The Effect of Shared Perception of Engaging Leadership on Employee Work Engagement – a Multilevel Framework

Kristine Oda Walderhaug Sæther & Lisa Victoria Bergman



UNIVERSITY OF BERGEN

FACULTY OF PSYCHOLOGY

MAPSYK345

Master Program of Psychology
Work and Organisational Psychology
SPRING 2019

Advisor: Guy Notelaers, Department of Psychosocial Science

i

Abstract

Engaging leadership is a recently introduced leadership style, assumed to facilitate employee work engagement through fulfilment of the three basic psychological needs; autonomy, competence, and relatedness. Using a multilevel framework, this thesis investigated the relationships of employee work engagement with four job resources (i.e. autonomy, participation in decision making, variety in work and learning opportunities). It further investigated the direct effect of shared perception of engaging leadership on employee work engagement. Lastly, the moderating role of the groups' shared perception of engaging leadership on the relationship between job resources and employee work engagement was examined. Questionnaires were completed by 119 leaders and 846 employees, resulting in a response rate of 80%. The employees were nested within leaders, and the employees' perception of the leader was aggregated to a group level, measuring the groups' shared perception of engaging leadership. First, as predicted on the basis of theories concerning job resources and well-being, increased levels of job resources predicted higher levels of employee work engagement. Secondly, as predicted based on crossover theory and studies on transference of emotions, the groups' shared perception of engaging leadership had a positive effect on employee work engagement. Lastly, the findings did not support the hypothesis that the groups' shared perception of engaging leadership would positively moderate the relationship between the employees' job resources and work engagement. The findings of this thesis shed a light on groups' shared perception of engaging leadership. They also implicate a need to investigate leadership and work engagement from a multilevel theoretical perspective.

Keywords: Engaging leadership, employee work engagement, job resources

Word count: 15 622.

Sammendrag

Engasjerende ledelse (i.e. engaging leadership) er en ledelsesstil som ble introdusert relativt nylig. Ledelsesstilen er antatt å fasilitere jobbengasjement gjennom å sørge for at de ansatte får oppfylt sine grunnleggende psykologiske behov; autonomi, kompetanse og tilhørighet. Ved bruk av et flernivå-rammeverk ble forholdet mellom ansattes opplevde jobbressurser (autonomi, deltakelse i beslutningstaking, variasjon i arbeidet og læringsmuligheter) og jobbengasjement undersøkt. Det ble videre undersøkt hvorvidt det er en direkte effekt mellom gruppers delte opplevelse av engasjerende ledelse og ansattes jobbengasjement. En modererende effekt av gruppers delte opplevelse av engasjerende ledelse på forholdet mellom ansattes jobbressurser og jobbengasjement ble undersøkt. En spørreundersøkelse ble gjennomført av 119 ledere og 846 ansatte. Dette ga en svarrate på 80%. De ansatte ble ordnet under lederne, og ansattes svar angående persepsjon av lederen ble aggregert til gruppenivå, som et mål på gruppens delte opplevelse av engasjerende ledelse. Som predikert på bakgrunn av teorier om jobbressurser og helseutfall, viste resultatene at økte nivåer av jobbressurser predikerte høyere nivåer av jobbengasjement. Som predikert på bakgrunn av teorier om hvordan affektive reaksjoner krysser over mellom individer, hadde gruppers delte opplevelse av engasjerende ledelse en positiv effekt på jobbengasjement. Funnene ga ikke støtte til den siste hypotesen om at gruppers delte opplevelse av engasjerende ledelse ville moderere det positive forholdet mellom jobbressurser og jobbengasjement. I denne oppgaven ble effekten av gruppers delte opplevelse av engasjerende ledelse belyst. Videre viser den at det er viktig å undersøke ledelse og jobbengasjement i et flernivåperspektiv.

Acknowledgements

Through the process of shaping and deciding the aim of our thesis, we learned a lot about persistence, patience and hard work. We used secondary data, which our advisor, Guy Notelaers, kindly gave us access to. In cooperation with our advisor we formed a research model we consider interesting.

Throughout this process, Guy Notelaers has been encouraging and helpful. We want to thank him for his support, wit and persistence throughout the work on this project. We further want to thank him for the interesting discussions, both considering the thesis and other entertaining topics. We want to thank him for never saying no when we asked for help and telling us to stay positive in times of doubt.

We also want to thank our peers at Vektertorget for social support and laughs. It has been quite a journey!

Bergen, March 22nd, 2019

Kristine Oda Walderhaug Sæther and Lisa Victoria Bergman

Table of contents

Abstract	i
Sammendrag	ii
Acknowledgements	iii
Table of contents	iv
Introduction	1
Theory	3
Work Engagement	3
Vigour	3
Dedication.	3
Absorption	3
Job Satisfaction and Work Engagement	4
Motivating Potential of Job Resources	5
Job Characteristics model.	
The Job Demands-Control model.	6
The Job Demands-Resources model.	6
Self-Determination Theory.	
Job Resources as Antecedents of Employee Work Engagement	8
Autonomy.	
Participation in decision making.	
Variety in work.	
Learning opportunities.	
Empirical research.	
Engaging Leadership	
Engaging Leadership and Transformational Leadership	
Leadership in a Multilevel Perspective	
Emergence of Shared Perception of Engaging Leadership	
Moderating Potential of Shared Perception of Engaging Leadership	15
Method	18
Participants and Data Collection	
Measures	
Job resources.	
Work engagement.	
Engaging leadership	
Control variables.	
Preliminary Analyses	
Aggregation of Measures - Shared Perception of Engaging Leadership	
Hypothesis 1	
Hypothesis 2	
Hypothesis 3	
Results	21
Null Model	
Testing the Hypotheses	
I WOULLE VIEW II DOULEDED	

Hypothesis 1	22
Hypothesis 2	
Hypothesis 3	24
Moderation of the relationship between autonomy and employee work engagement.	26
Moderation of the relationship between participation in decision making and employee work engagement.	27
Discussion	29
Job Resources as Antecedents of Employee Work Engagement	
The Direct Effect of Shared Perception of Engaging Leadership on Employee W Engagement	ork
The Moderating Role of Shared Perception of Engaging Leadership on the	
Relationship Between Job Resources and Employee Work Engagement	33
Job resources as substitutes for shared perception of engaging leadership	34
Methodological Considerations	35
Individual Consideration of Job Resources	35
Individual Level Measures of Shared Perception of Engaging Leadership	
Social desirability	
Common method variance. Restriction of range.	
Cross-sectional design.	
Theoretical Implications	
Practical Implications	38
Future Research	38
Concluding remarks	40
References	42
Appendix	53
Appendix A – Measures of Job Resources, Work Engagement and Engaging Leadership	53
Appendix B – Interaction Plots for the Moderating Effect of Shared Perception of	
Engaging Leadership on the Relationship Between Learning Opportunities and	
Variety in Work and Employee Work Engagement	
Appendix C – Illustration of Employee Work Engagement Scores	56

Introduction

Work engagement has increasingly gained attention over the last decades, and the number of studies on the subject has increased rapidly (Bakker & Albrecht, 2018; Cenkci & Özçelik, 2015). Research has shown that work engagement is an important predictor of outcomes for both employees, groups, and organisations (Bakker & Albrecht, 2018). Several studies have shown that actively working towards engaging the workforce leads to higher levels of productivity, organisational citizenship behaviour, and overall job performance (e.g. Albrecht, Breidahl & Marty, 2018; Hakanen, Bakker & Schaufeli, 2006; Harter, Schmidt, Agrawal & Plowman, 2013; Rich, LePine & Crawford, 2010; Shuck & Wollard, 2010).

Researchers (e.g. Bakker & Albrecht, 2018; Bedarkar & Pandita, 2014) have argued that leaders of organisations should keep engaging their employees as one of their top priorities, as employee work engagement is a crucial determinant of organisational effectiveness, innovation and competitiveness. In line with this argument, and the research showing that there are several positive consequences of employee work engagement, one may argue that it is important to consider potential antecedents of employee work engagement.

Substantial evidence has shown that the presence of various job resources leads to employee work engagement (e.g. Hakanen et al., 2006; Xanthopoulou, Bakker, Demerouti & Schaufeli (2009). Xanthopoulou et al., 2009). Nonetheless, Saks (2019, p. 33) suggested that there is still a need to research the "relative importance and effects of different characteristics for job/work engagement". Saks (2019) argued that despite substantial evidence of the positive relationship between job resources and work engagement, there is still a gap in knowledge concerning which job characteristics are most important for employee work engagement. He further argued that this might be because several previous studies have tested only one or two job (e.g. autonomy, performance feedback), in combination of other resources (e.g. social resources) (Saks, 2019). Therefore, four specific job resources were investigated as antecedent of employee work engagement (i.e. autonomy, participation in decision making, variety in work, learning opportunities) in this thesis.

Research has, in later years, further shown that positive perceptions of leaders are associated with higher levels of employee work engagement (Bailey, Madden, Alfes & Fletcher, 2017). Tuckey, Dollard and Bakker (2012) argued that leadership is an important antecedent of employee work engagement, as leaders may both influence the working

conditions and interact with the work environment, thus influencing how the work is experienced by their employees.

Engaging leadership is a leadership style in which the main goal is to foster employee work engagement through behaviour aimed towards employee need satisfaction (Schaufeli, 2017a). According to Schaufeli (2015), the leadership style is among the few leadership styles which are based on psychological theory of motivation; Self-Determination Theory (Deci & Ryan, 1985). The limited previous research has focused on the leadership style in relation to need satisfaction (Erasmus, 2018) and job resources (Nikolova, Schaufeli & Notelaers, 2019; Schaufeli, 2015). The results of these studies indicate that engaging leaders affect their followers' work engagement, with job resources and need fulfilment as mediating variables.

Despite the extensive research on work engagement over the last years (Bakker & Albrecht, 2018) contextual factors are investigated to a limited extent, and researchers have yet to examine the cross-level interactions of antecedents of employee work engagement (Bailey et al., 2017). Further, as the engaging leadership style is relatively newly introduced, its effect on the employees has not been investigated in a group level perspective. One may argue that it would be beneficial to do so, as there has been a widespread move to group-based work in organisations (Jungert, Van den Broeck, Schreurs & Osterman, 2018).

Managers are thus often asked to lead and motivate not only individuals but also teams as a whole (Cohen & Bailey, 1997; Kozlowski & Bell, 2003). In line with this argument, Erasmus (2018) suggested that future research should examine the engaging leadership style in a multilevel perspective.

Based on a study by Humphrey, Nahrgang and Morgeson (2007), Saks (2019) argued that future research should investigate social characteristics in relation to employee work engagement, as they have shown to be important for fostering attitudes concerning one's job. In line with this, Spell, Eby, and Vandenberg (2014) argued that it is important to consider the employees' collective perception of their leader, not just the individuals', as shared perception of the environment affects the individuals. Schaufeli (2017a) claimed that as engaging leaders have a focus on connecting their followers, they may affect the group. The engaging leader may thus indirectly influence the work engagement of the employees in the groups; through affecting the employees' shared perceptions. The employees' shared perception of their leader as engaging may further affect the employees' appraisal of their already present job resources. Thus, the groups' shared perception may arguably affect the relationship between the employees' job resources and work engagement.

In sum, there is still much to be discovered regarding the antecedent of employee work engagement, both on the individual and group level. Additionally, it is interesting to examine the effects of engaging leadership, as it is developed to directly affect employee work engagement.

Theory

Work Engagement

Work engagement is a positive affective-cognitive state, defined as "a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption" (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002, p. 74; Schaufeli & Bakker, 2004). Unlike other, less active forms of work-related well-being (e.g. job satisfaction or contentment), work engagement refers to a motivational state characterised by energy and activation (Bakker, Schaufeli, Leiter & Taris, 2008; Weigl et al., 2010).

Vigour.

Vigour is characterised by "high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties" (Schaufeli et al., 2002, p. 74). Mauno, Kinnunen and Ruokolainen (2007) proposed that people stay persistent and resilient when facing difficulties because vigour is a motivational concept. They further argued that vigour specifically is closely related to intrinsic motivation. Intrinsic motivation refers to the motivation to perform an activity because the activity itself is rewarding (Gagné & Deci, 2005).

Dedication.

Dedication refers to "being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge" (Bakker & Bal, 2010, p. 190). The dedication dimension of work engagement has often been compared to job involvement (Mauno et al., 2007). Schaufeli et al. (2002) however, argued that dedication extends further than job involvement. They argued that the two concepts differ, as work engagement in contrast to job involvement includes an affective, as well as cognitive, dimension.

Absorption.

Absorption is characterised by "being fully concentrated and happily engrossed in one's work, whereby time passes quickly, and one has difficulties with detaching oneself from one's work" (Schaufeli et al., 2002, p. 75). According to Schaufeli et al. (2002), absorption has been compared to a state called "flow" (Csikszentmihalyi, 2014), which includes distortion of time, focused attention and intrinsic enjoyment. Work engagement refers to a persistent state of mind that takes place at work, whereas "flow" is considered to

be a peak experience, which is not exclusive to the domain of work (Hallberg & Schaufeli, 2006; Schaufeli et al., 2002).

Job Satisfaction and Work Engagement

In organisational psychology, when studying workers' well-being, attention has previously been mostly directed towards job satisfaction as a potential outcome (Judge, Weiss, Kammeyer-Mueller & Hulin, 2017). The topic of employee work engagement has however attracted interest over the later decades (Albrecht, Bakker, Gruman, Macey & Saks, 2015). Job satisfaction has thus been complemented by the construct of work engagement (Inceoglu & Warr, 2011). Job satisfaction and work engagement are seen as separate, yet related constructs, sharing some similarities (Alarcon & Edwards, 2011; Erasmus, 2018). Locke (1969, p. 316) defined job satisfaction as "the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values". Hence, job satisfaction includes both an affective and cognitive state, like work engagement. However, while job satisfaction is considered to be an attitude, work engagement is described as a more persistent state (Rich et al., 2010), characterised by energy and persistence (Bakker et al., 2008). In addition to be a cognitive and affective state, work engagement is also motivational (Bakker et al., 2008). McShane and Von Glinow (2013) characterised motivation as direction, intensity and persistence to perform a voluntary behaviour, affected by forces within a person. As work engagement is said to be a motivational state, it can be assumed that it is continuous, and provides employees with a direction and persistence in performing their tasks at work (Bakker et al., 2008).

Warr and Inceoglu (2012) argued that job satisfaction is a more stagnant form of well-being than work engagement. They further argued that work engagement is of positive valence, but differs in being more strongly activating than job satisfaction. As opposed to work engagement, job satisfaction may lead to satiation (Erickson, 2005, as referenced by Macey & Schneider, 2008). According to Warr and Inceoglu (2012) the latin "satis", meaning "enough", means that job satisfaction indicates sufficiency or adequacy; that the job is satisfactory, rather than being exciting and motivating. "Satisfaction" thus refers to an acceptable state rather than an enthusiastic, energised state. There is reason to assume that the motivational part of work engagement gives the employees energy and direction to their behaviour, whereas job satisfaction indicates a fulfilment. The results of a study by Alarcon and Edwards (2011) supported this assumption, as they found that work engagement could predict job satisfaction. One may argue that work engagement can be interpreted as a concept which includes job satisfaction, and additionally a motivational aspect. This thesis will focus

on employee work engagement as the outcome. Job satisfaction and work engagement are, as discussed, similar concepts. As work engagement is considered a motivational state, characterised by persistence, in addition to being interpreted as a more active outcome than job satisfaction, employee work engagement will be the outcome in focus of this thesis.

Motivating Potential of Job Resources

A recent meta-analysis has shown that extensive research has investigated the positive relationship between job resources and work engagement (Bailey et al., 2017). As Saks (2019) pointed out, the research has mostly been done including few job resources, or a variety of job resources combined into a single variable of job resources. As a result, there is still a gap in knowledge considering what job characteristics best predict work engagement (Saks, 2019).

Earlier models of job design and motivation, such as the Job Characteristics Model (Hackman & Oldham, 1976) and the Job Demands-Control model (Karasek, 1979), have focused on employee well-being as an outcome (i.e. job satisfaction). After the introduction of work engagement however, models such as the Job Demands-Resources model (Demerouti, Bakker, Nachreiner & Schaufeli, 2001) have increasingly included it as an outcome. One may argue that this is beneficial, as work engagement is considered a motivational state (Bakker et al., 2008). Drawing on the models mentioned above, one may suggest that there is a growing recognition that job characteristics, later referred to as job resources, foster employee well-being (i.e. job satisfaction and work engagement), as they are motivating.

Job Characteristics model.

Hackman and Oldham (1976) introduced the Job Characteristics Model (JCM) and were the first to describe psychological processes through which characteristics of jobs affect workers (Van den Broeck & Parker, 2017). According to Hackman and Oldham (1976, p. 256), five core job dimensions; skill variety, task identity, task significance, autonomy and feedback, are antecedents of critical psychological states. Through experiencing three psychological states; meaningfulness of the work, experienced responsibility of the outcomes of the work, and knowledge of results of the work activities, they argued that the presence of these job dimensions leads to employee well-being (e.g. job satisfaction) (Hackman & Oldham, 1976). As the job characteristics facilitate these critical psychological states, one may argue that they have a motivating potential.

Meta-analyses have found that research supports the basic proposition of the JCM (Behson, Eddy & Lorenzet, 2000; Fried & Ferris, 1987; Humphrey et al., 2007). However,

the model has been criticised for focusing on the motivational aspects of the work exclusively, ignoring the stressful aspects of work environments (Parker, Wall & Cordery, 2001). Building on the criticism of the model, Karasek (1979) proposed a model including both aspects (Van den Broeck & Parker, 2017), further developing the job characteristics and job design literature.

The Job Demands-Control model.

The Job Demands-Control model (Karasek, 1979) outlines the interactive effects of job demands and job decision latitude. Job decision latitude is defined as "the working individual's potential control over his tasks and his conduct during the working day" (Karasek, 1979, p. 290). Karasek (1979) argued that experiencing decision latitude at work buffers the impact of job demands. He further argued that the strain experienced when employees are met with demands, may be released as energy of action, thus enhancing employees' job satisfaction. Moreover, he suggested that measures of "decision authority" and "intellectual discretion", subcategories for decision latitude, are similar to "autonomy" and "skill variety" in the JCM (Hackman & Oldham, 1976). Further, Karasek's (1979, p. 289) proposed measures of decision latitude included components such as "participation in decision making" and "make one's decisions", in addition to "learning new things". These arguably share similarities with job characteristics such as participation in decision making and learning opportunities, which have later shown to be positively associated with employee well-being (i.e. work engagement) (e.g. Hinkel & Allen, referenced by Yoerger, Crowe & Allen, 2015, p. 3; Sarti, 2014). Hence, based on Karasek's (1979) proposed model, job characteristics such as autonomy, skill variety, participation in decision making and learning opportunities are arguably important for the process of energy release, thus fostering employee well-being.

The Job Demands-Resources model.

The Job Demands-Resources (JD-R) model, introduced by Demerouti et al. (2001), is another model, which includes the impact of job characteristic on employee well-being. Instead of referring to job characteristics, Demerouti et al. (2001) introduced the term "job resources". The JD-R model was influenced by both the JCM and the JDC model (Bakker & Demerouti, 2017). Further, according to Van den Broeck, Vansteenkiste, De Witte and Lens (2008, p. 278), the model was developed with an aim to "overcome some of the limitations that characterize earlier research models in the field of work psychology". One may argue that the JD-R model draws on some of the main underlying propositions of the JDC model.

Karasek (1979) argued that job strain occurs when job demands are high and job decision latitude is low. However, when there are high levels of both job demands and job decision latitude, jobs are considered motivating. Hence, according to Karasek (1979), the motivating potential of the job decision latitude is dependent on the presence of job demands. The interaction between job demands and resources is also included in the JD-R model, whereby however two separate processes for strain and motivation are outlined (Bakker & Demerouti, 2007). Thus, the motivating potential is arguably less dependent on job demands in the JD-R model, than in the JDC. Drawing on the JD-R model, job resources are assumed to foster employee well-being (e.g. work engagement) through a motivational path (Schaufeli & Bakker, 2004). The compilation of research on the subject further supports the suggested relationship (Bakker & Demerouti, 2007; Hakanen, et al., 2006; Bakker & Bal, 2010; Schaufeli & Bakker, 2004; Van den Broeck et al., 2008; Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009).

Drawing on the assumptions of the presented models, there is reason to assume that some job resources are important in the fostering of work engagement. Hackman and Oldham (1976) highlighted the importance of the presence of certain job characteristics, as the basis of enhancing employee well-being at work. Two of the job characteristics mentioned in the JCM – autonomy and skill variety – share similarities with job decision latitude in the JDC model (Karasek, 1979). The measure of job decision latitude further included questions concerning participation in decision making and learning opportunities, arguably indicating that these job resources are also of importance for employee well-being. Further, drawing on the JDC model, one may suggest that autonomy, participation in decision making, variety in work and learning opportunities have the potential to motivate employees, functioning as buffers of the impact of demands. Moreover, research on the JD-R model (Demerouti et al., 2001) has later shown that job resources are motivating in and of themselves, thus fostering the employee work engagement (e.g. Trépanier, Forest, Fernet & Austin, 2015; Van den Broeck et al., 2008).

Self-Determination Theory.

Self-Determination Theory (SDT) (Deci & Ryan, 1985) may be considered as an explanatory framework for the motivational potential of the job resources in relation to employee work engagement. Deci and Ryan (1985) postulated that work contexts which support the basic psychological needs; autonomy, belongingness and competence, will positively affect employee well-being and increase people's motivation (Ryan & Deci, 2000). Meyer, Gagné and Parfyonova (2010) suggested an explanation for satisfaction of the three

needs; when one believes that their behaviour is of their own, free choosing, and is in line with their core values, the need for autonomy is satisfied. The need for competence is satisfied when one believes that accomplishing their tasks and goal achievement is due to their own capability, as well as experiencing a presence of the needed resources. Lastly, the need for relatedness is satisfied when one feels valued and appreciated by others.

Job Resources as Antecedents of Employee Work Engagement

Job resources; autonomy, participation in decision making, variety in work and learning opportunities are considered to foster work engagement through the fulfilment of employees' basic psychological needs (Van den Broeck et al., 2008).

Autonomy.

Lopes, Calapez and Lopes (2017, p. 499) defined work autonomy as "the scope of influence workers have on how and what to do at work". This is similar to Hackman and Oldham's (1976) definition of the concept. While the need for autonomy is satisfied when one believes that their behaviour is of their own, free choosing (Meyer et al., 2010), autonomy as a job resource is more associated with the opportunity of experiencing influence on one's own work (Lopes et al., 2017). Accordingly, Van den Broeck et al. (2008) suggested that the presence of the job resource autonomy might fulfil the employees' need for autonomy. Hence, one may argue that experiencing the presence of the job resource autonomy will foster work engagement.

Participation in decision making.

Further, Van den Broeck et al. (2008) suggested that it is important that employees feel that they have the opportunity to make personal choices, to fulfil the need for autonomy. Yoerger et al. (2015) argued that through participation in decision making, employees get the chance to share their thoughts, feelings and ideas, in order to influence their work. One may argue that the opportunity to participate in decision making at work can influence whether the employees' experience that they are making their own choices, thus satisfying the employee's need for autonomy (Van den Broeck et al. 2008). Accordingly, one may argue that experiencing the opportunity for participation in decision making will foster work engagement.

Variety in work.

Variety in work, referred to as "skill variety" in the JCM, includes the degree to which a job requires a variety of different activities in carrying out the work (Hackman & Oldham, 1976). Moreover, according to Hackman and Oldham (1976), the possibility to use a variety of skills in the job may lead to employee well-being through experiencing

meaningfulness at work. Therefore, one may assume that experiencing variety in one's work will motivate the employee, thus enhancing work engagement.

Learning opportunities.

A measure of learning opportunities is included in the measurement of decision latitude in the JDC model (Karasek, 1979, p. 289). Therefore, as job decision latitude is suggested as having motivational potential, thus positively influencing employee well-being (Karasek, 1979), one may argue that experiencing learning opportunities also affects employee well-being. Further, one may assume that experiencing learning opportunities at work might enhance the employees' belief that achieving their tasks is due to their own capability, in line with the need for competence (Meyer et al., 2010). Therefore, there is reason to assume that the job resource learning opportunity is related to the fulfilment of the need for competence, thus inducing motivation. As work engagement is considered a motivational state (Bakker et al., 2008), one may argue that experiencing learning opportunities at work may lead to employee work engagement.

Empirical research.

Research has shown that the presence of these job resources in general have a positive effect on work engagement; autonomy (e.g. Bakker & Bal, 2010; Halbesleben, 2010), participation in decision making (e.g. Yoerger et al., 2015), variety in work (e.g. Christian, Garza & Slaughter, 2011) and learning opportunities (e.g. Albrecht, 2010; Bakker, 2011; Bakker & Bal, 2010; Hakanen, Perhoniemi & Toppinen-Tanner, 2008; Halbesleben, 2010). In sum, as work engagement is a motivational concept (Bakker et al., 2008), there is reason to assume that fulfilment of the basic psychological needs will have a positive effect on employees' work engagement (Deci et al., 2001). Moreover, drawing on the SDT, work contexts that support the basic psychological needs will enhance well-being as it increases motivation (Ryan & Deci, 2000). Accordingly, research has shown that job resources may be considered motivating as they fulfil basic psychological needs (e.g. Deci et al., 2001; Van den Broeck et al., 2008). Research has further shown that basic psychological need fulfilment leads to work engagement (Deci et al., 2001; Van den Broeck, et al., 2008). Fulfilment of basic psychological needs is not tested as such in this thesis, as research has provided support for the hypothesised link (e.g. Trépanier et al., 2015; Van den Broeck et al., 2008). Based on the presented assumptions on the importance of autonomy, participation in decision making, variety in work and learning opportunities as job resources for predicting work engagement, the following hypothesis is proposed;

H1: There is a positive relationship between the job resources autonomy, participation in decision making, variety in work and learning opportunities, and work engagement.

Engaging Leadership

Several studies have shown that leadership is an important factor in the development of employee work engagement (e.g. Breevaart, Bakker, Demerouti, Sleebos & Maduro, 2014; Christian et al., 2011; Saks, 2019; Tims, Bakker & Xanthopoulou, 2011). A meta-analysis by Carasco-Saul, Kim and Kim (2015) showed that positive leadership styles such as authentic leadership and transformational leadership are tested related to work engagement.

Alban-Metcalfe and Alimo-Metcalfe (2007) were the first to bring attention to the need for "engaging leadership". They argued that employees need "nearby" leaders, and introduced engaging, transformational leadership as a concept (Alimo-Metcalfe & Alban-Metcalfe, 2001). Schaufeli (2015) later conceptualised "engaging leadership" as a leadership style. He argued that the field of organisational psychology needed a leadership theory based on the premises of need fulfilment, and that contemporary leadership theories, such as transformational leadership theory, were not sufficient for this purpose. He further argued that previous studies did not include leadership as an independent variable in the JD-R model (Schaufeli, 2015). Therefore, he aimed to integrate an independent positive leadership style variable as a part of the model. Schaufeli (2015) argued that it is important to study the impact of leadership, as opposed to including it as a resource. He further hypothesised that there would be a direct link between engaging leadership and employee work engagement.

According to Schaufeli (2015), employee work engagement is fostered as a consequence of three specific leadership behaviours aimed at strengthening, inspiring and connecting their followers. On the premises of the SDT (Deci & Ryan, 1985), he proposed a leadership theory focused on motivating the employees through fulfilling the basic psychological needs for autonomy, competence and relatedness. He argued that engaging leaders inspire, strengthen and connect their followers, in accordance to the fulfilment of the basic psychological needs. Schaufeli (2015) argued that when the leader inspires their employees to personally contribute to a common goal, it will likely increase the employees' feeling of autonomy. He further argued that engaging leaders strengthen their employees by delegating challenging tasks and granting them responsibility, thus fostering them to feel more competent in their work. Lastly, Schaufeli (2015) argued that when the leader focuses on relatedness by encouraging close collaboration in teams, the employees will likely experience a sense of relatedness.

Engaging Leadership and Transformational Leadership

Engaging leadership has been compared to transformational leadership (Schaufeli, 2015), the most commonly studied leadership style to predict employee work engagement (Carasco-Saul et al., 2015). Transformational leadership is a positive leadership style, consistent of four core components; individualised consideration, intellectual stimulation, inspirational motivation and idealised influence (Bass, 1985; Bass & Riggio, 2006). Individualised consideration encompasses individual attention to followers' personal needs for achievement and growth (Bass, 1985; Bass & Riggio, 2006). Intellectual stimulation includes developing followers' ability to approach problems in new ways by increasing followers' interest in the problems and challenging them (Bass, 1985). Inspirational motivation refers to increasing the employees' motivation to achieve high standards of performance by presenting a vision and providing meaning (Bass, 1985, Bass & Riggio, 2006). Idealised influence encompasses behaviour that allows the leaders to serve as role models, being the embodiment of the qualities they want for their team (Bass, 1985; Bass & Riggio, 2006).

Schaufeli (2017a) argued that both transformational and engaging leadership include inspiring their followers. Similarly, Erasmus (2018) compared the two leadership styles, and highlighted that two of the dimensions in transformational leadership; inspirational motivation and individualised consideration, have similar effects on work engagement as the dimensions inspiring and strengthening within engaging leadership.

However, although the two leadership styles are similar, Schaufeli (2015) highlighted some differences. First, in contrast to transformational leadership, engaging leadership is rooted in a well-developed theory of motivation (SDT), arguably making it more relevant when researching work engagement, as work engagement is considered a motivational concept (Bakker et al., 2008). Further, transformational leadership is considered a leader-centered leadership theory (Wang, Law, Hackett, Wang & Chen, 2005), focusing on how the leader affects their followers, consequently facilitating opportunities to achieve high standards. Engaging leadership, however, is arguably a more group-focused leadership theory, as it encourages close collaboration, and seeks to promote high team spirit among their employees. Engaging leadership highlights the social bonding and connection with others, relating it to the need for relatedness (Erasmus, 2018; Schaufeli, 2015).

Apart from some studies (Erasmus, 2018; Nikolova et al., 2019; Schaufeli, 2015), there is not much research on the relationship between engaging leadership and employee work engagement as engaging leadership is a relatively newly introduced concept (Schaufeli,

2015). Research has however shown that positive leadership behaviours influence employee work engagement (Carasco-Saul et al., 2015). Among these, multiple studies have investigated transformational leadership (e.g. Aryee, Walumbwa, Zhou & Hartnell, 2012; Song, Kolb, Lee & Kim, 2012; Tims et al., 2011), in various settings, and have found that it appears to generalise across settings (Judge & Piccolo, 2004). All in all, as engaging leadership is a positive leadership style, similar to transformational leadership, and specifically developed with an aim to facilitate work engagement (Schaufeli, 2015), it is reasonable to assume that engaging leaders will positively affect employee work engagement.

Leadership in a Multilevel Perspective

A meta-analysis by Carasco-Saul et al. (2015) showed that multiple studies have investigated the leader's potential to motivate their employees in order to enhance work engagement. Moreover, employees have increasingly been organised in groups (Jungert et al., 2018). Consequently, leaders may have increasingly been asked to lead and motivate groups as a whole, not just the employees within the groups individually (Kozlowski & Bell, 2003). Hence it may further be important to investigate how being in a group affects the employees' perception of their environment.

Northouse (2007, p. 3) defined leadership as "a process whereby an individual influences a group of individuals to achieve a common goal". Drawing on this definition, the leader plays an important role in group processes, subsequently influencing the group as a whole, not just the separate individuals. This is in line with researchers' view on leadership as a multilevel phenomenon (Bliese, Halverson & Schriesheim, 2002; Griffin & Mathieu, 1997; Yammarino & Dionne, 2018). Chen and Bliese's (2002) further specifically viewed the leadership variable as shared at the group level, including the reflection of group member' perceptions. They highlighted that employees in the same group will be influenced by similar leadership behaviours.

As Hall and Lord (1995) argued, the most important implication of examining perceptions of the leader at the group level rather on the individual level, is the simultaneous consideration of multiple perceivers of the same leader. Spell et al. (2014) also highlighted the importance of considering employees' shared perceptions. They based this on the growing recognition that perceptions shared by the group exert an influence on individuals through the interaction within groups (Morgeson & Hofmann, 1999). Kozlowski and Klein (2000, p. 55) further argued that "a phenomenon is emergent when it originates in the cognition, affect, behaviours, or other characteristics of individuals, is amplified by their interactions, and manifests as a higher-level, collective phenomenon". Drawing on this

definition, the combination of employees' individual attitudes and affective reactions concerning the leader may emerge to a higher/shared level through the interaction of the group.

Social information processing theory (Salancik & Pfeffer, 1978) may serve as an explanatory framework for understanding the development of the shared perceptions. According to Salancik and Pfeffer (1978), people's' immediate social environment is an important source of information. They further argued that the social environment provides social cues, which individuals use to interpret events. These cues further provide information, which contributes to shaping people's attitudes and opinions. Drawing on the theory, Spell et al. (2014) argued that employees are both influenced by, and exert an influence on, their work group. Similarly, Moos (1984) argued that people are part of social systems, and that the individual members in the system are linked to each other. Accordingly, he argued, that it is important to research individuals as part of these systems, as change in one of the members of the system may affect change in the other members. Thus, the employees' perceptions of the shared constructs within such systems may be enforced through an interaction process, adding to the already present perceptions of, for example, the leader (Van Emmerik & Peeters, 2009). Moreover, according to Morgeson and Hofmann (1999), individuals in close contact interact with one another. They argued that this interaction results in the emergence of collective phenomena, which represents the group as a whole, consequently transforming the individual members' perceptions.

Emergence of Shared Perception of Engaging Leadership

Literature on affective crossover and emotional contagion are important to understand how the groups' shared perception of the leader as engaging emerges, and how it may positively affect the employees' work engagement. Crossover is defined as the process whereby psychological states are transferred from one person to another (Bakker, Westman & Van Emmerik, 2009; Westman, 2001). This process includes transferring experiences and emotions within social and organisational contexts (Westman & Chen, 2017). Crossover may occur between people who are closely related, identify with each other and spend time with each other (Westman & Vinokur, 1998). Considering that employees in a group most likely spend a lot of time together, there is reason to assume that crossover may occur between group members.

According to Nikolova et al. (2019), an engaging leader evokes positive emotions among their employees through need satisfaction. As crossover includes transference of emotions within the social and organisational contexts (Westman & Chen, 2017), there is

reason to assume that the positive emotions elicited by the engaging leader may cross over between the employees in the groups. The positive emotions elicited by the engaging leader may therefore be amplified as a result of the interactions between the employees in the groups. This crossover process may therefore explain the occurrence of the groups' shared perceptions of their leaders as engaging.

Barsade and Gibson (1998) argued that through a top-down approach, feelings and behaviours of individuals arise from group dynamics. Building on research on affective behaviour at work, Barsade (2002) conducted a study on emotional contagion in work groups. Emotional contagion is defined by Schoenewolf (as referenced in Barsade, 2002, p. 646) as "a process in which a person or group influences the emotions or behavior of another person or group through the conscious or unconscious induction of emotion states and behavioral attitudes". The results showed that emotions experienced by group members can ripple out and influence other group members' emotions. In addition, the study showed that the group members' emotions also affected the group dynamics and individual cognitions, attitudes, and behaviours (Barsade, 2002). These findings support the assumption that individuals in groups have an effect on the emotions of the other group members. Research has demonstrated the existence of transference of positive emotions between work group members within the work environment (e.g. Bakker, Westman & Schaufeli, 2007; Bakker & Xanthopoulou, 2009; Ilies, Wagner & Morgeson, 2007).

In her study of engaging leadership and work engagement, Erasmus (2018) suggested that future research should test engaging leadership in a multilevel perspective by including the group members' perceptions of their leader. This suggestion is in line with researchers' previous suggestion for future studies to examine leadership in a multilevel framework (Erasmus, 2018; Yammarino & Dionne, 2018). Although engaging leadership was originally predicted to foster work engagement through a leader-follower interaction (Schaufeli, 2015), it should be noted that up to date empirical support for a direct link on the individual level is absent. Yet engaging leaders are assumed to focus on satisfying their employees' need for connectedness, hence heightening the groups' team spirit (Schaufeli, 2017a). Therefore, it might be interesting to examine how an engaging leader influences the group as a whole. Such an investigation may contribute to a more comprehensive perspective on the leadership style in relation to the groups' shared perception and employee work engagement.

In sum, engaging leadership is considered a positive leadership style (Schaufeli, 2015). Therefore, there is reason to assume that when striving to fulfil the basic psychological needs of their employees, the engaging leaders create positive affect in the

groups (Nikolova et al., 2019). This will arguably facilitate a positive ripple out or crossover process, affecting the employees' positive emotions (i.e. work engagement). Through crossover within the group, one may argue that this will lead to an amplification of employees' positive emotions. Hence, there is reason to assume that being in a group with a leader which is perceived by the group members as engaging, may affect the employees work engagement. The second hypothesis is therefore:

H2: There is a positive relationship between the group's shared perception of engaging leadership and employee work engagement across leaders.

Moderating Potential of Shared Perception of Engaging Leadership

Researchers have studied the moderating role of leadership on the relationships between various predictors and employee well-being outcomes (e.g. Dai, Zhuang & Huan, 2019; Den Hartog & Belschak, 2012; Tuckey et al., 2012; Wang & Walumbwa, 2007). Further, several studies have investigated the moderating role of leadership on employee work engagement in a multilevel perspective (Jeong, Hsiao, Song, Kim & Bae, 2016; Tuckey et al., 2012). One may suggest that shared perception of engaging leadership can also function as a moderator on the relationship between job resources and work engagement.

The broaden-and-build theory (Fredrickson, 2001) may serve as an explanatory framework for the moderating potential of shared perception of engaging leadership on the relationship between job resources and employee work engagement. Fredrickson (2001) surmises that experiencing positive emotions broadens people's thought-action repertoires, which in turn serves to build their personal resources, ranging from physical and intellectual resources to social and psychological resources. Most researchers that focus on the "build" part of the theory hypothesise that positive affective reactions build personal and job resources (e.g. autonomy and opportunities for professional development) over time (e.g. Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009). Changing the already present resources may be difficult, and sometimes not possible (Karasek, 1979). However, if the employees can broaden their view of their resources by changing and expanding the way they perceive and make use of them, changing the actual resources might not be necessary. According to Fredrickson and Branigan (2005, p. 315), the broadening hypothesis states that "positive emotions broaden the scopes of attention, cognition, and action, widening the array of percepts, thoughts, and actions presently in mind". Based on the "broadening" part of the theory, one may argue that experiencing positive affective states may broaden the thoughtrepertoire of the employees. Kiken and Fredrickson (2017) argued that evidence from decades of research, independent of broaden-and-build theory, indicates that positive

emotions generate expansive and flexible cognition. In line with this, they argued that positive emotions shift how people think about their environment.

As suggested in the presentation of the second hypothesis, the crossover process between the members in the group arguably make the positive emotions elicited by the engaging leader more salient. Based on the broadening hypothesis of the broaden-and-build theory (Fredrickson, 2001), one may argue that as the positive emotions are made more salient, they may further broaden the employees' thought-repertoire. This will arguably increase the employees' cognitive flexibility concerning their already available job resources. Thus, being in a group which has a shared perception of engaging leadership may moderate the effect of job resources on employee work engagement, through affecting the way the individual employees perceive their job resources. In conclusion, this may lead to a stronger relationship between the job resources and employee work engagement, as their cognitive flexibility may facilitate better use of already present resources.

Engaging leadership has not previously been tested as a group level moderator. Researchers have, however, investigated other leadership styles moderating potential, with employee work engagement as an outcome. Tuckey et al. (2012) postulated that through facilitation of need fulfilment, empowering leaders would not only directly affect employee work engagement, but also augment the relationship between job resources and employee work engagement. Thus, empowering leadership would moderate the relationship between job resources and work engagement at the individual level. The reason for this is that, through behaviour aiming to fulfil basic psychological needs, employees are more able to use their already available resources to overcome challenges (Tuckey et al., 2012). In contrast, if leaders fail to act in an empowering way, some of the motivational potential is lost (Tuckey et al., 2012). Although there are job resources available, these may not be fully used if employees are not empowered by their leaders to do so.

Vera, Martínez, Lorente and Chambel (2016) used similar arguments. In their study, they investigated the moderating effect of shared perception of supervisor support on the direct effect of employee job autonomy on work engagement. To test the employees' shared perception of their leader, they aggregated individual perceptions to the group level. Based on the results of a study by Langford, Bowsher, Maloney and Lillis (1997), Vera et al. (2016) argued that a socially supportive leader provides help, information and constructive feedback, leading the employees to perceive that the leader facilitates their further development. They further argued that through the collective experience that their leader provided high levels of support, the employees would feel even more secure and supported in their decisions. The

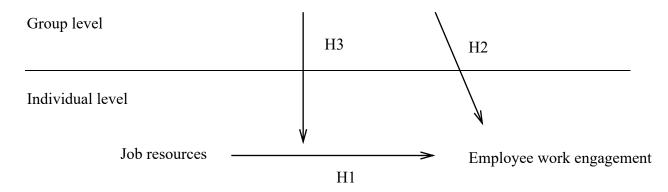
relationship between the employees' experience of job autonomy and work engagement would therefore be stronger than when the employees experience low social support from their supervisor.

The results supported the assumed moderating effect of leader social support, as the relationship between job autonomy and work engagement was stronger when the team's supervisor's social support was high than when it was low (Vera et al., 2016). These results implicate that the group's collective perception of their leader as socially supportive has a potential to moderate the effect of job autonomy on work engagement. Similar to socially supportive leaders, engaging leaders facilitate their employees' further development by granting them freedom and responsibility by delegating tasks (Schaufeli, 2015). In addition, engaging leaders focus on promoting motivation through fulfilling the employees' need for autonomy. In line with this, and the "broaden" part of the broaden-and-build-theory (Fredrickson, 2001), it is reasonable to assume that shared perception of engaging leadership may also moderate the relationship between job resources and work engagement at the individual level. The third hypothesis is therefore:

H3: The groups' shared perception of engaging leadership moderates the relationship between the employees' job resources and work engagement.

Illustration of the multilevel model

Shared perception of engaging leadership



Method

Participants and Data Collection

In this thesis, secondary data was used, gathered from a Belgian telecom company. The data were collected June of 2018, using a survey including questions with the purpose of measuring employees' wellbeing at work. The data were obtained by means of a questionnaire in Dutch and French, sent via email. All the respondents were given a questionnaire with the same questions. As the second and third hypothesis require measuring the groups' perception, and not just the individuals', the employees were nested within leaders. The leaders of the groups were lower management, and the followers were mainly operational employees. Further, the groups consisted of at least three employees per group. 80% of the employees filled out the questionnaire, leaving 846 respondents (i.e. followers) nested within the groups of 119 leaders. The respondents were 475 (56,1%) women and 371 men (43,9%). The employees' age ranged from 19-64 years, with a mean of 35,76 years (SD = 9,38), and the employees' seniority ranged from 1 year to 25 years in the organisation (M = 9,93, SD = 6.89).

Measures

To test the hypotheses presented in this thesis, the measures for the four job resources, the level of work engagement, and the perception of the participants' leader as engaging were included (see appendix a).

Job resources.

The scales used for measuring job resources were from the Short Inventory to Monitor Psychosocial Hazards (Notelaers, De Witte, Van Veldhoven & Vermunt, 2007). The four scales included each consisted of three questions. Examples of questions used; "can you decide on your own the order in which you carry out your work?" (autonomy), "can you participate in decisions affecting issues related to your work?" (participation in decision making), "is your work varied?" (variety in work), "do you learn new things in your work?" (learning opportunities). All scales used a four point Likert scale with the alternatives "always", "often", "sometimes" and "never". Reliability analyses were conducted for the four scales separately. The Cronbach's alpha values were satisfactory for all, as they exceeded the acceptable value of .07 (DeVellis, 2012) (shown in table 1).

Work engagement.

Work engagement was measured using a five item version of the Utrecht Work Engagement Scale (UWES), developed by Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002). According to Farndale, Beijer, Van Veldhoven, Kelliher and Hope-Hailey (2014), the

UWES is the most widely accepted measure of work engagement, used in academic research. The scale used in this thesis included two items measuring vigour and dedication, and one measuring absorption, respectively. A seven point Likert scale was used, ranging from "never", "a few times a year or less", "once a month or less", "once a week", "a few times a week" and "every day". Reliability analysis of the five item scale showed that with a Cronbach's alpha value of .922, the scale had high internal consistency reliability with this sample (Pallant, 2016). Corrected item-total correlation values were all high, indicating that none of the items would better the reliability if deleted, as Cronbach's alpha would decrease. A factor analysis was conducted on the five items of the UWES measure to confirm that the items measure the same underlying structure of work engagement. The factor analysis showed only one main factor, with an eigenvalue of 1, which explained 76.642% of the variance. An inspection of the component matrix further showed that all items load strongly on the single component, all above .8 (Pallant, 2016). This indicates that the three subscales all measure one underlying construct in the five item version of the UWES.

Engaging leadership.

Engaging leadership was measured using a scale developed by Schaufeli (2015), with twelve items measuring the three dimensions. The three dimensions were each measured with four items, respectively. The items were all scored using a five point Likert scale; "completely disagree", "disagree", "neither agree or disagree", "agree" and "completely agree". Examples of questions included; "my supervisor encourages cooperation among team members" (connecting), and "my supervisor is inspiring" (inspiring), and "my supervisor gives employees enough freedom and responsibility" ("strengthening). A reliability analysis of the twelve item scale showed that the scale has a high internal consistency, with a Cronbach's alpha value of .964 (Pallant, 2016). A confirmatory factor analysis was conducted on the twelve item engaging leadership scale to confirm that the items measured the same underlying construct of employee's perception of engaging leadership. The factor analysis showed only one main factor, with an eigenvalue of 1, which explained 71.847% of the variance. An inspection of the component matrix further showed that all items loaded strongly (lowest at .705) on the single component (Pallant, 2016). Thus, the results of the factor analysis indicated that the questions measure an underlying construct; engaging leadership. This is in line with the notion of Nikolova et al. (2019), that engaging leadership has one overarching concept, with three underlying, yet closely related dimensions.

Control variables.

In line with previous studies on work engagement (Bakker, Demerouti & Lieke, 2012; Schaufeli, Shimazu, Hakanen, Salanova & De Witte, 2017), basic demographic variables, gender and age, were controlled for in the preliminary analyses. Seniority was also included as a control variable, as results from previous research has shown that employees with higher seniority might accumulate more resources, thus leading them to be more engaged in their work (Hakanen et al., 2008; Salanova, Schaufeli, Xanthopoulou & Bakker, 2010).

Preliminary Analyses

Preliminary analyses were conducted to investigate the reliability of the scales, and correlations, means and standard deviations of the individual level predictor and outcome variables. No missing values were detected, nor outliers. The results of the correlation and reliability analyses are shown in table 1. The results showed no significant correlations between seniority and work engagement, gender and work engagement. There was however a significant correlation between work engagement and age (b = .075, p < .05). Therefore, the variables seniority and gender were not included in the further analyses. Descriptive analysis of the work engagement variable showed a mean score of 5.25 (SD = 1.437).

Aggregation of Measures - Shared Perception of Engaging Leadership

The second and third hypothesis both concern the effect of the groups' shared perception of their leader as engaging. The individual level variable of engaging leadership was therefore aggregated to a group level variable.

According to Allen and O'Neill (2015), the ICC is most commonly used to decide the appropriateness of aggregation of dependent variation across groups. ICC indicates how much of the total variability in individual ratings, in this case perception of engaging leadership, is due to group membership. The ICC for perception of engaging leadership was therefore calculated, to further justify the aggregation from the individual level to a group level variable. The ICC value for engaging leadership was .312. This is above the recommended value; equal to or higher than 0.05 (Lebreton & Senter, 2008), suggesting that 31,2% of the variance was due to group membership, whereas 68,8% was due differences among employees. Prior to aggregating, the within-group agreement of perception of the leader as engaging was also investigated by means of calculating the r_{wg} (James, Demaree & Wolf, 1984) for the sample. The r_{wg} value obtained was .7347, which is above the threshold of .70 (Lebreton, Burgess, Kaiser, Atchley & James, 2003; Lebreton & Senter, 2008), thus indicating that the group agree on the perception of engaging leadership.

As the ICC value was larger than .85 and the $r_{\rm wg}$ value was larger than .70, it was appropriate to aggregate the variable. Hence, a group level variable for shared perception of engaging leadership was calculated. The individual level score on engaging leadership was aggregated into group means, as Krull and MacKinnon (2001) recommended. The group level variable was included in the further analyses.

Plans for Analysis

To test the three hypotheses, multilevel analysis was used; a method developed to appropriately analyse clustered data (Krull & MacKinnon, 2001). The individual level independent variables were group mean centered in order to make comparison of the between group variance more understandable (Aiken & West, 1991). The group level variable (i.e. shared perception of engaging leadership) was grand mean centered to prevent confounding of the cross-level interactions with between-group interactions (Hofman & Gavin, 1998). Prior to testing the hypotheses, a null model employee work engagement was tested. This step was necessary for examining whether the data were suitable for a multilevel analysis.

Hypothesis 1.

The first hypothesis concerns the relationship between the individual level independent variables (i.e. autonomy, participation in decision making, variety in work, and learning opportunities) and the dependent (i.e. employee work engagement) variable. The four job resources were added as individual predictors in the first step of the analysis, to test whether these could contribute to explaining any of the variance in employee work engagement.

Hypothesis 2.

To test the second hypothesis, the aggregated variable engaging leadership was added to the analysis. This allowed for testing whether a group's shared perception of engaging leadership had an effect on the employee's individual level work engagement.

Hypothesis 3.

The third hypothesis concerns whether the group level variable (i.e. shared perception of engaging leadership) would moderate the relationship between the job resources and work engagement on the individual level.

Results

Null Model

First, a null model was calculated to investigate whether the data were suitable for running a multilevel analysis, hence whether the outcome variable (i.e. work engagement) was affected by levels of analysis. The ICC (Bliese, 2000) was calculated to determine

whether there was a relative consistency of responses among the employees within the groups. ICC for work engagement (b = 5.249, p < .001) was .078, above the recommended value (LeBreton & Senter, 2008). Hence, group membership explained 7,6 % of the total variance in work engagement ($R^2 = .76$, SD = .101, p < .001). 92,4 % of the total variance of work engagement was explained among the employees ($R^2 = .924$, SD = .062, p < .001.) As the ICC was above the recommended value of .05 (Lebreton & Senter, 2008), the data were considered suitable for further use in multilevel analysis.

Table	1.	Correl	lation	matrix
ranie	1.	Currei	auon	manix

	Mean	SD	1	2	3	4	5	6	7	8	9
Individual level											
1 Engagement	5.257	1.437	(.922)								
2 Autonomy	1.553	0.743	.271**	(.758)							
3 PDM	1.319	0.631	.444**	.420**	(.781)						
4 Variety	1.725	0.684	.503**	.409**	.473**	(.722)					
5 Lops	1.517	0.749	.587**	.313**	.462**	.626**	(.853)				
6 Seniority	9.930	6.891	021	.190**	.069*	.180**	05				
7 Sex	1.56	0.497	-,042	.026	034	006	080	037			
8 Age	35.76	9.379	.075*	.165**	.065	.212**	.033	.748**	041		
Group level											
9 SPoEL	3.808	.564	.279**	.097*	.346**	.189**	.228**	.052	111**	.051	(.964)

** = p < .001, * = p < .05, paranthesis = Cronbachs Alpha. PDM = Participation in decision making, Variety = Variety in work, Lops = Learning opportunities, SPoEL = Shared perception of engaging learning

Testing the Hypotheses

Hypothesis 1.

After confirming that the data were suitable for multilevel analysis, the first hypothesis was tested. The first hypothesis predicted that there would be a positive relationship between the job resources and work engagement. Age was added to the model as a control variable, to test whether it contributed to explaining variance in work engagement. The results showed that age did not significantly contribute to explaining variance in work engagement. Therefore, it was not further included in the analysis.

The results of the predictor model (see table 2) showed a positive effect of participation in decision making (b = .362), variety in work (b = .444) and learning opportunities (b = .721) on work engagement, significant at a p < .001 level. Autonomy (b = .133, p = .059) was positively related to work engagement, significant on the p < .10 level. The value for Bayesian information criterion (BIC) (Schwarz, 1978) was reduced by 341.534 and the value for log-likelihood (-2*log) by 341.524, which was indicative of a significantly improved global fit of the model.

As shown in table 2, the within variance for the predictor model was .386, suggesting that experiencing the presence of job resources explained 38,6 % of employees' work engagement (SD = .062, p < .001). Since three of the four effects were significant at the .05 level, the hypothesis was partially supported. The effect of autonomy on work engagement was significant at the p < .10 level, thus resulting in the partial support of the hypothesis.

Table 2: Results from multilevel analysis

	Null model	Job Resources	SPoEL	Interaction
Intercept	5.249***(0.061)	5.247***(0.063)	5.250***(0.048)	5.250***(0.048)
Fixed effects				
Autonomy		0.133 (0.070) †	0.133 (0.071) †	0.118 (0.071) †
PDM		0.362***(0.081)	0.362**(0.082)	0.374***(0.082)
Variety		0.444***(0.087)	0.444***(0.088)	0.441***(0.087)
Lops		0.721***(0.075)	0.721***(0.075)	0.709***(0.074)
SPoEL			0.717***(0.084)	0.717***(0.084)
Interactions				
Autonomy*SPoEL				-0.231(0.118) †
PDM*SPoEL				-0.383*(0.148)
Variety*SPoEL				0.150 (0.160)
Lops*SPoEL				0.037 (0.141)
Random				
parameters				
Within variance	1.917 (0.101)	1.177 (0.062)	1.188 (0.063)	1.174 (0.063)
R ² in %		53.8%		1,2 %
Between variance	.157 (0.062)	.286 (0.065)	.094 (0.04)	097 (0.04)
R ² in %			40.01%	
Model fit statistics				
Deviance (BIC)	3020,406	2678,872	2626,692	2623,404
Δ BIC		-341,534	-52,18	-3,288
Deviance (-2*log)	3006,927	2665,403	2613,224	2609,946
Δ -2*log		-341,524	-52,179	-3,278

^{*** =} p < .001, ** = p < .01, * = p < .05, † = p < .10, parenthesis = Standard Deviation (SD). PDM = Participation in decision making, Variety = Variety in work, Lops = Learning opportunities, SPoEL = Shared perception of engaging learning

Hypothesis 2.

The second hypothesis suggested that there would be a positive relationship between the group's shared perception of engaging leadership and employee work engagement. As shown in table 2, the results showed that shared perception of engaging leadership was positively related to individual work engagement, significant at a p < .001 level (b = .717). The between variance of shared perception of engaging leadership on work engagement was at 40% (R^2 = .400, SD = .04, p < .05). The BIC value was reduced by 52.18. The reduction in the -2*log value (- 52.179) further indicate a significant improvement of fit of the model, including shared perception of engaging leadership. This supports the contribution of shared perception of engaging leadership on individual work engagement. The results thus supported the second hypothesis.

Hypothesis 3.

Lastly, the third hypothesis was investigated by testing whether the group's shared perception of engaging leadership moderated the relationship between the employees' job resources and work engagement. As shown in table 2, the BIC value was reduced by 3,288. The -2*log value decreased by 3,278, suggesting that the moderator variable did not significantly improve global model fit. However, the interaction effect between shared perception of engaging leadership and the relationship between participation in decision making and employee work engagement was significant at a p < .05 level. The interaction effect of shared perception of engaging leadership on the relationship between autonomy and employee work engagement was significant at a p < .10 level. The interaction effects of shared perception of engaging leadership on the relationship between the two job resources variety in work and learning opportunities and employee work engagement were not significant. Because the statistics were diverging, post hoc analyses were executed to further explore the relationships between the variables.

The job resources were added one by one to the analysis, with autonomy and participation in decision making added first, followed by variety in work and learning opportunities. This made it possible to stepwise investigate the moderation effect of shared perception of engaging leadership on the relationship between the individual resources and employee work engagement.

Table 2	continued:	Results	from	multilevel	analysis
I uoic 2	communica.	ILUSAIIS	II OIII	muniter	anaiysis

	Autonomy	PDM	Variety	Lops
Intercept	5.250***(0.048)	5.250***(0.048)	5.250***(0.048)	5.250***(0.048)
Interactions				
Autonomy*	-0.253* (0.111)	-0.193 (0.114) †	-0.227 (0.116) †	-0.231(0.118) †
SPoEL				
PDM*SPoEL		-0.307* (0.133)	-0.373** (0.142)	-0.383* (0.148)
Variety*SPoEL			0.173 (0.134)	0.150 (0.160)
Lops* SPoEL				0.037 (0.141)
Random				
parameters				
Within variance	1.81 (0.063)	1.174 (0.063)	1.173 (0.063)	1.174 (0.063)
R ² in %	0.592 %	0.615 %	0.095 %	1.167 %
Between variance	.095 (0.04)	.097 (0.04)	.097 (0.04)	.097 (0.04)
Model fit statistics				
Deviance (BIC)	2624,044	2620,885	2621,394	2623,404
Δ BIC	-2,648	-3,159	+0,509	+2,01
Deviance (-2*log)	2610,58	2607,423	2607,934	2609,946
Δ -2*log	-2,644	-3,157	+0,511	+2,012

*** = p < .001, ** = p < .01, * = p < .05, \dagger = p < .10, parenthesis = Standard Deviation (SD). PDM = Participation in decision making, Variety = Variety in work, Lops = Learning opportunities, SPoEL = Shared perception of engaging learning

The results of the post hoc analyses (shown in table 2 continued) showed that shared perception of engaging leadership had a significant negative effect on the relationship between employee autonomy and work engagement (b = -.253, p < .05). The BIC value was reduced by 2,648, and -2*log by 2,644, thus not supporting a better global model fit. The within variance indicated that the interaction contributed to explaining 0,6 % of the variance of work engagement. Shared perception of engaging leadership also had a significant negative effect on the relationship between participation in decision making and work engagement (b = -.307, p < .05). The BIC value was reduced by 3,159. -2*log value was reduced by 3,157, thus not supporting a better global model fit. The within variance indicated that the interaction contributed to explaining 0,6 % of the variance of work engagement. These results suggested that the relationships between autonomy and participation in decision making and work engagement were weaker when the groups' shared perception of engaging

leadership was stronger. Adding the variables for variety in work and learning opportunities did not add further explanatory value to the model. The value of BIC and -2*log increased, thus indicating a worse global model fit.

The group's shared perception of engaging leadership had a significant interaction effect on the relationship between participation in decision making and autonomy and work engagement. The interaction effects were therefore illustrated by two plots on the basis of simple slopes testing, using a spreadsheet developed by Dawson (2019), considering two-way interactions (Aiken & West, 1991; Dawson & Richter, 2006). The simple slope tests showed that the difference between low and high shared perception of engaging leadership was significant (p < .05).

Moderation of the relationship between autonomy and employee work engagement.

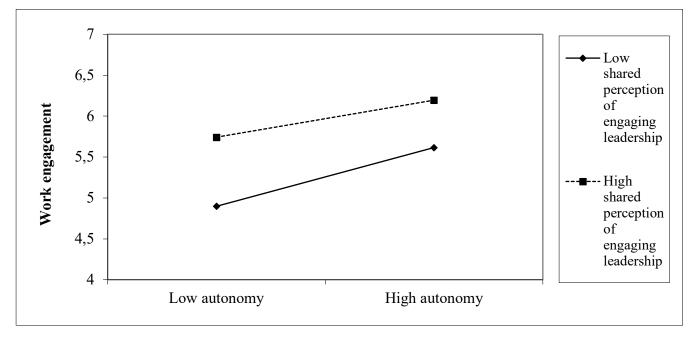
The first interaction plot showed the interaction effect of shared perception of engaging leadership on the relationship between participation in decision making and work engagement. The plot showed that when there was a high level of shared perception of engaging leadership, groups with high levels of autonomy would experience a higher level of work engagement compared to the groups with low levels of autonomy. It further showed that when employees experience a high level of autonomy, groups with a higher level of shared perception of engaging leadership would experience higher levels of work engagement compared to the groups with low shared perception of engaging leadership. However, although work engagement increased among the employees that experienced high levels of autonomy when they also experienced high levels of shared perception of engaging leadership, the increase was not as high among those experiencing low levels of shared perception of engaging leadership. As seen in table 3, the gradient value for low shared perception of engaging leadership was higher than for those experiencing high shared perception of engaging leadership.

Table 3: Gradient, T and p values for the moderation effect of shared perception of engaging leadership on the relationship between autonomy and work engagement.

Shared perception of engaging leadership*	Gradient	T	р
Low shared perception of engaging leadership	0.619	7.816	.000
High shared perception of engaging leadership	0.390	2.363	.018

^{* =} Interaction effect of low and high levels of shared perception of engaging leadership

Interaction plot for the moderation effect of shared perception of engaging leadership on the relationship between autonomy and work engagement.



Moderation of the relationship between participation in decision making and employee work engagement.

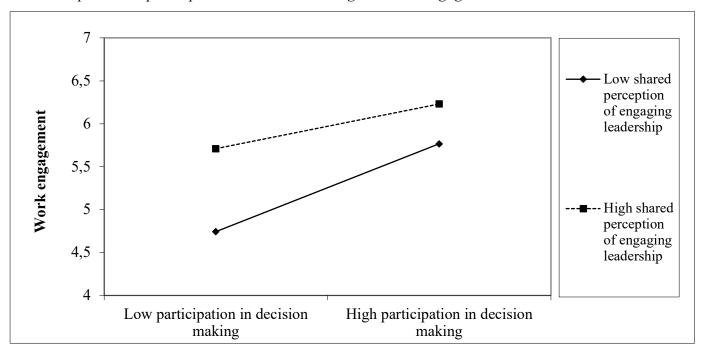
The second interaction plot illustrated a similar effect of shared perception of engaging leadership on the relationship between participation in decision making and employee work engagement. The interaction plot showed that when the groups had a high level of shared perception of engaging leadership, groups with high participation in decision making would experience a higher level of work engagement compared to the groups with low participation in decision making. It also showed that when there was a high level of participation of decision making, groups with a higher level of shared perception of engaging leadership would experience a higher level of work engagement compared to the groups with low shared perception of engaging leadership. As with the interaction plot of autonomy, even though the groups that experience high levels of participation in decision making and high levels of shared perception of engaging leadership are more engaged than those experiencing low levels of shared perception of engaging leadership, the difference is not considerable. As seen in table 4, the gradient value for low shared perception of engaging leadership was higher than for those experiencing high shared perception of engaging leadership.

Table 4: Gradient, T and p values for the moderation effect of shared perception of engaging leadership on the relationship between participation in decision making and work engagement.

Shared perception of engaging leadership*	Gradient	T	p
Low shared perception of engaging leadership	0.967	11.739	.000
High shared perception of engaging leadership	0.491	2.851	.004

^{* =} Interaction effect of low and high levels of shared perception of engaging leadership

Interaction plot for the moderation effect of shared perception of engaging leadership on the relationship between participation in decision making and work engagement.



The results showed that there was a significant moderating effect of shared perception of engaging leadership on the relationship between both job resources and employee work engagement. The interaction regression coefficients of the moderation effect of shared perception of engaging leadership on the relationship between autonomy (b = -.229) and participation in decision making (b = -.475) and employee work engagement were however negative. Additionally, the interaction plots illustrated that the difference between those

experiencing low levels and high levels of shared perception of engaging leadership were not as expected. This indicated that the third hypothesis was not supported.

Discussion

A central aim of this thesis was to investigate the potential of a group's shared perception of their leader as engaging to affect individual level work engagement. Shared perception of engaging leadership was tested in a multilevel perspective, as researches have highlighted the need to do so (e.g. Erasmus, 2018; Kozlowski & Bell, 2003; Yammarino & Dionne, 2018). A direct effect of shared perception of engaging leadership on employee work engagement was tested, using multilevel modeling. The data on engaging leadership were collected at the individual level, and the individual responses were later aggregated to obtain the group scores. To enable the investigation of the groups' shared perception of their leader as engaging across leaders, the employees were nested within leaders.

Research has shown that work engagement has positive outcomes for both individuals and organisations (Bailey et al., 2017; Crawford et al., 2010; Saks, 2019). A high level of employee work engagement has among other things been shown to be related to organisational effectiveness (e.g. Bedarkar & Pandita, 2014), and better psychological health (e.g. Xanthopoulou et al., 2009). As work engagement is related to a variety of positive outcomes, one may argue that developing and maintaining high levels of employee work engagement should be a central objective for leaders and organisations as a whole (Albrecht, 2010; Bedarkar & Pandita, 2014).

Previous research has supported the presence of a positive relationship between job resources and work engagement (Bailey et al., 2017). This is in line with the assumptions of the Job Demands-Resources model (Demerouti et al., 2001), which outlines a motivational path between job resources and work engagement. In line with the suggested motivational path, a positive relationship between the job resources (i.e. autonomy, participation in decision making, variety in work, learning opportunities) and employee work engagement was hypothesised.

Various studies have found leadership to be important for employee work engagement (Saks, 2019). On this basis, to further develop the understanding of antecedents of employee work engagement, it may be considered beneficial to investigate how leaders affect groups, as leaders also influence social processes (Saks, 2019; Tuckey et al., 2012; Vera et al. 2016). Engaging leadership is considered a positive leadership style (Schaufeli, 2015). Nikolova et al. (2019) argued that positive leadership styles elicit positive emotions in their employees. Theories on social information processing, crossover and emotional contagion (e.g. Barsade,

2002; Salancik & Pfeffer, 1978; Westman & Chen, 2017) explain that group members influence each other. Hence, the positive emotions elicited by the engaging leader may thus be more salient as a result of the interactions between the group members. As work engagement is considered an affective state (Schaufeli et al., 2002), one may further argue that the employees' levels of work engagement may be affected by the groups' shared perception of their leader as engaging. Based on this line of reasoning, in the second hypothesis, it was proposed that the shared perception of engaging leadership would directly influence employee work engagement. Further, drawing on the "broaden" hypothesis of the broaden-and-build theory (Fredrickson, 2001), it was suggested that the leader may influence how the employees use their available resources. Hence, it was hypothesised that the shared perception of engaging leadership would moderate the relationship between job resources and employee work engagement.

The results supported the first hypothesis, indicating that there is a positive relationship between the job resources and employee work engagement. Further, the groups' shared perception of their leader as engaging was directly related to work engagement, thereby supporting the second hypothesis. The groups' shared perception of engaging leadership did not significantly moderate the relationships between variety in work and learning opportunities, and work engagement. However, the groups' shared perception of engaging leadership showed a significant moderating effect on the relationships between the two job resources participation in decision making and autonomy, and employee work engagement. Yet, an inspection of the interaction plots showed that the moderation effect was contrary to what was expected. The third hypothesis was thus not supported.

The findings of this thesis contribute to the work engagement literature in two ways. They offer further support for the relationship between job resources and work engagement, previously tested in multiple studies (e.g. Bakker & Bal, 2010; Bakker & Demerouti, 2008; Yoerger et al., 2015). Additionally, the results implicated that shared perception of engaging leadership positively influences employee work engagement.

Job Resources as Antecedents of Employee Work Engagement

Previous empirical research has shown the presence of a positive relationship between job resources and work engagement (e.g. Yoerger et al., 2015; Bakker & Bal, 2010; Hakanen et al., 2008; Hakanen, Bakker & Demerouti, 2005). Moreover, a meta-analysis by Crawford et al. (2010) and an extensive overview of studies by Bailey et al. (2017), have consistently shown that there is a positive relationship between job resources and employee work engagement. Based on the JCM (Hackman & Oldham, 1976), the JDC model (Karasek,

1979) and the JD-R model (Demerouti et al., 2001), in addition to the accumulation of empirical research on the relationship; job resources (i.e. autonomy, participation in decision making, learning opportunities, variety in work) were predicted to positively influence employee work engagement, because of their motivating potential.

The results partially supported the first hypothesis. Participation in decision making, variety in work and learning opportunities were all significantly related to work engagement on a p < .001 level. However, autonomy was only significantly related to work engagement at a p < .10 level.

The Direct Effect of Shared Perception of Engaging Leadership on Employee Work Engagement

As leaders may influence work groups and its individual members (Kozlowski & Bell, 2003), several researchers have called for a focus on the multilevel perspective of leadership (Erasmus, 2018; Liao, 2017; Yammarino & Dansereau, 2008). Among others, Spell et al. (2014) argued that there is a need for studying employees' shared perceptions, and not just the perceptions of the individuals. Literature on crossover (Bakker et al., 2009), emotional contagion (Barsade, 2002) and social information processing theory (Salancik & Pfeffer, 1978) may serve as explanatory frameworks for the emergence of the shared perception within groups and the effects on its members. Results of research drawing on the theories mentioned above, have shown that group members influence each other as they interact (e.g. Bakker et al., 2007; Barsade, 2002; Van Emmerik & Peters, 2009).

In addition, it is perhaps important to note that Erasmus (2018) specifically suggested that it might be beneficial for future research to investigate the engaging leadership style in a multilevel perspective. One may argue that through fulfilling the relatedness need, by encouraging collaboration and team spirit, the leader may affect the group as a whole, not just the employees individually. Therefore, it be beneficial to investigate this leadership style at a group level.

Shared perception of engaging leadership was included in the analysis as an explanatory variable for employee work engagement. This is in line with the recognition that leadership should be tested in a multilevel framework, as the leader may play an important role in group processes (Christian et al., 2011; Yammarino & Dionne, 2018). As the engaging leadership style is considered to be a positive leadership style (Schaufeli, 2015), it is reasonable to assume that perceiving the leader as engaging would lead to employees experiencing positive emotions, in line with Nikolova et al.'s (2019) proposition. Further, based on literature on crossover (Westman, 2001) and emotional contagion (e.g. Barsade,

2002), it was suggested that the employees' positive emotions, facilitated by the leader, would be more salient as a result of the interactions with group members. The positive emotions would further possibly affect the individual employees, thereby increasing the employees' work engagement. Thus, the groups' shared perception of engaging leadership was predicted to lead to an increase of the employees' levels of work engagement.

The results of this thesis supported the second hypothesis, which suggested that the groups' shared perception of engaging leadership would have a positive effect on the employees' work engagement across leaders. This is interesting, as it indicates that being a member of a group may influence the way employees perceive their leader, thereby affecting their work engagement.

The Moderating Role of Shared Perception of Engaging Leadership on the Relationship Between Job Resources and Employee Work Engagement

There is a possibility that shared perception of engaging leadership may moderate the positive relationship between job resources and work engagement. Wang and Walumbwa (2007) suggested that leadership could be an influential moderator on the relationship between work variables and employee work attitudes and behaviours. Nikolova et al. (2019) argued that leaders might be in an ideal position to influence employees' perceptions about their work context, due to their unique position of influence.

Engaging leaders are assumed to invoke positive affective reaction in their followers (Nikolova et al., 2019). As discussed in relation to the second hypothesis, these positive affective reactions may further be amplified through an interaction process in the group. Drawing on the broaden-and-build framework (Fredrickson, 2001), it was argued that such positive affective reactions may expand the individual's thought repertoire. This was assumed to enhance employees' flexibility in perceptions and cognition in concerning the already available resources. If the employees would make better use of their job resources, it would arguably lead to higher levels of employee work engagement. Shared perception of engaging leadership was thus expected to moderate the relationship between job resources and employee work engagement through affecting the way employees use their available job resources.

The results showed that the groups' shared perception of their leader as engaging did not affect the relationships between variety in work and learning opportunities and employee work engagement. Yet, the moderation effect of shared perception of engaging leadership on the relationships between participation in decision making and autonomy, and work engagement were significant. Interaction plots were drawn to further investigate the

significant interaction effects. They showed that although the moderating effect of shared perception of engaging leadership on the relationships between participation in decision making and autonomy and work engagement were significant, the impact of the moderation effect was not as expected. Work engagement increased among the employees that experienced high levels of autonomy and participation in decision making, when they also experienced high levels of shared perception of engaging leadership. The increase was however not as high as expected when compared to those experiencing low levels of shared perception of engaging leadership. The third hypothesis was thus not supported, as shared perception of engaging leadership did not show the expected moderating effect on the relationship between any of the job resources and work engagement. There may be two possible explanations for the lack of the moderation effect: a ceiling effect and the job resources acting as substitutes for shared perception of engaging leadership.

Ceiling effect.

The interaction plots drawn for the moderation effect of shared perception of engaging leadership on the relationships between autonomy and participation in decision making and work engagement, showed that the reported levels of work engagement were initially high (see interaction plot 1 and 2). The interaction plots made it possible to investigate whether there was a tendency in the data. The interaction plots showed that the work engagement levels could not be much higher in the group with high levels of shared perception of engaging leadership than in the "low group". The mean values illustrated in the plots show that an increase of one standard deviation would raise the mean close to the maximum score of the work engagement scale. Thus, with an increase of more than one standard deviation, the work engagement levels would exceed the maximum score of the scale.

Despite the lack of a significant moderation effect, interaction plots were drawn for variety in work and learning opportunities, in order to investigate whether this was also the case for the moderation effect of shared perceptions on the relationships between the two job resources and employee work engagement. Similar to the two interaction plots drawn for autonomy and participation in decision making, the interaction plots for variety in work and learning opportunities showed similar tendencies (see appendix b). The interaction plots showed that the average of work engagement among groups' experiencing high levels of shared perception of engaging leadership was high to begin with. These tendencies in the data might indicate a ceiling effect.

Cramer and Howitt (2004, p. 21) suggested that a ceiling effect "occurs when scores on a variable are approaching the maximum they can be. Thus, there may be bunching of values close to the upper point". The mean score of work engagement among the employees in the data was 5.26 (SD = 1.437) on a seven point Likert scale, indicating that the employees were highly engaged. A closer look at the distribution of the work engagement scores showed that the majority of employees reported scores between 4 and 7 (see appendix c). This suggests that most of the employees are highly engaged, which may create a ceiling effect for the reported work engagement. As the dependent variable (i.e. work engagement) might be a subject of a ceiling effect, it might lead to wrongly interpreting the independent variables as having no effect (Cramer & Howitt, 2004). Cramer and Howitt (2004) argued that, in addition to statistical issues, ceiling effects might be explained by general methodological matters. Assuming that the reported scores for work engagement were subject to a ceiling effect, the results from the moderation analysis may be misleading.

Job resources as substitutes for shared perception of engaging leadership.

The results of this thesis indicated that shared perception of engaging leadership did not moderate the relationships between the job resources and employee work engagement. Using a design similar to the one in this thesis, Jeong et al. (2016) investigated the moderating role of the groups' shared perception of their leader. They found that the hypothesised relationship between one of the predictors (i.e. teachers' professionalism) and employee work engagement was not moderated by the groups' shared perception the leader. Explaining these results, they suggested that teachers' professionalism might act as a substitute for leadership.

Kerr and Jermier (1978) suggested that personal resources may act as substitutes for leadership, thus reducing the influence of leadership. They further argued that tasks that are considered intrinsically satisfying may also act as substitutes for leadership. As research has shown that job resources may satisfy basic psychological needs (e.g. Deci et al., 2001; Van den Broeck et al., 2008), one may argue that employees are intrinsically satisfied by the presence of autonomy, participation in decision making, variety in work and learning opportunities. Drawing on these assumptions, one may suggest that the job resources tested in this thesis may act as substitutes for shared perception of engaging leadership. Thus, this may explain the absence of cross-level interaction that points to the strengthening of the relationship between job resources and employee work engagement.

Methodological Considerations

Individual Consideration of Job Resources

In order to investigate whether each of the job resources individually contributed to explaining the variance in work engagement, the job resources (i.e. autonomy, participation in decision making, variety in work, learning opportunities) were added separately to the model, as opposed to as one single predictor variable. A factor analysis including the four job resources was conducted. As the results of the analysis did not support an overall factor, "job resources", this further supported the investigation of the job resources separately. This is in line with the argument that research on work engagement has largely been thwarted by a broad conceptualisation of job resources, and the operationalization of job resources as a single concept (Saks, 2019; Weigl et al, 2010).

Adding the resources separately to the model further made it possible to investigate the moderating effect of shared perception of engaging leadership on the relationship between each of the job resources and work engagement, respectively. The results showed that participation in decision making and autonomy were significantly moderated by shared perception of engaging leadership. However, after drawing interaction plots, the impact of the moderation effect was not as expected. No moderation effect of shared perception of engaging leadership was found on the relationships between learning opportunities and variety in work and employee work engagement. These results would possibly not have been obtained if the job resources had been added to the model as one single construct.

Individual Level Measures of Shared Perception of Engaging Leadership.

To measure the perceptions of engaging leadership, data were collected at the individual level. The responses were later aggregated in order to obtain a score concerning the groups' shared perception of engaging leadership. One may argue that this is beneficial, as the employees are arguably the most reliable source of information of their own perception of their work environment. Thus, measuring leader behaviour, or the leaders' own responses to whether they are engaging or not, may not necessarily provide adequate information on how the leader influences the employees' perceptions. Kopperud, Martinsen and Wong-Humborstad (2014) conducted a study on the relationship between transformational leadership and work engagement. They argued that an engaging leader "is in the eyes of the beholder", as the results showed that employee work engagement seemed to be contingent on perception of their closest leader (Kopperud et al., 2014, p. 38). Thus, as the potential engaging leaders have to influence their employees is dependent on their employees'

perception of them as engaging; one may argue that measuring perceptions of the leader at the individual level is beneficial.

Social desirability.

As the reported levels of work engagement in Belgium and Western Europe are high in general (Schaufeli, 2017b), there might be an expectation in the organisation that the employees should be highly engaged. Results from a study by Chen, Dai, Spector and Jex (1997) further indicated that people high in social desirability is more likely to over-report on items of positive affectivity. In line with the study of Chen et al. (1997), one may argue that, as work engagement is considered a positive affective state (Schaufeli et al., 2002), it may be prone to social desirability bias. A similar effect may be at play when employees rate their leaders as engaging. All in all, despite that they were ensured anonymity and confidentiality of their responses, the employees may have been affected by social desirability bias.

Common method variance.

The data used in this thesis were collected by means of questionnaires, thus self-reported measures. Common method bias is therefore important to consider, as it is one of the main sources of measurement error (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Podsakoff et al. (2003, p. 879) defined common method variance as "variance that is attributable to the measurement method rather than to the constructs the measures represent". The reported scores for the variables used in this thesis were all obtained at the same time by means of one and the same questionnaire. Therefore, common method variance may have affected the data.

Restriction of range.

As discussed in conjunction with the possible ceiling effect, there might be a restriction of range in the reported work engagement scores. Investigation of the distribution of the employee work engagement scores showed that the majority of the employees reported scores between 4 and 7 (see appendix c). This indicated that few employees reported low levels of work engagement. This possible restriction of range may have made it difficult to interpret the moderating effect of shared perception of engaging leadership on the relationship between job resources and employee work engagement.

Cross-sectional design.

The research design used in this thesis is cross sectional, as it includes data collected at one point in time (Levin, 2006). Levin (2006) argued that a typical limitation of cross-sectional design is that the possibility to make causal inferences is limited, as it is only a

representation of one point in time. Thus, the ability to draw conclusions about the causal links between the variables in this thesis is limited.

Generalisability.

Readers should be cautioned from uncritically generalising the results of this thesis. First, as the data were obtained from one telecom company, the findings may be limited to the employees in the company in question, or perhaps to the telecom industry in general. Second, the employees reported high scores of work engagement. Although high levels of work engagement may be typical for the workforce in Belgium and Western Europe (Schaufeli, 2017b), the work engagement levels reported across the globe are generally lower (Albrecht et al., 2015). Therefore, the findings of this thesis may not be generalised to work places in countries across the world.

Theoretical Implications

Organising employees in groups has become increasingly common (Jungert et al., 2018). Morgeson & Hofmann (1999) suggested that the interactions within groups exert an influence on the employees through the development of shared perceptions. Hence, it may be beneficial to examine the group's shared perceptions and its effects on the employees. Further, as one may assume that the leader plays an important role in group processes (Yammarino & Dionne, 2018), one may suggest that research should focus more on the groups' shared perception of their leader than it previously has.

A focus of this thesis was to examine the effects of groups' shared perception of engaging leadership (Schaufeli, 2015), a relatively newly introduced leadership style. Previous studies have investigated engaging leadership at the individual level (e.g. Erasmus, 2018; Nikolova et al., 2019; Schaufeli, 2015). Through fostering social connections, engaging leaders direct their attention to social aspects of working in groups (Nikolova et al., 2019). Thus, in addition to fulfilling the needs of the individual employees, one may argue that the leadership style is also focused on the group as a whole, as it strives to connect the group members (Schaufeli, 2017a), in order to fulfil the need for relatedness. An engaging leader may thereby possibly affect the employees' work engagement. Based on these assumptions, it was hypothesised that the groups' shared perception of engaging leadership would positively influence employee work engagement. The results supported this relationship. The findings thus contribute to expanding the theoretical scope of the engaging leadership, that was previously limited to the individual level.

The findings of this thesis also contributed to the work engagement literature. Saks (2019) suggested that future research should investigated the individual effects of job

resources on work engagement. The results of this thesis further contributed to the work engagement literature by investigating four job resources as antecedents. Participation in decision making, variety in work and learning opportunities all positively affected work engagement at a p < .001 level, while autonomy positively affected work engagement at a p < .10 level.

Practical Implications

The results of this thesis are in line with previous studies on the relationship between job resources and employee work engagement (e.g. Bakker & Demerouti, 2007; 2008). The results indicate that the presence of job resources (i.e. autonomy, participation in decision making, variety in work and learning opportunities) lead to employee work engagement. This may have practical implications for organisations and leaders, as it may influence which job resources the leaders choose to prioritise. Additionally, it may affect the job design in general.

Further, the findings of this thesis have contributed to a more comprehensive understanding of leadership behaviours affecting employee work engagement. The results of this thesis indicate that being in a group that has a shared perception of their leader as engaging may influence the employees' work engagement. Therefore, organisations may strive towards both development and recruitment of engaging leaders.

Future Research

A typical limitation of cross-sectional designs is that the possibility to make causal inferences is limited (Levin, 2006). However, one may note that a substantive overview of studies of antecedents of work engagement found that many of the studies used complex methods; including either multiple types of respondents or multiple measurement points, or both (Bailey et al, 2017). The results of the studies in the overview indicated a positive relationship between job resources and work engagement. It was further shown that in two of the studies using complex methods; leadership was linked to work engagement (Bailey et al., 2017). These studies showed that there is a positive relationship between leadership and employee work engagement over time. Engaging leadership was however not included in the overview and has not previously been studied using a longitudinal design. Therefore, shared perception of engaging leadership should also be tested longitudinally.

The results of this thesis indicated that groups' shared perception of engaging leadership had a direct effect on employee work engagement. Considering that there are, at the time of writing, three studies which have examined the engaging leadership style (Erasmus, 2018; Nikolova et al., 2019; Schaufeli, 2015), it would arguably be beneficial for

future research to further investigate it. In addition to testing the leadership style in general, future research may also investigate the leadership style in a multilevel perspective.

The engaging leadership style has been suggested to be a group-oriented leadership style, as it strives to connect the group members (Schaufeli, 2017a). One may therefore argue that the basic psychological need for relatedness may be especially important in the relationship between shared perception of the leadership style and employee outcomes. It may be beneficial with future research that would investigate need satisfaction as a mediator between shared perception of leadership and employee work engagement. Additionally, it would be interesting to examine whether the need for relatedness may be an especially important mediating variable, as it is was argued to be important for the group's development of a shared perception of engaging leadership.

It would further be beneficial with future research that would investigate the effects of shared perception of engaging leadership on employee work engagement in different populations. The restriction of range, discussed in the section of methodological considerations, may have resulted in a ceiling effect. This may have affected the moderating potential of shared perception of engaging leadership on the positive relationship between the job resources and employee work engagement. By testing the hypothesised relationships between the variables investigated in this thesis in a population that initially would score lower on work engagement, future research could contribute to a better understanding of the moderating potential of the group having a shared perception of engaging leadership.

It may further be interesting to investigate whether there is a correlation between the leaders' perception of themselves as engaging and their employees' perceptions of the leaders as engaging. Thus, there is a need for investigating whether engaging leaders consciously strive to fulfil their employees' basic psychological needs. This would possibly provide information on whether it is possible to make leader interventions for the development of engaging leaders. This would have practical implications for organisations and leaders, as it would give an indication of whether engaging leaders have to be recruited, or if engaging leadership behaviours may be developed.

In a multilevel study of leadership, Wu, Tsui and Kinicki (2010) argued that questionnaire-items should be revised to emphasise the group referent, in order to match the conceptualisation of group leadership at the group level. In this thesis, individual responses on their perceptions of engaging leadership were aggregated to a group variable "shared perception of engaging leadership". By shifting the referent point from the individuals to the group, one may argue that individuals would be asked to shift their focus towards the leaders'

influence on the group as a whole, as opposed to the individuals. Therefore, in future research it may be interesting to include items which emphasise a group referent (i.e. "our supervisor encourages cooperation among team members", "our supervisor is inspiring").

According to the JDC model (Karasek, 1979) and the JD-R model (Demerouti et al., 2001), job resources and job demands interact and influence each other. In a study by Tuckey et al. (2012), they predicted that empowering leadership would moderate the relationship between job resources and work engagement. Their findings did not support this assumption, similar to the results in this thesis. They did however find support for the moderating effect of empowering leadership on the relationship between job demands and job resources, together, on employee work engagement (Tuckey et al., 2012). Drawing on the findings of their study, one may argue that it could be interesting to further examine the moderating potential of shared perception of engaging leadership on the relationship between both job demands and job resources, and employee work engagement.

Concluding remarks

Work engagement has been a topic of interest in research over the last decade, and both antecedents and consequences of the subject have been studied (Saks, 2019). Among other things, job resources have been found to foster work engagement (e.g. Bailey et al., 2017; Bakker & Bal, 2010; Bakker & Demerouti, 2008; Humphrey et al., 2007). However, there still remains some uncertainty considering the effects of individual job resources on work engagement (Saks, 2019). On this basis, an aim of this thesis was to test four specific resources (i.e. autonomy, participation in decision making, variety in work and learning opportunities), individually, as predictors of work engagement. The results showed that the job resources participation in decision making, learning opportunities and variety in work showed a significant positive effect on employee work engagement at a p < 0.001 level. Autonomy significantly affected employee work engagement at a p < 0.001 level. Thus, the hypothesised relationship between the job resources and employee work engagement was partially supported, thereby contributing to the research on antecedents of work engagement.

The shared perception of the engaging leadership style (Schaufeli, 2015) was further included as an antecedent of employee work engagement. It was argued that as engaging leaders focus on the fulfilment of their employees' basic psychological needs, the engaging leadership behaviours may be especially important for facilitating work engagement in employees organised in groups. It was further argued that as the engaging leader focuses on connecting the group, he or she might fulfil the employees' need for relatedness. Further, drawing on research on transmission of positive psychological states (e.g. Barsade, 2002;

Westman, 2001), the positive emotions elicited by the engaging leader were suggested to become more salient due to the interactions within groups. In line with this suggestion, the relationship between the leadership style and employee work engagement was tested in a multilevel framework. In contrast to previous research on engaging leadership, which has focused on individual level perceptions of engaging leadership (Erasmus, 2018; Nikolova et al., 2019; Schaufeli, 2015), the results of this thesis found support for the hypothesised positive relationship between the groups' shared perception of engaging leadership and employee work engagement.

Further, on the basis of the "broaden" part of the broaden-and-build theory (Fredrickson, 2001), the groups' shared perception of engaging leadership was assumed to moderate the relationship between job resources and employee work engagement. The results did however not support this assumption.

In conclusion, this thesis is a contribution to the literature on the engaging leadership style, because it showed that, in addition to job resources, shared perception of engaging leadership is related to employee work engagement. Yet, it should be noted that both a ceiling effect, and the job resources acting as substitutes for leadership, might account for rejection of the third hypothesis. Future research should, however, continue to examine the relationship between shared perception of engaging leadership, job resources and work engagement. As previously noted, it may be beneficial to do so in samples where the average work engagement levels are lower, and the restriction of range is absent.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, London, Sage.
- Alarcon, G. M., & Edwards, J. M. (2011). The relationship of engagement, job satisfaction and turnover intentions. *Stress and Health*, 27(3), 294-298.
- Alban-Metcalfe, J., & Alimo-Metcalfe, B. (2007). Development of a private sector version of the (Engaging) Transformational Leadership Questionnaire. *Leadership & Organization Development Journal*, 28(2), 104-121.
- Albrecht, S. L., Bakker, A. B., Gruman, J. A., Macey, W. H., & Saks, A. M. (2015). Employee engagement, human resource management practices and competitive advantage: An integrated approach. *Journal of Organizational Effectiveness: People and Performance*, 2(1), 7-35.
- Albrecht, S. L., Breidahl, E., & Marty, A. (2018). Organizational resources, organizational engagement climate, and employee engagement. *Career Development International*, 23(1), 67-85.
- Alimo-Metcalfe, B., & Alban-Metcalfe, R. J. (2001). The development of a new transformational leadership questionnaire. *Journal of Occupational and Organizational Psychology*, 74(1), 1-27.
- Allen, N. J., & O'Neill, T. A. (2015). The trajectory of emergence of shared group-level constructs. *Small Group Research*, 46(3), 352-390.
- Aryee, S., Walumbwa, F. O., Zhou, Q., & Hartnell, C. A. (2012). Transformational leadership, innovative behavior, and task performance: Test of mediation and moderation processes. *Human Performance*, 25(1), 1-25.
- Bailey, C., Madden, A., Alfes, K., & Fletcher, L. (2017). The meaning, antecedents and outcomes of employee engagement: A narrative synthesis. *International Journal of Management Reviews*, 19(1), 31-53.
- Bakker, A. B., & Albrecht, S. L. (2018). Work engagement: current trends. *Career Development International*, 23(1), 4-11.
- Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83(1), 189-206.
- Bakker, A. B., & Demerouti, E. (2017). Job demands—resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273-285.

- Bakker, A. B, & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-223.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328.
- Bakker, A. B., Demerouti, E., & Lieke, L. (2012). Work engagement, performance, and active learning: The role of conscientiousness. *Journal of Vocational Behavior*, 80(2), 555-564.
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress*, 22(3), 187-200.
- Bakker, A. B., Westman, M., & Van Emmerik, I. J. H. (2009). Advancements in crossover theory. *Journal of Managerial Psychology*, 24(3), 206-219.
- Bakker, A. B., Westman, M., & Schaufeli, W. B. (2007). Crossover of burnout: An experimental design. *European Journal of Work and Organizational Psychology*, 16(2), 220-239.
- Bakker, A. B., & Xanthopoulou, D. (2009). The crossover of daily work engagement: Test of an actor–partner interdependence model. *Journal of Applied Psychology*, 94(6), 1562-1571.
- Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47(4), 644-675.
- Barsade, S. G., & Gibson, D. E. (1998). Group emotion: A view from top and bottom. In Gruenfeld, D. H., Mannix, E. A. & Neale, M. A. (Eds.), *Research on Managing Groups and Teams* (pp. 81-102). Stamford, CT: Jai Press.
- Bass, B. M. (1985). Leadership and performance beyond expectations. New York: Free Press.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. Mahwah, New Jersey: Lawrence Erlbaum.
- Bedarkar, M., & Pandita, D. (2014). A study on the drivers of employee engagement impacting employee performance. *Procedia-Social and Behavioral Sciences*, *133*, 106-115.
- Behson, S. J., Eddy, E. R., & Lorenzet, S. J. (2000). The importance of the critical psychological states in the job characteristics model: A meta-analytic and structural equations modeling examination. *Current Research in Social Psychology*, *5*(12), 170-189.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In Klein, K. J. & Kozlowski, S. W. J. (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 349-381). San Francisco, CA, US: Jossey-Bass.
- Bliese, P. D., Halverson, R. R., & Schriesheim, C. A. (2002). Benchmarking multilevel methods in leadership: The articles, the model, and the data set. *The Leadership Quarterly*, *13*(1), 3-14.

- Breevaart, K., Bakker, A. B., Demerouti, E., Sleebos, D. M., & Maduro, V. (2014). Uncovering the underlying relationship between transformational leaders and followers' task performance. *Journal of Personnel Psychology*, 13, 194-203.
- Carasco-Saul, M., Kim, W., & Kim, T. (2015). Leadership and employee engagement: Proposing research agendas through a review of literature. *Human Resource Development Review*, 14(1), 38-63.
- Cenkci, A. T., & Özçelik, G. (2015). Leadership Styles and Subordinate Work Engagement: The Moderating Impact of Leader Gender. *Global Business & Management Research*, 7(4), 8-20.
- Chen, G., & Bliese, P. D. (2002). The role of different levels of leadership in predicting self-and collective efficacy: Evidence for discontinuity. *Journal of Applied Psychology*, 87(3), 549-556
- Chen, P. Y., Dai, T., Spector, P. E., & Jex, S. M. (1997). Relation between negative affectivity and positive affectivity: Effects of judged desirability of scale items and respondents' social desirability. *Journal of Personality Assessment*, 69(1), 183-198.
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel psychology*, 64(1), 89-136.
- Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management*, 23(3), 239-290.
- Cramer, D., & Howitt, D. L. (2004). *The Sage dictionary of statistics: a practical resource for students in the social sciences*. Sage. London.
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: a theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95(5), 834-848.
- Csikszentmihalyi, M. (2014). Toward a psychology of optimal experience. In *Flow and the* foundations of positive psychology (pp. 209-226). Springer, Dordrecht.
- Dai, Y. D., Zhuang, W. L., & Huan, T. C. (2019). Engage or quit? The moderating role of abusive supervision between resilience, intention to leave and work engagement. *Tourism Management*, 70, 69-77.
- Dawson, J. F. (2019, February 22). Interpreting interaction effects. Retrieved from www.jeremydawson.co.uk/slopes.htm

- Dawson, J. F., & Richter, A. W. (2006). Probing three-way interactions in moderated multiple regression: Development and application of a slope difference test. *Journal of Applied Psychology*, *91*, 917-926.
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19(2), 109-134.
- Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former Eastern Bloc country. *Personality and Social Psychology Bulletin*, *27*, 930-94
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, 86(3), 499.
- Den Hartog, D. N., & Belschak, F. D. (2012). When does transformational leadership enhance employee proactive behavior? The role of autonomy and role breadth self-efficacy. *Journal of Applied Psychology*, 97(1), 194.
- DeVellis, R. F. (2012). *Scale development: Theory and applications* (3rd Ed). Thousand Oaks, California: Sage.
- Erasmus, A. (2018). *Investigating the relationships between engaging leadership, need*satisfaction, work engagement and workplace boredom within the South African mining industry (Doctoral dissertation, North-West University). Retrieved from:

 https://repository.nwu.ac.za/bitstream/handle/10394/30971/Erasmus_A.pdf?sequence=1
- Farndale, E., Beijer, S. E., Van Veldhoven, M. J. P. M., Kelliher, C., & Hope-Hailey, V. (2014). Work and organisation engagement: aligning research and practice. *Journal of Organizational Effectiveness: People and Performance*, *I*(2), 157-176.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broadenand-build theory of positive emotions. *American psychologist*, *56*(3), 218.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & emotion*, 19(3), 313-332.
- Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel psychology*, 40(2), 287-322.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362.
- Griffin, M. A., & Mathieu, J. E. (1997). Modeling organizational processes across hierarchical levels: climate, leadership, and group process in work groups. *Journal of Organizational Behavior*, 18(6), 731-744.

- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, *16*(2), 250-279.
- Hakanen, J. J., Bakker, A. B., & Demerouti, E. (2005). How dentists cope with their job demands and stay engaged: The moderating role of job resources. *European Journal of Oral Sciences*, 113(6), 479-487.
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, *43*(6), 495-513.
- Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behavior*, 73(1), 78-91.
- Halbsleben, J. R. B (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources and consequences. In Leiter, M. P. & Bakker, A. B. (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 102-117). New York: Psychology Press.
- Hall, R. J., & Lord, R. G. (1995). Multi-level information-processing explanations of followers' leadership perceptions. *The Leadership Quarterly*, 6(3), 265-287.
- Hallberg, U. E., & Schaufeli, W. B. (2006). "Same same" but different? Can work engagement be discriminated from job involvement and organizational commitment?. *European Psychologist*, 11(2), 119-127.
- Harter, J. K., Schmidt, F. L., Agrawal, S., & Plowman, S. K. (2013). *The relationship between engagement at work and organizational outcomes: 2012 Q12 meta analysis.* Washington, DC: Gallup Inc.
- Hofmann, D. A., & Gavin, M. B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management*, 24(5), 623-641.
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: a meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92(5), 1332.
- Ilies, R., Wagner, D. T., & Morgeson, F. P. (2007). Explaining affective linkages in teams: individual differences in susceptibility to contagion and individualism-collectivism. *Journal of Applied Psychology*, 92(4), 1140.
- Inceoglu, I., & Warr, P. (2011). Personality and job engagement. *Journal of Personnel Psychology*, 10(4), 177-181.
- James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69(1), 85.

- Jeong, S., Hsiao, Y. Y., Song, J. H., Kim, J., & Bae, S. H. (2016). The Moderating Role of Transformational Leadership on Work Engagement: The Influences of Professionalism and Openness to Change. *Human Resource Development Quarterly*, 27(4), 489-516.
- Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: a metaanalytic test of their relative validity. *Journal of Applied Psychology*, 89(5), 755.
- Judge, T. A., Weiss, H. M., Kammeyer-Mueller, J. D., & Hulin, C. L. (2017). Job attitudes, job satisfaction, and job affect: A century of continuity and of change. *Journal of Applied Psychology*, 102(3), 356.
- Jungert, T., Van den Broeck, A., Schreurs, B., & Osterman, U. (2018). How colleagues can support each other's needs and motivation: An intervention on employee work motivation. *Applied Psychology*, 67(1), 3-29.
- Karasek Jr, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 285-308.
- Kerr, S., & Jermier, J. M. (1978). Substitutes for leadership: Their meaning and measurement. *Organizational Behavior and Human Performance*, 22(3), 375-403.
- Kiken L. G., Fredrickson B. L. (2017) Cognitive Aspects of Positive Emotions: A Broader View for Well-Being. In: Robinson M., Eid M. (Eds.) *The Happy Mind: Cognitive Contributions to Well-Being* (pp. 157-175). Springer, Cham.
- Klein, K. J., Conn, A. B., Smith, D. B., & Sorra, J. S. (2001). Is everyone in agreement? An exploration of within-group agreement in employee perceptions of the work environment. *Journal of Applied Psychology*, 86(1), 3.
- Klein, K. J., Dansereau, F., & Hall, R. J. (1994). Levels issues in theory development, data collection, and analysis. *Academy of Management review*, 19(2), 195-229.
- Kopperud, K. H., Martinsen, Ø., & Humborstad, S. I. W. (2014). Engaging leaders in the eyes of the beholder: On the relationship between transformational leadership, work engagement, service climate, and self–other agreement. *Journal of Leadership & Organizational Studies*, 21(1), 29-42.
- Kozlowski, S. W., & Bell, B. S. (2003). Work groups and teams in organizations. *Handbook of Psychology*, 333-375.
- Kozlowski, S. W. J., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. In K. J. Klein & S. W. J. Kozlowski (Eds.), Multilevel theory, research, and methods in organizations:
 Foundations, extensions, and new directions (pp. 3-90). San Francisco, CA, US: Jossey-Bass.

- Krull, J. L., & MacKinnon, D. P. (2001). Multilevel modeling of individual and group level mediated effects. *Multivariate Behavioural Research*, *36*(2), 249-277.
- Langford, C. P. H., Bowsher, J., Maloney, J. P., & Lillis, P. P. (1997). Social support: a conceptual analysis. *Journal of Advanced Nursing*, 25(1), 95-100.
- Lebreton, J. M., Burgess, J. R., Kaiser, R. B., Atchley, E. K., & James, L. R. (2003). The restriction of variance hypothesis and interrater reliability and agreement: Are ratings from multiple sources really dissimilar?. *Organizational Research Methods*, 6(1), 80-128.
- LeBreton, J. M., & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods*, 11(4), 815-852.
- Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-based Dentistry*, 7(1), 24.
- Liao, C. (2017). Leadership in virtual teams: A multilevel perspective. *Human Resource Management Review*, 27(4), 648-659.
- Locke, E. A. (1969). What is job satisfaction?. *Organizational Behavior and Human Performance*, 4(4), 309-336.
- Lopes, H., Calapez, T., & Lopes, D. (2017). The determinants of work autonomy and employee involvement: A multilevel analysis. *Economic and Industrial Democracy*, 38(3), 448-472.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1(1), 3-30.
- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, 70(1), 149-171.
- McShane, S., & Von Glinow, M. (2013). *Organizational Behavior: Emerging knowledge, global reality*. New York, New York: McGraw-Hill/Irwin.
- Meyer, J. P., Gagné, M., & Parfyonova, N. M. (2010). Toward an evidence-based model of engagement: What we can learn from motivation and commitment research. In Albrecht, S. L. (Ed.), *Handbook of Employee Engagement: Perspectives, Issues and Practice*. (p. 62-73). Northampton, MA, US: Edward Elgar Publishing.
- Moos, R. H. (1984). Context and coping: Toward a unifying conceptual framework. *American Journal of Community Psychology*, 12(1), 5-36.
- Morgeson, F. P., & Hofmann, D. A. (1999). The structure and function of collective constructs: Implications for multilevel research and theory development. *Academy of Management Review*, 24(2), 249-265.

- Nikolova, I., Schaufeli, W., & Notelaers, G. (2019). Engaging Leader Engaged Employees? A Cross-lagged Study on Employee Engagement. *European Management Journal*. https://doi.org/10.1016/j.emj.2019.02.004
- Northouse, P.G (2007). Leadership Theory & Practice (3rd Ed.). Thousand Oaks, CA: Sage.
- Notelaers, G., De Witte, H. D., van Veldhoven, M. J. P. M., & Vermunt, J. K. (2007). The short inventory to monitor psychosocial hazards: Combining latent class modeling and structural equation modeling to monitor and to evaluate intervention programs.

 Intervention Practices in Firms, 161-172.
- Pallant, J. (2016). SPSS Survival manual: a step by step guide to data analysis using IBM SPSS (6th ed.) Maidenhead: McGraw-Hill.
- Parker, S. K., Wall, T. D., & Cordery, J. L. (2001). Future work design research and practice: Towards an elaborated model of work design. *Journal of Occupational and Organizational Psychology*, 74(4), 413-440.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.
- Rich, B. L., LePine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, *53*(3), 617-635.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68.
- Saks, A. M. (2019). Antecedents and consequences of employee engagement revisited. *Journal of Organizational Effectiveness: People and Performance*, 6(1), 19-38.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of managerial psychology*, 21(7), 600-619.
- Salancik, G. R., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 224-253.
- Salanova, M., Schaufeli, W. B., Xanthopoulou, D., & Bakker, A. B. (2010). The gain spiral of resources and work engagement: Sustaining a positive worklife. In Bakker, A. & Leiter, M. P. (Eds.) Work engagement: A handbook of essential theory and research, (pp. 118-131). New York: Psychological Press.
- Sarti, D. (2014). Job resources as antecedents of engagement at work: Evidence from a long-term care setting. *Human Resource Development Quarterly*, 25(2), 213-237.
- Schaufeli, W. B. (2015). Engaging leadership in the job demands-resources model. *Career Development International*, 20(5), 446-463.

- Schaufeli, W. B. (2017a). Applying the job demands-resources model. *Organizational Dynamics*, 2(46), 120-132.
- Schaufeli, W.B. (2017b). Work engagement in Europe: Relations with national economy, governance, and culture. Research Unit Occupational & Organizational Psychology and Professional Learning (Internal report). KU Leuven, Belgium. DOI: 10.13140/RG.2.2.10491.31520
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(3), 293-315.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies*, 3(1), 71-92.
- Schaufeli, W. B., Shimazu, A., Hakanen, J., Salanova, M., & De Witte, H. (2017). An Ultra-Short Measure for Work Engagement: The UWES-3 Validation Across Five Countries. *European Journal of Psychological Assessment* 1-15. doi: 10.1027/1015-5759/a000430.
- Schwarz, G. (1978). Estimating the dimension of a model. *The Annals of Statistics*, 6(2), 461-464.
- Shuck, B., & Wollard, K. (2010). Employee engagement and HRD: A seminal review of the foundations. *Human Resource Development Review*, *9*(1), 89-110.
- Song, J. H., Kolb, J. A., Lee, U. H., & Kim, H. K. (2012). Role of transformational leadership in effective organizational knowledge creation practices: Mediating effects of employees' work engagement. *Human Resource Development Quarterly*, 23(1), 65-101.
- Spell, H. B., Eby, L. T., & Vandenberg, R. J. (2014). Developmental climate: A cross-level analysis of voluntary turnover and job performance. *Journal of Vocational Behavior*, 84(3), 283-292.
- Tims, M., Bakker, A. B., & Xanthopoulou, D. (2011). Do transformational leaders enhance their followers' daily work engagement?. *The Leadership Quarterly*, 22(1), 121-131.
- Trépanier, S. G., Forest, J., Fernet, C., & Austin, S. (2015). On the psychological and motivational processes linking job characteristics to employee functioning: Insights from self-determination theory. *Work & Stress*, *29*(3), 286-305.
- Tuckey, M. R., Bakker, A. B., & Dollard, M. F. (2012). Empowering leaders optimize working conditions for engagement: A multilevel study. *Journal of Occupational Health psychology*, 17(1), 15.

- Van den Broeck, A., & Parker, S. K. (2017). Job and work design. In O. Braddick (Ed.), Oxford research encyclopaedia of psychology (pp. 1–39). Oxford University Press, USA. https://doi.org/10.1093/acrefore/97801 90236557.013.15
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress*, 22(3), 277-294.
- Van Emmerik, I. J. H., & Peeters, M. C. (2009). Crossover specificity of team-level work-family conflict to individual-level work-family conflict. *Journal of Managerial Psychology*, 24(3), 254-268.
- Vera, M., Martínez, I. M., Lorente, L., & Chambel, M. J. (2016). The role of co-worker and supervisor support in the relationship between job autonomy and work engagement among Portuguese nurses: A multilevel study. Social Indicators Research, 126(3), 1143-1156.
- Wang, H., Law, K. S., Hackett, R. D., Wang, D., & Chen, Z. X. (2005). Leader-member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of Management Journal*, 48(3), 420-432.
- Wang, P., & Walumbwa, F. O. (2007). Family-friendly programs, organizational commitment, and work withdrawal: the moderating role of transformational leadership. *Personnel Psychology*, 60(2), 397-427.
- Warr, P., & Inceoglu, I. (2012). Job engagement, job satisfaction, and contrasting associations with person–job fit. *Journal of occupational health psychology*, 17(2), 129-138.
- Weigl, M., Hornung, S., Parker, S. K., Petru, R., Glaser, J., & Angerer, P. (2010). Work engagement accumulation of task, social, personal resources: A three-wave structural equation model. *Journal of Vocational Behavior*, 77(1), 140-153.
- Westman, M. (2001). Stress and strain crossover. Human Relations, 54(6), 717-751.
- Westman, M., & Chen, S. (2017). Crossover of Burnout and Engagement from Manageres to Followers. In Cooper, C. L. & Quick, J. C. (Eds.) *The Handbook of Stress and Health: A Guide to Research and Practice. John Wiley & Sons.* (p. 236-248). West Sussex, UK: Wiley Blackwell
- Westman, M., & Vinokur, A. D. (1998). Unraveling the relationship of distress levels within couples: Common stressors, empathic reactions, or crossover via social interaction?. *Human relations*, 51(2), 137-156.

- Wu, J. B., Tsui, A. S., & Kinicki, A. J. (2010). Consequences of differentiated leadership in groups. *Academy of Management Journal*, *53*(1), 90-106.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E. & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal resources and work engagement. *Journal of Vocational Behavior*, 74, 235–244.
- Yammarino, F. J., & Dansereau, F. (2008). Multi-level nature of and multi-level approaches to leadership. The Leadership Quarterly, 19(2), 135-141.
- Yammarino, F. J., & Dionne, S. D. (2018). Leadership and levels of analysis. In Riggio, R. E. (Eds.) What's Wrong With Leadership?: Improving Leadership Research and Practice. London, UK: Routledge. Retrieved from https://books.google.no/books?id=1CZxDwAAQBAJ&lpg=PT92&ots=TR15_EKZNH&dq=Leadership%20and%20levels%20of%20analysis.%20What%E2%80%99s%20Wrong%20With%20Leadership%3F%3A&lr&hl=no&pg=PT92#v=onepage&q=Leadership%20and%20levels%20of%20analysis.%20What%E2%80%99s%20Wrong%20With%20Leadership?:&f=false
- Yoerger, M., Crowe, J., & Allen, J. A. (2015). Participate or else!: The effect of participation in decision-making in meetings on employee engagement. *Consulting Psychology Journal: Practice and Research*, 67(1), 65.

Appendix

Appendix A – Measures of Job Resources, Work Engagement and Engaging Leadership Measures of job resources

Autonomy.

- 1. Do you have an influence on the pace of work?
- 2. Can you interrupt your work for a short time if you find it necessary to do so?
- 3. Can you decide on your own the order in which you carry out your work?

Participation in decision making.

- 1. Do you have a lot to say over what is going on in your work area?
- 2. Can you participate in decisions affecting issues related to your work?
- 3. Can you consult satisfactorily with your direct boss about your work?

Variety in your work.

- 1. Is your work varied?
- 2. Does your work require personal input?
- 3. Does your work make sufficient demands on all your skills and capacities?

Learning opportunities.

- 1. Do you learn new things in your work?
- 2. Does your work give you the feeling that you can achieve something?
- 3. Does your job offer you opportunities for personal growth and development?

Measures of Work Engagement

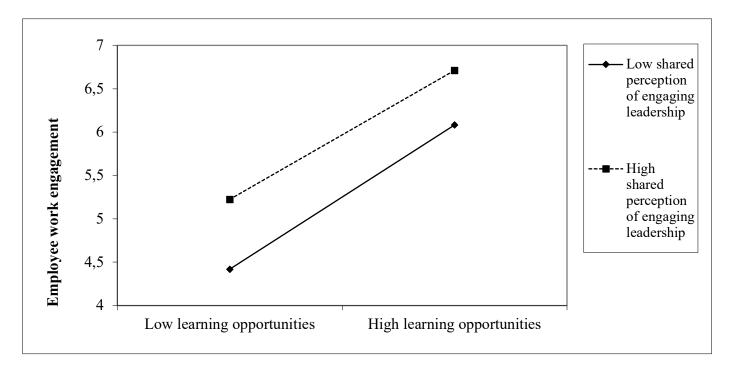
- 1. At my work I feel bursting with energy.
- 2. I am enthusiastic about my job.
- 3. My job inspires me.
- 4. When I get up in the morning, I feel like going to work.
- 5. I am immersed in my work.

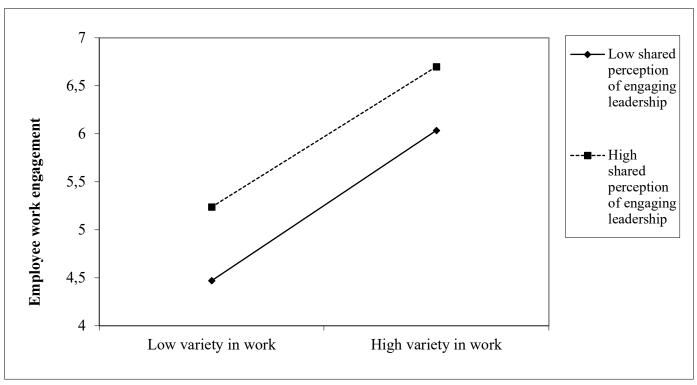
Measure of Engaging Leadership

- 1. My supervisor leaves room for everyone's contribution.
- 2. My supervisor encourages employees to express their own opinions.
- 3. My supervisor is able to make others enthusiastic about his/her plans.

- 4. My supervisor is inspiring.
- 5. My supervisor paves the way for team spirit.
- 6. My supervisor encourages cooperation among team members.
- 7. My supervisor encourages employees to do what they are good at.
- 8. My supervisor encourages employees to develop their talents as fully as possible.
- 9. My supervisor gives employees enough freedom and responsibility.
- 10. My supervisor gives employees the feeling they are working on something important.
- 11. My supervisor ensures the team are united by the same objective.
- 12. My supervisor also leaves tasks and responsibilities to others.

Appendix B – Interaction Plots for the Moderating Effect of Shared Perception of Engaging Leadership on the Relationship Between Learning Opportunities and Variety in Work and Employee Work Engagement





Appendix C – Illustration of Employee Work Engagement Scores

