FACULTY OF PSYCHOLOGY AND EDUCATIONAL SCIENCES

Remote Work as the New Normal

The Impact of Remote Work Intensity on Job Satisfaction and the Moderating Roles of Leadership Style and Intrinsic Motivation

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Abstract

In the aftermath of the COVID-19 pandemic and the increase of remote work, research regarding remote work in relation to employee outcomes is extremely pertinent. The current study examines the relationship between remote work intensity and job satisfaction of employees who made the transition to more remote work since the COVID-19 crisis. As a result of this increase in remote work, leaders are faced more often with the challenge of leading a team that is geographically separated from one another. Therefore, leadership style (i.e., transformational leadership, transactional leadership), as described in the full range leadership model (Antonakis, 2001), is included as a moderator variable. Finally, this study aims to determine whether job satisfaction in this changing work environment is influenced by the type of motivation employees have. Therefore, intrinsic motivation, as described by the self-determination theory (Deci & Ryan, 2008), is added as a moderator in this study. To this end, an online questionnaire was completed by 122 employees from various sectors who work remotely at least one day a week and are supervised by a direct leader. Data were self-reported and collected at one point in time. While the intensity of remote work does not seem to affect job satisfaction, the three moderator variables (i.e., transformational leadership, transactional leadership, intrinsic motivation) all show a significant positive relationship with job satisfaction. The effect of remote work intensity on job satisfaction is however not influenced by the three moderators as no significant interaction effects were found. Also, it was found that the effects of the two leadership styles are not significantly different from each other. Finally, despite an observed difference in beta coefficients, the results in this study show that job satisfaction is not more strongly influenced by intrinsic motivation than by leadership style. These findings bring innovative insights to the leadership and motivation literature, specifically in the context of remote work. As such, this study entails a number of theoretical and practical implications.

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Teleworking is the new normal (Knack, n.d.) and surely the catalyst in this process is the COVID-19 pandemic. Since its outbreak in Belgium in March 2020, the number of teleworkers has doubled from 17% to 35%. Whereas employees worked from home 1.4 days a week before the pandemic outbreak, this number increased to 5 days a week due to the mandatory measures that prohibited office work (ING, n.d.). Moreover, it seems that the effects of this pandemic continue to reverberate. As a matter of fact, 85% of a surveyed sample of Belgian teleworkers believe telecommuting is here to stay (Baert et al., 2022). Furthermore, 70% of Belgian homeworkers stated they have been home more frequently due to the pandemic. Of those who work from home, no less than 85% expect to continue working from home at least one day a week and 1/5 even half-time (ING, n.d.). Further, the number of days of structural telecommuting increased from 1.5 days per week to an average of 2 days a week (SDWorx, n.d.).

Today, in the year 2022, we are in the post-covid era and the question of whether teleworking has indeed become the new normal is gradually becoming clearer. A study by Vangronsvelt and De Vos (2022) illustrates that remote work has indeed become the new normal. In about 50% of Belgian companies, remote work has remained the norm, as opposed to 20% before the pandemic. In addition, as a result of the pandemic, expectations between employer and employee have changed significantly as both parties demand more flexibility in terms of time and place.

It seems that employees embrace this new way of working. When looking at the perception of employees who were forced to work from home during COVID-19, it is mainly perceived as positive. The benefits that emerge in particular are increased productivity, more opportunities for remote learning, flexible working and staying connected through technology (Zhang et al., 2021). Other reasons why people like to work from home are the autonomy and flexibility that it entails (Dryselius & Pettersson, 2021). Employees can organize their work day according to their own preferences, which offers benefits in terms of work-life balance (Attentia, n.d.).

The social relevance of remote work is also reflected in the increasing number of scientific studies on the subject. Quite a few researchers have attempted to investigate remote work and its effectiveness and possible consequences. A meta-analysis by Gajendran and Harrison (2007) reflects the most important results. They concluded that remote work has beneficial effects on job satisfaction, lower turnover intentions, less role stress, higher supervisor ratings regarding job performance and finally, perceived career prospects. The researchers identified three mediating mechanisms for these outcomes: higher perception of autonomy, less

work-family conflict, and increased relationship quality with the supervisor. Consequently, these researchers conclude that remote work is primarily a good thing.

However, it is important not only to look at the distinction between remote workers versus non-remote workers but also to look at the effects of the extent of remote work. After all, the impact will undoubtedly be different for people who work from home once a month than for those who do so almost daily. Gajendran and Harrison (2007) have already made an attempt to examine this impact in their meta-analysis with the result that high-intensity remote workers experience more benefits in terms of work-family conflict and less role stress. However, high-intensity remote work would lead to the erosion of relationships with co-workers. No additional effect was found for perceived autonomy and relationship with supervisor. A systematic review Allen et al. (2015) sought to identify the effectiveness of remote work, and also examined the effects of the extent of remote work. The researchers concluded that the degree of remote work was beneficial for work outcomes such as organizational commitment, turnover intentions, quality of relationship with leader and co-workers and job satisfaction. The researchers concluded that remote work is most advantageous with respect to work outcomes for moderate intensity of telecommuting where a hybrid form of both remote work and face-to-face work is still present.

In this master's thesis the focus will be on the extent of remote work (i.e., remote work intensity) in relation to job satisfaction. Based on previous research, this relationship is expected to be curvilinear, with workers particularly benefiting from moderate amounts of telecommuting (Allen et al., 2015). The reason for choosing job satisfaction as a dependent variable is that it is an important proxy measure for organizational variables such as turnover intention, productivity, absenteeism, accident rate and employee morale (Aziri, 2011). However, research that investigates the influencing factors within this relationship is rather scarce. Therefore, this dissertation wants to contribute to the scientific literature by investigating three possible moderators, namely transformational leadership, transactional leadership and intrinsic motivation of employees.

The fact that telecommuting has become the new norm and the observation that workers seem to love it, undoubtedly has an impact on how leaders should manage employees. Especially since nearly 9 out of 10 Belgian employers plan to incorporate telework (SDWorx, n.d.), it is important to face the fact that leading employees face-to-face is not the same as leading a remote team and requires adapted strategies, communication routines and tools (Newman & Ford, 2021). As a consequence, there is a growing need to understand what leadership styles are predictive for job satisfaction, above and beyond the extent of telecommuting. Previous literature

has already shown that transformational and transactional leadership are predictive of work outcomes, including job satisfaction (Almohtaseb et al., 2020; Braun et al., 2013; Medina & Macías, 2018; Rathi et al., 2021; Siangchokyoo et al., 2020; Sinclair et al., 2021). For these reasons, leadership style (i.e., transformational and transactional leadership style) is included in this study as a moderator.

In addition to leadership style, it is also interesting to look at individual differences in intrinsic motivation and whether these strengthen or weaken the effect of remote work intensity on job satisfaction. Intrinsic motivation according to self-determination theory (Deci & Ryan, 2008) has already been studied in many contexts including a work context, with the consensus being that intrinsic motivation contributes to the job satisfaction of employees (Deci et al., 2017; Gheitani et al., 2019). However, research on intrinsic motivation within the context of remote work is rather scarce and is therefore included as a moderator in this study.

Given the context and social relevance of the abovementioned topics, the following central research question can be put forward: Does the extent of remote work affect the job satisfaction of remote workers and is this relationship influenced by leadership style or intrinsic motivation of workers? By answering this research question, this master's thesis sheds light on the gaps in current research regarding the possible moderators in the relationship between remote work intensity and job satisfaction.

Methodology-wise, a cross-sectional study is used to test the hypotheses. The sample consists of Flemish employees who made the switch to remote work due to the COVID-19 pandemic with the inclusion criteria being that he/she works from home at least once a week. A total of 122 participants are included in the sample.

The remainder of this master's thesis is organized as follows. Section 2 describes the literature regarding the core topics such as remote work and its relationship to job satisfaction, leadership styles within the framework of the full range leadership model and intrinsic motivation according to self-determination theory. Simultaneously, associated hypotheses are established. Section 3 discusses the method and analyses used. Section 4 covers the empirical results of the tested hypotheses. Section 5 includes a general discussion, limitations and strengths of the study, opportunities for further research and theoretical and practical implications. Finally, a general conclusion has been formulated in section 6.

Literature Review and Hypothesis Development

Remote Work

Definition, benefits and risks. Remote work is defined by Olson (1983) as the organizational work performed outside the organizational boundaries of time and place. It allows people to be more flexible and to work in a more versatile environment. Another commonly used term for remote work is telecommuting where a work-related task is performed somewhere else than the primary workplace and where electronic media are used to communicate with each other (Gajendran & Harrison, 2007). There are many forms of remote work like satellite work centers, neighborhood work centers, flexible work arrangements and work-at-home (Olson, 1983). However, this master's thesis focuses on work-at-home, which is a concept related to remote work which offers the possibility to work sporadically or regularly from home and is regulated by technology (Dahlstrom, 2013; Zhu, 2013).

For many companies, remote work has become the new norm (Rudolph et al., 2021) and is associated with some favorable consequences for employees. In terms of benefits for employees, remote work can promote a better work-life balance, improved job satisfaction and increased professional autonomy (Contreras et al., 2020; Dahlstrom, 2013; Gajendran et al., 2021; Orrell & Leger, 2020a; Popovici & Popovici, 2020). It is likely that working from home is also associated with less turnover, absenteeism and work stress (Allen et al., 2015; Contreras et al., 2020; Gajendran et al., 2021). The psychological mechanism that explains lower work stress is that homeworkers experience more autonomy. On top of that, home working is positive for performance and career outcomes and would be positively related to objectively measured job performance (Allen et al., 2015).

Working from home can also have beneficial outcomes from an employer's perspective. For example, an experimentally manipulated study found that telecommuting leads to increased productivity, which in turn leads to increased firm profits (Allen et al., 2015). There are two possible explanations in the literature for this outcome. First, remote work reduces absenteeism, and secondly, it provides the opportunity to function in a quieter, more convenient environment (Bloom et al., 2014). Furthermore, telecommuting is beneficial for the employer since it requires less traveling, which reduces expenses. In addition, working from home also offers a competitive advantage in terms of talent recruitment and retention (Hoch & Kozlowski, 2014; Orrell & Leger, 2020). Finally, telecommuting also has societal implications such as reduced traffic congestion, reduced emissions, and the strengthening of social ties between family and neighbors (Allen et al., 2015).

However, working from home also carries some risks, both for employee and employer. In terms of risks for employees, remote work can be associated with intensification of work, which in turn is detrimental for the work-life balance (Contreras et al., 2020; Popovici & Popovici, 2020). Moreover, remote work can result in professional and social isolation, less team cohesion, less trust, slower career progress and more communication difficulties (Allen et al., 2015; Contreras et al., 2020; Dahlstrom, 2013; Hoch & Kozlowski, 2014; Orrell & Leger, 2020). Furthermore, telecommuting can lead to less knowledge sharing and innovation due to the physical separation between employees and the lack of social interaction (Allen et al., 2015). Before the pandemic, work-related interruptions were predominant, while since the pandemic a shift towards more non-work-related interruptions (i.e., family-related interruptions) has been observed. These kinds of interruptions lead to more emotional fatigue and lower performance (Leroy et al., 2021). Employers may also encounter some risks. For instance, it is not easy for some companies to create a telecommuting culture and keep track of who is working from home and when. On top of that, employers need to install effective remote work policies in the workplace and may face some security risks (Orrell & Leger, 2020; Popovici & Popovici, 2020).

Remote work intensity and job satisfaction. There have already been attempts in the literature to look at the relationship between remote work and employee attitudes. A meta-analysis by Gajendran and Harrison (2007) shows a positive relationship between remote work and job satisfaction. Also, when office workers are compared to remote workers, differences between these groups seem to be in favor for remote workers with more job satisfaction, less stress and less turnover being observed for this group (Rudolph et al., 2021).

Despite the fact that remote work has many advantages for employees, the question can be asked whether more remote work leads to more job satisfaction. Previous research has shown that the extent remote work (i.e., remote work intensity) is a significant predictor of job satisfaction (Beckel & Fisher, 2022). There also appears to be evidence of a curvilinear relationship rather than a positive linear relationship. A systematic review by Beckel and Fisher (2022) shows that there is a curvilinear relationship between telecommuting intensity and job satisfaction, with optimal job satisfaction for moderate amounts (i.e. 40% per week) of telework. More telework does not necessarily mean a decrease, but rather a plateau being reached. Explanations for this increase in job satisfaction include fewer interruptions, less exposure to company politics, an increase in quality with the leader and a better work-life balance. A lack of face-to-face interactions and social isolation are put forward as explanations for reaching a plateau. A review by Zöllner and Sulíková (2021) indicates the same curvilinear relationship

between remote work intensity and job satisfaction, with a peak in job satisfaction around 15.1 hours per week. Finally, there is empirical evidence for a curvilinear relationship, mediated by work-family balance and with an optimum of 50% working remotely and 50% face-to-face work (Qiu & Dauth, 2022). In contrast, Schall (2019) found a positive, linear relationship between the extent of telework and job satisfaction. But a major shortcoming in this study is that the sample consisted only of employees who worked very infrequently from home. Based on empirical literature, it can be hypothesized that job satisfaction will be highest for moderate amounts of telework, after which a plateau is reached for even higher frequencies. Consequently, the following hypothesis can be put forward:

> ***Hypothesis 1:*** The relationship between remote work intensity and job satisfaction is curvilinear in the shape of an inverted U.

The Moderating Role of Leadership Style

Given the fact that remote work is related to job satisfaction (Allen et al., 2015; Gajendran & Harrison, 2007; Golden, 2006b), this master's thesis wants to contribute to scientific literature by also looking at possible moderators in this relationship. More specifically, the focus will be on leadership style (i.e., transformational and transactional leadership) and whether the effect of remote work on job satisfaction is dependent on the level of transformational or transactional leadership style.

Framework: the full range leadership model. As mentioned above, transformational and transactional leadership will be examined as moderators. These leadership styles are embedded in the full range leadership model in which transactional and transformational leadership are described using seven sub-dimensions (Avolio & Bass, 2002).

Firstly, transformational leadership was originally described by Burns (1978) and can be defined as: "Leader behaviors that transform and inspire followers to perform beyond expectations while transcending self-interest for the good of the organization" (Avolio et al., 2009). Central to this leadership style are change and improvement mechanisms based on a shared identity between leader and employee towards the organization (Udin et al., 2020). Burns (1978) divided transformational leadership into four dimensions. The first one, *idealized influence*, states that leaders are role models for their followers, are respected and have a clear purpose and vision. In doing so, they are willing to take the necessary risks to achieve this goal. Within the second transformational leadership behavior*, inspirational motivation*, leaders want

to motivate and challenge subordinates by communicating expectations and showing commitment towards a shared goal. The third transformational leadership behavior, *intellectual stimulation*, states that leaders seek to trigger new ways of thinking by stimulating employees to be more creative. The last one, *individualized consideration,* is a transformational leadership behavior which implies that leaders must provide a supportive work environment in which employees can grow and where every individual is respected.

Secondly, in addition to transformational leadership, Burns (1978) addressed a second form of leadership, namely transactional leadership which can be defined as: "Leadership largely based on the exchange of rewards contingent on performance" (Avolio et al., 2009). In other words, desired behaviors are reinforced and undesired behaviors of employees are punished. Moreover, transactional leadership relies on the principle of "quid pro quo" (Avolio et al., 2009). *Contingent reward* is the first transactional leadership behavior and focuses on rewarding those who meet desired goals. Under such circumstances, the leader focuses on the exchange of resources (Bono & Judge, 2004). The second transactional leadership behavior, *management-by-exception (active)* states that the leader only intervenes when a safety issue occurs. The last transactional leadership behavior, *management-by-exception (passive)* includes that the leader only intervenes when someone commits a mistake.

Thirdly, according to Bass (1985) who built on the theory of Burns (1978) there is also a third form of leadership, laissez-faire leadership or also called non-leadership (Judge & Piccolo, 2004), but this form of leadership is not included in the scope of this master's dissertation.

Transformational leadership style and job satisfaction. Over the years, many studies have already been done regarding transformational leadership and their predictive validity for several work outcomes. In particular, a recent systematic review from Siangchokyoo et al. (2020) shows that there is a moderate to high relationship between transformational leadership and employee outcomes such as job satisfaction, turnover, performance and commitment. According to Bass (1985), transformational leaders push their subordinates to perform beyond expectations. A meta-analysis of Wang et al. (2011) demonstrates this statement finding a positive relationship between transformational leadership and performance both at individual, group and organizational levels, and for both task, contextual and creative performance. Braun et al. (2013) show that transformational leadership is associated with job satisfaction in which both trust in the leader and trust in the team emerged as explanatory factors within this relationship. Furthermore, an association between transformational leadership and job satisfaction was demonstrated, with this relationship mediated entirely by self-efficacy (Nielsen et al., 2009).

Since the emergence of remote work, empirical studies have also been conducted over the years that have examined the relationship between transformational leadership and various work outcomes when working remotely. A literature review from Medina and Macías (2018) shows that virtual work teams benefit from a transformational leader because of the collaborative approach and the fueling a sense of cohesion despite being physically separated from each other. This results in employees being more creative, having higher leadership satisfaction, and achieving higher performance levels when their leader exhibits more transformational behavior. Transformational leaders inspire and empower employees in achieving higher goals, build trust and creating a partnership between employee and leader, even beyond the context of a physical office (Dahlstrom, 2013; Medina & Macías, 2018; Sinclair et al., 2021; Udin et al., 2020). Furthermore, a study of leadership preferences during the COVID-19 outbreak shows that there is a significant and positive relationship between transformational leadership and job satisfaction of employees (Rathi et al., 2021). This relationship between transformational leadership and job satisfaction within a virtual team has also been demonstrated in other studies (Almohtaseb et al., 2020; Medina & Macías, 2018; Sinclair et al., 2021). Based on these findings, the following hypotheses are formulated:

Hypothesis 2: The higher the transformational leadership of a supervisor, the higher the job satisfaction of employees who work remotely.

Hypothesis 3: Transformational leadership moderates the relationship between remote work and job satisfaction, such that effects are stronger for higher levels of transformational leadership.

Transactional leadership style and job satisfaction. Not only transformational but also transactional leadership has already been the subject of research studies regarding its relationship with work outcomes. In general, the literature comes to the consensus that transactional leadership has a positive impact on employee outcomes such as project success, work engagement, affective commitment, organizational citizenship behavior, organizational performance and work engagement. But for all these outcomes, the effect of transformational leadership is stronger (Abbas & Ali, 2021; Aboramadan & Kundi, 2020; Jangsiriwattana, 2019).

The relationship between transactional leadership and employee outcomes within a remote work context has also been examined in previous studies. Within a virtual team, transactional leadership is needed to ensure the work runs smoothly from a distance (Dahlstrom,

2013). A transactional leader sharpens employee motivation, which impacts their performance compared to transformational leadership. The explanation is that transactional leaders motivate to perform at a higher level which makes employees exert more effort and show more commitment towards the job (Rathi et al., 2021).

But which leadership style is now most determining for job satisfaction in a remote work context? As mentioned earlier, a higher degree of remote work provides an increase in the relationship quality with the supervisor, which in turn provides more job satisfaction (Allen et al., 2015). On top of that, in a remote work context, trust between supervisor and employee appears to be an important factor regarding job satisfaction (Baker & Dutton, 2007; Hartman et al., 1991). Indeed, transformational leadership can be placed in the category of relationship-oriented leadership styles, while transactional leadership in turn belongs to a more task-oriented leadership style (Cummings et al., 2010). As the relational aspect becomes more central in a remote work context (Allen et al., 2015) and transformational leadership is more of a relationship oriented leadership style (Cummings et al., 2010), it looks like a transformational leader is more likely to meet those needs. Or in other words, in a remote work context, transformational leadership seems to be a more determining factor for job satisfaction of remote workers, as this style of leadership is more relationship-oriented than transactional leadership. Additionally, a study by Ruggieri (2009) found that transformational leadership in virtual teams creates more satisfaction than a transactional leader. Consequently, the moderation effect is expected to be stronger for transformational than for transactional leadership. Drawing from this theoretical, empirical and practical literature, the following hypotheses can be derived:

> ***Hypothesis 4*:** The higher the transactional leadership of a supervisor, the higher the job satisfaction of employees who work remotely.

> ***Hypothesis 5:*** Transactional leadership moderates the relationship between remote work and job satisfaction, such that effects are stronger for higher levels of transactional leadership (*H5a*), but to a lesser degree than transformational leadership (*H5b*).

The Moderating Role of Intrinsic Motivation

In addition to leadership style as a moderator in the relationship between remote work and job satisfaction, it is also interesting to look at individual differences in intrinsic motivation and whether they affect the aforementioned relationship. Intrinsic motivation is hereby viewed

from the framework of the self-determination theory of Edward L. Deci and Richard M. Ryan (Deci & Ryan, 2008).

Basic psychological needs. The self-determination theory is a theory of human motivation and starts from a positive human view in which people have a proactive growth tendency (Deci & Ryan, 2008). The underlying mechanism for motivation is based on three innate basic needs: autonomy, relatedness and competence (van den Broeck et al., 2009). The *need for autonomy* refers to the need to be able to make one's own decisions and act psychologically freely without feeling pressured (Deci, 1971). According to Rigby and Ryan (2018), there are certain work characteristics that make the need for autonomy more easily satisfied. More specifically, when employees see a clear reason to perform a certain task and they also have a clear goal, their sense of autonomy is more easily addressed. In addition, the *need for belongingness* represents the tendency to build constructive relationships in which a person feels loved and can simultaneously care for others (Deci & Ryan, 2000). To adequately address the need for belongingness, organizations must ensure that employees do not feel isolated and that they have a sense of belonging (Rigby & Ryan, 2018). Finally, the *need for competence* represents the need to feel capable and being able to understand and control the environment (Deci & Ryan, 2000). To address employees' need for competence, tasks in the workplace must be organized so that they are not too easy but also not too challenging. In addition, workers must have access to the right resources to complete the task (Rigby & Ryan, 2018).

A theory of human motivation. The self-determination theory is a theory of human motivation that distinguishes two forms of motivation, intrinsic and extrinsic motivation. This distinction between intrinsic and extrinsic motivation was made decades ago by Deci (1971). On the one hand, *intrinsic motivation* is driven by internal factors that cause an activity to be performed because it is inherently interesting. *Extrinsic motivation*, on the other hand, is driven by external factors where behavior is dependent on the outcome rather than the activity itself. Moreover, these two forms of motivation can be placed on a continuum ranging from controlled motivation to autonomous motivation. *Controlled motivation* is a form of motivation in which people feel forced to perform an activity (Deci & Ryan, 2008). Contrary, *autonomous motivation* involves performing an activity entirely of one's own volition because it is found to be intrinsically interesting (Deci & Ryan, 2008).

Intrinsic motivation. Within the controlled-autonomous continuum of self-determination theory, intrinsic motivation is located at the very right since it is the most autonomous form of motivation (Deci & Ryan, 2008). In addition, it appears that intrinsic motivation results from the satisfaction of the three basic needs (van den Broeck et al., 2009). Over the years, research has already been conducted on intrinsic motivation in the workplace. A review by Deci et al. (2017) regarding self-determination theory in the workplace shows that intrinsic motivation, on the one hand, creates higher job satisfaction, more work commitment and better performance. On the other hand, intrinsic motivation in the workplace reduces turnover, burnout, and fatigue. A later study by Gheitani et al. (2019) shows the same relationship between intrinsic motivation and job satisfaction. Moreover, intrinsic motivation also appears to be associated with other work outcomes such as increased creativity (Chen et al., 2013).

It looks like employees seem to benefit from pursuing intrinsic motives. The question is whether this is also the case in a remote work context. Researchers have already explored this in previous studies. Remote work implies more autonomy in terms of planning and provides a better work-life balance. These factors increase the likelihood of intrinsic motivation, which in turn has a positive effect on job satisfaction (Frolick et al., 1993; Vorster, 2020). Moreover, this effect is already found among employees who work remotely only one day a week (Peters et al., 2014). Drawing from this theoretical, empirical and practical literature, the following hypotheses can be derived:

> ***Hypothesis 6:*** The higher the intrinsic motivation, the higher the job satisfaction of employees who work remotely.
>
> ***Hypothesis 7:*** Intrinsic motivation moderates the relationship between remote work and job satisfaction, such that effects are stronger when intrinsic motivation is higher.

Using a graphical representation, Figure 1 demonstrates the research model used in this study.

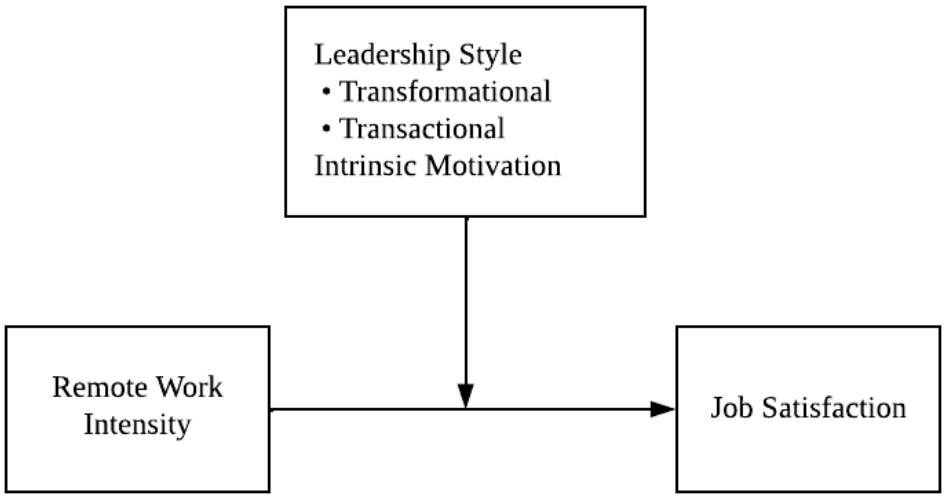
Job Satisfaction

Within this study, the variable job satisfaction was chosen as the dependent variable because it is linked to important and predictive work outcomes. Job satisfaction can be defined as an attitude that people have about their job and the organization in which they perform this job. It is an affective response as the result of the comparison between actual and desirable outcomes for a person in terms of work (Rad & Yarmohammadian, 2006; Spector, 1985). It is

very crucial for companies and managers to take into account the job satisfaction of their employees because it is related to many work-related variables. More specifically, job satisfaction appears to be related to variables such as productivity and loyalty while dissatisfaction is related to more turnover, more absenteeism, higher accident rate and lower morale (Aziri, 2011). In addition, some eliciting determinants for satisfaction or dissatisfaction have also been defined in the literature including manager's concern, working conditions, social relations, perceived long-term opportunities, opportunities elsewhere, compensation and job design (Aziri, 2011; Rad & Yarmohammadian, 2006). Job satisfaction, in other words, is a variable that is highly relevant to monitor as a leader as it is elicited by several determinants and is predictive of a number of important organizational variables.

Figure 1

Overview of the Research Model



Method

Sample

The participants in this sample (N = 122) were Flemish workers who recently made the transition to working from home at least once a week and who were under the authority of a direct supervisor. The participants work for different companies within diverse industries and hold a variety of functions. The online questionnaire was originally completed by 136 participants. Ten participants were removed due to incomplete data, four were removed due to an incorrect response on the control item, one participant indicated being a CEO, and one participant did not agree with the informed consent. In sum, the final sample consists of 122 participants. The sample consists of 31 (25%) men and 91 (75%) women. Figures 2 and 3 show the distribution within the sample in terms of age and marital status. Frequencies and percentages of the demographic characteristics are shown in Table 1.

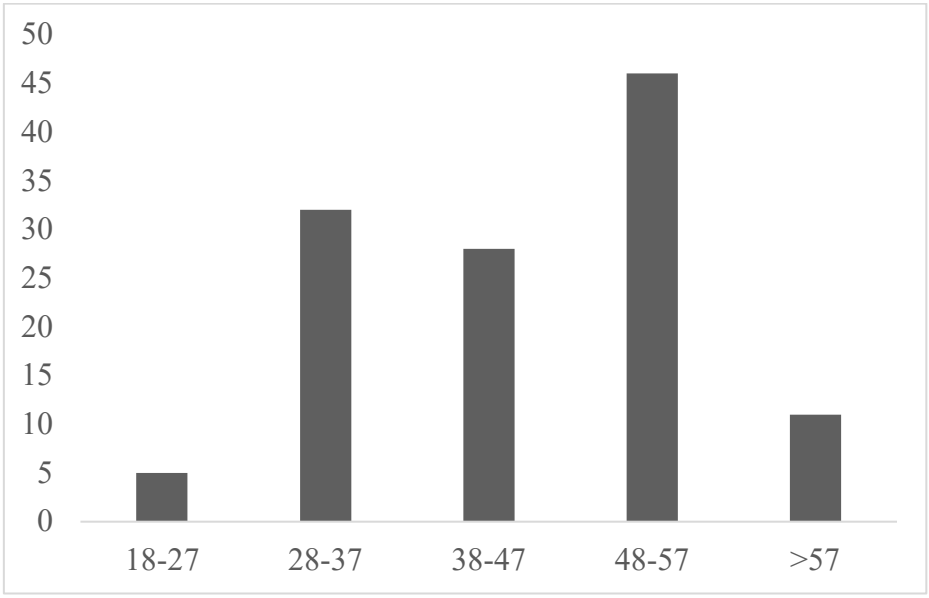
Table 1

Demographic Characteristics of the Sample (N = 122)

		Frequency	Percentage
Gender			
	Men	31	25%
	Women	91	75%
Age			
	18-27	5	4.9%
	28-37	32	26%
	38-47	28	22.8%
	48-57	46	37.4%
	>57	11	8.9%
Marital status			
	Cohabiting with children	58	47.2%
	Cohabiting without children	29	23.6%
	Living alone	25	20.3%
	Living alone with children	5	4.1%
	Other type of household	5	4.9%

Figure 2

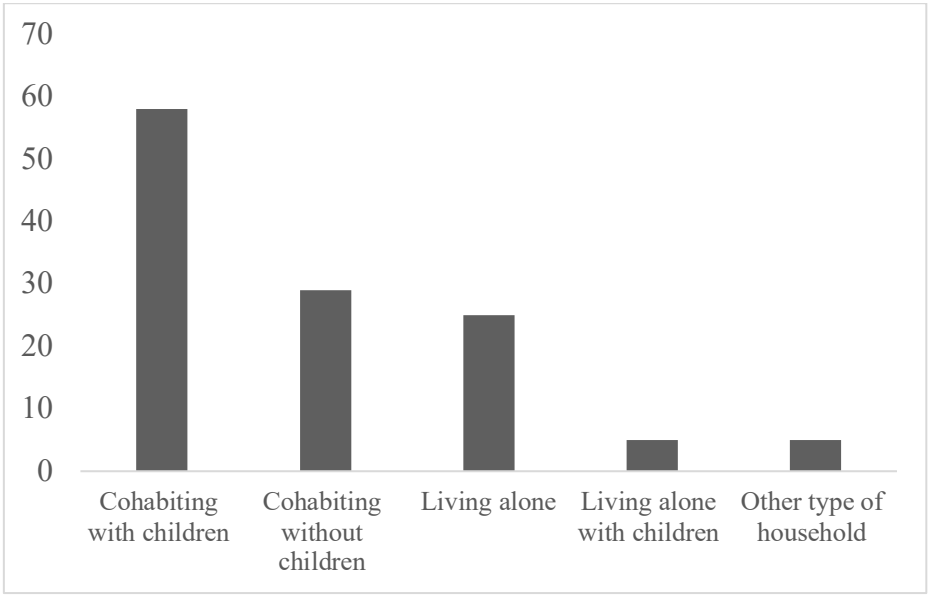
Distribution of Age (N = 122)



Note. The x-axis shows the different age categories. The y-axis shows the corresponding frequencies within the sample.

Figure 3

Distribution of Marital Status (N = 122)



Note. The x-axis shows the different categories of marital status. The y-axis shows the corresponding frequencies within the sample.

Design

The design within this master dissertation is a between-subject cross-sectional study using a quantitative approach. Each variable was measured at the individual level. The motivation for using this design is to conduct investigative research where many participants can be surveyed at one time. The dependent variable is job satisfaction, whereas the independent variable is remote work intensity. Hypothesis 1 will be tested via a hierarchical regression analysis using a squared remote work intensity term. Next, three moderators were researched, namely transformational leadership style, transactional leadership style and intrinsic motivation. These hypotheses will be tested using hierarchical moderated regression analyses which is represented by the following formula:

$$y = b_0 + b_1X_1 + b_2X_2 + b_3X_1X_2 + \varepsilon$$

The decision for this design is justified by meeting the assumptions that secure the validity of the regression model, namely the assumptions of linearity, homoscedasticity of the residuals, normality of the residuals, and independence of the residuals. Each assumption was checked and is described in the Results section.

Material

This study used an online questionnaire constructed in Qualtrics in which participants first and foremost had to agree to an informed consent that guaranteed confidentiality and anonymity of the data (see Appendix A). The choice to conduct the survey online was justified because of the major advantage that a large group of potential respondents could be reached easily and quickly (Bethlehem, 2010). In what follows, the different variables are described with corresponding operationalizations. The internal consistencies of each construct are shown in Table 2.

Remote work intensity. The extent of remote work (i.e., remote work intensity) was measured using one single item asking participants how many days per week remote work was performed. The following response options were presented: 1 = 1 day per week, 2 = 2 to 3 days per week, 3 = 4 to 5 days per week. Consequently, this yields a continuous variable with a value between 1 and 3 where 1 represents a low degree of remote work, 2 represents an average degree of remote work, and 3 represents a high degree of remote work.

Job satisfaction. To measure job satisfaction, the Job In General scale (JIG) from Bowling Green State University was used (BGSU, n.d.). The JIG is designed to measure job satisfaction where participants must evaluate how satisfied they are with their job in a broad, general sense. Within this scale, 18 statements were presented with both positive and negative statements. Each item was translated into Dutch using the back translation method. The response options were "yes" if applicable, "no" if not applicable or "?" if the participant could not decide. To determine an overall score, the negative statements had to be reversed. Each positive statement was given the value 3 if "yes", 2 if "?" and 1 if "no". Each negative statement was given value 1 if "yes", 2 if "?" and 3 if "no". Thus, an overall mean score could be calculated between 0 and 3 where 3 indicates a maximum score for the scale, which means the participant is maximally satisfied with the job in general. In a next step, the internal consistency was determined using Cronbach's alpha. The Cronbach's alpha for JIG indicates a value of .87. Consequently, all items could be retained.

Leadership style. The variables transformational and transactional leadership were measured using the Multifactor Leadership Questionnaire (MLQ; Avolio et al., 1999). The items were translated into Dutch using the back translation method. The participants filled out the questionnaire with their direct supervisor in mind. Transformational leadership was measured using 10 items of which four items for the sub-dimension idealized influence, respectively for the aspect 'attributed' and 'motivation' (e.g., “Goes beyond self-interest for the good of the group”), two items for inspirational motivation (e.g., “Expresses confidence that goals will be achieved”), two items for intellectual stimulation (e.g., “Gets me to look at problems from many different angles”) and two items for individualized consideration (e.g., “Treats me as an individual rather than just a member of the group”). Transactional leadership was measured using six items. Two items related to contingent reward (e.g., “Makes clear what one can expect to receive when performance goals are achieved”), two items to management-by-exception active (MBE-A; e.g., “Keeps track of all mistakes”) and two items to management-by-exception passive (MBE-P; e.g., “Waits for things to go wrong before taking action”). All items were measured on a 5-point Likert scale ranging from 1 (never) to 5 (often, almost always).

The internal consistency of the questionnaire is determined by calculating the Cronbach's alpha. The 10 items of transformational leadership show a Cronbach's alpha of .89. This indicates good internal consistency and consequently all items are retained. Next, the items of transactional leadership have a Cronbach's alpha of .67. Consequently, all items could be retained. In the

analysis, overall scores for transformational and transactional leadership are used, which are an average of the corresponding subscales and are in accordance with Tims et al. (2011).

Intrinsic motivation. To measure intrinsic motivation according to the definition of self-determination theory, the Motivation at Work Scale (MAWS; Gagné et al., 2010) was used. To measure intrinsic motivation, three items were used (e.g., "Because I enjoy this work very much") using a 7-point Likert scale ranging from 1 (not agree at all) to 7 (totally agree). Participants were asked to what extent the statements applied to them. The items were translated into Dutch using the back translation method. All items were retained as Cronbach's alpha is .88, indicating good internal consistency. Further, an overall score for intrinsic motivation was used in the analysis, which is an average of the three items.

Demographics. Finally, some socio-demographic variables were surveyed**:** gender (1 = Men, 2 = Woman, 3 = non-binary), age (1 = 18-27 years, 2 = 28-37 years, 3 = 38-47 years, 4 = 48-57 years, 5 = >57 years), marital status (1 = cohabiting with children, 2 = cohabiting without children, 3 = living alone, 4 = living alone with children, 5 = other type of household), sector and function. Since participants had free choice to fill in sector and function, this resulted in more than 40 different responses for each variable. Consequently, these variables were not further considered as possible control variables.

Procedure

Participants could voluntarily participate in an online questionnaire. The inclusion criteria were that they work at least one day a week from home and that they were under the supervision of a direct leader. The online questionnaire was constructed using Qualtrics and distributed through a variety of social media channels including LinkedIn, Instagram and Facebook. Posts were shared weekly. In addition, a personal email inviting for participation was sent to 50 companies asking them to distribute the survey internally to suitable candidates. Lastly, I also used my own network and informal contacts to encourage potential candidates to complete my questionnaire. The data collection took place from February 2022 to mid-June 2022.

Statistical Analysis

The analyses for this master's dissertation were conducted using the statistical program *Statistical Package for the Social Sciences* (SPSS). First, correlations were inspected

(preliminary analyses). Second, Hypothesis 1 was tested using a hierarchical regression analysis with the remote work intensity term in a first step. In a second step, the squared remote work intensity term was entered to test for a curvilinear relationship. Third, the other hypotheses were tested using three hierarchical moderated regression analyses, without the squared remote work intensity term due to non-significance (see Results section). In the first step, the main effect of remote work intensity was entered. In a second step, the main effects of respectively transformational leadership, transactional leadership and intrinsic motivation were entered. The interaction terms between remote work intensity and respectively leadership style and intrinsic motivation have been examined separately and added in a third step.

Results

Preliminary Analyses

Table 2

Means, Standard Deviations, Pearson Correlations and Internal Consistencies

Variables	M	SD	1	2	3	4	5	6
1. Gender[a]	—	—						
2. Remote work intensity[d]	2.02	0.63	-.02	—				
3. Transformational[b]	3.95	0.64	.02	-.02	(.89)			
4. Transactional[b]	3.53	0.64	-.02	.07	.63***	(.67)		
5. Intrinsic motivation[c]	5.31	1.16	-.02	-.01	.37***	.30***	(.88)	
6. Job satisfaction[d]	2.67	0.33	.03	.01	.41***	.39***	.62***	(.87)

Note. $N = 122$. The numbers in parentheses refer to the internal consistencies of the scales.

[a.] 0 = male, 1 = female, 2 = non-binary. [b.] Ranging between 1 (low) and 5 (high). [c.] Ranging between 1 (low) and 7 (high). [d.] Ranging between 1 (low) and 3 (high).

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

Table 2 summarizes the means, standard deviations, Pearson correlations, and internal consistencies of the scales. This table shows that no significant correlations are found between gender and other variables from this research model. Also, no significant relationship was found between remote work intensity and job satisfaction ($r = .01$, $p = .962$). More so, the correlation is almost zero, indicating that there is no relationship between the two variables. However, there is a significant, high positive correlation between transformational leadership and job satisfaction ($r = .41$, $p < .001$). Thus, the extent to which an employee perceives his/her supervisor as a transformational leader is positively related to job satisfaction when working remotely. In addition, there is a significant, high positive correlation between transactional leadership and job satisfaction ($r = .39$, $p < .001$). Thus, the extent to which an employee perceives his/her supervisor as a transactional leader is positively related to job satisfaction when working remotely. Lastly, there is a significant, high positive correlation between intrinsic motivation and job satisfaction ($r = .62$, $p < .001$). Thus, the degree to which employees are intrinsically motivated is related to job satisfaction when working remotely.

Next, before conducting the linear regressions, one-way *analysis of variance* (ANOVA) was used to determine whether to control for the socio-demographic variables gender, age, and marital status.

Gender. One-way ANOVA was performed to determine whether job satisfaction differed significantly between men, women or non-binary. The homogeneity of variance assumption is satisfied, as the Levene's test is not significant, F (2, 120) = 0.15, p = .702, assuming equal variance between the groups. The results of ANOVA did not indicate a difference in job satisfaction for gender, F (2,120) = 0.39, p = .533. Because of this reason, gender will not be included in the hierarchical regression analysis.

Age. One-way ANOVA was performed to determine whether job satisfaction differed significantly between different age categories. The homogeneity of variance assumption is satisfied, as the Levene's test is not significant, F (4, 118) = 0.28, p = .894, assuming equal variance between the groups. The results of ANOVA did not indicate a difference in job satisfaction for age, F (4,118) = 2.20, p = .074. Because of this reason, age will not be included in the hierarchical regression analysis.

Marital status. One-way ANOVA was performed to determine whether job satisfaction differed significantly depending on the marital status of the participants. The homogeneity of variance assumption is not satisfied, as the Levene's test is significant, F (4, 118) = 3.82, p = .028, assuming no equal variance between the groups. As a result, a Welch test was performed, indicating that there are statistically significant differences in job satisfaction for marital state, F (4,17) = 3.89, p = .020. The Games-Howell post-hoc test showed a significant mean difference at the .05 level indicating that participants who are cohabiting with children experience less job satisfaction (M = 2.39, SD = 0.34) than people who are cohabiting without children (M = 2.61, SD = 0.18). Because significant differences are found in job satisfaction depending on marital status, this is an initial reason to include this variable as a control variable in further analyses.

A second reason for including marital status as a control variable is because there is empirical evidence that marital status can affect job satisfaction (Kemunto et al., 2018; Mwamwenda, 1997; Saner & Eyüpoğlu, 2013). According to Bernerth and Aguinis (2016), empirical evidence is a necessary and sufficient step to support the rationale for including a control variable.

Hypothesis 1. In order to examine whether there is a curvilinear relationship between remote work intensity and job satisfaction, a hierarchical regression analysis was first conducted with the linear term of remote work intensity in Step 1 and the quadratic term in Step 2. A curvilinear relationship exists when adding the quadratic term leads to a significant incremental variance on top of the linear effect (Cohen et al., 2003).

Table 3 shows the results regarding the impact of remote work intensity on job satisfaction and whether a curvilinear relationship could be observed. In Step 1, the R^2 value of .00 revealed that remote work intensity explained 0% of the variance in job satisfaction with F (1, 120) = 0.01, p = .962. The findings revealed that more remote work did not predict more job satisfaction significantly (β = .01, p = .962). In Step 2, the R^2 of .00 revealed that the squared term of remote work intensity explained 0% of the variance in job satisfaction with F (2, 119) = 0.01, p = .999. The findings reveal that there is no significant curvilinear relationship between remote work intensity and job satisfaction (β = .00, p = .999). The ΔR^2 value of .00 revealed 0% change in the variance of Model 1 and Model 2 with ΔF (1, 119) = 0.00, p < .999. Consequently, Hypothesis 1 can be rejected. Since no curvilinear relationship is found, the other hypotheses are tested via a moderated hierarchical regression analysis but without the squared remote work intensity term. These analyses used the linear remote work intensity term and consequently, some assumptions were first tested as described in next section.

Table 3

Results of Hierarchical Regression Analysis

Variable	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	UL				
Step 1						.00	.00
Constant	2.67***	2.61	2.73	0.03			
Remote work intensity	0.01	-0.09	0.10	0.05	.01		
Step 2						.00	.00
Constant	2.67***	2.61	2.72	0.03			
Remote work intensity	0.01	-0.09	0.10	0.04	.01		
Remote work intensity^2	0.00	-0.12	0.12	0.06	.00		

Note. CI = confidence interval; LL = lower limit; UL = upper limit; RWI = remote work intensity; TRANSF L. = transformational leadership. *p < .05; **p < .01; ***p < .001.

Testing the assumptions and multicollinearity. Since the validity of the regression model depends on some assumptions, they were tested one by one. First, linearity was checked by plotting residuals against predicted values through a *locally weighted smoothing* (LOESS) line. This gives an approximate straight line around Y = 0. The deviations from linearity are not overly clear, indicating an approximately linear distribution. Second, the homoscedasticity of the residuals was checked by plotting squared residuals against the predicted values. There are some minor indications of heteroscedasticity. Yet, they may well be the result of random disturbances due to finite sampling. Third, to check the normality of the residuals, a *quantile-quantile plot* (QQ-plot) of the standardized residuals is conducted, which indicates an approximate normal distribution. Fourth, there appears to be no violation of the independence assumption, as the residuals were randomly scattered around the line Y = 0.

Multicollinearity was checked by asking the *variance inflation factors* (VIFs). There is no indication of problems in terms of multicollinearity.

Testing the Hypotheses

Moderated hierarchical regression analyses with marital status as a control variable were conducted but due to non-significance and the parsimony principle, the control variable was omitted from the final analyses. The results of the analyses including the control variable were added in appendix for completeness (see Appendix B). In what follows, the results of the final analyses are discussed in detail.

Transformational leadership as moderator variable. Table 4 shows the results regarding the impact of remote work intensity and transformational leadership on job satisfaction as well as the possible interaction effect. In Step 1, the R^2 value of .00 revealed that remote work intensity explained 0% of the variance in job satisfaction with F (1, 120) = 0.01, p = .962. The findings revealed that more remote work did not predict more job satisfaction significantly (β = .01, p = .962). In Step 2, the R^2 of .17 revealed that remote work intensity and transformational leadership explained 17% of the variance in job satisfaction with F (2, 119) = 12,20, p < .001. The findings revealed that remote work intensity did not significantly predict job satisfaction (β = .01, p = .876). However, transformational leadership did positively predict job satisfaction (β = .41, p < .001). The ΔR^2 value of .17 revealed 17% change in the variance of Model 1 and Model 2 with ΔF (1, 119) = 24.40, p < .001. In Step 3, the R^2 of .17 revealed that remote work intensity, transformational leadership and the interaction effect between the two variables explained 17% variance of job satisfaction with F (3, 118) = 8.09, p < .001. The findings revealed that remote

work intensity did not significantly predict job satisfaction (β = .01, p = .876). However, transformational leadership did positively predict job satisfaction (β = .41, p < 0.001). Lastly, no significant interaction effect was found (β = .02, p = .819). The ΔR^2 value of .00 revealed a 0% change in the variance of Model 2 and Model 3 with ΔF (1, 118) = 0.05, p = .819.

Transactional leadership as moderator variable. Table 5 shows the results regarding the impact of remote work intensity and transactional leadership on job satisfaction as well as the possible interaction effect. Step 1 is parallel to the previous analysis. This step is reported again for completeness. In Step 1, the R^2 value of .00 revealed that remote work intensity explained 0% of the variance in job satisfaction with F (1, 120) = 0.01, p = .962. The findings revealed that more remote work did not predict more job satisfaction significantly (β = .01, p = .962). In Step 2, the R^2 of .15 revealed that remote work intensity and transactional leadership explained 15% of the variance in job satisfaction with F (2, 119) = 10.71, p < .001. The findings revealed that remote work intensity did not significantly predict job satisfaction (β = -.02, p = .782). However, transactional leadership did positively predict job satisfaction (β = .39, p < .001). The ΔR^2 value of .15 revealed 15% change in the variance of Model 1 and Model 2 with ΔF (1, 119) = 21.41, p < .001. In Step 3, the R^2 of .16 revealed that remote work intensity, transactional leadership and the interaction effect between the two variables explained 16% variance of job satisfaction with F (3, 118) = 7.25, p < .001. The findings revealed that remote work intensity did not significantly predict job satisfaction (β = -.02, p = .864). However, transactional leadership did positively predict job satisfaction (β = .39, p < .001). Lastly, no significant interaction effect was found (β = .06, p = .510). The ΔR^2 value of .01 revealed a 1% change in the variance of Model 2 and Model 3 with ΔF (1, 118) = 0.44, p = .510.

Intrinsic motivation as moderator variable. Table 6 shows the results regarding the impact of remote work intensity and intrinsic motivation on job satisfaction as well as the possible interaction effect. Step 1 is parallel to the previous analysis. This step is reported again for completeness. In Step 1, the R^2 value of .00 revealed that remote work intensity explained 0% of the variance in job satisfaction with F (1, 120) = 0.01, p = .962. The findings revealed that more remote work did not predict more job satisfaction significantly (β = .01, p = .962). In Step 2, the R^2 of .39 revealed that remote work intensity and intrinsic motivation explained 39% of the variance in job satisfaction with F (2, 119) = 37.78, p < .001. The findings revealed that remote work intensity did not significantly predict job satisfaction (β = .01, p = .903). However,

intrinsic motivation did positively predict job satisfaction (β = .62, $p < .001$). The ΔR^2 value of .39 revealed 39% change in the variance of Model 1 and Model 2 with ΔF (1, 119) = 75.55, $p <$ .001. In Step 3, the R^2 of .39 revealed that remote work intensity, intrinsic motivation and the interaction effect between remote work intensity and intrinsic motivation explained 39% variance of job satisfaction with F (3, 118) = 25.17, $p < .001$. The findings revealed that remote work intensity did not significantly predict job satisfaction (β = .01, p = .849). However, intrinsic motivation did positively predict job satisfaction (β = .63, $p < 0.001$). Lastly, no significant interaction effect was found (β = -.04, p = .549). The ΔR^2 value of .00 revealed a 0% change in the variance of Model 2 and Model 3 with ΔF (1, 118) = 0.36, p = .549.

Additional Analyses

Since no significant interaction effects but significant main effects were found for transformational and transactional leadership, an additional analysis was used to determine whether the effect of transformational leadership significantly differed from the effect of transactional leadership. To test if the standardized beta weights of transformational leadership (β = .41) and transactional leadership (β = .39) were statistically different from each other, their corresponding 95% confidence intervals were estimated using bias corrected bootstrap (1,000 re-samples). The beta weights would be considered statistically different from each other ($p <$ .05) if the confidence intervals overlapped by less than 50% (Cumming, 2009). Half of the average of the overlapping confidence intervals was calculated (.112) and added to the transformational leadership beta weight lower bound estimate (.035), which yielded .147. As the transactional leadership upper bound estimate of .451 exceeded the value of .147, the difference between the transformational leadership and transactional leadership standardized beta weights (Δβ = .02) was not considered statistically significantly larger than the transactional leadership beta weight at the .05 significance level.

A second additional analysis was used to determine whether the effect of transformational leadership significantly differed from the effect of intrinsic motivation. To test if the standardized beta weights of transformational leadership (β = .41) and intrinsic motivation (β = .63) were statistically different from each other, their corresponding 95% confidence intervals were estimated using bias corrected bootstrap (1,000 re-samples). As mentioned above, the beta weights would be considered statistically different from each other ($p < .05$) if the confidence intervals overlapped by less than 50% (Cumming, 2009). Half of the average of the overlapping confidence intervals was calculated (.080) and added to the transformational leadership beta

weight lower bound estimate (.042), which yielded .122. As the intrinsic motivation upper bound estimate of .684 exceeded the value of .122, the difference between the transformational leadership and intrinsic motivation standardized beta weights ($\Delta\beta = .22$) was not considered statistically significantly larger than the intrinsic motivation beta weight at the .05 significance level.

A third additional analysis was used to determine whether the effect of transactional leadership significantly differed from the effect of intrinsic motivation. To test if the standardized beta weights of transactional leadership ($\beta = .39$) and intrinsic motivation ($\beta = .63$) were statistically different from each other, their corresponding 95% confidence intervals were estimated using bias corrected bootstrap (1,000 re-samples). As mentioned above, the beta weights would be considered statistically different from each other ($p < .05$) if the confidence intervals overlapped by less than 50% (Cumming, 2009). Half of the average of the overlapping confidence intervals was calculated (.057) and added to the transactional leadership beta weight lower bound estimate (.109), which yielded .166. As the intrinsic motivation upper bound estimate of .656 exceeded the value of .166, the difference between the transactional leadership and intrinsic motivation standardized beta weights ($\Delta\beta = .24$) was not considered statistically significantly larger than the intrinsic motivation beta weight at the .05 significance level.

Table 4

Results of Moderated Regression Analysis with Transformational Leadership as Moderator Variable

Variable	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	UL				
Step 1						.00	.00
Constant	2.67***	2.61	2.73	0.03			
Remote work intensity	0.01	-0.09	0.10	0.05	.01		
Step 2						.17	.17***
Constant	2.67***	2.61	2.72	0.03			
Remote work intensity	0.01	-0.08	0.10	0.04	.01		
Transformational leadership	0.22***	0.13	0.30	0.04	.41***		
Step 3						.17	.00
Constant	2.67***	2.61	2.72	0.03			
Remote work intensity	0.01	-0.08	0.10	0.04	.01		
Transformational leadership	0.21***	0.13	0.30	0.04	.41***		
RWI x TRANSF L.	0.02	-0.11	0.14	0.06	.02		

Note. CI = confidence interval; LL = lower limit; UL = upper limit; RWI = remote work intensity; TRANSF L. = transformational leadership.

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

Table 5

Results of Moderated Regression Analysis with Transactional Leadership as Moderator Variable

Variable	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	UL				
Step 1						.00	.00
Constant	2.67***	2.61	2.73	0.03			
Remote work intensity	0.01	-0.09	0.10	0.05	.01		
Step 2						.15	.15***
Constant	2.67***	2.61	2.71	0.03			
Remote work intensity	-0.01	-0.10	0.08	0.05	-.02		
Transactional leadership	0.21***	0.19	0.29	0.04	.39***		
Step 3						.16	.01
Constant	2.67***	2.61	2.72	0.03			
Remote work intensity	-0.01	-0.10	0.08	0.05	-.02		
Transactional leadership	0.21***	0.12	0.29	0.05	.39***		
RWI x TRANSAC L.	0.04	-0.08	0.17	0.06	.06		

Note. CI = confidence interval; LL = lower limit; UL = upper limit; RWI = remote work intensity; TRANSAC L. = transactional leadership.

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

Table 6

Results of Moderated Regression Analysis with Intrinsic Motivation as Moderator Variable

Variable	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	UL				
Step 1						.00	.00
Constant	2.67	2.61	2.73	0.03			
Remote work intensity	0.01	-0.09	0.10	0.05			
Step 2						.39	.39***
Constant	2.67***	2.62	2.71	0.02			
Remote work intensity	0.01	-0.07	0.08	0.04	.01		
Intrinsic motivation	0.18***	0.14	0.22	0.02	.62***		
Step 3						.39	.00
Constant	2.67***	2.62	2.71	0.02			
Remote work intensity	0.01	-0.07	0.08	0.04	.01		
Intrinsic motivation	0.18***	0.14	0.22	0.02	.63***		
RWI x INTRINS M.	-0.02	-0.09	0.05	0.03	-.04		

Note. CI = confidence interval; LL = lower limit; UL = upper limit; RWI = remote work intensity; INTRINS M. = intrinsic motivation.

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

Discussion

Remote work has become the new normal (Baert et al., 2022; Knack, n.d.; Vangronsvelt & De Vos, n.d.). Consequently, there is already a great amount of research on the effects of remote work on job satisfaction of employees who made the transition to remote work in which the literature shows a curvilinear relationship between remote work and job satisfaction in the shape of an inverted U (Almohtaseb et al., 2020; Braun et al., 2013; Medina & Macías, 2018; Rathi et al., 2021; Siangchokyoo et al., 2020; Sinclair et al., 2021). Previous research has already examined job attributes (e.g., task interdependence, job discretion) as moderators in this relationship (Golden & Veiga, 2005). However, there is hardly any research that examines other possible moderators like leadership style or individual differences in intrinsic motivation. Therefore, this master's thesis investigates the relationship between remote work intensity and job satisfaction and whether this relationship depends on the level of transformational leadership, transactional leadership and intrinsic motivation. Through an online survey, a questionnaire is distributed to workers who made the transition to remote work as a result of the COVID-19 pandemic and work from home at least once a week under the supervision of a direct leader.

The results show that there is no significant main effect of remote work intensity on job satisfaction. Therefore, the preconceived hypothesis, which states that there is a curvilinear relationship in the shape of an inverted U (Hypothesis 1), is rejected. In contrast, a significant main effect of transformational leadership on job satisfaction is found. Consequently, Hypothesis 2 is supported: The higher the transformational leadership of a supervisor, the higher the job satisfaction of employees who work remotely. Next, no significant interaction effect is found between remote work intensity and transformational leadership. Thus, Hypothesis 3, which states that transformational leadership moderates the relationship between remote work intensity and job satisfaction, is rejected. Next, a significant main effect of transactional leadership on job satisfaction is found. Consequently, Hypothesis 4 is supported: The higher the transactional leadership of a supervisor, the higher the job satisfaction of employees when working remotely. However, there is no significant interaction effect between transactional leadership and remote work intensity. Thus, Hypothesis 5a, which states that transactional leadership moderates the relationship between remote work intensity and job satisfaction, is rejected. As a result, Hypothesis 5b stating that the interaction effect is stronger for transformational leadership is also rejected since there are no significant interaction effects for either moderator. An additional analysis is conducted which examines whether the main effects of transformational and transactional leadership on job satisfaction differ significantly from each other. Results show

that these effects are not significantly different from each other. Next, a significant main effect of intrinsic motivation on job satisfaction is found. Consequently, Hypothesis 6 is supported: The higher the intrinsic motivation, the higher the job satisfaction of employees who work remotely. No significant interaction effect is found between intrinsic motivation and remote work intensity, consequently rejecting Hypothesis 7, which states that intrinsic motivation moderates the relationship between remote work intensity and job satisfaction. Finally, purely by looking at the beta coefficients, the effect of intrinsic motivation on job satisfaction could be expected to be meaningfully larger than that of transformational and transactional leadership. Two additional analyses examine whether the effect of intrinsic motivation is significantly different from the effect of transformational and transactional leadership, respectively. Results show that these effects are not significantly different from each other.

Interpretation of Results

Previous research shows that there is a positive relationship between transformational leadership and job satisfaction (Almohtaseb et al., 2020; Braun et al., 2013; Medina & Macías, 2018; Rathi et al., 2021; Siangchokyoo et al., 2020; Sinclair et al., 2021). Consequently, the current study supports previous findings by showing a positive, significant relationship as well. However, given the cross-sectional design of this study, no statement can be made about the direction of the relationship. Indeed, it may also be the case that people who experience higher job satisfaction are more likely to want to recognize transformational leadership behaviors in their supervisor. Own interpretations tend more toward the opposite relationship, namely that transformational leadership leads to greater job satisfaction. There are several studies that help shape this interpretation. Keller (2006) conducted a longitudinal study and found that transformational leadership is related to increased job performance. Furthermore, a longitudinal diary study by Tims et al. (2011) shows that daily transformational leadership is positively related to employee engagement. In addition, another longitudinal study shows that transformational leadership can elicit changes in perceived work characteristics (Nielsen et al., 2008). Furthermore, a longitudinal follow-up study, albeit in the nursing context, found an association between transformational leadership and job satisfaction (Munir et al., 2012). Future longitudinal research in a work context may be more conclusive about the direction of the relationship between transformational leadership and job satisfaction.

A positive relationship is also found between transactional leadership and job satisfaction. Likewise, the finding of this study is in line with previous leadership literature that states that there is a relationship between transactional leadership and job satisfaction (Rathi et

al., 2021). However, there are two ways to interpret this relationship, given the cross-sectional design of this study. One interpretation is that when leaders exhibit transactional leadership behaviors, followers have more job satisfaction as a result. On the other hand, people who are more satisfied with their job when working remotely may be more likely to recognize and report transactional leadership behaviors of their supervisor. Unlike transformational leadership (Keller, 2006; Munir et al., 2012; Nielsen et al., 2008; Tims et al., 2011), there is little to no research that approaches transactional leadership in a longitudinal manner. Thus, future longitudinal research will need to be more conclusive in this regard.

Next, the analyses show that job satisfaction is not more strongly influenced by either transformational or transactional leadership. This is contrary to previously cited literature that states that in a virtual team, transformational leadership contributes more than transactional leadership to employee satisfaction (see Literature Review and Hypothesis Development section; Ruggieri, 2009). One possible explanation is that the focus in this study is not on virtual teams but on individuals who work remotely. It is possible that both transformational and transactional leadership have unique contributions that make individual employees satisfied when they work remotely. This possible explanation can be substantiated from the literature. Research shows that, on the one hand, transformational leadership behaviors contribute primarily to job satisfaction through the ability to transform goals and address intrinsic employee needs (Erkutlu, 2008). On the other hand, empirical findings show that, specifically in a remote work context, transactional leadership behaviors make an incremental contribution alongside transformational leadership behaviors because this type of leadership ensures that employees' motivation is extra supported so that they are able to do a better job and express greater work commitment (Rathi et al., 2021).

Previous research shows that there is a positive relationship between intrinsic motivation and job satisfaction (Deci et al., 2017; Gheitani et al., 2019). Current study can confirm these findings as results show a positive significant correlation between both variables. Consequently, remote workers who report higher levels of intrinsic motivation also report higher levels of job satisfaction. For these individuals, there is a high degree of need satisfaction of the three basic needs (i.e., autonomy, belongingness, competence) as need satisfaction is a determinant of intrinsic motivation (van den Broeck et al., 2016). The results of current study can be interpreted based on previous literature that states that a remote work context facilitates the satisfaction of basic needs (Dryselius & Pettersson, 2021). Especially the need for autonomy and the need for competence are addressed when people work from home (Mo & Davis, 2021).

Based on the beta coefficients, the effect of intrinsic motivation on job satisfaction is expected to be stronger than the effect of transformational and transactional leadership. This would mean that job satisfaction is more strongly influenced by one's intrinsic motivation than leadership style. By checking the corresponding estimated 95% confidence intervals of each variable, it is concluded that these effects are not significantly different from each other. Thus, in this study, a person's job satisfaction is not significantly more influenced by intrinsic motivation than by leadership style. The interpretation emerging from these results is that both motivation and leadership style are important determinants of the job satisfaction of remote workers. It is possible that each moderator variable contains unique elements that ensure that job satisfaction of remote workers is maintained or even enhanced. As cited earlier, transformational leaders have the ability to transform goals and address intrinsic motives of remote workers (Erkutlu, 2008). In addition, transactional leaders engage employees to put in extra effort to get the job done and provide increased work commitment (Rathi et al., 2021). Finally, within a remote work context, the need for autonomy and competence is additionally addressed, which drives intrinsic motivation, which in turn is related to job satisfaction (Dryselius & Pettersson, 2021; Mo & Davis, 2021). Future research can look into the explaining mechanisms behind these three determinants and why they show a positive relationship with job satisfaction.

Contrary to expectations, no curvilinear relationship is found between remote work intensity and job satisfaction and also, no significant interaction effects are found for the three moderator variables (i.e., transformational leadership, transactional leadership, intrinsic motivation). There are several possible explanations why no significant effect is found between remote work intensity and job satisfaction as well as no significant interaction effect for the three interaction terms. A first possible explanation is the operationalization of remote work intensity. It is measured using a single item asking participants how many days per week they work remotely. Answer options are: 1 = 1 day per week, 2 = 2 to 3 days per week, and 3 = 4 to 5 days per week. Ideally, participants should have been given five response options ranging from 1 day a week to 5 days a week or, similar to the study of Tims et al. (2011), an item that surveys the average number of hours per week an employee works remotely. Thus, the operationalization used is suboptimal, which may be a possible explanation for the non-significant main effect given restriction in variance. A second possible explanation for not finding a significant effect between remote work intensity and job satisfaction is the fact that online questionnaires are subject to self-selection, meaning that individuals select themselves to participate in the study. As a result, there may be self-selection bias, which implies that the principles of probability sampling are not met (Bethlehem, 2010; Greenacre, 2016; Heckman, 2010). More specifically, it is possible that

people who are generally satisfied with their job and positive about working from home are more likely to fill out questionnaires related to these topics. As a result, certain segments of important data may be missed in this sample. A third possible explanation for why no curvilinear relationship or interaction effects are found in this study is the limited sample size. As a result, some effects may not have been reflected in this study because a limited sample size lowers statistical power.

Theoretical Implications

Previous research has already focused on the relationship between the degree of remote work and job satisfaction and more specifically found a curvilinear relationship between the two variables in the shape of an inverted U (Allen et al., 2015; Beckel & Fisher, 2022; Golden & Veiga, 2005; Qiu & Dauth, 2022; Zöllner & Sulíková, 2021). This master thesis attempts to go a step further by not only attempting to replicate previous research but also by examining possible moderators in this relationship (i.e., transformational leadership, transactional leadership, intrinsic motivation). Since the study was conducted from the perspective that participants work remotely, current study contributes to literature by exploring various antecedents that may influence job satisfaction when working remotely. The results do not provide evidence for the generalizability of the relationship between remote work intensity and job satisfaction as no significant main effect and interaction effects were found. In this regard, this study nuances previous findings that state that introducing more remote work would be associated with more job satisfaction.

This study does add theoretical value due to the significant relationships between the moderator variables and job satisfaction. First, positive significant relationships are found between the two researched leadership styles (i.e., transformational and transactional leadership style) and job satisfaction. Leadership style in this study is approached from the full range leadership model (Antonakis, 2001), a model that has been used in the literature for decades and especially in a traditional work context where employees physically come to the office. Later on, this leadership model is also applied within a broader context, given the rapidly changing society and the fact that we are in a digital era where remote work has become the new normal. This study contributes to this type of literature by showing that the full range leadership model is not only applicable in traditional work contexts but is certainly more widely applicable as it also yields significant associations with important work outcomes in a remote work context. Future research can determine if this is also the case for laissez-faire leadership, as this form of leadership is not included in the scope of this study. Second, intrinsic motivation in this study is

based on a theory of motivation that has been studied for decades, namely the self-determination theory (Deci & Ryan, 2008). The self-determination theory has already been applied in quite a few settings and contexts, for example in an educational setting (Standage et al., 2005) or health context (Ng et al., 2012) but also in the field of clinical psychology (Vansteenkiste et al., 2006) and work psychology (Deci et al., 2017). In fact, within the field of work psychology, research has already been conducted on the impact of COVID-19 and what links exist between motivation and performance. Specifically, a study by Camilleri (2021) shows a high significant relationship between intrinsic motivation and job performance of employees who worked remotely as a result of the pandemic. Current study contributes to literature by looking beyond performance but also looking at employee well-being. By finding a significant effect between intrinsic motivation and job satisfaction, this study demonstrates that self-determination is also a valuable theory in this context. Future research can also look at the relationship between job satisfaction and other forms of motivation, such as extrinsic motivation.

Strengths, Limitations and Suggestions for Future Research

This study includes some strengths. A first strength is that this study also considers the motivational aspect within a remote work context by including intrinsic motivation as a moderator variable. As far as my own knowledge goes, this has not been done before in other studies examining or reviewing the relationship between the extent of remote work and job satisfaction (Allen et al., 2015; Golden & Veiga, 2005). Although no interaction effect was found between intrinsic motivation and the degree of remote work, a positive significant main effect was found between intrinsic motivation and job satisfaction. Future research can explore the "why" of intrinsic motivation: why are people intrinsically motivated, specifically in a remote work context.

A second strength is that this study examines whether the effects of transformational and transactional leadership are significantly different from each other. Many studies compare point estimates simply by comparing the beta coefficients with each other. However, this study looked at the 95% confidence intervals of the standardized beta coefficients. Indeed, according to Cumming (2009), two point estimates are significantly different from each other ($p < .05$) when the corresponding 95% confidence intervals do not overlap by more than 50%. Results show that the effects of transformational and transactional leadership on job satisfaction do not differ significantly from each other. Specifically, this could mean that it is interesting to focus on developing both transformational and transactional leadership behaviors in executives, for example through training, which is further explained in the Practical Implications section.

A third strength is in line with the previous one. Based on the observed beta coefficients, it could be concluded that job satisfaction is more strongly influenced by intrinsic motivation than by leadership style. However, additional analyses have shown that these effects are not significantly different from each other. This avoids possible false implications (e.g., that intrinsic motivation would be more important in a remote work context than leadership style).

As far as my own knowledge goes, previous studies on the impact of extent of remote work have mainly focused on one specific sector. Therefore, a fourth strength in this study is that the data is collected from different companies working in different sectors. Consequently, the findings can be applied to a wide range of work contexts.

A final strength is that this study examined which control variables have an impact on the outcome variable job satisfaction. Indeed, previous research has made little or no effort to explain how control variables relate to the research variables (Bernerth & Aguinis, 2016). To address this shortcoming, this study uses two arguments. First, a one-way ANOVA is conducted to examine whether job satisfaction differs significantly for different levels of the control variables (i.e., age, gender and marital status). Results show that there is a significant difference in job satisfaction for different levels of marital status. More precisely, there is a significant difference in average job satisfaction for cohabitants with children versus cohabitants without children, indicating that job satisfaction is higher on average for cohabitants without children. A possible explanation for this finding is that job satisfaction is lower among remote workers with children, since interruptions are more frequent when there are children at home. Research supports this interpretation by stating that remote workers are more likely to face family-related interruptions, while office workers are more confronted with work-related interruptions (Leroy et al., 2021). Second, evidence has been found for an association between marital status and job satisfaction (Kemunto et al., 2018; Mwamwenda, 1997; Saner & Eyüpoğlu, 2013). These two arguments are taken into account to include marital status as a control variable. However, it was omitted in the final analyses due to non-significance and the parsimony principle.

When interpreting the results, it is important to take into account some limitations of this study. A first limitation is the limited sample size in this study (N = 122). Originally, the questionnaire is completed by 136 participants. However, due to not agreeing to the informed consent, not correctly completing the control item, and not fully completing the questionnaire, the final sample consists of 122 participants. In a cross-sectional study, a large sample size is preferable, as a limited sample results in lower statistical power. As a result, some statistical

effects may not have been manifested in current study. Future research with a sufficiently large sample size is recommended to potentially detect statistical effects not found in this study.

A second limitation is that no conclusion can be made about the causality of the relationships found, given the cross-sectional design of the study. In the future, a longitudinal follow-up study may address this shortcoming.

A third limitation is the possibility of social desirability since employees had to fill out statements about their supervisor. To partially overcome this issue, complete anonymity is guaranteed at the beginning of the questionnaire. According to Podsakoff et al. (2003), this is a way to reduce the possible effects of social desirability.

Fourth, there are limitations in the way transactional and transformational leadership is measured. On the one hand, the internal consistency for transactional leadership is rather poor ($\alpha = .67$). In fact, a lower threshold of .70 is used in science to ensure sufficient reliability (Bland & Altman, 1997). One possible explanation for the undesirably low internal consistency is the small number of items used to measure transactional leadership. This explanation is only an assumption and does not provide a definitive explanation. On the other hand, both transformational and transactional leadership were approached too one-sidedly by only surveying employees. Future research can address this by not only surveying employees but also the supervisor and employees of the same department (Antonakis, 2001).

A fifth and final limitation concerns the fact that other, potential control variables not measured could have affected findings. It is possible that there are other variables that may affect the research variables that are not taken into account as control variables in this study.

Practical Implications

The practical implications of this study are the result of the significant positive effects between the moderator variables (i.e., transformational leadership, transactional leadership, intrinsic motivation) and job satisfaction. However, it is important to note that because of the limited sample size, one must be careful not to overestimate the practical implications suggested in this study. Previous research has already shown that transformational and transactional leadership have positive effects on the job satisfaction of employees (Almohtaseb et al., 2020; Braun et al., 2013; Medina & Macías, 2018; Rathi et al., 2021; Siangchokyoo et al., 2020; Sinclair et al., 2021). Likewise, current study shows that these leadership styles are significant variables and positively influence job satisfaction in a remote work context. These findings are a good basis for HR departments to invest in training programs that further develop these leadership styles. On the one hand, a transformational training program can focus on skills such

as learning to develop and convey a vision, intellectually stimulating employees, and showing individual consideration (Abrell et al., 2011). In addition, a field experiment shows that such leadership training can influence employees' perceptions regarding the transformational leadership behavior of the supervisor. Moreover, a significant effect is found between the training and organizational commitment of subordinates (Barling et al., 1996). On the other hand, a transactional training program can focus on effectively administering contingent financial or verbal rewards, as the effectiveness of these rewards has been previously demonstrated (Andersen & Pallesen, 2008; Bellé, 2015). A recent field experiment demonstrated the effectiveness of these kinds of leadership trainings in different types of organizations (Jacobsen et al., 2021).

A second practical implication of these research results is that employees can be made conscious about the impact that intrinsic motivation can have on job satisfaction. Here, leaders can stimulate the need satisfaction of autonomy, belongingness and competence, which are related to intrinsic motivation (van den Broeck et al., 2009). When leaders support employees' basic needs, it turns out that employees are more engaged, show more organizational commitment, and also report higher motivation quality (Rigby & Ryan, 2018). Within a remote work context, the need for belongingness is compromised because there is a reduction in face-to-face interaction and the interpersonal bonds are weakened (Allen et al., 2015; Golden, 2006a). In addition, a qualitative study of Dryselius and Pettersson (2021) shows that employees who work remotely report increased social isolation, which thwarts the need for belongingness. To address this, leaders can hold daily online catch-up meetings to maintain the feeling of belongingness and to ensure that communication remains streamlined, despite the geographical separation. At the organizational level, it can be ensured that the right software tools are provided to safeguard connectedness when working remotely. Tools such as Slack or Microsoft Teams can ensure that employees are able to communicate with each other in a timely manner to maximize collaboration in a virtual environment (Chong et al., 2020). The need for competence can also be stimulated in a remote work context by ensuring that employees are provided with the tools necessary to complete a task. For example, online webinars can be a way to teach people the right skills (Dryselius & Pettersson, 2021). The employer can provide these tools, but of course it is up to the individual to eventually apply them.

Lastly, at the organizational level and more specifically for the HR departments, it is important to install a healthy telework culture that takes into account employee well-being. To illustrate with an example, by understanding the antecedents that affect job satisfaction in a

telework context, vision workshops can be held involving various stakeholders in order to collaboratively develop a remote work policy (Volders, n.d.).

Conclusion

This master's thesis has sought to answer the question: "Does the extent of remote work affect the job satisfaction of remote workers and is this relationship influenced by leadership style or intrinsic motivation of workers?" To this end, a quantitative cross-sectional study was conducted of employees who recently made the transition to remote work, as a result of the COVID-19 pandemic. The results showed that there is no curvilinear relationship between remote work intensity and job satisfaction. However, significant and positive relationships were found between the three moderator variables (i.e., transformational leadership, transactional leadership, intrinsic motivation) and job satisfaction. Furthermore, no significant interaction effects were found for the three interaction terms. An additional analysis was conducted to test whether the main effect of transformational leadership was significantly different from the main effect of transactional leadership. These results showed that there is no significant difference between the two main effects of leadership style on job satisfaction. Finally, this study showed that job satisfaction is not more strongly influenced by intrinsic motivation than by leadership style. Follow-up research with a broader and larger sample and a more accurate operationalization to measure the extent of remote work is recommended to detect some effects that were not manifested in this study.

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Appendix A

Informed Consent

Informed consent:

Ik verklaar dat ik:
(1) de uitleg over de aard van de vragen en de taken die tijdens dit onderzoek zullen worden aangeboden, heb gekregen en dat mij de mogelijkheid werd geboden om bijkomende informatie te verkrijgen;
(2) totaal uit vrije wil deelneem aan het wetenschappelijk onderzoek;
(3) de toestemming geef aan de onderzoekers om mijn resultaten op anonieme wijze te bewaren, te verwerken en te rapporteren;
(4) op de hoogte ben van de mogelijkheid om mijn deelname aan het onderzoek op ieder moment stop te zetten en dit zonder opgave van reden;
(5) weet dat niet deelnemen of mijn deelname aan het onderzoek stopzetten op geen enkele manier negatieve gevolgen heeft voor mij
(6) weet dat ik op aanvraag een samenvatting van de onderzoeksbevindingen kan krijgen nadat de studie is afgerond en de resultaten bekend zijn;
(7) geef toestemming dat mijn data gebruikt worden voor verder analyse door andere onderzoekers na volledige anonimisering;
(8) weet dat UGent de verantwoordelijke eenheid is m.b.t. persoonsgegevens verzameld tijdens het onderzoek. Ik weet dat de data protection officer me meer informatie kan verschaffen over de bescherming van mijn persoonlijke informatie. Contact:

Indien u vragen heeft, kan u mij altijd contacteren via

- ○ Ik heb bovenstaande gelezen en ga akkoord met deelname
- ○ Ik heb bovenstaande gelezen en ga niet akkoord met deelname. De bevraging stopt voor mij hier.

Appendix B

Moderated Hierarchical Regression Analysis Including Marital Status as a Control Variable

Table B1

Results of Moderated Regression Analysis with Transformational Leadership as Moderator Variable

Variable	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	UL				
Step 1						.05	.05
Constant	2.65***	2.56	2.73	0.04			
Cohabiting without children	0.13	-0.02	0.28	0.08	.16		
Living alone	-0.04	-0.19	0.12	0.08	-.05		
Living alone with children	0.15	-0.15	0.46	0.15	.09		
Other type of household	-0.19	-0.50	0.12	0.15	-.11		
Step 2						.21	.16***
Constant	2.65***	2.59	2.74	0.04			
Cohabiting without children	0.08	-0.06	0.21	0.07	.09		
Living alone	-0.06	-0.21	0.08	0.07	-.08		
Living alone with children	0.13	-0.16	0.41	0.14	.07		
Other type of household	-0.25	-0.53	0.03	0.14	-.15		
Remote work intensity	-0.01	-0.09	0.08	0.04	-.01		
Transformational leadership	0.21***	0.13	0.30	0.04	.41***		
Step 3						.21	.00
Constant	2.67***	2.58	2.74	0.04			
Cohabiting without children	0.08	-0.06	0.22	0.07	.10		
Living alone	-0.06	-0.21	0.08	0.07	-.08		
Living alone with children	0.13	-0.16	0.41	0.14	.07		
Other type of household	-0.25	-0.53	0.04	0.14	-.15		
Remote work intensity	-0.01	-0.10	0.08	0.04	-.01		
Transformational leadership	0.21***	0.13	0.30	0.04	.41***		
RWI x TRANSF L.	0.01	-0.12	0.13	0.06	.01		

Note. In Step 1, marital status was added as a control variable using 4 dummy variables with *cohabiting with children* as a reference category. CI = confidence interval; LL = lower limit; UL = upper limit; RWI = remote work intensity; TRANSF L. = transformational leadership.

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

Table B2

Results of Moderated Regression Analysis with Transactional Leadership as Moderator Variable

Variable	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	UL				
Step 1						.06	.06
Constant	2.65***	2.56	2.73	0.04			
Cohabiting without children	0.13	-0.02	0.28	0.08	.16		
Living alone	-0.04	-0.19	0.12	0.08	-.05		
Living alone with children	0.15	-0.15	0.46	0.15	.09		
Other type of household	-0.19	-0.50	0.12	0.15	-.11		
Step 2						.19	.13***
Constant	2.66***	2.58	2.74	0.04			
Cohabiting without children	0.05	-0.10	0.19	0.07	.06		
Living alone	-0.02	-0.17	0.13	0.07	-.02		
Living alone with children	0.13	-0.16	0.41	0.15	.07		
Other type of household	-0.25	-0.54	0.03	0.15	-.15		
Remote work intensity	-0.02	-0.11	0.07	0.05	-.05		
Transactional leadership	0.20***	0.11	0.29	0.05	.38***		
Step 3						.19	.00
Constant	2.67***	2.58	2.74	0.04			
Cohabiting without children	0.04	-0.10	0.19	0.07	.06		
Living alone	-0.02	-0.17	0.13	0.07	-.03		
Living alone with children	0.12	-0.18	0.41	0.15	.07		
Other type of household	-0.26	-0.55	0.03	0.15	-.16		
Remote work intensity	-0.02	-0.11	0.07	0.05	-.04		
Transactional leadership	0.20***	0.11	0.30	0.05	.38***		
RWI x TRANSAC L.	0.04	-0.09	0.16	0.06	.05		

Note. In Step 1, marital status was added as a control variable using 4 dummy variables with *cohabiting with children* as a reference category. CI = confidence interval; LL = lower limit; UL = upper limit; RWI = remote work intensity; TRANSAC L. = transactional leadership.

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

Table B3

Results of Moderated Regression Analysis with Intrinsic Motivation as Moderator Variable

Variable	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	UL				
Step 1						.06	.06
Constant	2.65***	2.56	2.73	0.04			
Cohabiting without children	0.13	-0.02	0.28	0.08	.16		
Living alone	-0.04	-0.19	0.12	0.08	-.05		
Living alone with children	0.15	-0.15	0.46	0.15	.09		
Other type of household	-0.19	-0.50	0.12	0.15	-.11		
Step 2						.41	.36***
Constant	2.66***	2.59	2.73	0.04			
Cohabiting without children	0.08	-0.04	0.20	0.06	.11		
Living alone	-0.04	-0.16	0.09	0.06	-.05		
Living alone with children	0.06	-0.19	0.30	0.12	.03		
Other type of household	-0.13	-0.37	0.12	0.12	-.08		
Remote work intensity	-0.01	-0.08	0.07	0.04	-.01		
Intrinsic motivation	0.18***	0.13	0.22	0.02	.60***		
Step 3						.41	.00
Constant	2.66	2.59	2.73	0.04			
Cohabiting without children	0.08	-0.04	0.20	0.06	.11		
Living alone	-0.04	-0.17	0.08	0.06	-.05		
Living alone with children	0.06	-0.18	0.31	0.12	.04		
Other type of household	-0.13	-0.38	0.11	0.12	-.09		
Remote work intensity	0.00	-0.08	0.08	0.04	.00		
Intrinsic motivation	0.18***	0.14	0.22	0.02	.61***		
RWI x INTRINS M.	-0.03	-0.10	0.04	0.03	-.06		

Note. In Step 1, marital status was added as a control variable using 4 dummy variables with *cohabiting with children* as a reference category. CI = confidence interval; LL = lower limit; UL = upper limit; RWI = remote work intensity; INTRINS M. = intrinsic motivation.

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