. On the other hand, interpersonal mistreatment implies a loss of the employee's social belonging within the organization, which is unlikely to motivate them (Tyler, 1999). Interpersonal justice is fully capable of redefining the employee-organization relationship as one of social exchange (Moorman,

1991), thereby encouraging employees to invest their fuller selves and be engaged at the workplace.

The second dimension – informational justice, refers to the explanations provided by supervisors that convey specific information about why procedures were used in a particular manner or why outcomes were distributed in a certain fashion (Colquitt et al., 2001; Greenberg & Cropanzano, 1993). Past research indicates that managers must provide adequate justifications for important decisions taken, as that directly affects fairness perceptions at work (Bies & Moag, 1986). Moreover, such explanations provided by the leaders should be specific, timely and reasonable (Shapiro, Buttner & Barry, 1994). When supervisors frequently share information, it is reasonable to expect that perceived trustworthiness would develop among the employees (Tyler & Bies, 1990). Using the social exchange theory, Roberson and Stewart (2006) stated that informational justice indicates that the employees are valued members in the organization, due to which the employees are motivated to perform well in their jobs. Following these arguments, I suggest that informational justice also motivates the employees to invest their physical, cognitive and emotional energies at work.

Hypothesis 1: Interactional justice is positively associated with work engagement.

Interactional justice and gratitude

As a discrete positive emotion, gratitude was mostly neglected by research scholars until the beginning of the 21st century (Emmons & McCullough, 2004). Gratitude is now viewed as a moral emotion since it is linked to the welfare of persons other than the agent (Haidt, 2003; McCullough, Kilpatrick, Emmons, & Larson, 2001). McCullough et al., (2001) explained gratitude has three specific functions – a moral barometer function, a moral motive function and a moral reinforce function. As a moral barometer, gratitude is sensitive to valuable benefits received from another person who has expended effort on their behalf.

Gratitude is also seen as a moral reinforcer because the benefactor is motivated to act morally in future as well, whenever a beneficiary expresses gratitude. Lastly, as a moral motive function, grateful individuals tend to be prosocial i.e. they are motivated to help others. McCullough and colleagues (2001) argued that grateful people are likely to contribute to the welfare of the benefactor or even a third party in the future. In support of these arguments, past empirical research has found that feelings of gratitude can translate into greater efforts to help not just the benefactor but also strangers (third party) (Bartlett & DeSteno, 2006; Grant & Gino, 2010).

Gratitude was initially conceptualized as a relatively stable dispositional trait, as McCullough, Emmons, & Tsang (2002) stated that some individuals are inclined to feeling more grateful than others i.e. individuals high on trait gratitude experience this emotion more frequently, more intensely and to more entities simultaneously. However, Spence and colleagues (2014) stated and demonstrated that gratitude has a state component as well because gratitude is an emotional response that is caused by an experience/ event (e.g. receiving a resource). This state level of gratitude refers to the actual experience of gratitude, which is episodic in nature. Hence, the same individual can feel more or less grateful at different times depending on his/her experiences. Consistent with these arguments, I consider gratitude as a state and posit that justice judgments can directly influence this positive emotion of gratitude.

It is important to note that the role of gratitude in social exchange processes has been emphasized by scholars earlier. Simmel (1950) wrote in his book on *Sociology*, “gratitude... establishes the bond of interaction, of the reciprocity of service and return service, even when they are not guaranteed by external coercion” (p.387). And in his seminal work on social exchange, Blau (1964) explained, “A person for whom another has done a service is expected to express his gratitude and return a service when the occasion arises. Failure to express his

appreciation and to reciprocate tends to stamp him as an ungrateful man who does not deserve to be helped” (p.4). Lawler and colleagues (Lawler, 2001; Lawler & Thye, 1999) also suggested that discrete emotions have to be a central feature of social exchange processes. Lawler (2001) posits that since social exchange involves a series of interactions – exchange of resources – between two actors who follow certain rules, any such successful interaction should result in an emotional “high”, and any unsuccessful interaction should result in an emotional “low”. Individuals experience gratitude when they attribute pleasant feelings from the exchange task to others, and feel pride when they attribute pleasant feelings from the exchange task to themselves (Lawler, 2001).

As mentioned earlier, justice is recognized as a symbolic and particularistic resource (Colquitt et al., 2013; Cropanzano & Rupp, 2008) in the context of social exchange theory. Based on the above arguments, I posit that when employees perceive high levels of interactional justice, they are likely to experience the emotion of gratitude, because receiving fair treatment (as a resource) from the supervisor/ organization indicates a successful social exchange transaction. (Bies & Moag, 1986; Bies, 2015) suggest that truth and human dignity are at the core of interactional justice. Folger (2001) stated that interactional justice is given by leaders as discretion to their follower employees i.e. the same leader may treat different employees with different levels of interactional justice. But from the employees’ perspective, such experiences significantly reveal whether the leader has followed the rules of justice. When employees receive respectful treatment as well as adequate information from their supervisors, they are more likely to feel grateful for the same. Disrespectful treatment and violations of truth during interactions are often cited as triggers of anger or revenge (Skarlicki & Folger, 1997; Tripp & Bies, 2009), and thus, employees facing such injustice are unlikely to be grateful at work.

Extending the above arguments, I argue that when employees perceive interactional justice, they could view it as a successful social exchange interaction and attribute the same to their supervisor (as the source of justice), who is treating them with respect and dignity. As a result, such employees are more likely to experience the emotion of gratitude (Lawler, 2001). On the other hand, employees who perceive low levels of interactional justice from the supervisor would see that as an unsuccessful social exchange interaction and therefore, are less likely to feel grateful.

Hypothesis 2: Interactional justice is positively associated with gratitude.

Gratitude and work engagement

Next, I hypothesize that feelings of gratitude would predict higher levels of engagement. Since past research has shown that feelings of gratitude motivate the beneficiary to exert more effort towards the welfare of the benefactor *as well as of the third party*, it is highly likely that the same feelings of gratitude also lead the beneficiary to work with higher dedication, absorption and vigor, thus helping the supervisor as well as the organization (as the third party). Robert C. Solomon, in the foreword of the book – “The Psychology of Gratitude” (Emmons & McCullough, 2004) – stated that gratitude is not just about one single episode of the beneficiary returning a favor by helping the benefactor; gratitude is about seeing the bigger picture i.e. seeing one episode as a part of a larger relationship in which strangers frequently exert effort to help each other. In other words, the effects of gratitude go far beyond the benefactor as the focal person (beneficiary), being grateful, wants to contribute to the welfare of all others. For many employees, work is directly seen in terms of making a difference in the lives of others (Colby, Sippola, & Phelps, 2001). When employees care about the welfare of others, they are likely to invest greater time and energy in work related activities (Grant, 2007). In line with these arguments, I posit that when an individual

is grateful, then s/he becomes motivated to invest all the energies into work and bring a positive change in the lives of others, thereby experiencing higher levels of engagement.

Fredrickson (2004) further argued that gratitude is a positive emotion that broadens people's mode of thinking as they creatively consider different actions that can benefit others. Gratitude is also viewed as an emotion that can build personal resources, specifically, social bonds and friendships (Emmons & Shelton, 2002). Grateful individuals have a higher sense of interpersonal trust and also have higher expectations regarding future exchanges with others (Dunn & Schweitzer, 2003; Froh, Bono, & Emmons, 2010). Therefore, feelings of gratitude are accompanied by higher perceived social support, which is likely to increase engagement levels (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009).

Hypothesis 3: Gratitude is positively associated with work engagement.

Nature of gratitude

In this essay, gratitude is assessed in terms of a generalized feeling of being grateful. This essay does not examine targeted gratitude i.e. this study does not investigate that the employees are grateful *to whom*. This way of considering gratitude is consistent with majority of extant research on gratitude (Spence et al., 2014; Wood, Maltby, Gillett, Linley & Joseph, 2008), wherein the respondents are not asked about being grateful to whom. Moreover, the emotion of gratitude not just motivates the beneficiary to help the benefactor and return the favor, but also inspires him/her to contribute to the welfare of all others (Emmons & McCullough, 2004). We have empirical evidence now that shows that gratitude motivates individuals to engage in prosocial behavior (Grant & Gino, 2010). Thus, the grateful-to-whom question is less critical when studying the consequences of gratitude.

Interactional justice, gratitude and work engagement

Extending the arguments above, when the supervisor treats the employees with respect and dignity, and provides adequate information on how and why the procedures were

implemented in a certain manner, the employees are likely to experience the discrete emotion of gratitude (Lawler, 2001; McCullough, Emmons, & Tsang, 2002). And that feeling of gratitude would motivate the employees to reciprocate by investing their fuller selves during work performances i.e. demonstrating high levels of work engagement.

Hypothesis 4: Gratitude mediates the positive association between interactional justice and work engagement.

Gratitude and leader-member exchange – Simultaneous mediators

Leader-member exchange (LMX) is acknowledged as an important social exchange-based factor that can explain why justice perceptions impact employee attitudes and behaviors (Colquitt et al., 2013). LMX reflects the quality of relationship between the leader and the follower, which is developed over time based on their experiences, needs, attitudes and personalities (Dansereau Jr, Graen, & Haga, 1975). Thus, high LMX relationships are supportive and informal, and characterized by high degrees of trust between the leader and follower. In such cases, both the leader and the follower tend to go the extra mile to assist each other (Cropanzano, Prehar, & Chen, 2002).

Past research indicates that interactional justice is positively related with LMX (Cropanzano et al., 2002; Masterson, Lewis, Goldman, & Taylor, 2000) because high quality relationship is likely to develop when the leader treats the follower with respect and dignity, and provides adequate explanations on decision-making procedures. On the other hand, when the leader doesn't respect the follower or doesn't provide sufficient information, the follower is likely to perceive low LMX. Extant research supports the view that LMX should significantly affect work engagement. Macey & Schneider (2008) argued that when leaders are fair, and value good performance, they positively impact work engagement by stimulating a sense of attachment to the job. When the follower employees trust their leaders, they feel psychologically safe and thus, are more likely to engage themselves (Kahn, 1990). In their

meta-analysis on work engagement, Christian and colleagues (2011) found that LMX was positively associated with work engagement (mean corrected correlation 0.31).

Therefore, I examine LMX and gratitude as simultaneous mediators of the relationship between interactional justice and work engagement. It is expected that interactional justice should have unique effects on work engagement via LMX and gratitude. LMX represents the social exchange-based mechanism that reflects the quality of the leader-follower relationship, whereas gratitude is the positive discrete emotion that could additionally explain why justice judgments impact work engagement.

Hypothesis 5: LMX and state gratitude simultaneously mediate the positive relationships between interactional justice, and work engagement.

Moderating role of promotion focus

Self-regulation is extremely important for adaptive functioning as employees need to regulate their behaviors during goal pursuit (Carver & Scheier, 2001; Higgins & Spiegel, 2004). Individual differences are known to play a critical role in affecting the extent to which individuals can modify what emotions they express behaviorally as well as what they feel inside (Gross & John, 2003). The regulatory focus theory explains self-regulation via two systems – *promotion focus* regulates nurturance needs and involves striving for ideals through accomplishment, and *prevention focus* regulates security needs and involves fulfilling obligations through vigilant and responsible behaviors (Higgins, 1997). Regulatory focus is critical in performance domains as promotion and prevention foci can influence the strategies used to attain achievement goals or to evade obstacles that hinder achievement of those goals.

Promotion focus is examined as a moderator in this study because as a self-regulatory individual characteristic, it is likely to influence the extent to which the positive emotion of gratitude can potentially affect work engagement. Individuals high on promotion focus strive

for their ideal selves (e.g. hopes and aspirations) and are known to make every effort towards higher achievement levels (Higgins, 1997, 1998). Such individuals are achievement-oriented, hardworking, responsible and persistent, which results in stronger motivation to achieve goals. Because low promotion focus employees have lower levels of self-esteem, self-efficacy and affective commitment (Lanaj et al., 2012), I argue that external cues, such as justice perceptions and the resulting positive emotions, may play a greater role in motivating them to exert high levels of effort. By cultivating feelings of gratitude, justice perceptions can enable low promotion focus employees to realize that their organization values their contributions, and they should also reciprocate by engaging themselves fully in their jobs. On the other hand, since high promotion focus is associated with persistent efforts even when facing difficult tasks, I believe that such individuals are likely to maintain higher levels of engagement giving less weightage to their momentary emotions such as gratitude. In other words, the feelings of gratitude generated by justice judgments may exert lesser influence on the engagement levels of high promotion focus employees, who are naturally approach-motivated and eager to exert efforts towards achieving maximal levels of performance (Förster, Higgins, & Bianco, 2003; Higgins, Shah & Friedman, 1997).

Justice-related experiences are known to evoke substantial emotional reactions (Colquitt et al., 2013; Fortin, Blader, Wiesenfeld & Wheeler-Smith., 2015), and thus, affect regulation i.e. the ability to understand and control one's emotions would play an important role. Emotion regulation involves processes by which individuals influence their subjective emotional experiences in order to reduce the discrepancy between their current affective state and a perceived ideal affective state, which is congruent with their personality (Gross, 1998). I posit that high promotion focus individuals are better able to understand their emotions and choose adaptive responses such that experiencing high or low levels of emotions does not interfere with their work-related goals. Thus, even when they feel lower levels of gratitude,

such high promotion focus employees would still be motivated to engage fully in their jobs due to their natural tendency to focus on growth and advancement. In support of these arguments, Arnold & Reynolds, (2009) found that individuals with high promotion focus tend to regulate their moods and emotions successfully. In their study, it was found that high promotion focus individuals exert greater effort in retrieving positive memories to improve their affective states, esp. when such states are not consistent with their orientation towards positive outcomes and emotions. Similarly, I argue that when high promotion focus individuals experience low level of gratitude, they would engage in affective regulation and recall positive events and memories. By doing that, such employees are less likely to be influenced by their emotional state, and as a result, can still maintain high levels of engagement at work which fulfills their aim of achieving high levels of performance.

Moreover, Colquitt and colleagues (2006) argued that justice effects could be amplified if a personality trait causes individuals to become more sensitive to justice i.e. if a trait could make them contemplate on justice information more deliberately. The authors argued that individuals who have low trust propensity are more likely to observe their environment as suspicions about benevolence and integrity govern their regular interactions. On the other hand, individuals with high trust propensity are unlikely to ruminate on fairness-relevant information because of their natural tendency to have greater faith in others. High promotion focus individuals, due to their approach motivation and focus on positive outcomes, have a greater inclination to trust others (Das & Kumar, 2011; Wirtz & Lwin, 2009). Such individuals are concerned with advancement and thus, tend to trust others as that is conducive to building long-term relations and enhancing commitment. Low promotion focus individuals, who do not naturally trust others, would be more interested in observing fairness-relevant information and thus, be more influenced by justice perceptions and the resulting feelings of gratitude.

Therefore, I posit that promotion focus should moderate the relationship between interactional justice and gratitude, as well as the relationship between gratitude and work engagement such that the justice-gratitude-engagement association should be stronger for individuals low in promotion focus.

Following the recommendations of Gardner, Harris, Li, Kirkman and Mathieu (2017), I predict a weakening-substituting interaction hypothesis. In this weakening hypothesis, it is expected that gratitude will have a positive relationship with work engagement, whereas the sign of the interaction term would be negative. Similarly, it is expected that interactional justice will have a positive relationship with gratitude, whereas the sign of the interaction term would be negative. And since I expect promotion focus to be positively related with engagement, it is termed as a substituting effect. Overall, it is predicted that promotion focus would serve as a substitute for the positive relationship between interactional justice and work engagement via gratitude, such that the relationship would become stronger as promotion focus decreases. Based on the above arguments, I test the first stage and second-stage moderated-mediation hypotheses:

Hypothesis 6: Promotion focus will moderate the mediated positive relationship between interactional justice and work engagement via gratitude, such that the relationship becomes stronger as promotion focus decreases.

METHOD

Participants and procedure

The first objective of this study was to establish that state gratitude can explain the emotional mechanism through which interactional justice impacts work engagement. And secondly, I wanted to integrate the affect-based and social exchange-based perspectives by examining gratitude and LMX as simultaneous mediators. In order to test these linkages, I followed the recommendations of Colquitt and colleagues (2013), who suggested that affect/

emotions can be incorporated in traditional survey-based studies by operationalizing emotions using a somewhat longer time horizon (e.g. one month).

I conducted a two-wave study using respondents recruited from Amazon's Mechanical Turk (MTurk). In organizational research, MTurk is regarded as a popular survey platform because it is an efficient way of collecting reliable data, and the results are similar to traditional respondent studies (Buhrmester, Kwang & Gosling, 2011; Grandey, Houston & Avery, 2018; McAllister, Mackey & Perrewe, 2018). An advertisement was posted for the survey that stated that participants needed to answer a survey on their attitudes and behaviors at the workplace. Consistent with the goal of studying *organizational* justice and *work* engagement, only full-time working employees (working for more than 35 hrs. per week) were eligible to take part in the study. Participation was completely voluntary and consent was obtained prior to allowing employees access to the online questionnaire.

The first wave (Time 1) survey was taken by 325 employees. In this survey, employees' demographic information, distributive, procedural and interactional justice perceptions, work engagement, and promotion and prevention focus, were assessed. Justice dimensions were assessed at Time 1 because they form the independent variables in the model. Thus, measuring justice perceptions at time 1 goes in line with the objective of attempting to demonstrate a causal relationship between such variables and the dependent variables. Regulatory focus was assessed at time 1 because in this study, it is treated as a stable individual difference variable i.e. as a trait. And trait variables can actually be measured at either time 1 or time 2. After one month, these 325 employees were invited to participate in the second wave (Time 2) survey. In the Time 2 survey, employees were asked to answer items on work engagement, state positive affect and negative affect, state gratitude, and LMX. A total of 241 employees (74% response rate) completed the Time 2 survey. Both the mediating variables i.e. gratitude and LMX were assessed at time 2 to support the causal

relationship between justice dimensions and LMX/ gratitude. Also, as both the variables are mediators, I measured both of them at the same time. Work engagement was assessed at both the times, because the aim was to conduct a stronger test of the relationship between justice perceptions and engagement. Measuring engagement at time 1 and time 2 allowed me to control for engagement at time 1 in the model, and test whether justice perceptions have any incremental effects on work engagement (at time 2). In other words, controlling for engagement at time 1 allowed me to test whether justice dimensions actually improve engagement further, beyond the baseline engagement levels which were measured at time 1.

Thus, the final sample consisted of 241 full-time employees ($M_{\text{age}} = 36.4$ years, 42.3% females). The employees reported an average of 13 months of tenure at the existing firm, and an average of 22 months of total work experience. The participants worked in different industries including information technology, logistics, education, banking, healthcare and others. There was high diversity in the jobs as well, ranging from sales managers and production managers to accountants, teachers and engineers.

I tested for response bias (325 employees at time 1, and 241 employees at time 2) in terms of demographics as well as work engagement, justice perceptions and regulatory focus. Results of the independent samples t test indicated no significant differences between time 2 respondents and non-respondents in terms of age, gender, work experience, tenure, work engagement and regulatory focus. However, results showed that there was significant difference in justice perceptions between the respondents and non-respondents. For distributive justice, respondents had higher distributive justice (mean = 3.32; standard deviation = 1.11) than non-respondents (mean = 3.02; standard deviation = 1.01); $t(295) = 2.014$, $p < .05$. Similarly, respondents had higher procedural justice (mean = 3.25; standard deviation = 0.90) than non-respondents (mean = 2.93; standard deviation = 0.97); $t(295) = 2.507$, $p < .05$ and lastly, respondents had higher interactional justice (mean = 4.04; standard

deviation = 0.79) than non-respondents (mean = 3.71; standard deviation = 0.85); $t(295) = 3.090$, $p < .01$.

Measures

Organizational justice

Employees' justice perceptions were assessed at Time 1 using the justice scale developed by Colquitt (2001). The employees were asked to refer to their monetary rewards (including salary/ compensation and any other forms such as bonus, increments, etc.) in their current organization, and answer each statement on a scale of 1 (*to a very small extent*) to 5 (*to a great extent*). Distributive justice was measured through 4 items – sample item, “do your monetary rewards reflect the effort you have put into your work?” ($\alpha = 0.94$). For procedural justice, they were asked to refer to the procedures used to arrive at their monetary rewards. Procedural justice was assessed using 7 items – sample item, “have you been able to express your views and feelings during those procedures?” ($\alpha = 0.88$). And for interactional justice, they were asked to refer to their direct superior (or supervisor/ leader) and answer the 9 items – sample items, “has this supervisor treated you with respect?” and “has this supervisor explained the procedures thoroughly?” ($\alpha = 0.92$).

Work engagement

Employees' work engagement (Time 1 as well as Time 2) was assessed using the 9-item version of the Utrecht Work Engagement Scale (UWES-9) developed by Schaufeli, Bakker and Salanova, (2006). Items were rated on a scale of 1 (*to a very small extent*) to 5 (*to a great extent*). Each dimension of work engagement was measured by three items. Sample items – “at my job, I feel strong and vigorous” (vigor), “I am enthusiastic about my job” (dedication), and “I am immersed in my work” (absorption). (Time 1: $\alpha = 0.95$; Time 2: $\alpha = 0.94$).

State gratitude

At Time 2, state gratitude was assessed using the 5-item scale developed by Spence, Brown, Keeping & Lian (2014). Employees were asked to rate the items in terms of the extent to which they felt like that (or experienced) *at work during the past one month*. Sample items – “I felt grateful”, and “I felt a warm sense of appreciation” ($\alpha = 0.93$).

Leader-member exchange (LMX)

LMX was measured at Time 2 using the 5-item scale developed by Graen & Uhl-Bein (1995). Items were rated on a scale of 1 (*to a very small extent*) to 5 (*to a great extent*). A sample item is “my leader/ supervisor understands my problems and needs” ($\alpha = 0.94$).

Regulatory focus

Trait promotion and prevention focus were assessed at Time 1 using the 10-item scale developed by Lockwood, Jordan and Kunda (2002). Sample items – “I frequently imagine how I will achieve my hopes and aspirations at work” (promotion focus; $\alpha = 0.92$) and “I am focused on preventing negative events at work” (prevention focus; $\alpha = 0.85$).

Control variables

Employee age, gender, organizational tenure and total work experience were used as controls because these attributes can potentially affect LMX and work engagement (Bal, De Cooman & Mol, 2013; Gerstner & Day, 1997). To rule out the confounding effects of other justice dimensions, I controlled for distributive and procedural justice. Next, I also controlled for Time 1 work engagement, to investigate the effects of interactional justice on work engagement at Time 2. And I also included state PA and NA as control variables to test the effects of state gratitude (beyond general positive/ negative mood). Also, previous studies have shown that state PA does influence work engagement (Ouweneel et al., 2012).

RESULTS

Descriptive statistics

Table 1 presents the means, standard deviations, reliabilities, and correlations of all study variables. As shown in the diagonal of the table, all variables had acceptable level of internal consistency reliability. Correlations among the variables were generally consistent with past research. For example, distributive, procedural and interactional justice were significantly related with each other. Each of the justice dimensions was also positively related with gratitude, LMX as well as work engagement. Both gratitude and LMX were significantly related with work engagement.

Confirmatory factor analysis

I conducted a confirmatory factor analysis (CFA) on the study variables to confirm the construct validity. Several models were analysed, including the proposed factor structure, using Mplus software (Muthen & Muthen, 2007). Apart from the key variables in the model i.e. interactional justice, gratitude, work engagement, LMX and promotion focus, I also included distributive and procedural justice in the CFA to check the construct validity of the three justice dimensions. Table 2 shows the results of the CFA for various models tested. The hypothesized seven-factor model fit the data well: $\chi^2 (881) = 1839.64$, $p < .001$, comparative fit index (CFI) = 0.92, standardized root mean residual (SRMR) = 0.05, and root mean square error of approximation (RMSEA) = 0.06. Given the high correlations among the justice dimensions, I tested another model with five factors, in which distributive, procedural and interactional justice were combined as one factor. CFA results indicated a poorer model fit: $\chi^2 (892) = 2819.12$, $p < .001$, CFI = 0.80, SRMR = 0.07, and RMSEA = 0.09. Chi-squared difference tests indicated a poorer fit than the seven-factor structure, $\Delta \chi^2 (11) = 979.5$, $p < .001$. Next, a six-factor model was tested after combining gratitude and work engagement as a single factor. Again, CFA results showed a poorer model fit: $\chi^2 (887) = 2251.36$, $p < .001$, CFI = 0.85, SRMR = 0.07, and RMSEA = 0.08. Chi-squared difference tests indicated a poorer fit than the seven-factor structure, $\Delta \chi^2 (6) = 411.7$, $p < .001$. Finally, I also combined

gratitude and LMX as one factor, and tested the six-factor model. CFA results indicated a poorer model fit: $\chi^2 (887) = 2376.81$, $p < .001$, CFI = 0.84, SRMR = 0.07, and RMSEA = 0.08. And the seven-factor structure still had a significantly better fit: $\Delta \chi^2 (6) = 537.2$, $p < .001$. Based on these results, I proceeded to test the hypotheses using the proposed factor structure.

The estimation method used in the CFA testing as well as the hypotheses testing was the “maximum likelihood” method. The assumption of multivariate normality was tested in SPSS through the probability-probability (P-P) plot. The plots for all the variables indicated that the sample data points aligned well with the perfectly diagonal ($y = x$) line. As an example, the P-P plot for the dependent variable – work engagement, is shown in Figure 4.

Hypotheses testing

The hypotheses and research design imply a second-stage moderated mediation model. Second-stage moderated mediation occurs when the mediating process that connects the independent variable with the dependent variable varies because the moderator affects the relationship between the mediator and the dependent variable (Edwards & Lambert, 2007). To test the hypotheses, I used the Mplus 7 software (Muthen & Muthen, 2007). Prior to the data analysis, I aggregated all items from the measures to get the mean score for each variable for the respondents. For testing the hypotheses, I mean-centered all the predicting variables. Then, the interaction term was created using the centered values for promotion focus and state gratitude. Tables 3 and 4 present the results of the hypotheses.

Hypothesis 1 predicted that interactional justice is positively related with work engagement. To estimate this direct effect, I simultaneously entered distributive, procedural and interaction justice as predictors of work engagement (Time 2) and controlled for work engagement (Time 1). As shown in Table 3, this direct hypothesis was supported for interactional justice ($\beta = 0.15$, $p < .01$). Thus, hypothesis 1 was supported.

Hypothesis 2 predicted that interactional justice is positively related with state gratitude. To estimate this direct effect, I simultaneously entered distributive, procedural and interaction justice as predictors of gratitude (Time 2) and controlled for PA and NA. As shown in Table 3, this direct hypothesis was supported for interactional justice ($\beta = 0.20$, $p < .01$). Hypothesis 3 predicted that state gratitude is positively related with work engagement. To estimate, I entered gratitude as the predictor of work engagement (Time 2) and controlled for work engagement (Time 1). As shown in Table 3, this direct hypothesis was supported ($\beta = 0.16$, $p < .01$).

Hypothesis 4 stated that state gratitude mediates the relationship between interactional justice and work engagement. To test these indirect effects in Mplus, I followed the recommendation of Preacher, Zyphur and Zhang (2010) and generated the 95% confidence intervals using 5000 bootstrap replications. As shown in Table 3, interactional justice was positively related with gratitude ($\beta = 0.20$, $p < .01$), and gratitude was also significantly related with work engagement ($\beta = 0.16$, $p < .05$). The indirect effect of interactional justice on work engagement via gratitude was 0.038 (95% CI = 0.010, 0.078). Thus, hypothesis 4 was supported.

Hypothesis 5 suggested that state gratitude and LMX simultaneously mediate the relationship between the interactional justice and work engagement. I followed the recommendations of Preacher & Hayes (2008) and used the BC bootstrapping method for obtaining the 95% confident intervals for specific indirect effects via gratitude and LMX. Results of the multiple mediation analysis showed that the indirect effects of interactional justice on work engagement were significant through gratitude (0.032; 95% CI = 0.008, 0.078), as well as through LMX (0.058; 95% CI = 0.007, 0.119). Thus, hypothesis 5 was supported.

Hypothesis 6 was the first-stage and second-stage moderated-mediation hypothesis which predicted that the indirect effects of the justice dimensions on work engagement via gratitude are significant only for individuals low in promotion focus. Conditional indirect effects were computed for the relationships between justice dimensions and work engagement via state gratitude at high (+1 SD) and low (-1 SD) levels of promotion focus. I estimated 95% bias-corrected confidence intervals for the indirect effects using 5000 bootstrap replications, following the recommendations of Edwards & Lambert (2007). As can be seen in Table 4, promotion focus significantly moderated the relationship between gratitude and work engagement ($\beta = -0.07$, $p < .05$). However, promotion focus did not moderate the relationship between interactional justice and gratitude ($\beta = 0.01$, n.s.). Thus, results supported the second-stage moderated-mediation only. Further analysis showed that the indirect effects of interactional justice on work engagement via gratitude were only significant when promotion focus was low (0.046; 95% CI = 0.013, 0.090), and not when promotion focus was high (0.020; 95% CI = -0.005, 0.055). Thus, hypothesis 6 was partially supported. I further examined the significant interaction by performing the simple slopes test of high and low moderator values (Preacher, Curran & Bauer, 2006). The interaction effects are presented in Figure 2. It was found that for individuals high on promotion focus, state gratitude was not related with work engagement ($z = 0.07$, $p = .56$). But for individuals low on promotion focus, gratitude significantly predicts work engagement ($z = 0.24$, $p < .05$).

Results – without control variables

In line with the recommendations of Bernerth & Aguinis (2016), I also analysed the data without any control variables. Tables 6 and 7 report the findings for all the hypotheses with only the predictor variables in the model. Hypothesis 1 was supported i.e. interactional justice was positively related with work engagement ($\beta = 0.48$, $p < .01$). Supporting hypotheses 2 and 3, interactional justice significantly influenced gratitude ($\beta = 0.57$, $p < .01$),

and gratitude was positively related with work engagement ($\beta = 0.66, p < .01$). Gratitude significantly mediated the relationship between interactional justice and work engagement, as results showed that the indirect effect was 0.465 (95% CI = 0.363, 0.577). Thus, hypothesis 4 was also supported.

The parallel mediation hypothesis (hypothesis 5) was also supported, as results showed that LMX (indirect effect 0.207; 95% CI = 0.098, 0.340) and gratitude (indirect effect 0.399, 95% CI = 0.291, 0.510) both acted as mediators in the interactional justice – work engagement relationship. Lastly, the moderated-mediation hypothesis (i.e. hypothesis 6) was not supported. The indirect effects of interactional justice on work engagement via gratitude were significant at low promotion focus (0.479, $p < .01$) as well as at high promotion focus (0.360, $p < .01$).

Supplemental analysis

Further analysis was conducted to check similar relationships for the other two justice dimensions i.e. distributive and procedural justice. I tested whether state gratitude mediates the positive relationship between these two justice dimensions and work engagement. As shown in Table 5, it was found that the indirect effect of distributive justice on work engagement via gratitude was 0.023 (95% CI = 0.005, 0.049), which meant distributive justice also had significant effects on work engagement through the emotion of gratitude. Next, the indirect effect of procedural justice on work engagement via gratitude was 0.021 (95% CI = 0.002, 0.056). So, procedural justice also predicted work engagement indirectly via gratitude.

Multiple mediation analysis was also conducted for distributive and procedural justice i.e. testing gratitude and LMX as simultaneous mediators of justice – engagement relationship. As shown in Table 5, results showed that the indirect effects of distributive justice on work engagement were significant through gratitude (0.020; 95% CI = 0.004,

0.048), as well as through LMX (0.015; 95% CI = 0.001, 0.042). However, for procedural justice, the indirect effects were significant via gratitude (0.018; 95% CI = 0.001, 0.052), but not through LMX (-0.012; 95% CI = -0.042, 0.002).

Then, I also tested the moderated mediation hypotheses for distributive and procedural justice i.e. whether these justice dimensions had indirect effects on work engagement via gratitude only for individuals low in promotion focus. Such analysis showed that the indirect effects of distributive justice on work engagement via gratitude were only significant when promotion focus was low (0.028; 95% CI = 0.006, 0.058) and not when promotion focus was high (0.012; 95% CI = -0.003, 0.033). Similarly, the indirect effects of procedural justice on work engagement via gratitude were not significant at high promotion focus (0.011; 95% CI = -0.002, 0.037), but were significant at low promotion focus (0.026; 95% CI = 0.002, 0.067).

In order to further integrate social exchange-based and affect-based perspectives, I explored both LMX and gratitude as mediators of the justice – work engagement relationship and conducted the serial mediation analysis. Figure 3(a) and 3(b) display these models.

Firstly, justice judgments and the resulting high quality exchange relationship with the leader i.e. LMX, could predict state gratitude because the employees would view their high levels of LMX as successful social exchanges, and attribute the same to the fair treatment received from the supervisors.(Lawler 2001; Lawler & Thye, 2001). Thus, I tested whether justice perceptions lead to LMX, which in turn predicts gratitude, and finally, gratitude leads to high levels of work engagement. Table 5 displays the results of this serial mediation analysis. Results showed that the indirect effects of distributive justice on work engagement via LMX and gratitude were significant (0.006; 95% CI = 0.001, 0.019). But the indirect effects via LMX and gratitude were not significant for procedural justice (-0.003;

95% CI = -0.015, 0.001). And for interactional justice, the indirect effects were significant (0.022; 95% CI = 0.006, 0.055).

Next, it is also possible that the feelings of gratitude resulting from justice experiences could predict high levels of LMX. Past research indicates that grateful people tend to trust others and build long-lasting relationships (Algoe, et al., 2008; Gooty, Connelly, Griffith & Gupta, 2010). So, I explored whether state gratitude resulting from justice perceptions can predict LMX, which in turn leads to work engagement. Table 5 displays the results of this serial mediation analysis. Results showed that the indirect effects of distributive justice on work engagement via gratitude and LMX were significant (0.005; 95% CI = 0.001, 0.016). However, the indirect effects via gratitude and LMX were not significant for procedural justice (-0.008; 95% CI = -0.020, 0.001). Lastly, for interactional justice, the indirect effects were significant (0.025; 95% CI = 0.008, 0.050).

The above two models [Fig. 3(a) and 3(b)] can also be compared with the main proposed model (gratitude and LMX as parallel mediators) using the goodness of fit indices. The same are shown in Table 8. As the results show, the proposed model with LMX and gratitude as parallel mediators ($\chi^2(3) = 21.27$, $p < .01$, CFI = 0.97, SRMR = 0.02, and RMSEA = 0.16) as well as the other models – (a) LMX and gratitude as serial mediators ($\chi^2(2) = 7.51$, $p < .01$, CFI = 0.99, SRMR = 0.01, and RMSEA = 0.10); and (b) gratitude and LMX as serial mediators ($\chi^2(2) = 7.50$, $p < .01$, CFI = 0.99, SRMR = 0.01, and RMSEA = 0.10) fit the data quite well. In fact, the serial mediation models reported marginally better fit indices than the parallel mediation. Overall, these results indicate that gratitude and LMX can play significant roles as mediating mechanisms in explaining the relationship between justice perceptions and work engagement.

DISCUSSION

Even though scholars have found that justice perceptions enhance employee outcomes through social exchange-based mediators, such as LMX and trust, and through positive or negative affect (Colquitt, et al., 2013), extant research has not revealed whether – and if so, for whom – *discrete* positive emotions could provide an important mechanism through which justice judgments affect employee attitudes. Scholars examining affect-based consequences of justice have only looked at anger and to a lesser extent, joy/ happiness. For instance, Weiss, Suckow, & Cropanzano (1999) showed that a positive outcome was associated with joy, and a negative outcome resulting from a biased procedure was linked with anger. In another study, Rupp & Spencer (2006) demonstrated that interactional justice was positively related with joy and negatively related with anger. In this study, I extend such findings by positing that interactional justice is significantly related with the discrete emotion of gratitude. Results indicated that state gratitude is the underlying emotional and moral mechanism through which interactional justice affects work engagement. I integrated social exchange theory (Blau, 1964), which has been established for many years as the dominant perspective for explaining justice effects (Colquitt, et al., 2013), with research on affect and emotions to elucidate the role played by gratitude in the justice – work engagement relationship.

I further tested state gratitude and LMX as simultaneous mediators of the justice – work engagement relationship, and found support for simultaneous mediation in the case of distributive and interactional justice. For procedural justice, tests of simultaneous mediation indicated that indirect effects on engagement were significant only via gratitude and not via LMX. In other words, for each of the justice dimensions, the indirect effects via gratitude were significant even after controlling for the indirect effects via LMX.

In this study, I also examined promotion focus as the moderator for the relationship between justice and work engagement. High promotion focus individuals are hardworking,

focused, persevering, and they are capable of regulating their moods and emotions, if needed. Such individuals also have greater trust in others. Thus, it was expected that low promotion focus individuals, who lack inner motivation and tend to suspect others' intentions, would be more influenced by justice perceptions and the resulting gratitude. Results of hypothesis 4 indicated that interactional justice had indirect effects on work engagement via gratitude, but only for individuals low in promotion focus.

Theoretical and practical implications

This study offers three contributions to theory and research on organizational justice and discrete emotions. The first contribution lies in demonstrating the indirect effects of distributive, procedural and interactional justice, on work engagement via the emotion of gratitude. Thus, this study answers calls for greater research on the role of discrete positive emotions in the relationship between justice perceptions and employee attitudes (Colquitt, et al., 2013; Bies, 2015). It is noteworthy that I examined the three justice dimensions simultaneously in this study, and still, found significant indirect effects on work engagement for each dimension. In other words, this research shows that each of the three justice dimensions – distributive, procedural, and interactional justice – contribute uniquely towards feelings of gratitude, which in turn result in high levels of work engagement. Another advantage of this study is that we introduced a one month time lag between the assessment of justice perceptions and of gratitude, LMX and work engagement. Moreover, the sample of participants from MTurk was significantly diverse, coming from different jobs and industries, which lends generalizability to these findings. To further highlight the contribution made by justice judgments, I controlled for work engagement at Time 1 and tested the effects of justice and gratitude on work engagement at Time 2. Thus, this study provides strong evidence of mediating effects of gratitude in the justice – work engagement relationship.

Such results support the arguments made by Lawler and colleagues (2001) that discrete emotions such as gratitude have to be an integral part of the social exchange processes.

As the second contribution of this study, I integrated social exchange-based perspective and affect-based perspective, by testing gratitude and LMX as parallel mediators. Results indicated that distributive and interactional justice had significant indirect effects via LMX as well as via gratitude. LMX reflects an assessment of the quality of relationship between the follower and the supervisor, which is formed on the basis of their past experiences and attitudes (Graen & Uhl-Bien, 1995). Gratitude, on the other hand, is a moral emotion, likely to be experienced when the employee receives any kind of resource from others (Blau, 1964; McCullough, et al., 2001; Lawler, 2001). Thus, these results highlight the unique contribution of fairness experiences through creating high quality leader-follower relationship as well as by making the employee feel more grateful. Further supplemental analysis tested serial mediation to examine the relationship between justice perceptions and work engagement. Results showed that for two of the three dimensions i.e. distributive and interactional justice, the indirect effects on work engagement were significant through gratitude and LMX as mediators in series. It was found that justice judgments impacted LMX and that predicted state gratitude, which in turn affected work engagement. The same two justice dimensions also affected work engagement via gratitude first and then, LMX as the mediators in series. These results suggest that affect-based and social exchange-based perspectives can be integrated in order to explain the beneficial effects of organizational justice (Colquitt, et al., 2013).

Results of the supplemental analysis indicated that in the case of procedural justice, parallel mediation analysis indicated significant indirect effects via gratitude but not via LMX. Similarly, the serial mediation analysis showed insignificant indirect effects of procedural justice via gratitude and LMX, in either order. These comparatively weaker

results for procedural justice can be partly explained by the fact that I examined all three dimensions of justice simultaneously. Such results are consistent with recent research on justice and engagement; Haynie and colleagues (2016) found insignificant effects of procedural justice on job engagement, whereas distributive justice had significant effects possibly because distributive justice impacts employees' affective reactions to work (Greenberg, 2011) and engagement is regarded as an affective-motivational concept (Bakker, Schaufeli, Leiter & Taris, 2008). Moreover, in this study, it is likely that distributive and interactional justice absorbed the variance in work engagement that could have been otherwise explained by procedural justice. Indeed, procedural justice and work engagement (time 2) were significantly correlated. Unlike the cross-sectional study by Haynie & colleagues (2016), I also controlled for work engagement at Time 1, and thus, provide robust evidence for the beneficial effects of justice perceptions.

The third contribution lies in identifying promotion focus as the boundary condition in the relationship between justice perceptions, gratitude and work engagement. Past research has shown that individual differences can moderate the beneficial effects of justice (Andrews, et al., 2009; Colquitt, et al., 2006). This study extends such results and demonstrates that justice has stronger effects on work engagement via gratitude for employees with low promotion focus. With a tendency to stay focused, and persevere in difficult situations, high promotion focus individuals have an inner motivation to excel (Higgins, 1998) due to which they are less influenced by justice-related experiences. Low promotion focus individuals lack that inner motivation, and also tend not to trust others, due to which they are more influenced by fairness experiences and the resulting feelings of gratitude.

Results of the moderated-mediation hypotheses also indicate that the relationship between promotion focus and work engagement is negative but not significant (Table 4). This is in contrast to the meta-analysis by Lanaj and colleagues (2012) who found a positive

relation between promotion focus and work engagement. My findings are not surprising because the hypotheses tests include several other variables such as justice perceptions, positive and negative affect, and work engagement (time 1). The presence of these variables is bound to affect the regression estimate of promotion focus. In other words, the negative (not significant) relation between promotion focus and engagement is due to the presence of other key variables being present in the same model. On the other hand, the correlation analysis (Table 1) does indicate a positive and significant correlation between promotion focus and work engagement, which is consistent with the finding by Lanaj and colleagues (2012) in their meta-analysis.

Scholars have traditionally focused on structural job resources (e.g. task significance, autonomy, task variety, etc.) and social job resources (feedback, social support, transformational leadership, etc.) as the key predictors of work engagement (Bakker, et al., 2014; Christian, et al., 2011). Much lesser is known about the association between emotions and engagement. And secondly, little is known about the mechanisms through which job resources influence work engagement. This study is a significant step in fulfilling these gaps, as I demonstrate that gratitude is a key emotional mechanism through which justice perceptions enhance work engagement. Moreover, this study also shows that justice perceptions have stronger effects for individuals low in promotion focus. By integrating the social-exchange theory with self-regulation perspective, this study provides a richer understanding of the relationship between organizational justice and work engagement. While social exchange theory highlights the significance of resources at the workplace, the regulatory focus theory recognizes that personal traits also play a key role in impacting employee attitudes. This is perhaps the first study to empirically confirm what Blau (1964) argued decades back – “A person for whom another has done a service is expected to express his gratitude and return a service when the occasion arises” (p. 4). Thus, future research can

go further and examine other positive emotions (such as pride, empathy, etc.) that could potentially improve work engagement levels.

This study goes one step ahead by examining LMX and gratitude as simultaneous mediators of the justice-engagement relationship. Thus, I highlight that the effects of gratitude do hold even after controlling for the effects of LMX as the other mediator. By doing this, I empirically support the arguments made by Colquitt and colleagues (2013). In the process, this study also improves our understanding of the beneficial effects of organizational justice on employee attitudes. Future scholars studying organizational justice could examine other emotions as possible consequences of justice experiences. It also remains to be seen how other discrete emotions act as mechanisms of justice-outcomes relationships in the presence of other well-studied mechanisms such as trust and commitment. This study provides a clearer picture by examining LMX and gratitude as mediators in series, integrating the social exchange perspective and affect-based view with justice literature.

These results offer several practical implications. Managers must continuously ensure fair distribution of rewards among the employees in order to enhance engagement levels. At the same time, treating employees with respect and dignity is also critical in its own way in improving work engagement. Moreover, these results suggest that justice perceptions have stronger effects in the case of low promotion focus employees. Thus, managers need to highlight organizational justice particularly among units or departments which have employees with predominantly low promotion focus. Employees in jobs that require vigilance, such as accounting, security and analysts, are unlikely to be promotion focused (Van Dijk & Kluger, 2011), and hence, may pay greater attention to fairness relevant experiences.

Limitations and future research

This study has several limitations that present future research opportunities. First, self-report scales were used for assessing justice perceptions, regulatory focus, gratitude, LMX, and work engagement. Thus, the results could be influenced by common method variance (Podsakoff, Mackenzie & Podsakoff, 2012). However, extant research on our study variables mostly uses self-report scales only as they are psychological experiences and perceptions which are best assessed by participants themselves. Future studies can assess work engagement and LMX by the supervisor. I attempted to reduce common method variance by having a one month time lag between our two waves of data collection.

Secondly, I measured justice perceptions only at Time 1 in our between-person research design. Recent research has shown that justice perceptions could vary significantly at the within-person level as well (Loi, et al., 2009; Sherf, Venkataramani & Gajendran; 2018). Future studies can test this model in a within-person design by assessing justice perceptions, discrete emotions as well as work engagement on a daily basis.

In this essay, it was not assessed that the employees are grateful to whom i.e. the targeted nature of gratitude was not examined. I only measured generalized feelings of being grateful at work, one month after the assessment of organizational justice. Even though this is consistent with past gratitude research (Spence et al., 2014), I would recommend that future studies assess the targeted nature of gratitude, in order to rule out other possible sources of being grateful. Showing that the employee is *grateful to the supervisor* following interpersonal fairness-related experiences would provide a stronger evidence of the role played by gratitude in justice and engagement.

In order to integrate social exchange-based and affect-based perspectives in justice research, I examined gratitude and LMX as possible mediating factors. Scholars in future, can also look at other emotions such as pride, along with other exchange-based mediators such as trust, to enhance our knowledge about justice effects.

This study examined gratitude as the mediating mechanism through which interactional justice affects *work engagement*. Macey and Schneider (2008) stated that work engagement could simply be a repackaging of other similar constructs i.e. job attitudes, such as job satisfaction, job involvement, and organizational commitment. In their meta-analysis on work engagement, Christian and colleagues (2011) discussed that work engagement is somewhat related, yet conceptually distinct from these other job attitudes. It would be worth examining whether gratitude would act as the emotional mechanism through which justice perceptions impact other attitudes such as job satisfaction and commitment. Colquitt and colleagues (2013) argued along similar lines in their meta-analysis, as they stated that *positive affect* could explain why justice dimensions enhance commitment and trust. Therefore, future research can examine if gratitude (as a discrete positive emotion) could be the mechanism through which justice perceptions influence other job attitudes. Such research would provide a complete understanding of the role played by gratitude in the justice – outcomes literature.

Conclusion

This research provides a nuanced understanding of the beneficial effects of interactional justice via gratitude, an important but overlooked emotional and moral mechanism. I also demonstrated that justice perceptions have stronger effects for employees with a low promotion focus. This research advances our understanding by integrating social exchange-based and affect-based perspectives within the literature on organizational justice. I hope that this study will stimulate research regarding the relationships between justice, emotions and employee attitudes.

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Table 1**Means, standard deviations, reliabilities, and correlations for study variables.**

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Gender	0.42	0.50	-														
2 Age	36.45	8.99	.12	-													
3 Tenure	12.74	10.40	-.01	.40**	-												
4 Total work experience	22.17	9.65	.19**	.72**	.45**	-											
5 Distributive justice	3.28	1.11	-.12	-.09	.13*	-.08	(.94)										
6 Procedural justice	3.25	0.94	-.10	-.01	.13*	-.03	.73**	(.88)									
7 Interactional justice	4.03	0.81	.06	.01	.12	.02	.50**	.61**	(.92)								
8 Gratitude	3.38	1.09	.02	-.07	.10	-.11	.55**	.57**	.57**	(.93)							
9 LMX	3.76	0.99	-.02	-.02	.09	-.09	.47**	.46**	.67**	.63**	(.94)						
10 Promotion focus	3.62	1.00	-.07	-.17**	.00	-.19**	.28**	.30**	.24**	.39**	.25**	(.92)					
11 Prevention focus	2.43	1.01	-.02	-.09	-.13*	-.19**	.06	-.09	-.17**	-.08	-.11	.08	(.85)				
12 Positive Affect	3.47	0.90	-.03	.04	.13*	-.03	.39**	.42**	.43**	.69**	.55**	.44**	-.18**	(.92)			
13 Negative Affect	1.54	0.63	-.06	-.05	-.10	-.13*	-.12*	-.17**	-.34**	-.17**	-.28**	-.03	.47**	-.19**	(.90)		
14 Work engagement (Time 1)	3.44	1.08	.03	.00	.13*	-.09	.55**	.57**	.44**	.67**	.52**	.48**	-.13*	.71**	-.15*	(.95)	
15 Work engagement (Time 2)	3.42	1.00	-.02	-.01	.10	-.07	.50**	.51**	.47**	.71**	.60**	.42**	-.21**	.76**	-.25**	.88**	(.94)

Note: N = 241. Cronbach's alphas appear on the diagonal in the parentheses.

Gender, 0 = male, 1 = female; Age (in years); Tenure (in current organization, in months); Total work experience (in months); LMX – leader-member exchange

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

Table 2
Summary of Fit statistics, showing the results of CFA analysis for Study 2

	Model	χ^2	df	RMSEA	CFI	SRMR
1	7-factors (distributive, procedural and interactional justice, LMX, gratitude, promotion focus, work engagement)	1839.64	881	0.06	0.92	0.05
2	5-factors (single justice dimension, LMX, gratitude, promotion focus, work engagement)	2819.12	892	0.09	0.80	0.07
3	6-factors (distributive, procedural and interactional justice, LMX, promotion focus, gratitude and work engagement combined)	2251.36	887	0.08	0.85	0.07
4	6-factors (distributive, procedural and interactional justice, promotion focus, work engagement, gratitude and LMX combined)	2376.81	887	0.08	0.84	0.07

Table 3
Regression results for Hypotheses 1 to 4

Predictors	Hypothesis 1		Hypothesis 2,3,4	
	β	SE	β	SE
<i>Dependent variable: Work engagement (Time 2)</i>				
Intercept	3.44**	0.16	3.46**	0.16
<i>Predicting Work engagement</i>				
Gender	-0.07*	0.03	-0.06*	0.03
Age	-0.01	0.04	-0.00	0.04
Tenure	-0.04	0.03	-0.05	0.03
Work experience	0.04	0.04	0.03	0.04
Work engagement (Time 1)	0.87**	0.03	0.68**	0.04
Distributive justice	-0.00	0.04	-0.01	0.04
Procedural justice	-0.07	0.05	-0.07	0.05
Interactional justice	0.15**	0.04	0.03	0.04
State gratitude			0.16**	0.04
Prevention focus				
Promotion focus				
Gratitude X Promotion focus				
LMX				
Positive Affect			0.18**	0.04
Negative Affect			-0.10**	0.03
<i>Predicting State gratitude</i>				
Gender			0.07	0.04
Age			-0.03	0.06
Tenure			0.02	0.04
Work experience			-0.08	0.06
Distributive justice			0.17**	0.06
Procedural justice			0.13*	0.06
Interactional justice			0.20**	0.05
Positive Affect			0.49**	0.04
Negative Affect			0.03	0.04

Note: * $p < .05$; ** $p < .01$

β is the standardised regression estimate; LMX – leader-member exchange

Table 4 (a)
Regression results for Hypotheses 5 and 6

	Hypothesis 5		Hypothesis 6	
	Dependent variable: Work engagement (Time 2)			
Predictors	β	SE	β	SE
<i>Predicting Work engagement</i>				
Intercept	3.47**	0.15	3.48**	0.15
Gender	-0.05	0.03	-0.05	0.03
Age	-0.01	0.04	-0.01	0.04
Tenure	-0.05	0.03	-0.06	0.03
Work experience	0.04	0.04	0.03	0.04
Work engagement (Time 1)	0.67**	0.05	0.66**	0.05
Distributive justice	-0.01	0.04	0.01	0.04
Procedural justice	-0.05	0.05	-0.06	0.05
Interactional justice	-0.01	0.04	-0.03	0.04
State gratitude	0.13*	0.05	0.14	0.05
Prevention focus			-0.05	0.03
Promotion focus			-0.04	0.04
Gratitude X Promotion focus			-0.07*	0.03
LMX	0.09*	0.04	0.10*	0.04
Positive Affect	0.17**	0.04	0.18**	0.06
Negative Affect	-0.09**	0.03	-0.07*	0.05

Note: * $p < .05$; ** $p < .01$

β is the standardised regression estimate; LMX – leader-member exchange

Table 4 (b)
Regression results for Hypotheses 5 and 6

	Hypothesis 5		Hypothesis 6	
	Dependent variable: Work engagement (Time 2)			
Predictors	β	SE	β	SE
<i>Predicting Gratitude</i>				
Gender	0.07	0.05	0.07	0.05
Age	-0.03	0.05	-0.03	0.05
Tenure	0.02	0.04	0.03	0.04
Work experience	-0.08	0.06	-0.08	0.06
Distributive justice	0.16**	0.06	0.16**	0.06
Procedural justice	0.13*	0.07	0.13*	0.06
Interactional justice	0.20**	0.05	0.20**	0.05
Inter. justice X Promotion focus			0.01	0.06
Promotion focus			0.09	0.07
Prevention focus			-0.05	0.06
Positive Affect	0.49**	0.04	0.49**	0.04
Negative Affect	0.03	0.04	0.03	0.04
<i>Predicting LMX</i>				
Gender	-0.02	0.04	-0.02	0.04
Age	0.09	0.06	0.09	0.05
Tenure	0.01	0.05	0.01	0.06
Work experience	-0.16*	0.06	-0.15*	0.06
Distributive justice	0.18*	0.06	0.18*	0.06
Procedural justice	-0.13	0.09	-0.13	0.07
Interactional justice	0.52**	0.05	0.52**	0.05
Positive affect	0.29**	0.06	0.26**	0.06
Negative affect	-0.06	0.07	-0.05	0.07

Note: * $p < .05$; ** $p < .01$

β is the standardised regression estimate; LMX – leader-member exchange

Table 5
Supplemental analysis

Predictors	Serial Mediation			
	<i>Dependent variable: Work engagement (Time 2)</i>			
	β	SE	β	SE
<i>Predicting Work engagement</i>				
Intercept	3.52**	0.16	3.49**	0.16
Gender	-0.05*	0.03	-0.05*	0.03
Age	-0.01	0.04	-0.01	0.04
Tenure	-0.05	0.03	-0.05	0.03
Work experience	0.04	0.04	0.05	0.04
Work engagement (Time 1)	0.69**	0.05	0.68**	0.05
Distributive justice	-0.01	0.04	-0.01	0.04
Procedural justice	-0.05	0.03	-0.05	0.03
Interactional justice	-0.01	0.04	-0.01	0.04
State gratitude	0.13**	0.05	0.13**	0.05
LMX	0.09*	0.04	0.09*	0.04
Positive Affect	0.17**	0.04	0.17**	0.04
Negative Affect	-0.09**	0.03	-0.09**	0.04
<i>Predicting Gratitude</i>				
Gender	0.08*	0.05	0.07	0.05
Age	-0.05	0.05	-0.03	0.05
Tenure	0.02	0.06	0.03	0.04
Work experience	-0.05	0.06	-0.08	0.06
Distributive justice	0.16**	0.06	0.17**	0.06
Procedural justice	0.13*	0.04	0.13*	0.06
Interactional justice	0.09	0.05	0.20**	0.05
Positive Affect	0.43**	0.06	0.49**	0.04
Negative Affect	0.03	0.06	0.03	0.04
LMX	0.22**	0.06		
<i>Predicting LMX</i>				
Gender	-0.02	0.05	-0.05	0.04
Age	0.12	0.06	0.10	0.05
Tenure	0.03	0.05	0.01	0.06
Work experience	-0.18**	0.06	-0.13*	0.06
Distributive justice	0.22**	0.06	0.13*	0.06
Procedural justice	-0.09	0.07	-0.16*	0.07
Interactional justice	0.62**	0.05	0.50**	0.05
Positive Affect	0.32**	0.06	0.17**	0.04
Negative Affect	-0.09	0.06	0.11	0.04
State gratitude			0.26**	0.06

Note: * $p < .05$; ** $p < .01$

β is the standardised regression estimate; LMX – leader-member exchange

Table 6
Regression results for Hypotheses 1 to 4 (without control variables)

Predictors	Hypothesis 1		Hypothesis 2,3,4	
	B	SE	β	SE
Intercept	3.44**	0.16	3.44**	0.16
<i>Predicting Work engagement</i>				
Interactional justice	0.48**	0.05	0.10	0.07
State gratitude			0.66**	0.05
Promotion focus				
Gratitude X Promotion focus				
LMX				
<i>Predicting State gratitude</i>				
Interactional justice			0.57**	0.06

Note: * $p < .05$; ** $p < .01$

β is the standardised regression estimate; LMX – leader-member exchange

Table 7
Regression results for Hypotheses 5 and 6 (without control variables)

	Hypothesis 5		Hypothesis 6	
	Dependent variable: Work engagement (Time 2)			
Predictors	β	SE	β	SE
<i>Predicting Work engagement</i>				
Intercept	3.57**	0.05	3.48**	0.15
Interactional justice	-0.01	0.04	0.09	0.04
State gratitude	0.59**	0.06	0.61**	0.05
Promotion focus			0.16**	0.04
Gratitude X Promotion focus			-0.09	0.04
LMX	0.26**	0.07		
<i>Predicting Gratitude</i>				
Interactional justice	0.57**	0.06	0.57**	0.05
Inter. justice X Promotion focus			0.03	0.06
<i>Predicting LMX</i>				
Interactional justice	0.67**	0.05		

Note: * $p < .05$; ** $p < .01$

β is the standardised regression estimate; LMX – leader-member exchange

Table 8

Summary of fit indices comparing the proposed model (gratitude and LMX as parallel mediators) with the two models tested in the supplemental analysis (gratitude and LMX as serial mediators – Fig. 3-a and 3-b)

	Model	χ^2	df	RMSEA	CFI	SRMR
1	Proposed model – gratitude and LMX as parallel mediators	21.27	3	0.16	0.97	0.02
2	Serial mediation – Fig. 3(a): Justice – LMX – gratitude – work engagement	7.51	2	0.10	0.99	0.01
3	Serial mediation – Fig. 3(b): Justice – gratitude – LMX – work engagement	7.50	2	0.10	0.99	0.01

Figure 1
Research model

Time 1 – Interactional Justice, Promotion Focus

Time 2 – Work Engagement, Gratitude, LMX

Controls – Distributive justice, Procedural justice, PA, NA, gender, age, tenure, work experience

Figure 2

The moderating effect of promotion focus on gratitude – work engagement relationship

Figure 3 – Supplemental analysis

(a)

(b)

Figure 4

P-P plot for Work Engagement – testing for multivariate normality

Essay 3

Social Support at Work, Task Interdependence and Daily Work Engagement: Examining the Role of State Gratitude and Promotion Focus

Highly engaged employees are known to invest their physical, cognitive and emotional energies at work (Kahn, 1990) and thus, *work engagement* is defined as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption (Bakker & Leiter, 2010; Schaufeli, Salanova, González-Romá, & Bakker, 2002). Engaged employees tend to feel pride as an organizational member, identify personally with the organization, and demonstrate high levels of job involvement (Macey & Schneider, 2008). Over the past 15 years, researchers have found beneficial effects of work engagement, particularly on in-role performance, organizational citizenship behavior, creativity as well as proactive behavior (Bakker & Xanthopoulou, 2013; Christian, Garza, & Slaughter, 2011; Salanova & Schaufeli, 2008).

Recent research has also provided ample evidence for the idea of *state work engagement* i.e. an employee's engagement levels can vary substantially on a daily basis (Garrick, Mak, Cathcart, Winwood, Bakker & Lushington, 2014; Sonnentag, Dormann, & Demerouti, 2010; Sonnentag, Mojza, Demerouti, & Bakker, 2012). Sonnentag (2003) argued that since work engagement is essentially a work-related affective experience, it should also have significant within-person fluctuations. The experience of work engagement should vary on a daily basis also because physical, emotional and psychological resources are a necessary pre-requisite for employee engagement (Kahn, 1992). Thus, while some individuals tend to have higher average engagement levels than others, it is also true that the same individual experiences varying levels of engagement on different days (Sonnentag et al., 2010). Numerous studies have used experience sampling techniques to demonstrate this state-view

of work engagement (Breevaart et al., 2014; Garrick et al., 2014; Ouwenel, Le Blanc, Schaufeli, & van Wijhe, 2012; Sonnentag, 2003; Uy, Lin, & Ilies, 2016; Xanthopoulou et al., 2009). In this study, I consider this state aspect of engagement, and investigate its relationship with job resources. In the process, this study provides a stronger test of social resources and the emotion of gratitude as proximal predictors of daily work engagement.

Following the job demands – resources (JD-R) framework (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), job resources have been identified as the key antecedents of work engagement. Such resources include structural (e.g. task significance, task variety, autonomy) and social (e.g. social support, feedback and coaching) job resources (Christian et al., 2011). While it is well known that job characteristics influence engagement, the motivational processes are currently under-researched (Parker & Ohly, 2008) i.e. researchers have not yet established the causal link between job resources and employee outcomes such as work engagement. Affective perspectives have also been neglected by work design researchers as we know little about the roles of emotions as consequences of job resources (Saavedra & Kwun, 2000), even though it is widely accepted that employees experience different emotions at the workplace, which then shape their job attitudes and behaviors (Barsade & Gibson, 2007). These gaps were identified by Grant & Parker (2009) and more recently, by Oldham & Fried (2016), as they called for greater research on social job resources so that we could learn about the mediators and moderators for the relationships between such resources and favorable workplace outcomes.

In this essay, I examine two social resources – social support at work and task interdependence, as predictors of state engagement. *Social support at work* includes the guidance, help and encouragement that the employee receives from the supervisor and peers (Karasek, 1979; Karasek et al., 1998). Social support is a well-known resource, which significantly affects physical health and psychological well-being (Dean & Lin, 1977;

Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Elucidating the role of social support, Hobfoll and colleagues (1990) argued that “people will strive to maintain social support both to meet their needs to preserve particular resources and in order to protect and maintain their identity” (p.467). In the context of work engagement, Christian and colleagues (2011) conducted a meta-analysis and on the basis of 38 independent studies, they found the between-person mean correlation between social support and work engagement as 0.32, implying that social support is a key resource that can positively impact engagement. Having said that, social support is known to vary significantly on a daily basis i.e. the same employee may perceive high or low levels of support from supervisor and colleagues at different times (Bolger, Zuckerman & Kessler, 2000; Eisenberger, Taylor, Gable, Hilmert, & Lieberman, 2007; Taylor, 2011). And importantly, diary studies on work engagement have been equivocal on the within-person relationship between social support at work and state engagement. In a study on flight attendants, Xanthopoulou and colleagues (2008) found that on the days when the attendants perceived greater support from colleagues, they demonstrated higher levels of engagement. But Bakker and Bal (2010) conducted a weekly work engagement study among teachers, and found that social support at work had no significant relationship with work engagement. This study aims to resolve such conflicting findings and contribute to the state work engagement literature by investigating *why* and *for whom* social support at work positively impacts daily levels of engagement.

Secondly, scholars have ignored *task interdependence* as another social job resource that could potentially enhance work engagement. Task interdependence refers to the degree to which one’s job depends on others, or how “connected” the jobs are within an organization (Kiggundu, 1981). In the past, researchers have often found inconsistent relationships between interdependence and behavioral outcomes (Stewart & Barrick, 2000; Campion, Papper & Medsker, 1996). If task interdependence can also increase engagement levels, then

that would provide managers with an additional tool through which they can boost employees' engagement at the workplace. Consistent with past research, I consider task interdependence as a stable between-person social job characteristic (Liden, Erdogen, Wayne & Sparrowe, 2006; Pearce & Gregersen, 1991; Vidyarthi, Anand & Liden, 2014), and investigate its cross-level effects on state work engagement.

To address the aforementioned research gaps, I utilize the social exchange theory and the norm of reciprocity (Blau, 1964; Emerson, 1976; Gouldner, 1960). According to the social exchange view, individuals are involved in a series of transactions that can potentially generate obligations, and these transactions can generate high quality relationships between actors (Emerson, 1976). Emotions were incorporated into the social exchange perspective by Lawler (2001) as it was argued that successful instances of exchanges lead to the experience of positive emotions, and such emotions help the actors to judge the quality of their relationships which eventually affects their behaviors. Positive or negative emotions act as subtle signals to actors about their own responses in interaction, and thus provide information about the intentions of others (Heise, 1979; Lawler, 2001; Lawler & Thye, 1999).

I extend these thoughts and theorize the emotional mechanism through which two social job resources – task interdependence and social support – influence daily work engagement. I posit that when employees have high levels of interdependence or social support at work (from supervisor and colleagues), they are more likely to experience the positive emotion of *gratitude*, which in turn motivates them to engage fully in their jobs. Gratitude can play a key role in the social exchange processes, and is likely to be experienced whenever the employee gains a resource that could potentially improve his/her job performance (Blau, 1964; Grant & Gino, 2010). Earlier, scholars considered gratitude as a trait, a stable characteristic which meant that some people tend to be more grateful than others (McCullough et al., 2001). But later, research has shown that there are significant

within-person variations in the emotion of gratitude (Spence et al., 2014), which implies that such daily experiences of gratitude could be a result of work-related contextual factors. I treat gratitude as a state in this essay, and attempt to examine it as a day-level emotional mechanism through which resources have an indirect effect on daily work engagement. Secondly, past research has shown that individual differences can shape how employees respond to such job resources (Barrick & Mount, 1993; Grant, 2008). Such research is extremely useful in identifying the type of resources that could be effective in improving work engagement for a certain specific set of employees. Building on that research, I propose that promotion focus can moderate the extent to which these resources affect engagement via state gratitude. As a self-regulatory characteristic, promotion focus (Higgins, 1997) is likely to influence when task interdependence and social support at work could influence daily engagement via state gratitude because individuals with a high promotion focus tend to be achievement-oriented, hardworking and persistent, and thus, such individuals should give relatively less weightage to job characteristics or their momentary emotions. Therefore, I argue that social job resources might be more effective predictors of state work engagement for individuals who are low in promotion focus.

This essay makes three related contributions to the literature on work engagement. Firstly, I explain why task interdependence is yet another job resource that can enhance engagement levels. Past research has examined some social job resources (e.g. social support, feedback, supervisory coaching and transformational leadership) (Bakker, Demerouti, & Sanz-Vergel, 2014) as predictors of work engagement, but to my knowledge, there is little research on interdependence as a resource that can affect engagement. Secondly, I explain the emotional mechanism through which social support at work can improve daily engagement levels. I introduce state gratitude as a novel mediating factor, an emotional mechanism through which social job resources impact daily work engagement. By doing so, I develop

further understanding of *why* social job resources affect state work engagement. This essay also contributes to research on discrete positive emotions and demonstrates that state gratitude can be a significant antecedent of daily work engagement. And by suggesting that both social support and task interdependence can enhance feelings of gratitude, I answer calls to investigate possible predictors of state gratitude (Hu & Kaplan, 2015; Spence, Brown, Keeping, & Lian, 2014). Third, this study demonstrates that social support at work and task interdependence are useful to increase daily engagement, but only for individuals low in promotion focus. Hence, I identify a key boundary condition in the relationship between social resources and state work engagement.

The overall research model is presented in Figure 1.

Social support at work and work engagement

Social exchange theory provides a fundamental perspective that has been used extensively for understanding workplace behaviors. According to this perspective, employees in an organization are involved in a series of *interdependent* transactions that can potentially create high quality relationships (Blau, 1964; Kelley & Thibaut, 1978). Such relationships can lead to mutual trust and commitment if employees follow certain “rules” of exchange, one of which is the rule of reciprocity (Gouldner, 1960). Reciprocal interdependence highlights interpersonal transactions, whereby if one person supplies a benefit, then the receiving person is likely to respond in kind. And such behaviours encourage cooperation among the employees (Cropanzano & Mitchell, 2005).

Social support at work reflects the extent to which the employees receive advice and assistance from their colleagues and supervisor, and it is already acknowledged as an important resource which affects the degree to which employees successfully perform their jobs (Morgeson & Humphrey, 2006; Ryan & Deci, 2000). Social support involves interactions between the focal employee and his/ her supervisor and peers in such a way that

the supervisor and peers are seen as caring towards the employee. And thus, social support is regarded as a major resource outside the limited set of resources available in the self (Hobfoll, Freedy, Lane, & Geller, 1990). The job demands – resources perspective argues that social support from supervisor and peers is an important resource that can reduce disengagement and enhance employee engagement as well as well-being (Christian et al., 2011; Demerouti et al., 2001).

Past research has shown that social support can vary on a daily basis i.e. the same employee can perceive high levels of support from supervisor and colleagues on some days and low levels of support on other days (Bakker & Bal, 2010; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Using the social exchange perspective, I argue that on a daily basis social support from colleagues and supervisor should have a positive impact on state work engagement. Following the social exchange theory and the norm of reciprocity, it is known that when employees receive socioemotional resources from their organization, they would feel obliged to respond in kind and repay their organization by investing their fuller selves at work (Blau, 1964; Gouldner, 1960). In other words, employees can choose to engage themselves at work depending on the kind of resources they receive at different times (Saks, 2006). Similar arguments were made by Kahn (1990, 1992) who suggested that employees may feel obliged to engage fully in their jobs as a way to repay their organization for the resources they receive. When the employee receives high levels of help and encouragement from the supervisor and peers, it is likely that the same employee would demonstrate high levels of dedication, absorption and vigor at work. On the other hand, when the same employee perceives a lack of support and guidance from the peers and supervisor, he/she is unlikely to feel motivated at work.

Hypothesis 1: At the within-individual level, previous day's social support at work is positively related with state work engagement.

Task interdependence and work engagement

Task interdependence refers to the extent to which the employee perceives that his/her job depends on others and others depend on it to accomplish the work goals (Kiggundu, 1981). In other words, task interdependence refers to the *connectedness* between jobs (Kiggundu, 1983). When interdependence is high, the employees have a perception that they depend upon each other for important resources in order to accomplish their job goals. Extant research on task interdependence has often found inconsistent relationships between task interdependence and psychological and behavioral outcomes at both the individual level as well as at the group level. For example, Stewart & Barrick (2000) found that interdependence within work teams has a curvilinear relationship with team performance whereas Campion, Papper & Medsker (1996) found that interdependence is positively related with team performance. At the individual level, Wong and Campion (1991) found a non-significant relationship between task interdependence and motivational job design.

I concur with Grant & Parker (2009) that the inconsistent results between task interdependence and behavioral outcomes could possibly be explained through the type-contingent perspective i.e. the effects of task interdependence may depend on the type or form of task interdependence. There are two types of task interdependence – initiated and received. Initiated interdependence is the degree to which work flows from a particular job to other jobs, and received interdependence is the extent to which an employee perceives that his/her work is affected by the work from other jobs and employees. These two are not viewed as opposite ends of a continuum, but should be considered as independent job characteristics (Kiggundu, 1983). Even though I acknowledge that both these types of interdependence may have motivational effects, in this study, the focus is only on *received interdependence* because I'm interested in investigating the impact of job resources *received* from others. For the same reason, I earlier discussed the consequences of social support as a

resource *received* from supervisor and colleagues, and not social support provided by the focal employee to the supervisor and/or peers. By examining resources received from others, I am able to utilize the arguments given by the social exchange perspective as well as the norm of reciprocity (Blau, 1964; Cropanzano & Mitchell, 2005), both of which discuss how an individual would react when he/she receives a resource from others.

Interdependence is already regarded as a critical factor for team performance. In order to optimize team functioning and performance, it is necessary that leaders design teams and incorporate interdependence within the teams so that the members develop a collective sense of direction as well as a commitment to fellow members, which motivates everyone to give their best at the workplace (Wageman, 2001; Kozlowski & Bell, 2003). In their meta-analysis, Gully and colleagues (2002) found that team efficacy has a positive relationship with team performance only for teams with high level of interdependence.

I posit that interdependence can positively affect performance, even at the individual employee level, by increasing work engagement. Social exchange theory states that in any given relationship, individuals want to achieve a state of balance or equilibrium (Blau, 1964). Employees who perceive high received interdependence realize that they depend on other employees' help, support, effort and advice to perform well in their jobs (Kiggundu, 1983). Consistent with the norm of reciprocity ("the more I get, the more I give") (Gouldner, 1960), such employees would be motivated to reciprocate through sharing information, helping others and performing well on their jobs. In support of these arguments, Taggar and Haines (2006) found that reciprocated interdependence was positively related with a motivation to help others and perform one's job well.

Hypothesis 2: At the between-individual level, task interdependence is positively related with work engagement.

Social support at work and state gratitude

As a discrete positive emotion, gratitude was mostly neglected by research scholars until the beginning of the 21st century (Emmons & McCullough, 2004). Gratitude is now viewed as a moral emotion since it is linked to the welfare of persons other than the agent (Haidt, 2003; McCullough, Kilpatrick, Emmons, & Larson, 2001). The emotion of gratitude emerges out of social exchanges when beneficiaries attribute their positive circumstances to the efforts of another person (Blau, 1964; Grant & Gino, 2010). It is acknowledged that gratitude plays a critical role in interpersonal relations and social interactions. Blau (1964) suggested that an individual is likely to experience and express gratitude when another person has done a service or provided a resource for him/her.

McCullough et al., (2001) explained gratitude has three specific functions – a moral barometer function, a moral motive function and a moral reinforce function. As a moral barometer, gratitude is sensitive to valuable benefits received from another person who has expended effort on their behalf. Gratitude is also a moral reinforcer because when a beneficiary expresses gratitude, then the benefactor is encouraged to act morally in future as well. As a moral motive function, when a person feels grateful, s/he would tend to behave in a prosocial manner. Thus, grateful people are likely to contribute to the welfare of the benefactor or even a third party in the future. In support of these arguments, past empirical research has found that feelings of gratitude can translate into greater efforts to help not just the benefactor but also strangers (third party) (Bartlett & DeSteno, 2006; Grant & Gino, 2010).

Recently, Spence et al., (2014) argued and demonstrated that gratitude has a significant within-person variability; they went on to show that state gratitude significantly impacts daily OCB. Because state gratitude is regarded as the actual experience of gratitude which is episodic in nature, it is quite likely that the gratitude levels experienced by the same individual could vary from day to day.

Past research suggests that when an employee receives support from coworkers, then he/she is likely to experience positive emotions such as excitement or enthusiasm (Madjar, Oldham, & Pratt, 2002). Receiving support and encouragement from supervisor and colleagues is recognized as a positive work-related life event that can considerably influence employee mood states because such events reflect positively on the employee's value within the organization (George & Brief, 1992). Extending these arguments and following the social exchange perspective, I posit that when an employee receives social support in the form of suggestions and guidance from their peers and supervisor, it is likely to generate feelings of gratitude within the focal employee (Blau, 1964; Lawler, 2001; Lawler & Thye, 1999). In contrast, when an employee experiences a lack of social support at work, then he/she is unlikely to experience positive emotions such as gratitude because the absence of support from coworkers reflects a low-quality exchange relationship between the focal employee and his/her coworkers.

Hypothesis 3: At the within-individual level, previous day's social support at work is positively associated with state gratitude.

Task interdependence and gratitude

Received interdependence is characterized by the employees understanding that their work is not solely dependent on their own efforts, but also is significantly affected by the contribution of others around them including coworkers and supervisor (Kiggundu, 1981, 1983). When individuals experience interdependence, they see themselves as a part of a social relationship and recognize that their behavior is determined by and contingent on the thoughts, feelings and actions of others in that relationship (Markus & Kitayama, 1991). Integrating this definition with the affect theory of social exchange, I argue that high levels of received interdependence would be associated with a feeling of gratitude.

It is noteworthy that interdependence is neutral about the quality of contributions made by the employees. It might be argued that gratitude is likely when other employees do *quality work* that affects the focal employee. However, my arguments around interdependence are consistent with arguments made on interdependence in past research. For instance, in their recent meta-analytical review on interdependence, Courtright and colleagues (2015) defined task interdependence as “the degree to which taskwork is designed so that members depend upon one another for access to critical resources and create workflows that require coordinated action” (p.4). Results of their meta-analysis showed that task interdependence is positively related with team performance ($\rho = 0.13$; 95% CI = .07, .19). Here also, it can be argued that interdependence should be good for team performance only when the members actually produce quality work. Possibly, scholars believe that when the quality of contributions are not high, the perceived interdependence might also be not perceived as that high. And secondly, quality of work might play a role *within* the group of employees who perceive high interdependence (may be, as a moderator). On the other hand, the argument made in this study is that gratitude is more likely to be experienced if perceived interdependence is high, and not so likely when perceived interdependence is low.

Thus, when employees perceive high levels of interdependence, they would appreciate the fact that others’ efforts play a key role in their own jobs, fostering a feeling of cooperation and trust. Such employees would view high interdependence as a successful social exchange and attribute the same to the efforts of others, which in turn should lead to the experience of gratitude towards others (Lawler, 2001). Gratitude is identified as another-focused emotion that results from being sensitive to other people, and thus signals interdependence with others. As another-focused emotion, gratitude helps immensely in establishing and maintaining relationships with other people (Eberly & Fong, 2013; Markus & Kitayama, 1991). In contrast, when employees perceive low interdependence, they are less

likely to acknowledge the contribution of others in their own jobs, and thus, such employees are also less likely to be grateful to other employees for their own work.

Hypothesis 4: At the between-individual level, task interdependence is positively associated with gratitude.

State gratitude and daily work engagement

Kahn, (1990, 1992) defined engagement as an affective-motivational state involving the expression of an employee's 'preferred self' in job behaviors, wherein the employee simultaneously invests physical, cognitive and emotional energies during task performances. Work engagement is viewed as a positive work-related state of mind that is characterized by vigor, dedication and absorption (Schaufeli & Bakker, 2004). Vigor implies high levels of energy and resilience while working; dedication refers to having a sense of significance, enthusiasm and challenge; and absorption implies that the worker is fully engrossed at work. Meta-analytic evidence on trait work engagement and a few studies on state engagement demonstrate that positive emotions are positively related with engagement (Christian et al., 2011).

I hypothesize that feelings of gratitude would predict higher levels of engagement. Since past research has shown that feelings of gratitude motivate the beneficiary to exert more effort towards the welfare of the benefactor *as well as of the third party*, it is highly likely that the same feelings of gratitude also lead the beneficiary to work with higher dedication, absorption and vigor, thus helping the organization (as the third party). Robert C. Solomon, in the foreword of the book – “The Psychology of Gratitude” (Emmons & McCullough, 2004) – stated that gratitude is not just about one single episode of the beneficiary returning a favor by helping the benefactor; gratitude is about seeing the bigger picture i.e. seeing one episode as a part of a larger relationship in which strangers frequently exert effort to help each other. And thus, the “*grateful to whom?*” question is misplaced. In

other words, the effects of gratitude go far beyond the benefactor as the focal person (beneficiary), being grateful, wants to contribute to the welfare of all others. For many employees, work is directly seen in terms of making a difference in the lives of others (Colby, Sippola, & Phelps, 2001). When employees care about the welfare of others, they are likely to invest greater time and energy in work related activities (Grant, 2007). In line with these arguments, I posit that when an individual is grateful, then s/he becomes motivated to invest all the energies into work and bring a positive change in the lives of others.

Hypothesis 5: At the within-individual level, state gratitude is positively associated with state work engagement.

Social support, state gratitude and daily work engagement

Using the arguments made earlier, I posit that state gratitude will also explain why social support at work has a positive impact on daily work engagement. Past studies have shown that daily levels of social support have a significant influence on state work engagement (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Schaufeli et al., 2009; Xanthopoulou et al., 2009). I argue that when the employee receives support and guidance from supervisor and coworkers, he/she would attribute such a positive outcome of social exchange to the actions of his/her supervisor/ peers and thus, experience the positive emotion of gratitude (Lawler, 2001). Consequently, this feeling of gratitude will cause the employee to exert more effort and subsequently experience higher levels of daily work engagement.

Hypothesis 6: At the within-individual level, state gratitude will mediate the positive relationship between previous day's social support at work and state work engagement.

Task interdependence, state gratitude and daily work engagement

Extending the above arguments, I propose that state gratitude will act as the underlying emotional mechanism through which task interdependence will impact state work

engagement. Utilizing the social exchange theory (Blau, 1964), it is likely that those employees who understand that their tasks are significantly affected by the contribution of their coworkers, will experience the positive emotion of gratitude (Lawler, 2001). When such employees are grateful, they would be motivated to invest their cognitive, emotional and physical energies into work i.e. demonstrate high levels of daily work engagement.

Hypothesis 7: At the between-individual level, gratitude will mediate the positive relationship between task interdependence and work engagement.

Cross-level moderating effect of promotion focus

Self-regulation is extremely important for adaptive functioning as employees need to regulate their behaviors during goal pursuit (Carver & Scheier, 2001; Higgins & Spiegel, 2004). The regulatory focus theory explains self-regulation via two systems – *promotion focus* regulates nurturance needs and involves striving for ideals through accomplishment, and *prevention focus* regulates security needs and involves fulfilling obligations through vigilant and responsible behaviors (Higgins, 1997). Regulatory focus is critical in performance domains as promotion and prevention foci can influence the strategies used to attain achievement goals or to circumvent obstacles that hinder achievement of those goals.

Promotion focus is examined as a moderator in this study because as a self-regulatory individual characteristic, it is likely to influence the extent to which the positive emotion of gratitude can potentially affect work engagement. Individuals high on promotion focus strive for their ideal selves (e.g. hopes and aspirations) and are known to make every effort towards higher achievement levels (Higgins, 1997, 1998). Such individuals are achievement-oriented, hardworking, responsible and persistent, which results in stronger motivation to achieve goals. Because low promotion focus employees have lower levels of self-esteem, self-efficacy and affective commitment (Lanaj et al., 2012), I argue that contextual factors, such as social resources and the resulting positive emotions, may play a greater role in motivating

them to exert high levels of effort. By cultivating feelings of gratitude, social support at work and task interdependence can enable low promotion focus employees to realize that their organization values their contributions, and they should also reciprocate by working harder and subsequently, experiencing work engagement. On the other hand, since high promotion focus is associated with persistent efforts even when facing difficult tasks, I believe that such individuals are likely to maintain higher levels of engagement giving less weightage to their momentary emotions such as gratitude. In other words, the feelings of gratitude generated by social support and interdependence may exert lesser influence on the engagement levels of high promotion focus employees, who are naturally approach-motivated and eager to exert efforts towards achieving maximal levels of performance (Förster, Higgins, & Bianco, 2003; Higgins, Shah, & Friedman, 1994).

Individuals differ in the extent to which they attend to and control their affective states (Mayer & Geher, 1996; Morris, 2000), and controlling their own affective states in turn helps in achieving instrumental goals. Such affect regulation is motivational in nature, stable and enduring, and thus, could play an important role in achieving one's goals. In support of these arguments, Arnold & Reynolds (2009) found that individuals with high promotion focus tend to regulate their moods and emotions successfully. Arnold & Reynolds (2009) demonstrated that individuals high in promotion focus tend to regulate their emotions by possibly recalling mood-incongruent memories. Also, Dholakia, Gopinath, Bagozzi, & Nataraajan (2006) demonstrated that promotion focus individuals engage in more efficacious self-control i.e. such individuals have a greater desire and ability to control themselves.

Therefore, I posit that trait promotion focus should moderate the relationship between social support/ task interdependence and gratitude, as well as the relationship between state gratitude and daily work engagement such that the social support-gratitude-engagement association and the interdependence-gratitude-engagement relationship should be stronger for

individuals low in promotion focus. Following the recommendations of Gardner, Harris, Li, Kirkman and Mathieu (2017), I predict a weakening-substituting interaction hypothesis. In this weakening hypothesis, it is expected that gratitude will have a positive relationship with work engagement, whereas the sign of the interaction term would be negative. Similarly, it is expected that social support/ interdependence will have a positive relationship with gratitude, whereas the sign of the interaction term would be negative. And since I expect promotion focus to be positively related with engagement, it is termed as a substituting effect. Overall, it is predicted that promotion focus would serve as a substitute for the positive relationship between social support at work and task interdependence, and work engagement, such that the relationship would become stronger as promotion focus decreases. Based on the above arguments, I test the first stage and second-stage moderated-mediation hypotheses:

Hypothesis 8: At the between-individual level, trait promotion focus will moderate the mediated positive relationship between previous day's social support at work and state work engagement through state gratitude, such that the relationship will be stronger as promotion focus decreases.

Hypothesis 9: At the between-individual level, trait promotion focus will moderate the mediated positive relationship between task interdependence and work engagement through gratitude, such that the relationship will be stronger as promotion focus decreases.

METHOD

Participants and Procedures

I used experience sampling methodology (ESM) (Csikszentmihalyi & Larson, 2014; Hektner, Schmidt, & Csikszentmihalyi, 2007) to test the hypothesized associations because I am interested in testing both within-person as well as between-person relationships.

Consistent with the hypotheses, the data was also at the day level nested within individuals.

ESM is known to capture experiences in the natural environment and helps in prioritizing immediate experiences over abstract or recalled experiences (Beal, 2015). Another key element of ESM is representative sampling i.e. it helps to assess a range of experiences that accurately reflect a person's daily life. Several studies have used the ESM to test for hypothesized relationships at the within-person level (Ilies, Scott, & Judge, 2006; Song, Foo, & Uy, 2008; Uy, Lin, & Ilies, 2016).

Participants consisted of full-time employees working in the research and development (R&D) department of a technology company in northern India. Based on initial discussions with the top management of the company, it was found that the R&D department works towards designing and creating innovative software solutions for other industries such as banking, telecom, and outsourcing. Thus, employees in the R&D department always work as a collective unit, due to which social support from peers should play an important role. Also, as they work as a cohesive unit, their responsibilities are designed in such a manner that there is significant interdependence among the employees within the department. Therefore, this sample of employees should be appropriate to test the effects of interdependence and social support.

Participants were recruited through the Human Resources (HR) head of the organization who disseminated the study advertisement (which included a short description of the study and the incentive to be given after completing the study) to 235 full-time employees. One hundred thirty-two (132) employees expressed interest in taking part in the project.

A week prior to the start of experience sampling study, participants completed an online survey about their demographics and baseline information. Each participant received emails containing the survey links (hosted by Qualtrics.com) and completed the online surveys for five consecutive working days. Participants were encouraged to complete the

surveys carefully and honestly. In the initial baseline survey, employees answered questions on task interdependence, regulatory focus, trait engagement and trait gratitude.

The experience sampling survey comprised two parts – a start-of-the-workday (morning) survey and an end-of-the-workday (evening) survey. Each participant completed the morning survey before starting the day's work, and the evening survey after finishing the day's work before leaving for home. In the morning survey, I assessed employees' state PA and NA, as well as state gratitude. In the evening survey, I measured participants' social support at work and engagement levels during that particular day. Participants were compensated in Indian Rupees to the equivalent of US\$25.

Among the 132 employees who completed the initial baseline survey, 9 employees did not proceed with the experience sampling surveys and 7 employees completed the daily surveys for only one day (these reports were excluded from the study). The final sample consisted of 116 employees (91% males). The average age was 25.2 years ($SD = 2.65$). All the participants hold a bachelor's degree and the average work experience was 3.2 years. I received 541 experience sampling surveys out of potential 580 surveys (93.3% response rate).

I tested for response bias (132 employees took baseline survey, and 116 employees took the daily surveys) in terms of demographics. Results of the independent samples t test indicated no significant differences between respondents and non-respondents in terms of age, gender and work experience.

ESM (within-person) Measures

Work engagement – I measured employees' daily work engagement at the end of the work day using a shortened version (6 items – 2 items for vigor, 2 items for dedication and 2 items for absorption) of the Utrecht Work Engagement Scale (Schaufeli et al., 2006). Similar shorter-version scales have been used in ESM studies earlier (e.g. Bledow, Schmitt, Frese and

Kuhnel, 2011; Uy et al., 2016). Participants indicated the extent of their agreement to each statement describing their experiences at work on that day (1 = “strongly disagree” to 7 = “strongly agree”). An example item is “today, I felt bursting with energy at work”. ($\alpha = 0.90$)

State gratitude – State gratitude was assessed at the beginning of the workday using the 5-item scale developed by Spence et al., (2014). Participants indicated the extent to which they felt that way at that moment (1 = “not at all” to 7 = “extremely”). A sample item is “I have been treated with generosity”. ($\alpha = 0.83$)

Positive and Negative Affect – State PA and NA were measured using the shortened version of the Positive And Negative Affect Scale (PANAS) (Watson, Clark, & Tellegen, 1988) which has been used in previous repeated-measure studies (e.g. (Foo, Uy, & Baron, 2009; Uy et al., 2016). (α for PA = 0.90; α for NA = 0.84)

Social support at work – I measured the daily perceived social support at work through the 4-item measure of perceived availability of instrumental support on the job (Karasek et al., 1998; Van Yperen & Hagedoorn, 2003). In several studies, the correlations between supervisor and colleagues support have been moderate to high (for example, Van Yperen & Hagedoorn, 2003); thus, for the sake of parsimony, I decided to use one combined measure of social support at work as the support received from supervisor and colleagues. Sample items are “Today, my supervisor was helpful towards me” and “Today, I could ask my colleagues for help, if necessary”. ($\alpha = 0.81$)

Baseline (between-person) measures

Task Interdependence – It was measured using the three-item measure of received interdependence developed by Morgeson & Humphrey (2006). Participants indicated the extent of their agreement to each statement (1 = “strongly disagree” to 7 = “strongly agree”). Sample item: “My job activities are greatly affected by the work of other people”. ($\alpha = 0.75$)

Regulatory Focus – I assessed promotion focus and prevention using a 10-item measure (5 items each for promotion and prevention focus) of the regulatory focus scale developed by Lockwood, Jordan, & Kunda (2002). Participants indicated the extent of their agreement to each statement describing their general attitudes towards work (1 = “strongly disagree” to 7 = “strongly agree”). An example item for promotion focus is “I often think about how I will achieve success”. ($\alpha = 0.72$); sample item for prevention focus is “I frequently think of how I can prevent failures at the workplace” ($\alpha = 0.71$)

Trait Work Engagement – I measured employees’ trait work engagement level using the shorter version (9 items – 3 items for vigor, 3 items for dedication and 3 items for absorption) of the Utrecht Work Engagement Scale (Schaufeli et al., 2006). Participants indicated the extent of their agreement to each statement describing their experiences at work (1 = “strongly disagree” to 7 = “strongly agree”). An example item is “I am enthusiastic about my job”. ($\alpha = 0.87$)

Trait Gratitude – It was assessed using the 4-item measure developed by McCullough, Emmons, & Tsang, (2002). Employees rated each statement (1 = “strongly disagree” to 7 = “strongly agree”) in terms of the extent they felt like that generally. Sample item: “I have so much in life to be thankful for”. ($\alpha = 0.92$)

Analytical Strategy

I nested day-level data within each participant and used multilevel modeling. I used Mplus 7 (Muthén & Muthén, 2007) to conduct analysis using the multilevel modeling framework. The between-individual independent variable (i.e. task interdependence) and the cross-level moderator (i.e. promotion focus) were modeled at level 2. For all the within-individual level-1 variables except work engagement, I used group-mean centering (centering each individual’s scores on a particular variable relative to individual’s mean on that variable score). Centering at each individual’s mean allowed us to examine purely within-person

variations by effectively controlling for between-individual confounds. Since I am interested in the level-1 relationships (i.e. within-person), the analytical strategy of group-mean centering the predictors also effectively controlled for any other between-person variables, e.g. personality or trait affect. I grand-mean centered the level-2 variable – task interdependence, for testing its hypothesized effect on state gratitude and daily engagement.

For the hypotheses involving cross-level moderation by a level-2 variable, I computed the product terms by mean-centering the level-2 variable and then, multiplying the mean-centered scores with the respective group mean centered level-1 variables (Sonnentag & Binnewies, 2013). To calculate the effect sizes, I computed pseudo- R^2 values based on the guidelines given by Hofmann, Griffin, and Gavin (2000) and thus, assessed the within-person variance explained by our key variables.

It is important to note that in the direct hypotheses involving the effects of task interdependence on gratitude and work engagement, the multilevel modeling strategy only examines the relationship between the level-2 construct – task interdependence, and the between-person variance in gratitude and work engagement, which are level-1 (day level) variables. I followed the recommendations of Preacher and colleagues (2010), and tested these relationships by adding another variable – grat_m, i.e. the mean gratitude of each employee across the 5 days. This variable was then used to test the relationships between task interdependence, gratitude and work engagement. For instance, to examine the indirect effects of interdependence on work engagement via gratitude, the mean gratitude (grat_m) was regressed on interdependence, and work engagement was regressed on the mean gratitude (grat_m). Finally, the indirect effects were computed in Mplus, as per the recommendations of Preacher and colleagues (2010).

Controls

I included state PA and state NA as control variables in our analysis because we wanted to test the variances explained by state gratitude beyond the general daily levels of PA and NA as past studies have shown that state affect impact engagement (Ouweneel, Le Blanc, Schaufeli, & van Wijhe, 2012). For testing the direct effect of task interdependence on state gratitude, I controlled for trait gratitude and social support. For lagged analysis while testing the effects of social support at work on the next day's gratitude and work engagement, I controlled for previous day's gratitude and engagement levels (i.e. I controlled for day T-1 gratitude and work engagement, when analyzing the effects on day T gratitude and work engagement), and also controlled for interdependence. I also included trait engagement, prevention focus and dispositional gratitude as control variables for the moderated-mediation hypotheses involving trait promotion focus.

RESULTS

Table 1 provides the means, standard deviations, intra-class correlations (percentage) and correlations among the study variables. The intra-class correlations (ICC) show significant within-person variance for our dependent variable – daily work engagement (35%), as well as the key predictor variables – gratitude (33%) and social support at work (41%). Also, figure 2 shows the fluctuating levels of work engagement across the 5 days for a small sample of 10 employees. Through the multilevel analysis, I aim to explain the predictors of this within-individual variation in engagement.

The assumption of multivariate normality was tested in SPSS through the probability-probability (P-P) plot. The plots for all the variables indicated that the sample data points aligned well with the perfectly diagonal ($y = x$) line. As an example, the P-P plots for social support and work engagement are shown in Figure 4(a) and 4(b) respectively.

Confirmatory factor analysis

To establish the construct validity of the study variables, a multilevel confirmatory factor analysis was conducted. This was a random intercept (fixed slopes) CFA and the estimation used for fitting the multilevel model was the “maximum likelihood” method. At the within-individual level, I included the core variables (social support at work, gratitude and work engagement), and positive and negative affect. At the between-individual level, I included task interdependence, promotion focus and prevention focus. The proposed model exhibited acceptable level of fit ($\chi^2 = 1957.28$, $df = 795$, $CFI = .96$, $RMSEA = .05$, $SRMR = .06$) and all indicators loaded significantly on the intended factor ($p < .001$). Thus, CFA results provided overall support for the factor structure of the hypothesized model.

Hypotheses testing

Tables 2 and 3 present the results of all the hypotheses. Hypothesis 1 is a within-individual hypothesis which states that social support at work is positively related with next day's work engagement. As shown in Table 2, this hypothesis was not supported ($\beta = 0.07$, n.s.). After controlling for state positive (PA) and negative affect (NA), and previous day's work engagement, previous day's social support did not predict state work engagement. Hypothesis 2 was a between-individual hypothesis suggesting that task interdependence is positively related with work engagement. Results indicate that this hypothesis was not supported ($\beta = -0.10$, n.s.). After controlling for trait engagement, state PA and NA, task interdependence was not significantly related with work engagement.

Next, hypothesis 3 states that previous day's social support at work is positively associated with next morning's state gratitude. As shown in Table 2, this hypothesis was supported ($\beta = 0.10$, $p < .05$). After controlling for previous day's gratitude, next day's state PA and NA, the previous day's social support was significantly related with next day's gratitude. Results showed that 12.8% (*pseudo R-squared value*) of the within-person variance in gratitude was explained by previous day's social support. Hypothesis 4 suggested that task

interdependence is positively related with state gratitude. As shown in Table 2, this hypothesis was supported ($\beta = 0.28, p < .01$). After controlling for trait gratitude, state PA and state NA, task interdependence was a significant predictor of state gratitude. It was found that 14.8% of the between-person variance in gratitude was explained by task interdependence.

Hypothesis 5 predicted that at the within-person level, state gratitude is positively related with daily work engagement. After controlling for state PA and state NA, this hypothesized relationship was supported ($\beta = 0.12, p < .05$). Gratitude explained 4.6% of the within-person variance in work engagement. We thus found that the discrete emotion of gratitude has a significant positive impact on daily engagement.

Hypothesis 6 suggested that previous day's social support is positively related with current day's work engagement via current day's morning's gratitude. To test this hypothesis, I followed the recommendations of Preacher, Zyphur and Zhang (2010) to estimate and assess the significance of indirect effects. As shown in Table 3, this hypothesis was partially supported. After controlling for state PA, NA, previous day's gratitude, and previous day's work engagement, the indirect effect of previous day's social support on current day's engagement through current day's morning's gratitude was 0.015 (95% CI = -0.003, 0.034). However, the 90% confidence interval did not include zero (90% CI = 0.002, 0.029), providing partial support for the hypothesis.

Hypothesis 7 tested whether task interdependence has an indirect effect on daily work engagement through state gratitude. As shown in Table 3, after controlling for state PA, NA, trait engagement and gratitude, this hypothesis was supported as the indirect effect was 0.03 (95% CI = 0.002, 0.055). Hence, task interdependence was found as another key job resource that can enhance daily engagement levels through its positive effects on state gratitude. Taken together, the mediation model explained 5.7% of the within-person variance in work

engagement, and 9.5% of the between-person variance in work engagement. The same model also explained 20.8% of the within-person variance, and 10.9% of the between-person variance, in gratitude.

Hypotheses 8 and 9 tested the first-stage and second-stage moderated-mediation hypotheses. Before testing these hypotheses, I conducted a random slopes analysis (Bauer, Preacher & Gil, 2006) for the within-individual relationship between state gratitude and daily work engagement, as well as between social support at work and gratitude. This analysis is useful to reveal whether these relationships have any significant variation across different individuals. If results indicate that the gratitude – engagement relationship or the social support – gratitude relationship does not significantly vary across individuals, then, we need not proceed with the moderator testing. The random slopes analysis did indicate that the gratitude – engagement relationship significantly varied across individuals, as results indicated that the variance in slopes across individuals is $\tau = 0.055$, and the 95% confidence interval did not include zero (0.011, 0.263). Also, random slopes analysis showed that social support – gratitude relationship significantly varied across individuals – the variance in slopes across individuals is $\tau = 0.072$, and the 95% confidence interval did not include zero (0.026, 0.295). Therefore, we can proceed with the moderated mediation tests to find out whether promotion focus can explain such variations in the gratitude – engagement or social support – gratitude relationships across individuals.

Hypothesis 8 proposed that the indirect effect of previous day's social support on current day's work engagement through state gratitude will be stronger for individuals low in promotion focus. As shown in Table 3, this hypothesis was not supported. After controlling for previous day's social support, previous day's engagement, current day's PA and NA, and prevention focus, it was found that the interaction term between state gratitude and promotion focus was not significant ($\beta = -0.09$, n.s.). Also, the interaction term between social support

and promotion focus was not significant ($\beta = 0.01$, n.s.). Hence, neither the first-stage nor the second-stage moderated-mediation hypotheses was supported.

Next, according to hypothesis 9, the indirect effect of task interdependence on work engagement through state gratitude would be significant only for individuals low in promotion focus. As shown in Table 3, this hypothesis was partly supported. After controlling for prevention focus, state PA and NA, promotion focus moderated the relationship between state gratitude and work engagement ($\beta = -0.13$, $p < .05$). The indirect effect of task interdependence on state engagement via gratitude was significant only at low promotion focus (indirect effect = 0.048, 95% CI = 0.006, 0.089) and not at high promotion focus (indirect effect = -0.005, 95% CI = -0.037, 0.028). On the other hand, promotion focus did not moderate the association between task interdependence and gratitude ($\beta = 0.02$, n.s.). Therefore, only the second-stage moderated-mediation hypothesis was supported. This moderated-mediation model explained 6.1% of the within-person variance, and 10.4% of the between-person variance, in work engagement.

I used the tool developed by Preacher, Curran, & Bauer (2006) to conduct simple slopes analysis to examine the pattern of moderating effect of trait promotion focus. The interaction effects are presented in Figure 2. It was found that for individuals high on promotion focus, state gratitude was not related with daily engagement ($z = -0.03$, $p = .69$). But for individuals low on promotion focus, gratitude significantly predicts work engagement ($z = 0.26$, $p < .01$).

Thus, the moderated-mediation hypothesis was supported only for task interdependence (hypothesis 9) but not for previous day's social support (hypothesis 8).

Results – without control variables

In line with the recommendations of Bernerth & Aguinis (2016), I also analysed the data without any control variables. Tables 2(a) and 3(c) report the findings for all the

hypotheses with only the predictor variables in the model. Hypotheses 1 and 2 were not supported i.e. social support at work and task interdependence were not directly related with work engagement. Hypotheses 3 and 4 were however, supported. Social support ($\beta = 0.10$, $p < .05$) and task interdependence ($\beta = 0.30$, $p < .01$), both were significantly related with gratitude. And in support of hypothesis 5, gratitude significantly predicted state work engagement ($\beta = 0.15$, $p < .05$). Both the mediation hypotheses were supported. Gratitude significantly mediated the relationship between social support and work engagement (hypothesis 6 – indirect effect = 0.014; 95% CI = 0.001, 0.034), as well as the relationship between task interdependence and work engagement (hypothesis 7 – indirect effect = 0.029; 95% CI = 0.05, 0.067).

Hypothesis 8 suggested that promotion focus moderated the relationship between social support and work engagement. As shown in Table 3(c), this hypothesis was supported ($\beta = -0.13$, $p < .01$). The indirect effects of social support via gratitude were significant at low promotion focus (0.028; 95% CI = 0.007, 0.056, but not at high promotion focus (-0.005, 95% CI = -0.026, 0.011). The other moderated-mediation hypothesis i.e. hypothesis 9, was also supported. As shown in Table 3(c), the interaction term between gratitude and promotion focus was significant ($\beta = -0.14$, $p < .05$). The indirect effects of interdependence via gratitude were significant at low promotion focus (0.068; 95% CI = 0.020, 0.135, but not at high promotion focus (-0.010, 95% CI = -0.043, 0.023). Lastly, in both these hypotheses (H8 and H9), only the second-stage moderation was supported, which is similar to the results obtained with control variables.

Supplemental analysis

To further strengthen the evidence for the positive impact of social resources on work engagement via the emotion of gratitude, I also tested for reciprocal effects of work engagement. Specifically, it was tested whether previous day's work engagement has a

positive impact on social support at work through state gratitude. As shown in Table 4, the indirect effects of previous days' engagement on social support via gratitude were not significant (0.01, 95% CI = -0.003, 0.004). Hence, this study provides strong support for the indirect effects of social support at work on engagement via gratitude.

Lastly, as shown in the last column of Table 3(a) and (b), I also tested the full model, i.e. testing for all the hypotheses simultaneously by entering all the independent variables, controls as well as the interaction terms. Results of this full model analysis indicated that neither social support nor task interdependence were associated with work engagement, thereby not supporting hypothesis 1 and 2. But hypotheses 3 and 4 were supported. Results showed that previous day's social support at work predicted state gratitude ($\beta = 0.09$, $p < .05$); similarly, task interdependence was also significantly related with gratitude ($\beta = 0.18$, $p < .05$). Hypothesis 5, which predicted that gratitude is significantly related with work engagement, was not supported. The indirect effects of social support on engagement via gratitude were not significant (indirect effect = 0.008; 95% CI = -0.012, 0.031); similarly, gratitude did not mediate the positive relationship between task interdependence and work engagement (indirect effect = 0.011; 95% CI = -0.007, 0.028). Thus, hypotheses 6 and 7 were not supported. The moderated-mediation hypotheses (hypotheses 8 and 9) also were not supported as none of the interaction terms were significant (as can be seen in Tables 3(a) and 3(b)).

DISCUSSION

I set out to investigate how two social job resources – task interdependence and social support at work – influence daily work engagement levels of employees working in the services sector. Research scholars have demonstrated that social job characteristics such as feedback, coaching and social support from coworkers and supervisor have a positive effect on work engagement (Christian et al., 2011). Task interdependence was initially recognized

as a work design feature capable of motivating individuals (Kiggundu, 1981) but work design researchers neglected interdependence as a social characteristic that can enhance job attitudes and behaviors (Grant & Parker, 2009). Through this study, I contribute to the ongoing research stream in which greater attention is being given to the interdependent nature of jobs, roles and tasks, thus, incorporating the social context of work into the study of state work engagement.

Integrating the research on discrete emotions, specifically gratitude (McCullough et al., 2001) with the social exchange theory (Blau, 1964; Lawler, 2001; Lawler & Thye, 1999), I examined how an emotional causal mechanism could explain the positive effects of task interdependence and social support on daily work engagement. Results largely supported the hypothesized model of relationships that explained *why* and *for whom* social job resources would enhance daily engagement levels. These findings provide evidence that task interdependence is yet another important social job characteristic that could improve state work engagement by making employees experience the discrete emotion of gratitude. When employees understand that their jobs are affected by the efforts and contributions of other employees, they tend to feel more grateful, which in turn motivates them to invest their emotional, cognitive and physical energies at work.

For the other social job resource, i.e. social support from supervisor and coworkers, I explain that gratitude is the underlying emotional mechanism through which employees experience higher levels of engagement when they have high social support at work. Even though past research has shown social support as an important antecedent of state engagement (Xanthopoulou et al., 2009), I go beyond such studies by uncovering gratitude as the emotional mechanism through which support from supervisor and coworkers affects daily engagement levels. It also needs to be emphasized that the temporal separation among social support (previous day), state gratitude (current day's morning) and daily engagement (current

day's evening) has substantive value as inclusion of time lags is a vital step towards theoretical advancement (Corley & Gioia, 2011; Mitchell & James, 2001).

This essay makes a substantial contribution to the literature on affect and emotions, as results show that after controlling for positive and negative affect, state gratitude significantly affects daily work engagement. Past meta-analysis by Christian and colleagues (2011) has demonstrated that positive affect is an important predictor of engagement. However, this data shows that when gratitude and positive affect are simultaneously tested as predictors of engagement, only gratitude's association is significant (Table 2, hypothesis 5). This is despite the fact that there is a significant correlation between positive affect and work engagement ($r = 0.35, p < .01$; Table 1). In the past, scholars have argued that positive affect is too broad and non-specific, and positive affect theoretically implies that all discrete emotions are functionally the same, which is definitely not accurate (Brief & Weiss, 2002). Similarly, Barsade and Gibson (2007) called for more research on discrete emotions which are driven by different processes and could lead to diverse outcomes. This study's findings provide a richer understanding of the role of emotions, as results show that it is the discrete emotion of gratitude, and not the broad construct of positive affect, that enhances state work engagement. These findings support the call for greater research on discrete emotions (Gooty, et al., 2009), and improve our understanding of the roles discrete emotions could play in contributing toward employee attitudes such as work engagement. Future research should also go in the same direction and instead of examining positive affect, study discrete emotions for their ability to influence employee attitudes and behaviors.

As a boundary condition, I tested the first-stage and second-stage moderated-mediation hypotheses for both the social job resources. Results suggest that task interdependence has positive indirect effects on work engagement through the emotion of gratitude, but only for individuals low in promotion focus. This is also a significant finding as

we complement previous research on job resources and demonstrate that not all employees could be affected by the interdependent nature of jobs. Employees who are low in promotion focus are not naturally very ambitious and thus, do not exert extra efforts to achieve work goals. These findings demonstrate that external cues may be necessary to motivate such individuals to engage themselves fully. Task interdependence motivates such employees to raise their engagement levels by cultivating feelings of gratitude. In contrast, perceptions of task interdependence and the emotion of gratitude may exert less influence on high promotion focus individuals, who tend to naturally engage themselves at work. At the same time, I did not find any significant moderating effects of promotion focus on the relationship between social support and daily engagement via gratitude.

This study further contributes to the literature on emotions and work engagement. Past research has shown that trait positive affect and positive mood can enhance work engagement (Christian et al., 2011; Ouwenneel et al., 2012). I extend this research and answer calls for greater research on how discrete positive emotions could have a significant effect on employee attitudes and behaviors (Barsade & Gibson, 2007; Gooty, Gavin, & Ashkanasy, 2009; Hu & Kaplan, 2015). The findings show that as a discrete positive emotion, gratitude is capable of enhancing daily engagement levels (after controlling for state positive affect and negative affect). I posit that when employees feel more grateful, they are motivated to contribute further to the welfare of others and they do that by engaging themselves fully into their jobs.

Past research on work engagement has predominantly focused on structural job resources (e.g. task significance, autonomy, task variety, etc.) and social job resources (feedback, social support, transformational leadership, etc.) as the key predictors of engagement (Bakker, et al., 2014; Christian, et al., 2011). However, we do not know much about the association between emotions and engagement, even while it is acknowledged that

emotions are very much there at the workplace (Barsade & Gibson, 2007). Secondly, little is known about the mechanisms and the boundary conditions of the relationship between job resources and work engagement. This study is a significant step in fulfilling these gaps, as I demonstrate that gratitude is a key emotional mechanism through which social support at work and task interdependence enhance work engagement. And by integrating the self-exchange theory with self-regulation perspective, this study provides a richer understanding of the relationship between social resources and work engagement. While social exchange theory highlights the significance of resources at the workplace, the regulatory focus theory recognizes that individual differences also play a key role in impacting employee attitudes. This is perhaps the first study to empirically confirm what Blau (1964) argued decades back – “A person for whom another has done a service is expected to express his gratitude and return a service when the occasion arises” (p. 4). Hence, future research should examine other positive emotions that could potentially impact employee attitudes and behaviors.

Limitations and future research

The contributions of this study should be qualified in light of its limitations, some of which suggest productive directions for future research. Firstly, all the data was collected on a self-report basis which can create concerns about common method bias (Podsakoff, MacKenzie, & Podsakoff, 2012). However, for the hypotheses which were focused on within-person variance in employee engagement, my methodology controlled for any individual differences. Also, I assessed the variables at different points in time – promotion focus one week before the ESM study, emotions in the morning, and social support and engagement in the evening – which further reduces the likelihood that results can be attributed to common method bias.

Second, I adopted a day-level approach in investigating the effects of social support and gratitude on engagement. Even though this approach provides useful insights on

predictors of state engagement, I do not know how our findings generalize to other time frames. As suggested by Bakker et al., (2014), I also believe that more research is needed to understand momentary engagement, e.g. why do engagement levels fluctuate from hour to hour. One can also examine how different tasks or people (leader vs. colleagues) can create episodes of high work engagement.

Third, the sample participants were only from one information technology organization located in India. Since Asian countries have a predominantly collectivistic culture (Hofstede, 1983), it is possible that people in such countries can better appreciate the role played by others in their lives i.e. such people could demonstrate the effects of being grateful. It would be important to test these relationships in American or European cultures which are more individualistic and possibly, may not have equally strong effects of gratitude. Thus, the results may not be generalizable and more research is needed in other kind of organizations located in different countries. Also, the sample had more than 90% males which means the results may not strictly hold for females.

Moreover, since the entire sample of engineers was from one particular department i.e. research & development, within one organization, the data might also be affected by range restrictions on the independent variables i.e. social support and task interdependence. Discussions with the organization's top management indicate that the employees were expected to work in teams, and thus, it is likely that social support and interdependence play important roles in such a context. As Table 1 shows, the mean level of interdependence and social support were both on the higher side (around 5 on a 1-7 scale). Future research should investigate whether social support, interdependence and gratitude still play significant roles in organizations/ departments wherein the average levels of these variables may not be so high, or in situations where these variables have a higher range/ standard deviation as reported by the employees.

This study used the scale developed by Spence and colleagues (2014) to measure employees' day level of gratitude. Even though the scale is reliable, at least three of the five items do not directly refer the emotion of gratitude; instead, these items refer to supportive treatment from others. For example, one of the items – “I have been treated with generosity” – does not directly assess whether the individual feels grateful for the help/ generosity received. This is a possible limitation in the state gratitude scale, and thus, future scholars might want to modify this scale or propose a different scale to assess the emotion of gratitude. Perhaps, to measure gratitude, we may not need five items. Other emotions such as anger are assessed through three direct items (Katwyk, et al., 2000). Future researchers may recommend a similar shorter and more accurate scale to assess state gratitude.

State gratitude was examined as the mediator of the positive relationship between social job resources and work engagement, but the source of gratitude was not assessed. I acknowledge this as a limitation, and suggest that future research should investigate this issue of “global vs. targeted” nature of gratitude. It is important to justify that the focal employee is grateful to the persons who are providing the useful social resources, and rule out the possibility that the focal employee is grateful to someone else.

This study examined gratitude as the mediating mechanism through which social resources i.e. social support at work and task interdependence affect *work engagement*. Macey and Schneider (2008) stated that work engagement could simply be a repackaging of other similar constructs i.e. job attitudes, such as job satisfaction, job involvement, and organizational commitment. In their meta-analysis on work engagement, Christian and colleagues (2011) discussed that work engagement is somewhat related, yet conceptually distinct from these other job attitudes. It would be worth examining whether gratitude would act as the emotional mechanism through which social job resources impact other attitudes such as job satisfaction and commitment. Therefore, future research can examine if gratitude

(as a discrete positive emotion) could be the mechanism through which task interdependence and social support at work influence other job attitudes. Such research would provide a complete understanding of the role played by gratitude in the job resources – positive outcomes literature.

Conclusion

In today's work environment, social job characteristics are expected to play far greater roles in impacting employee attitudes and behaviors. By conducting this research, I contribute to literature on social resources and demonstrate that task interdependence and social support at work, both improve state work engagement through the discrete emotion of gratitude. The findings also show that interdependence affects engagement (via gratitude) only for individuals low in promotion focus. This investigation therefore highlights how two key social job resources influence daily work engagement levels of employees working in the services sector. On the whole, the essay utilizes the affect theory of social exchange and advances our understanding of social job resources and discrete emotions at the workplace.

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Table 1

Means, standard deviations, intra-class correlations (ICC) and correlations among the key study variables

S.No.	Variables	Mean	S.D.	ICC (%)	1	2	3	4	5	6	7
1.	Social support at work	5.07	1.13	41.4	(0.81)	.18**	.39**	.04	-.02	.03	.02
2.	State Gratitude	5.33	1.03	32.7	.16**	(0.83)	.29**	.64**	-.13**	.31**	.12**
3.	State Work Engagement	5.38	1.01	34.9	.33**	.28**	(0.89)	.44**	-.07	-.01	.10*
4.	State Positive Affect	5.72	1.03	29.2	.08*	.59**	.35**	(0.90)	-.30**	.22**	.10*
5.	State Negative Affect	1.95	1.04	33.3	-.02	-.11*	-.07	-.27**	(0.84)	-.04	-.05
6.	Task Interdependence	4.91	1.21	-						(0.75)	.22**
7.	Promotion focus	5.70	0.90	-							(0.72)

Note: Reliabilities are reported in the diagonal, in the parenthesis.

The correlations below the diagonal are within-person correlations

The correlations above the diagonal are between-person correlations (computed using individuals' aggregated scores; N = 116)

N ~ 541 to 580 reports provided by 116 employees

* $p < .05$

** $p < .01$

Table 2
Results of Direct Hypotheses 1 to 5

	Hypothesis 1 and 2		Hypothesis 3 and 4		Hypothesis 5	
	DV: Work engagement		DV: State gratitude		DV: State work engagement	
Predictors	β	SE	β	SE	β	SE
Intercept	6.72**	0.53	4.73**	0.72	6.69**	0.51
<i>Predicting State work engagement</i>						
State Positive Affect	-0.03	0.05			-0.04	0.05
State Negative Affect	0.06	0.05			0.02	0.04
State Gratitude					0.12*	0.05
Social support at work (prev. day)	0.07	0.05				
State work engagement (prev. day)	-0.12*	0.05				
Task interdependence	-0.10	0.10				
Promotion focus						
Prevention focus						
Trait gratitude						
Trait engagement	0.30**	0.09				
Gratitude X Promotion focus						
<i>Predicting State gratitude</i>						
Social support at work (prev. day)			0.10*	0.04		
State Positive Affect			0.33**	0.04		
State Negative Affect			-0.02	0.05		
State gratitude (prev. day)			-0.12**	0.04		
Task interdependence			0.28**	0.09		
Trait gratitude			0.22*	0.09		

NOTE: N = 371 to 484 (sample size is smaller for lagged analysis)

* p < .05, ** p < .01; SE: standard error

Table 2(a)
Results of Direct Hypotheses 1 to 5 (without controls)

	Hypothesis 1 and 2		Hypothesis 3 and 4		Hypothesis 5	
	DV: Work engagement		DV: State gratitude		DV: State work engagement	
Predictors	β	SE	β	SE	β	SE
Intercept	6.73**	0.53	6.12**	0.45	6.71**	0.48
<i>Predicting State work engagement</i>						
State Gratitude					0.15*	0.04
Social support at work (prev. day)	0.06	0.05				
Task interdependence	0.01	0.10				
Promotion focus						
Gratitude X Promotion focus						
<i>Predicting State gratitude</i>						
Social support at work (prev. day)			0.10*	0.05		
Task interdependence			0.30**	0.09		

NOTE: N = 371 to 484 (sample size is smaller for lagged analysis)

* p < .05, ** p < .01; SE: standard error

Table 3(a)
Results of Hypotheses 6 to 9

	Hypothesis 6, 7		Hypothesis 8		Hypothesis 9		Full model	
	DV: State work engagement		DV: State work engagement		DV: State work engagement		DV: State work engagement	
Predictors	β	SE	β	SE	β	SE	β	SE
Intercept	6.50**	0.48	6.41**	0.49	6.55**	0.52	6.45**	0.49
<i>Predicting State work engagement</i>								
State Positive Affect	-0.05	0.05	0.04	0.05	-0.02	0.04	-0.08	0.05
State Negative Affect	0.03	0.05	0.06	0.05	0.02	0.04	0.02	0.06
State Gratitude	0.13*	0.04	0.03	0.05	0.13**	0.05	0.08	0.06
State Gratitude (mean)	0.09*	0.04			0.09*	0.04	0.06	0.05
Social support at work (prev. day)	0.11*	0.06	0.06	0.05			0.05	0.05
State work engagement (prev. day)	-0.14*	0.06	-0.11*	0.05			-0.12*	0.05
Task interdependence	-0.13	0.11			-0.11	0.11	-0.09	0.08
Promotion focus			0.14	0.10	0.07	0.1	0.11	0.09
Prevention focus			-0.04	0.09	-0.03	0.1	0.01	0.08
Trait gratitude	0.16*	0.05	0.05	0.09	0.06	0.09	0.05	0.09
Trait engagement	0.22*	0.09	0.19	0.11	0.21	0.11	0.18	0.14
Gratitude X Promotion focus			-0.09	0.06	-0.13*	0.04	-0.11	0.08

NOTE: N = 371 to 484 (sample size is smaller for lagged analysis)

* p < .05, ** p < .01; SE: standard error

Table 3(b)
Results of Hypotheses 6 to 9

	Hypothesis 6, 7		Hypothesis 8		Hypothesis 9		Full model	
	DV: State work engagement		DV: State work engagement		DV: State work engagement		DV: State work engagement	
Predictors	β	SE	β	SE	β	SE	β	SE
<i>Predicting State gratitude</i>								
Social support at work (prev. day)	0.12*	0.05	0.12*	0.05			0.09*	0.03
State Positive Affect	0.41**	0.04	0.38**	0.04			0.38*	0.04
State Negative Affect	-0.04	0.04	-0.02	0.04			-0.02	0.04
State gratitude (prev. day)	-0.13**	0.05	-0.13**	0.05			-0.11*	0.04
Promotion focus			0.09	0.06	0.08	0.06	0.08	0.06
Prevention focus			-0.03	0.05	-0.02	0.06	-0.01	0.06
Social support X Promotion focus			0.01	0.04			0.02	0.04
Interdependence X promotion focus					0.02	0.07	0.02	0.05
Task interdependence	0.29**	0.09			0.24**	0.09	0.18*	0.06
Trait gratitude	0.25*	0.08			0.25**	0.09	0.20*	0.09

NOTE: N = 371 to 484 (sample size is smaller for lagged analysis)

* p < .05, ** p < .01; SE: standard error

Table 3(c)
Results of Hypotheses 6 to 9 (without controls)

	Hypothesis 6, 7		Hypothesis 8		Hypothesis 9		Full model	
	DV: State work engagement		DV: State work engagement		DV: State work engagement		DV: State work engagement	
Predictors	β	SE	β	SE	β	SE	β	SE
Intercept	6.62**	0.50	6.50**	0.52	6.51**	0.52	6.51**	0.49
<i>Predicting State work engagement</i>								
State Gratitude	0.14*	0.04	0.11*	0.04	0.12*	0.05	0.12*	0.06
State Gratitude (mean)	0.12*	0.04			0.11*	0.04	0.11*	0.05
Social support at work (prev. day)	0.06	0.06	0.05	0.05			0.04	0.05
Task interdependence	-0.07	0.11			-0.04	0.08	-0.08	0.08
Promotion focus			0.10	0.10	0.10	0.09	0.10	0.09
Gratitude X Promotion focus			-0.13*	0.04	-0.14**	0.04	-0.13*	0.08
<i>Predicting State Gratitude</i>								
Social support at work (prev. day)	0.13*	0.06	0.13*	0.05			0.09	0.07
Promotion focus			0.08	0.06	0.09	0.07	0.08	0.07
Social support X Promotion focus			0.06	0.05			0.06	0.05
Interdependence X promotion focus					0.07	0.09	0.07	0.08
Task interdependence	0.29**	0.10			0.29**	0.08	0.30**	0.09

NOTE: N = 371 to 484 (sample size is smaller for lagged analysis)

* p < .05, ** p < .01; SE: standard error

Table 4
Supplemental analysis

Reciprocal effects: Engagement to Social support		
DV: Social support at work		
Predictors	β	SE
Intercept	2.51**	0.59
<i>Predicting Social support at work</i>		
State Positive Affect	0.14*	0.07
State Negative Affect	-0.01	0.06
State gratitude	0.01	0.05
Social support at work (prev. day)	-0.09	0.06
State work engagement (prev. day)	-0.03	0.07
Task interdependence		
Promotion focus		
Prevention focus		
Trait gratitude		
Trait engagement		
Gratitude X Promotion focus		
<i>Predicting State gratitude</i>		
Social support at work (prev. day)	0.09	0.05
State Positive Affect	0.44**	0.05
State Negative Affect	-0.04	0.04
State gratitude (prev. day)		
State work engagement (prev. day)	-0.01	0.06
Task interdependence		
Trait gratitude		

NOTE: N = 371 to 484 (sample size is smaller for lagged analysis)

* $p < .05$, ** $p < .01$; SE: standard error

Table 5
Supplemental analysis

First-stage moderated mediation				
Predictors	DV: State work engagement		DV: State work engagement	
	β	SE	β	SE
Intercept	5.40**	0.08	5.40**	0.08
<i>Predicting State work engagement</i>				
State Positive Affect	0.03	0.06	-0.06	0.05
State Negative Affect	0.07	0.05	0.07	0.07
State Gratitude	0.13*	0.04	0.05	0.08
Social support at work (prev. day)			0.07	0.05
State work engagement (prev. day)			-0.14*	0.05
Task interdependence	-0.06	0.11		
Trait gratitude	0.25*	0.09		
Trait engagement	0.18	0.12		
<i>Predicting State gratitude</i>				
Social support at work (prev. day)			0.09*	0.05
State Positive Affect	0.41**	0.05	0.38**	0.04
State Negative Affect	-0.04	0.04	-0.02	0.04
State gratitude (prev. day)			-0.11*	0.05
Task interdependence	0.15	0.07		
Trait gratitude	0.25*	0.08		
Promotion focus	0.13	0.10	0.12	0.09
Prevention focus	-0.02	0.08	-0.04	0.08
Interdependence X promotion focus	0.02	0.07		
Social support X promotion focus			0.01	0.04

NOTE: N = 371 to 484 (sample size is smaller for lagged analysis)

* $p < .05$, ** $p < .01$; SE: standard error

Figure 1
Hypothesized Model of Relationships

Figure 2

Fluctuating levels of Daily work engagement

Figure 3

Promotion focus as the moderator (Gratitude – Engagement relationship)

Figure 4(a): P-P plot for Social Support

Figure 4(b): P-P plot for State Work Engagement

Conclusion

The three essays in this dissertation have several important implications for research on work engagement and discrete positive emotions. The first essay reviews the work engagement literature, focused primarily on its antecedents. The review highlights that we do not know much about why job resources affect engagement. Secondly, we also do not know much about the relationship between discrete emotions and work engagement. The first essay ends with a proposed theoretical framework on how to enhance our understanding of the predictors of work engagement, especially emphasizing the impact discrete emotions could have on employees' engagement.

The second essay is a between-person research study conducted to test some of the relationships proposed in essay one. It investigates the role played by gratitude as an important but overlooked emotional mechanism through which organizational justice perceptions could positively affect work engagement. Results support the mediating role of gratitude, even in the presence of LMX as the other mediator between interactional justice and engagement. In addition, results support the moderated-mediation hypothesis and it is found that justice has stronger effects on engagement via gratitude for individuals low in promotion focus.

The third essay is about an experience-sampling study, thereby conducting a stronger test of the relationships between two social resources – social support at work and task interdependence, and work engagement. Here also, results largely support the hypotheses that state gratitude acts as the emotional mechanism in the social resources – engagement relationship. And similar to essay two, results here also indicate that for at least one resource – task interdependence – the indirect effects via gratitude are significant only for low promotion focus employees.

Overall, this dissertation makes significant contributions to the work engagement and emotions literature. By examining the mechanisms through which social resources improve engagement, it significantly improves our understanding of the antecedents of engagement. It is also among the first empirical studies to empirically examine the role played by gratitude, an emotion which has been long neglected, even though its role was highlighted several decades back when Blau (1964) proposed the social exchange theory.

Future researchers on engagement should examine the role other discrete emotions could play in affect engagement at work, e.g. it is quite possible that pride, guilt or excitement could also have day-level effects on engagement. Moreover, we need greater research on the boundary conditions of the job resources – engagement association. Such research would help organizations immensely as they understand that resources positively affect work engagement only for a certain type of individuals or within a specific context. Research along these lines has great potential for improving engagement levels at the workplace.