



Universiteit Utrecht

Does Gender or Gender Role Characteristics Play a Role in Defining the Association between
Supervisors' Autonomy Support and Employees' Work Motivation?

Colette van den Berg, 5612713

First Assessor: Barbara Flunger
Second Assessor: Despoina Georgiou

07-06-2021

Master Thesis
Educational Sciences
Utrecht University
Word count: 7882

Abstract

Male and female gender or gender role characteristics may influence the way in which supervisors behave towards employees. Supervisors' autonomy support has been identified as an influential antecedent for employees work outcomes, such as work motivation and job satisfaction. The present study examines whether supervisors' autonomy support influences intrinsic and extrinsic types of motivation and job satisfaction. Additionally, the study investigated if supervisors' gender or gender role characteristics moderate this relation. Expected was a positive relation between supervisors' autonomy support and employees' intrinsic work motivation and job satisfaction. Additionally, it was expected that female supervisors' or supervisors with female gender role characteristics, can reinforce this relation. On the other hand, it was expected that male supervisors' or supervisors with male gender role characteristics, can weaken this relation. A sample of 183 employees provided measures of perceived supervisors' autonomy support, work motivation and job satisfaction. Results revealed that supervisors' autonomy support can increase employees' intrinsic motivation, job satisfaction and decrease amotivation, independent of supervisors' gender. Suggesting, gender or gender characteristics did not moderate the relationship between supervisors' autonomy support and employees' work motivation. The results emphasize the influence of supervisors' autonomy support on employees work outcomes.

Keywords: Supervisors' autonomy support, work motivation, job satisfaction, supervisors' gender, gender role characteristics

Introduction

The ongoing #MeToo movement, has created awareness regarding men's abuse of power (e.g., in their role as supervisors), often leading to unsafe work environments (Kovach, 2020). This abuse has affected women's motivation and positive work outcomes within organizations. The movement has empowered them to stand up for their rights (Kovach, 2020).

Within organizations, *supervisors* have positions of power and make decision for employees. Several studies have confirmed that *gender* or *gender role characteristics* can influence how supervisors behave towards employees (Campione, 2014; Eagly & Johnson, 1990). In other words, the way in which men and women supervise may be different. In the current study, gender refers to the sex difference between male and female (World Health Organization, 2021). Gender role characteristics can be defined as the way in which individuals, male and female, learn how to converse in different social contexts and it produces gender-stereotypic behaviour (Campione, 2014; Eagly & Johnson, 1990). Much consideration has been given to the influence of gender on supervisors' behaviour leading to differences in supervising style (Eagly & Johnson, 1990).

Numerous studies confirmed the possible impact of *autonomy support* provided by supervisors on employees and their work outcomes (Gagné et al., 2003; Nie et al., 2015; Parfynova, 2009). Supervisors' autonomy support is defined as the extent to which supervisors give employees choice and encouragement for taking initiative and support peoples competencies (Gagné et al., 2003; Nie et al., 2015). Ways in which a supervisor can create an autonomy supportive environment is by acknowledging their subordinates' perspective, providing relevant information, acting non-controlling, offering choices, and encouraging self-initiation (Gagné & Deci, 2005; Gillet et al., 2013).

Several studies have found that supervisors' autonomy support influences employees' work outcomes such as, *motivation* and *job satisfaction* (Gillet et al., 2010; Nie et al., 2015). There are many different conceptualizations of individuals' motivations which indicate that it is a complex concept to define. In the current study, motivation refers to an individual being moved to engage in a certain behaviour (Ryan & Deci, 2000). Multiple studies have shown that when employees' have a low work motivation it can be detrimental for the organization's outcomes (Nie et al., 2015; Parfyonova, 2009), as there is a positive relation between employees' work motivation and their performance (Springer, 2011; Steers et al., 2004; Gagné & Deci, 2005). In line with motivation, when an employee has a high job satisfaction, it may have a positive influence on employees' well-being and work results (Nie et al., 2015). Job satisfaction can be defined as an attitude an individual has towards their job, which can be either favourable or unfavourable (Chang et al., 2015).

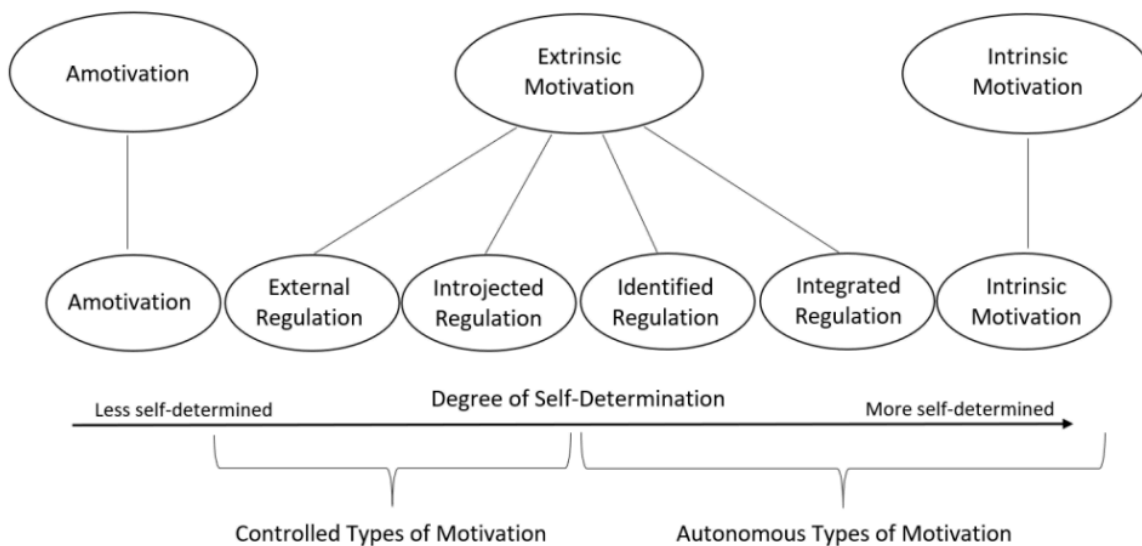
The way in which employees perceive their supervisors (highly autonomy-supportive or not autonomy-supportive) might be affected by their perceptions and prior experiences, e.g., related to gender and gender role characteristics (Campione, 2014). However, prior results are contradictory, some studies found that supervisors' gender influences employees work outcomes (Lewis & Fagenson-Eland, 1998) and other studies have not found this result (Campione, 2015). Given that studies have found that supervisors can be the crucial link between potential employee motivation and the ultimate organizational results (Gagné & Deci, 2005), the role their gender and behaviour plays within organizations must be further examined.

Employees' Work Motivation

The Self-Determination Theory by Ryan & Deci (2000) provides a broad framework that can be used to distinguish different types of motivation regulation that influence behaviour.

Figure 1 shows the six types of regulations that lay on a continuum from controlled motivation to autonomous motivation (Gagné & Deci, 2005; Howard et al., 2020).

Figure 1.
Motivation in Self-Determination Theory Continuum



Note. Taken from Howard et al. (2020).

Firstly, *intrinsic motivation* which is the most autonomous type of motivation (Howard et al., 2020), refers to the motivation that an individual perceives as interesting or enjoyable to pursue a certain task or behaviour (Cerasoli & Ford, 2014; Gagné & Deci, 2005). Ryan & Deci (2000) revealed that this type of motivation is a critical element in cognitive, social and physical development, due to an individual's personal interest obtaining knowledge and skills.

Secondly, *extrinsic motivation* refers to the motivation that is initiated by desirable outcomes such as rewards, this is on the controlled side of the motivation continuum (Ryan & Deci, 2000; Ryan & Deci, 2020; Gagné & Deci, 2005). In contrast to intrinsic motivation, extrinsic motivation is often defined as "the desire to perform an activity with the intention to attain positive consequences such as an incentive or to avoid negative consequences such as a punishment" (Kuvaas et al., 2017, p. 245). Within extrinsic motivation, a subdivision of four

types are made; *external regulation, introjection, identification and integration*. These four types of external motivation differ in the level of self-determination (Ryan & Deci, 2000; Ryan & Deci, 2020; Gagné & Deci, 2005). First, integrated regulation is the most internalized type of extrinsic motivation (Howard et al., 2020), in which the individual values behaviour congruent to core interests and values (Ryan & Deci, 2000). Secondly, identified regulation states that someone identifies with the value of behaviour and thus experiences a high willingness to act. Thirdly, introjected regulation can be defined as behaviour which is regulated by internal rewards of self-esteem for success and avoidance of anxiety, shame or guilt (Ryan & Deci, 2020). Finally, external regulation is the least internalized form of extrinsic regulation (Howard et al., 2020). It can be defined by behaviour driven by external rewards and punishments.

Additionally, individuals can be *amotivated*, which can be defined as no intention to engage in certain behaviour. It arises when the individual does not feel competent or when the individual does not believe the behaviour will lead to a desired outcome (Ryan & Deci, 2000).

The types of motivation all have different work outcomes. For example, studies found that extrinsic motivation may increase negative outcomes such as, continuance commitment, turnover intention and burnouts (Kuvaas et al., 2017). Additionally, amotivation may be related to a lower job satisfaction, lower job commitment and higher chance of getting a burnout (Howard et al., 2016). Hence, it can be important to minimize extrinsic motivation and amotivation. In contrast, studies have found that intrinsic motivation may have a positive influence on work outcomes such as effective performance, positive work-related attitudes, job satisfaction and well-being (Gagné & Deci, 2005) and should therefore be supported.

Employees' job satisfaction

Another important job outcome, besides employees work motivation is job satisfaction. Employees' job satisfaction refers to attitudes and feelings towards an individual's job, it is important that these attitudes and feelings are favourable (Chang et al., 2015). Dissatisfaction with jobs can occur for multiple reasons; poor pay and benefits, lack of career advancement opportunities, lack of sense of accomplishment and lack of decision-making. Low levels of job satisfaction may be problematic, as it increases the likelihood that employees engage in counterproductive behaviour and will contribute less to the organizational goals (Grissom et al., 2012).

Supervisors' autonomy support

It seems that most supervisors want employees to become autonomous and self-initiating, to successfully execute tasks (Kuvaas et al., 2017; Slemp et al., 2015; Stone et al., 2009). For that reason, by using autonomy-supportive strategies supervisors can improve positive work attitudes, increase levels of trust and satisfaction among employees (Nie et al., 2015; Slemp et al., 2018).

A study among newly employed sports analysts found that "an environmental context that supports autonomy will naturally foster movement towards growth, development, and high quality functioning" (Kanat-Maymon & Reizer, 2017, p. 480). In addition, Gilet et al. (2010) studied the influence of coaches' autonomy support different types of motivation of athletes. Their results showed that supervisors' autonomy support was positively associated with intrinsic motivation and identified regulation. The other types of motivation regulation were not influenced.

In the job satisfaction literature, Chang et al. (2015) studied the relation between school principals' perceived autonomy support from supervisors and job satisfaction. Their results indicated that the school principals had a higher job satisfaction, if they perceived more

autonomy support. Hence, subordinates should perceive a sense of encouragement, understanding and decision-making support (Chang et al., 2015).

Additionally, a study by Nie et al. (2015) examined the relationship between perceived organizational autonomy support and well-being mediated by different types of work motivation, among 266 teachers. The findings of this study indicate that perceived autonomy support predicts a higher job satisfaction, less work-related stress and illness among employees all through the mediating roles of intrinsic motivation and three types of extrinsic motivation (e.g., external regulation, introjection and identification). The study showed the beneficial role of autonomy support in promoting internalised forms of motivation (intrinsic, identified regulation and introjected regulation), and in turn had a positive influence on job satisfaction (Nie et al., 2015).

Gender Role Characteristics. A study by Lewis and Fagenson-Eland (1998) examined self-perception of men's and women's leadership abilities and compared them to perceptions made by their immediate supervisors. They found that women were assigned gender role characteristics such as being emotional, kind and nurturing and to be more considerate towards others more often compared to men (Bem, 1981; Lewis & Fagenson-Eland, 1998). Masculine gender role characteristics are traditionally perceived as being more aggressive, higher in self-confidence and lower in emotionality (Bem, 1981; Lewis & Fagenson-Eland, 1998). Hence, the results showed that male supervisors initiated structure more often than female supervisors (Lewis & Fagenson-Eland, 1998).

Gender Differences. Besides the gender role characteristics, multiple studies have investigated the interaction between supervisors' gender and supervising style. A meta-analysis among 370 studies on gender differences in managing styles by Eagly and Johnson (1990, p. 233) found that female supervisors tend to "adopt a more *democratic or participative style* and a

less *autocratic or directive style*” in comparison to male supervisors. A democratic and participative style refers to supervisors behaving democratically and allowing employees to participate in making decisions. An autocratic or directive style refers to supervisors discouraging employees from participating in decision-making (Eagly & Johnson, 1990). Scepticism towards female supervisors’ capabilities may have led to a difference in supervising behaviour. Female supervisors’ may have a democratic and participative style more often, affording subordinates more input in decision making leading to greater acceptance and gaining more self-confidence of female supervisor (Eagly & Johnson, 1990). Men tend to be less constrained by these organizational stereotypes, and may therefore lead in an autocratic style (Eagly & Johnson, 1990).

Gender and Gender Role Characteristics on Job Satisfaction and Motivation

Multiple studies investigated if demographic characteristics of an employees’ immediate supervisor, such as gender, influenced employees job satisfaction (Campione, 2014; Teven, 2007). These studies reported initially, that supervisors’ gender may not directly influence job satisfaction. By contrast, a study on gender differences in perceptions of supervisory mentoring behaviour and job satisfaction, found that female employees perceived male supervisors provided less mentoring and in turn, had lower job satisfaction as compared to male employees (Goh, 1991). Based on the previous discussion on differences between male and female supervising styles, it can be argued that research shows the influence of supervisors’ gender on job satisfaction has found contradicting results (Campione, 2014; Teven, 2007; Goh, 1991).

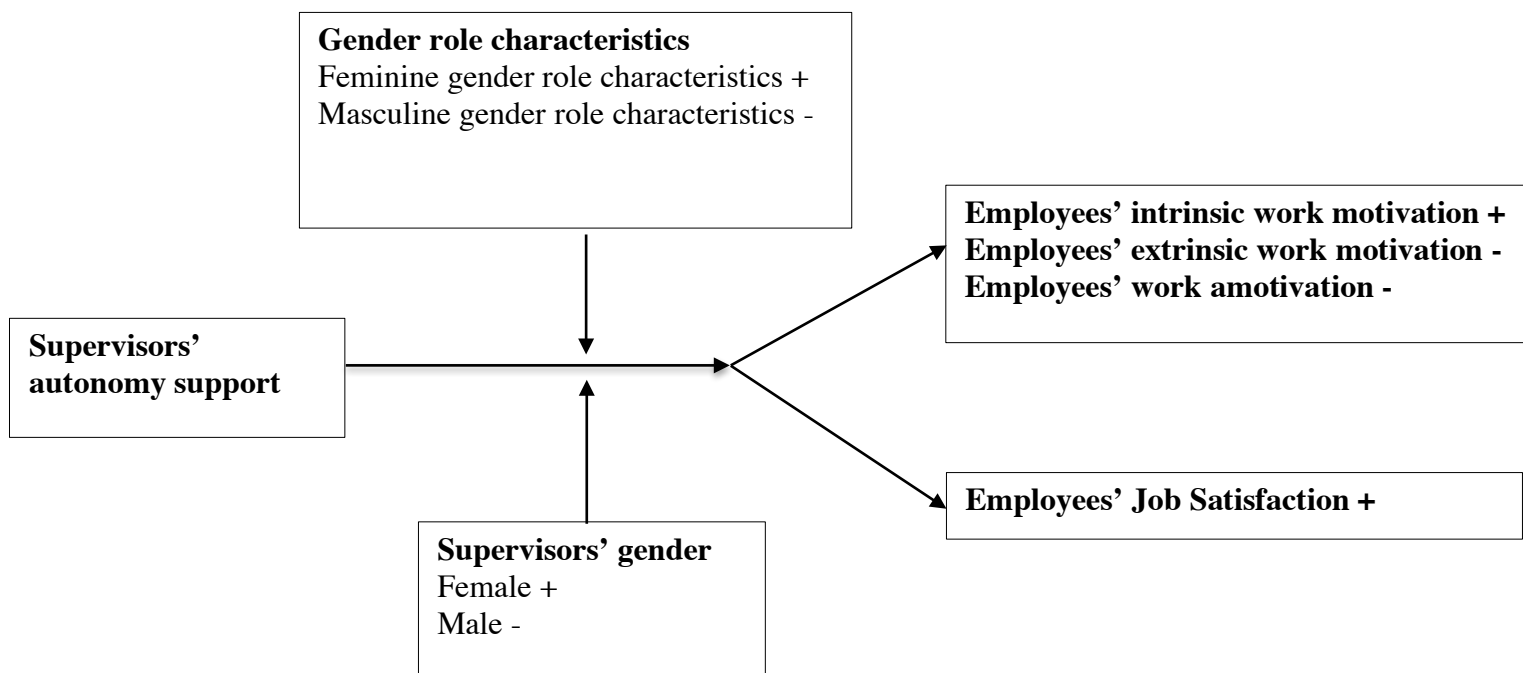
Gender and Gender Role Characteristics as Moderators

While literature on supervisors’ gender and its interaction with autonomy support might not have clear predictions on the effect on employee motivation and job satisfaction, the

literature has probed mechanisms that might explain why male and female supervisors differ in their perceived autonomy support. Female supervisors may engage more in autonomy supportive behaviours because they are more likely to have a participative or democratic supervisor style. Similarities are encouraging employees to make decisions, providing support and sharing opinions. In contrast, men may initiate structure more than female supervisors, incongruent to autonomy support (Lewis & Fagenson-Eland, 1998). Hence, men may be less likely to invite employees to share their opinions and make decisions, as they tend to have an autocratic supervising style. By looking at gender and gender role characteristics, possible explanations may be found for how employees perceive their supervisors' autonomy support and how this influences their work motivation and job satisfaction. The possible interaction-effect is shown schematically in Figure 1.

Figure 1

Conceptual Model of Supervisors' Autonomy Support on Employees' Work Motivation and Job Satisfaction Moderated by Supervisors' Gender and Gender role characteristics.



Present study

This study examines how supervisors' autonomy support affects employees' work motivation and job satisfaction, and whether the impact of supervisors' autonomy support on their employees' work motivation and job satisfaction depends on supervisors' gender or gender role characteristics. Little research has been done on this specific relationship. Thus, this study aims to contribute to this scientific knowledge base.

The following research questions will be addressed, first, *how does supervisors' autonomy support affect the work motivation and job satisfaction of their employees?* Expected is that employees' perception of supervisors' autonomy support solely reinforces their intrinsic work motivation (Hypothesis 1). In addition, it is expected that job satisfaction is also reinforced by supervisors' autonomy support (Hypothesis 2). The second research question is; *does gender or the gender role characteristics, ascribed to men or women, moderate the associations between autonomy support and employees' work motivation?* It is expected that female supervisors' or supervisors with female gender role characteristics, can reinforce supervisors' autonomy support and in turn influence employees' work motivation (Hypothesis 3). Additionally, male supervisors' or supervisors with male gender role characteristics, can weaken the relationship between perceived supervisors' autonomy support and employees' work motivation (Hypothesis 4). The third, and final, research question is; *does gender or the gender role characteristics, ascribed to men or women, moderate the associations between autonomy support and job satisfaction?* In line with the expectations on employees work motivation, it was expected that female supervisors' or supervisors with female gender role characteristics, can reinforce supervisors' autonomy support and in turn positively influence employees' job satisfaction (Hypothesis 5). Additionally, male supervisors' or supervisors with male gender role

characteristics, may weaken the relationship between perceived supervisors' autonomy support and employees' and job satisfaction (Hypothesis 6).

Method

Research design

A quantitative research design was used to examine the described constructs and their relations, by using an online questionnaire. The data of this cross-sectional research were collected between February and April in The Netherlands.

Participants

A power analysis showed that a sample size of 74 was sufficient to show a small effect (power = .80; effect size = .15) with a multiple regression analysis. With five predictors (e.g., perceived supervisors' autonomy support, male supervisors, female supervisors, masculine gender role characteristics and feminine gender role characteristics) it would be possible to answer the three research questions with this sample. A total of 185 respondents completed the questionnaire. Fifteen participants only filled in demographic information, and twenty other participants did not fill in the questionnaire completely. Therefore, these participants were excluded. The sample size that filled in the questionnaire completely ranged from 143-148. The mean age of participants was 33.2 ($SD= 14.4$; range 18-73). A total of 137 respondents were female (67.8%) and 48 were male (23.8%). Their supervisors were 85 females (52%) and 79 males (48%). Most participants were Dutch (84.7%), the others were Surinam (1%) or of another nationality (4.5%). Also, most participants achieved University Education (57.4%; 0.5% pre-vocational secondary education, 3% senior general secondary education, 3% pre-university education, 4.5% secondary vocational education and 23.3% higher professional education)

Procedure and ethical aspects

Using Limesurvey, an online questionnaire was created that took approximately ten minutes to complete. The questionnaires language was in Dutch. Participants were recruited by using the snowball sampling method, to reach a larger and diverse sample (Neuman, 2014). Participants were recruited via multiple Social Media platforms (e.g., WhatsApp, Facebook, LinkedIn). Potential participants were asked if they were interested in filling out the questionnaire. Only participants ages 18 and higher could participate in this study, this was done to increase the likelihood of selecting participants who are in the workforce. All participants were informed with an informed consent stating the aim of the study, the confidentiality and the right to withdraw (Appendix A). When participants agreed to participate, they were asked to provide demographic information (e.g., their own gender, age and nationality). After completing this section, the questions on the measures were asked. All participants' information was made anonymous by giving the participants a random number.

Measures

The questionnaire consisted of the instruments measuring supervisors' autonomy support, employees work' motivation, gender role characteristics, job satisfaction. The total questionnaire consisted of 56 items (Appendix D). The questionnaire consisted of items from multiple existing scales, that had to be altered or translated. Therefore, a factor analysis was performed per measure, to assess the underlying dimensionality (Field, 2014, p. 666). Before the statistical analysis was executed, the reliability per scale was measured. A reliability analysis measures if a measure consistently reflects the construct that it is measuring (Field, 2014, p. 706). A Cronbach's alpha value of .7 to .8 is an acceptable value.

Employees' work motivation. Fifteen items assessed employee motivation (Table 1). The Motivation at Work Scale (Gagné et al., 2010) was used to measure participants' work

motivation. This scale only measured intrinsic and the three sub-constructs of extrinsic motivation. The original scale only measured three types of extrinsic motivation and not four. This was done because integration has been found difficult to psychometrically distinguish from identification (Gagné et al., 2010). In addition, three items were added from the Revised-Motivation at Work Scale (Gagné et al., 2012) to measure amotivation. Participants were asked to rate these items on a 5-point Likert scale, ranging from “completely disagree” (1) to “completely agree” (5). For all fifteen items an EFA with a Direct Oblimin rotation identified five different factors with an eigenvalue higher than 1. In total, these factors accounted for around 76% of the variance. Intrinsic motivation (four items, $\alpha = .85$, e.g. “*Because I enjoy this work very much*”), extrinsic identified regulation (two items, $\alpha = .81$, e.g. “*I chose this job because it allows me to reach my life goals*”), extrinsic introjected regulation (three items, $\alpha = .82$, e.g. “*Because my work is my life and I don’t want to fail*”), extrinsic external regulation (three items, $\alpha = .64$, e.g. “*Because it allows me to make a lot of money*”), and amotivation (three items, $\alpha = .90$, e.g. “*I do little because I don’t think this work is worth putting efforts into*”).

Table 1.
Direct Oblimin Rotated Factor Structure of the Fifteen-Items Employees’ Work Motivation Questionnaire

	Factor 1 ^a	Factor 2 ^b	Factor 3 ^c	Factor 4 ^d	Factor 5 ^e
Because I enjoy this work very much	.881				
Because I have fun doing my job	.852				
For the moments of pleasure that this job brings me	.827				
Because this job fits my personal values	.658				.335
Because my work is my life and I don’t want to fail		.887			
Because my reputation depends on it		.835			

Because I have to be the best in my job, I have to be a “winner”	.774				
Because it allows me to make a lot of money		.864			
I do this job for the paycheck		.702			-.326
Because this job affords me a certain standard of living	.301	.633			
I do little because I don’t think this work is worth putting efforts into				.936	
I don’t know why I’m doing this job, it’s pointless work.				.910	
I don't, because I really feel that I'm wasting my time at work				.879	
I chose this job because it allows me to reach my life goals					.883
Because this job fulfills my career plans					.860
Percentage of Variance:	28.40	23.73	9.53	7.74	6.68

Note. ^a= “Intrinsic motivation”; ^b= “Extrinsic identified motivation”; ^c= “Extrinsic introjected motivation”; ^d= “Extrinsic external motivation”; ^e= “Amotivation”.

Job satisfaction. To measure participants’ job satisfaction, eleven items from the The Generic Job Satisfaction Scale (Macdonald & MacIntyre, 1997) were used. An example of a statement is: “I feel good about my work”. Participants were asked to rate these items on a 5-point Likert scale, ranging from “completely disagree” (1) to “completely agree” (5). For participants Job Satisfaction, an EFA analysis indicated that the 11 items loaded on two factors, explaining 53% of variance. Item 10 (“On the whole, I believe work is good for my physical health”) was deleted as its communality was below .30 (.234). Cronbach’s alpha for the then 10-item Job Satisfaction questionnaire was .84. Although this can be considered adequate for research purposes, a closer examination of the questionnaire item-total statistics indicated that alpha would increase to .86 if item 11 was removed. This item asked whether participants found that their “wages are good”, after analysing the content it did not measure job satisfaction, but

satisfaction of salary. Consequently, this item was removed from the questionnaire and all subsequent analyses are based on participants' responses to the remaining nine items (Table 2).

Table 2.

Direct Oblimin Rotated Factor Structure of the Eleven-Items Job Satisfaction Questionnaire

	Factor 1 ^a	Factor 2 ^b
I am satisfied with my work	.795	
I get along with my supervisors	.684	-.329
All my talents and skills are used	.685	
I feel good about my work	.800	
I receive recognition for a job well done	.529	-.487
I feel good about working at this company	.771	
I feel close to the people at my work	.575	
I feel secure about my job	.675	
I believe management is concerned about me	.691	
On the whole, I believe work is good for my physical health	.475	
My wages are good		.838
Percentage of Variance:	41.97%	10.67%

Supervisors' Autonomy Support. To measure the extent to which employees perceived supervisors' autonomy support, twelve items from the Perceived Autonomy Support Scale for Exercise Settings (Hagger et al., 2007) were used and altered to the work context. An example of an altered statement is: "My PE teacher encourages me to do active sports and/or vigorous exercise in my free time" to "My supervisor encourages me to work in my free time".

Participants were asked to rate these items on a 5-point Likert scale, ranging from "completely disagree" (1) to "completely agree" (5). To investigate the underlying structure of a twelve-item questionnaire assessing supervisors' autonomy support, an explorative factor analysis (EFA) with direct Oblimin rotation was performed. This rotation assumes factors are correlated (Allen, et al., 2014, p. 219). One factor (with eigenvalue exceeding 1) was identified as underlying the twelve items, and the expected dimensionality could be confirmed (Table 3). In total, this factor accounted for around 57% of the variance in the questionnaire data. Cronbach's alpha for the

twelve-item Supervisors' Autonomy Support questionnaire was .93. This is an ideal Cronbach's alpha and can be considered adequate for research purposes.

Table 3.

Direct Oblimin Rotated Factor Structure of the Twelve-Item Supervisors' Autonomy Support Questionnaire

	Supervisors' Autonomy Support
I trust my supervisors' advice about my work	.836
I am able to talk to my supervisor about work	.810
My supervisor displays confidence in my ability to work	.781
I feel I am able to share my experiences of work with my supervisor	.780
My supervisor provides me with positive feedback when I work	.778
My supervisor listens to me about my work tasks	.765
I think that my supervisor understands why I choose to do certain work	.761
I feel that my supervisor provides me with choices, options, and opportunities for work	.749
My supervisor cares about the work I do	.738
My supervisor answers my questions about work	.719
My supervisor encourages me to do certain work tasks	.697
My supervisor makes sure I understand why I need to do work	.661

Supervisors' Gender. Supervisor's gender was measured as a dichotomous variable in which female supervisors were the reference category ('Female' = 0, 'Male' = 1).

Supervisors' Masculine and Feminine characteristics. Ten items assessed supervisors gender role characteristics. A shortened version of The Bem Sex-Role Inventory scale (Bem, 1981), was used to measure masculine or feminine gender role perceptions. The original scale measured twenty masculine characteristics, twenty feminine characteristics and twenty neutral characteristics. Although this scale has received critique, it is still one of the most used scales to measure gender characteristics (Davis, 2017). The current study was designed to assess perceived masculine and feminine characteristics from supervisors, therefore no neutral (e.g., "Helpful", "Truthful") characteristics were used. Considering the duration of the questionnaire,

five masculine items (e.g., “Assertive”, “Dominant”) and five feminine items (e.g., “Affectionate”, “Compassionate”) were selected from the original scale. Participants selected the respective characteristics with “Yes” (1) or “No” (0) if the stated characteristic could be attributed to their supervisor. A sum score was calculated of masculine and feminine gender characteristics (both ranging from 0-5).

Data analysis

Data analysis was conducted using SPSS statistics 27. Possible outliers and inconsistent answering were examined prior to the analyses, all conditions needed were met. A significance level of $p = <.05$ was used to test whether the relations are significant. To address the first research question, a multiple regression analysis was conducted to test the influence of the independent variable (supervisors’ autonomy support) on the dependent variables (employees’ work motivation and job satisfaction). To answer the second and third research question a moderation was tested by including interaction terms in the regression analysis (supervisors’ autonomy support*supervisors’ gender and supervisors’ autonomy support*supervisors gender role characteristics (Masculine & Feminine)). The moderating variable (supervisors’ gender) was made a dummy variable and was coded as 0 = “female” and 1 = “male”.

Results

Descriptive Statistics

In table 4, the means, standard deviations, number of items and Cronbach’s alpha per scale are shown. Overall, employees perceive a lot of autonomy support of their supervisors ($M = 3.91$) and are satisfied with their jobs ($M = 3.92$). It can be inferred that participants intrinsic work motivation’s mean is higher than the other types of motivation.

Table 4.
Overview of measures and descriptive statistics

Scales	<i>n</i>	Mean	SD	<i>n</i> items	Alpha
Supervisors' autonomy support	159	3.91	.66	12	.93
Job satisfaction	170	3.92	.60	9	.86
Supervisors' masculine gender characteristics	147	1.62	.89	5	n.a.
Supervisors' feminine gender characteristics	148	1.54	.99	5	n.a.
Employees' work motivation					
Intrinsic motivation	147	3.91	.75	4	.85
Extrinsic identified motivation	147	3.46	1.08	2	.81
Extrinsic introjected motivation	147	2.37	.94	3	.82
Extrinsic external motivation	147	2.91	.86	3	.64
Amotivation	147	1.45	.66	3	.90

Subsequently, Pearson correlations between all constructed scales were examined and are displayed in Table 5. When looking at the table it shows that supervisors' autonomy support has a statistically significant correlation with intrinsic motivation, amotivation and job satisfaction ($p < .001$).

Table 5.
Inter-correlations of all variables.

	1	2	3	4	5	6	7	8	9	10
1. Masculine characteristics	-									
2. Feminine characteristics	.22**	-								
3. Job satisfaction	.06	.38**	-							
4. Supervisors' gender	-.07	-.05	-.15	-						
5. Autonomy support	.10	.55**	.71**	-.12	-					
6. Intrinsic motivation	-.08	.15	.66**	-.14	.35**	-				
7. Extrinsic – identified- motivation	.03	.13	.26**	.07	.13	.40**	-			
8. Extrinsic – introjected- motivation	.03	.03	.05	.18*	.00	.18*	.39**	-		
9. Extrinsic – external- motivation	-.01	-.04	.01	.05	.12	-.10	.06	.30**	-	
10. Amotivation	.03	-.08	-.39**	.19*	-.21*	-.40**	-.13	.25**	.25**	-

Note. ** Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed). Supervisors' gender "Female" = 0, "Male" = 1

Research question 1

The first research question focuses on the possible association between supervisors' autonomy support and employees' work motivation and job satisfaction. The hypothesis expected that employees' perception of supervisors' autonomy support solely reinforces their intrinsic work motivation and job satisfaction. Prior to interpreting the results, several assumptions were evaluated. The regression coefficients (β) and standard errors (SE) have been reported in table 7 and 8.

Employees' work motivation. To estimate the proportion of variance in employees' work motivation that can be accounted to perceived supervisors' autonomy support ($M = 3.90$, $SD = .67$, $n=149$), a standard multiple regression analysis was performed. Two statistically significant effects were found for intrinsic motivation and amotivation. First, a multiple regression analysis was performed for intrinsic work motivation. As expected, supervisors' autonomy support accounted for a significant 12% of variability in employees' intrinsic work motivation ($\beta = .35$, $p < .001$). Additionally, the results of the multiple regression analysis for amotivation showed that supervisors' autonomy support accounted for a significant 4.3% of variability in employees' a-motivation ($\beta = -.21$, $p = .011$). This means that supervisors' autonomy support has a negative influence on amotivation. Stating that more autonomy support from supervisors leads to a decrease in employees amotivation.

By contrast, supervisors' autonomy support is not a significant predictor of the three types of employees' extrinsic work motivation. Firstly, supervisors' autonomy support accounted for a non-significant 1.7% of variability in employees' extrinsic identified work motivation ($\beta = .13$, $p = .108$). Secondly, no variability of extrinsic introjected work motivation ($\beta = .02$, $p = .980$) can be accounted to supervisors' autonomy. Thirdly, Supervisors' autonomy support

accounted for a non-significant 1.4% of variability in employees' extrinsic external work motivation ($\beta = .12, p = .158$).

Table 6.

Multiple Regression Analysis Predicting Employees' Work Motivation (N=147)

Variable	Outcome variables									
	Intrinsic motivation		Extrinsic identified motivation		Extrinsic introjected motivation		Extrinsic external motivation		Amotivation	
	β	SE	β	SE	β	SE	β	SE	β	SE
Supervisors' autonomy support	.35**	.09	.13	.13	.00	.12	.12	.11	-.21*	.08
R2	.12		.02		.00		.01		.04	
F for change in R2	20.00		2.61		.00		2.02		6.68	

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

Employees' job satisfaction. To estimate the proportion of variance in employees' job satisfaction that can be accounted to perceived supervisors' autonomy support, a standard multiple regression analysis was performed. A statistically significant result was found for the relationship between supervisors' autonomy support and employees' job satisfaction ($\beta = .71, p < .001$). Supervisors' autonomy support accounted for a significant 50% of the variability in employees' job satisfaction.

Table 7.

Multiple Regression Analysis Predicting Employees' Job Satisfaction (N=159)

	Job satisfaction	
	β	SE
Supervisors' autonomy support	.71**	.05
R2	.50	
F for change in R2	155.34	

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

Research question 2

Regarding the second research question, it was tested whether supervisors' gender or masculine or feminine gender characteristics act as moderators in the association between supervisors' autonomy support and employees' work motivation. First, the variables associated with supervisors' autonomy support and gender (characteristics) were centered. This is done by calculating the mean value of these variables. Subsequently, a moderator analysis was performed using an interaction in a multiple regression analysis. It was expected that female supervisors' or supervisors with female gender role characteristics, can reinforce supervisors' autonomy support and in turn influence employees' work motivation positively. Additionally, it was expected that male supervisors' or supervisors with male gender role characteristics, can weaken the relationship between perceived supervisors' autonomy support and employees' work motivation. All interactions were not significant. In other words, the interactions between gender or gender characteristics and supervisors' autonomy support did not influence employees' different types of work motivation significantly. The regression coefficients (β) and standard errors (SE) have been reported in tables 8 and 9.

Intrinsic motivation. The overall model was significant in explaining supervisors' gender on intrinsic motivation, $R^2 = .14$, adjusted $R^2 = .12$, $F(3, 145) = 7.79$, $p < .001$. However, as already known, only the influence of supervisors' autonomy support was a significant predictor, $t(145) = 2.30$, $p = .023$. The influence of supervisors' gender and the interaction between supervisor' autonomy support and supervisors' gender cannot account for variance in intrinsic motivation. Supervisors' gender is a non-significant predictor, $t(145) = -1.07$, $p = .287$ and the interaction is a non-significant predictor, $t(145) = 1.39$, $p = .167$.

The overall model was also significant of supervisors' masculine gender characteristics on intrinsic motivation, $R^2 = .14$, adjusted $R^2 = .12$, $F(3, 143) = 7.58$, $p = <.001$. However, only supervisors' autonomy support was a significant predictor, $t(143) = 4.48$, $p = <.001$. The influence of supervisors' masculine gender characteristics and the interaction between supervisor' autonomy support and supervisors' masculine gender characteristics does not account for variance in intrinsic motivation. Supervisors' masculine gender characteristics is a non-significant predictor, $t(143) = -1.20$, $p = .233$ and the interaction is a non-significant predictor, $t(143) = .92$, $p = .362$.

The overall model of supervisors' feminine gender characteristics on intrinsic motivation was also significant, $R^2 = .13$, adjusted $R^2 = .11$, $F(3, 144) = 6.87$, $p = <.001$. However, just like the previous analysis only supervisors' autonomy support was a significant predictor, $t(144) = 4.06$, $p = <.001$. The influence of supervisors' feminine gender characteristics and the interaction between supervisor' autonomy support and supervisors' feminine gender characteristics cannot account for no variance in intrinsic motivation. Therefore, supervisors' feminine gender characteristics is a non-significant predictor, $t(144) = -.77$, $p = .440$ and the interaction is a non-significant predictor as well, $t(144) = .74$, $p = .460$.

Extrinsic identified motivation. For extrinsic identified motivation, there were no significant results. First, there was no significant effect of gender $R^2 = .03$, adjusted $R^2 = .01$, $F(3, 145) = 1.49$, $p = .221$ on extrinsic identified motivation, nor an interaction effect with supervisors' autonomy support on extrinsic identified motivation ($p = .429$). In addition, there was no significant effect of supervisors' masculine gender characteristics, indicating that male gender characteristics and the interaction with autonomy support could not explain any more of the variance in extrinsic identified motivation than expected by chance, $R^2 = .03$, adjusted $R^2 =$

.01, $F(3, 143) = 1.28, p = .284$. Neither, supervisors' feminine gender characteristics had a significant effect. Indicating that female gender characteristics and the interaction with autonomy support could not explain any more of the variance in extrinsic identified motivation than expected by chance, $R^2 = .02$, adjusted $R^2 = .001$, $F(3, 144) = 1.07, p = .363$.

Extrinsic introjected motivation. Regarding extrinsic introjected motivation, the overall models showed non-significant results of the predictors. The ANOVA showed a non-significant influence of gender $R^2 = .04$, adjusted $R^2 = .02$, $F(3, 145) = 1.82, p = .147$. However, the coefficients table showed, a significant effect of supervisors' gender on extrinsic introjected motivation, $p = .025$. When looking at supervisors' masculine gender characteristics there was no significant effect, indicating that male gender characteristics and the interaction with autonomy support could not explain any of the variance in extrinsic introjected motivation than expected by chance, $R^2 = .02$, adjusted $R^2 = -.004$, $F(3, 143) = .82, p = .485$. The ANOVA is also non-significant for supervisors' feminine gender characteristics indicating that female gender characteristics and the interaction with autonomy support could not explain any more of the variance in extrinsic introjected motivation than expected by chance, $R^2 = .01$, adjusted $R^2 = -.02$, $F(3, 144) = .24, p = .871$.

Extrinsic external motivation. Supervisors' gender does not have a significant effect on extrinsic external motivation, $R^2 = .02$, adjusted $R^2 = -.002$, $F(3, 145) = .92, p = .436$. The ANOVA is non-significant for supervisors' masculine gender characteristics, indicating that male gender characteristics and the interaction with autonomy support could not explain any more of the variance in extrinsic external motivation than expected by chance, $R^2 = .02$, adjusted $R^2 = .004$, $F(3, 143) = 1.19, p = .316$. The ANOVA is also non-significant for supervisors' feminine gender characteristics indicating that female gender characteristics and the interaction

with autonomy support could not explain any more of the variance in extrinsic external motivation than expected by chance, $R^2 = .03$, adjusted $R^2 = .14$, $F(3, 144) = 1.70$, $p = .170$.

Amotivation. The overall model of supervisors' gender on amotivation is significant, $R^2 = .08$, adjusted $R^2 = .06$, $F(3, 145) = 4.37$, $p = .006$. Here, gender of the supervisor has a marginally significant effect on amotivation ($p = .052$). The interaction between supervisors' autonomy support and gender however is not significant ($p = .146$). In addition, the ANOVA is non-significant for supervisors' masculine gender characteristics, indicating that male gender characteristics and the interaction with autonomy support could not explain any more of the variance in amotivation than expected by chance, $R^2 = .05$, adjusted $R^2 = .03$, $F(3, 143) = 2.43$, $p = .067$. Also, the ANOVA is non-significant for supervisors' feminine gender characteristics indicating that female gender characteristics and the interaction with autonomy support could not explain any more of the variance in amotivation than expected by chance, $R^2 = .05$, adjusted $R^2 = .03$, $F(3, 144) = 2.44$, $p = .067$.

Table 8.

Summary of the Multiple Regression Analyses for the Predictor Variables Supervisors' Autonomy Support and Supervisors' Gender on the Outcome Variable of Employees' Work Motivation

Predictors variables	Outcome variables									
	Intrinsic motivation		Extrinsic Identified motivation		Extrinsic introjected motivation		Extrinsic external motivation		Amotivation	
	β	SE	β	SE	β	SE	β	SE	β	p
Supervisors' autonomy support	.24*	.12	.20	.18	-.02	.16	.14	.14	-.08	0.11
Supervisors' gender	-.08	.12	.09	.18	.19*	.16	.14	.14	.16*	.11
Supervisors' autonomy support*Supervisors' gender	.14	.18	-.09	.27	.07	.24	-.03	.22	-.16	.16

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

Note. Supervisors' gender "Female" = 0, "Male" = 1

Table 9.

Summary of the Multiple Regression Analyses for the Predictor Variables Supervisors' Autonomy Support and Supervisors' Masculine and Feminine Gender Characteristics on the Outcome Variable of Employees' Work Motivation

	Outcome variables									
	Intrinsic motivation		Extrinsic Identified motivation		Extrinsic introjected motivation		Extrinsic external motivation		Amotivation	
	β	<i>SE</i>	β	<i>SE</i>	β	<i>SE</i>	β	<i>SE</i>	β	<i>SE</i>
Predictors variables										
Supervisors' autonomy support	.35*	.09	.12	.13	.00	.12	.13	.11	-.22*	.08
Supervisors' masculine characteristics	-.10	.07	.04	.10	.00	.09	-.04	.08	.05	.06
Supervisors' autonomy support*Masculine characteristics	.07	.09	.10	.14	-.13	.12	-.10	.11	-.03	.08
Supervisors' autonomy support	.40**	.11	.09	.17	.01	.15	.17	.14	-.26*	.10
Supervisors' feminine characteristics	-.07	.07	.08	.11	.02	.10	-.13	.09	.06	.07
Supervisors' autonomy support*Feminine characteristics	.06	.09	.01	.14	.07	.13	-.08	.11	-.06	.09

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

Research question 3

To answer the third research question, it was tested whether supervisors' gender or masculine or feminine gender characteristics act as moderators in the association between supervisors' autonomy support and employees' job satisfaction. First, the variables associated with supervisors' autonomy support and gender (characteristics) were centered. Subsequently, a moderator analysis was performed using an interaction in a multiple regression analysis. It was expected that female supervisors' or supervisors with female gender role characteristics, can reinforce supervisors' autonomy support and in turn can positively influence employees' job

satisfaction. Additionally, it was expected that male supervisors' or supervisors with male gender role characteristics, can weaken the relationship between perceived supervisors' autonomy support and employees' job satisfaction. All interactions were not significant. In other words, the interactions between gender ($\beta = .09, p = .240$), masculine gender characteristics ($\beta = .09, p = .143$), feminine gender characteristics ($\beta = .02, p = .735$) and supervisors' autonomy support did not influence employees' different types of work motivation significantly. The regression coefficients (β) and standard errors (SE) have been reported in tables 10 and 11.

Table 10.

Summary of the Multiple Regression Analyses for the Predictor Variables Supervisors' Autonomy Support and Supervisors Gender on the Outcome Variable of Employees Job Satisfaction

	Job satisfaction	
	β	SE
Supervisors' autonomy support	.64**	.07
Supervisors' gender	-.07	.07
Supervisors' autonomy support*Supervisors' gender	.09	.10

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

Note. Supervisors' gender "Female" = 0, "Male" = 1

Table 11.

Summary of the Multiple Regression Analyses for the Predictor Variables Supervisors' Autonomy Support and Supervisors Feminine and Masculine Gender Characteristics on the Outcome Variable of Employees Job Satisfaction

	Job satisfaction	
	β	SE
Supervisors' autonomy support	.71**	.05
Masculine gender characteristics	.01	.04
Supervisors' autonomy support*Masculine gender characteristics	.09	.06
Supervisors' autonomy support	.73**	.07
Feminine gender characteristics	-.02	.04
Supervisors' autonomy support*Feminine gender characteristics	.02	.06

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

Discussion

The aim of the current study was to investigate if supervisors' autonomy support is an important predictor of employees' work motivation and job satisfaction, and that gender or gender characteristics moderate this relation. Furthermore, it was expected that female supervisors' or supervisors with female gender characteristics would increase autonomy support and in turn have a positive influence on work motivation and job satisfaction.

In order to test these assumptions, supervisors' autonomy support and gender or gender characteristics competed in predicting different aspects of employees work motivation and job satisfaction. To cover the different outcomes, multiple perspectives on employees work motivation and job satisfaction were studied. In line with the expectation of the first research question, autonomy support has a positive influence on intrinsic work motivation and job satisfaction. The results also showed a negative influence on amotivation. The second research question, included the moderating effect of gender or gender characteristics and supervisors' autonomy support on employees work motivation and job satisfaction. No moderation effect was found; however, gender influenced two types of employees' work motivation.

Research question 1: Supervisors' autonomy support on employees' work motivation and job satisfaction

First, the study focused on the influence of autonomy support on employees work motivation and job satisfaction. Employees' work motivation was divided into five types of motivation regulation. The current studies theoretical reasoning, found autonomy support encompasses the extent to which supervisors give employees choice and encouragement for initiative and support peoples competence (Gagné et al., 2003; Nie et al., 2015). Thus, the assumptions were that supervisors' autonomy support would solely increase employees intrinsic

work motivation (Hypothesis 1) and job satisfaction (Hypothesis 2). Regarding, the other types of motivation regulation, no effect was assumed. The first hypothesis is partly confirmed in the current study. The results show that among employees, supervisors' autonomy support indeed contributed to the prediction of intrinsic work motivation. However, supervisors' autonomy support may also decrease employees' amotivation. An explanation for this, may be that when employees' autonomy is supported by supervisors, they may want to work harder. Since, amotivation is a maladaptive form of motivation related to no intention to act in a certain behaviour (Ryan & Deci, 2000), it is not unusual that the effect of supervisors' autonomy support on employees amotivation is negative. Secondly, the second hypothesis expected that supervisors' autonomy support would increase employees' job satisfaction (Nie et al., 2015). Based on the findings of the present study, this hypothesis was confirmed. Supervisors' autonomy support was positively associated with employees' job satisfaction.

Research question 2 and 3: Gender and gender characteristics on motivation and job satisfaction

The interaction of supervisors' autonomy support and their gender or gender characteristics influencing work motivation and job satisfaction of employees was studied. It was suggested that a potential interaction effect between female supervisors' or supervisors with female gender role characteristics and supervisors' autonomy support, would have a positive influence on employees' work motivation (Hypothesis 3) and job satisfaction (Hypothesis 5). As female supervisors or supervisors with female gender characteristics more often adopt a democratic or participative style, which has most similarities to an autonomy supportive style, and a less autocratic or directive style than men (Eagly & Johnson, 1990). However, these hypotheses were rejected, as there was no overall significant effect of female supervisors or

supervisors with female characteristics on their autonomy support and in turn influencing employees' work motivation. Additionally, no support was found regarding the moderating role of male supervisors' or supervisors with male gender characteristics in weakening the relationship between perceived supervisors' autonomy support and employees' work motivation (Hypothesis 4) and job satisfaction (Hypothesis 6). An explanation for these unexpected findings may be that Eagly and Johnsons (1990) meta-analysis was held over thirty years ago. During the last three decades supervisors' development and gender equality has improved immensely, also due to campaigns such as #MeToo (Kovach, 2020). Therefore, the expected differences based on Eagly and Johnson (1990) between male and female supervisors may no longer be applicable to the current work context.

A side note must be added, as there were two significant results among the coefficients of supervisors' gender on extrinsic introjected motivation and amotivation, suggesting that employees with a male supervisor have a higher extrinsic introjected motivation and amotivation.

Limitations and Future Research

The current study has several limitations, that may influence the interpretation of the results. First, a point of debate in the current study is the number of supervisors an employee has. The current study researched how employees perceived their supervisors. However, some employees may have multiple supervisors. The questionnaire stated: 'If you have several managers, you choose the manager who is most important to you'. This may have had consequences for the way in which they answered the questions. Therefore, it would be interesting to conduct this study in the future with employees having both a female and male

supervisor. Then, participants' answers concerning male and female supervisors' autonomy support can be compared.

Secondly, an explanation for the difference between the hypotheses and the results may be the way in which gender role characteristics were measured. Participants stated if their supervisor had any of the 10 (five masculine and five feminine) gender role characteristics. However, the original scale consisted of 60 items measuring twenty feminine, twenty masculine and twenty neutral gender role characteristics. Therefore, it is likely that the scale was not representative enough measuring feminine or masculine gender role characteristics. Additionally, it was not possible to calculate a Cronbach's Alpha on a one-item measure (Gliem & Gliem, 2003), as it was a sum score. This measure may have influenced the outcomes. Future research could assess the complete scale, by measuring gender role characteristics to provide a more realistic view.

Finally, as there were two significant results among the coefficients of supervisors' gender on extrinsic introjected motivation and amotivation, suggesting that employees with a male supervisor have a higher extrinsic introjected motivation and amotivation. These two types of motivation can result in negative work outcomes and must be minimized. Further research on these specific types of motivation and male supervisors may shed light why this effect was found.

Relevance of the study

As the current study has multiple limitations, the relevance must be considered carefully. However, the current study suggests that supervisors' autonomy support is universally beneficial for intrinsic work motivation, job satisfaction and decreases amotivation, independent of supervisors' gender. The influence of supervisors on employees work outcomes should not be

underestimated. As intrinsic motivation and job satisfaction are desirable and related to organizations ultimate success (Nie et al., 2015; Parfyonova, 2009). Intrinsic motivation is a critical element in cognitive, social and physical development in knowledge and skills and amotivation is related to many negative work outcomes such as lower job satisfaction, job commitment and burnout (Howard et al., 2016). In addition, low levels of job satisfaction may be problematic as it increases the likelihood that employees engage in counterproductive behaviour and will contribute less to the organizational goals (Grissom et al., 2012). As supervisors' autonomy support is found to increase job satisfaction, negative consequences may be minimized.

To conclude, organisations should foster supervisors with autonomy supportive supervising styles. By integrating aspects of autonomy supportive behaviour, for example acknowledging subordinates' perspectives, offering choices and encouraging self-initiation, it may have a positive effect on work results and diminish negative results.

References

- Allen, P., Bennett, K., & Heritage, B. (2014). SPSS statistics version 22: A practical guide. Cengage Learning Australia.
- Bem, S. L. (1981). Bem sex role inventory. *Journal of personality and social psychology*.
<https://doi.org/10.1037/t00748-000>
- Campione, W. A. (2014). The Influence of Supervisor Race, Gender, Age, and Cohort on Millennials' Job Satisfaction. *Journal of Business Diversity*, 14(1).
http://www.na-businesspress.com/JBD/CampioneW_Web14-1.pdf
- Cerasoli, C. P., & Ford, M. T. (2014). Intrinsic motivation, performance, and the mediating role of mastery goal orientation: A test of self-determination theory. *The Journal of psychology*, 148(3), 267-286. <https://doi.org/10.1080/00223980.2013.783778>
- Davis, S. N. (2017). Bem Sex-Role Inventory. Encyclopedia Britannica.
<https://doi.org/10.4135/9781412964517.n40>
- Dodd-McCue, D., & Wright, G. B. (1996). Men, women, and attitudinal commitment: The effects of workplace experiences and socialization. *Human relations*, 49(8), 1065-1091.
<https://doi.org/10.1177/001872679604900803>
- Eagly, A. H., & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological bulletin*, 108(2), 233. <https://doi.org/10.1037/0033-2909.108.2.233>
- European Commission (z.d.) SME definition. Publications Office of the European Union, 2020.
doi:10.2873/255862. <https://doi.org/10.1093/hepl/9780198806530.003.0010>
- Field, A. (2013). Discovering statistics using IBM SPSS statistics. Sage.

Gagné, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and emotion*, 27(3), 199-223.

<https://doi.org/10.1023/a:1025007614869>

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational behavior*, 26(4), 331-362. <https://doi.org/10.1002/job.322>

Gagné, M., Forest, J., Gilbert, M. H., Aubé, C., Morin, E., & Malorni, A. (2010). The motivation at work scale: Validation evidence in two languages. *Educational and psychological measurement*, 70(4), 628-646. <https://doi.org/10.1177/0013164409355698>

Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., Van den Broeck, A., Aspel, A. K., & Wang, Z. (2012). Validation evidence in ten languages for the Revised Motivation at Work Scale. *Manuscript submitted for publication*. <https://doi.org/10.1037/t45942-000>

Gillet, N., Gagné, M., Sauvagère, S., & Fouquereau, E. (2013). The role of supervisor autonomy support, organizational support, and autonomous and controlled motivation in predicting employees' satisfaction and turnover intentions. *European Journal of Work and Organizational Psychology*, 22(4), 450-460.
<https://doi.org/10.1080/1359432x.2012.665228>

Gillet, N., Vallerand, R. J., Amoura, S., & Baldes, B. (2010). Influence of coaches' autonomy support on athletes' motivation and sport performance: A test of the hierarchical model of intrinsic and extrinsic motivation. *Psychology of sport and exercise*, 11(2), 155-161.
<https://doi.org/10.1016/j.psychsport.2009.10.004>

Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.

Goh, S. C. (1991). Sex differences in perceptions of interpersonal work style, career emphasis, supervisory mentoring behavior, and job satisfaction. *Sex Roles*, 24(11-12), 701-710.

<https://doi.org/10.1007/bf00288207>

Hagger, M. S., Chatzisarantis, N. L., Hein, V., Pihu, M., Soos, I., & Karsai, I. (2007). The perceived autonomy support scale for exercise settings (PASSES): Development, validity, and cross-cultural invariance in young people. *Psychology of Sport and Exercise*, 8(5), 632-653. <https://doi.org/10.1037/t00422-000>

Howard, J. L., Gagné, M., & Morin, A. J. (2020). Putting the pieces together: Reviewing the structural conceptualization of motivation within SDT. *Motivation and Emotion*, 44, 846-861. <https://doi.org/10.1007/s11031-020-09838-2>

Howard, J., Gagné, M., Morin, A. J., & Van den Broeck, A. (2016). Motivation profiles at work: A self-determination theory approach. *Journal of Vocational Behavior*, 95, 74-89.

<https://doi.org/10.1016/j.jvb.2016.07.004>

Kanat-Maymon, Y., & Reizer, A. (2017). Supervisors' autonomy support as a predictor of job performance trajectories. *Applied Psychology*, 66(3), 468-486.

<https://doi.org/10.1111/apps.12094>

Kovach, M. (2020). The impact of# MeToo: A review of leaders with supervisor power on employee motivation. *The Journal of Values-Based Leadership*, 13(1), 13.

<https://doi.org/10.22543/0733.131.1295>

Kuvaas, B., Buch, R., Weibel, A., Dysvik, A., & Nerstad, C. G. (2017). Do intrinsic and extrinsic motivation relate differently to employee outcomes?. *Journal of Economic Psychology*, 61, 244-258. <https://doi.org/10.1016/j.joep.2017.05.004>

- Lewis, A. E., & Fagenson-Eland, E. A. (1998). The influence of gender and organization level on perceptions of leadership behaviors: A self and supervisor comparison. *Sex Roles*, 39(5-6), 479-502. <https://doi.org/10.1023/a:1018831328037>
- Macdonald, S., & MacIntyre, P. (1997). The generic job satisfaction scale: Scale development and its correlates. *Employee Assistance Quarterly*, 13(2), 1-16. https://doi.org/10.1300/j022v13n02_01
- Neuman, W. (2014). *Social Research Methods Qualitative and Quantitative Approaches*. Pearson.
- Nie, Y., Chua, B. L., Yeung, A. S., Ryan, R. M., & Chan, W. Y. (2015). The importance of autonomy support and the mediating role of work motivation for well-being: Testing self-determination theory in a Chinese work organisation. *International Journal of Psychology*, 50(4), 245-255. <https://doi.org/10.1002/ijop.12110>
- Overall, N. C., Deane, K. L., & Peterson, E. R. (2011). Promoting doctoral students' research self-efficacy: Combining academic guidance with autonomy support. *Higher Education Research & Development*, 30(6), 791-805. <https://doi.org/10.1080/07294360.2010.535508>
- Parfyonova, N. M. (2009). *Employee motivation, performance and well-being: the role of Managerial support for autonomy, competence and relatedness needs* (Doctoral dissertation, School of Graduate and Postdoctoral Studies, University of Western Ontario). <https://doi.org/10.1037/e518422013-070>
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, 25(1), 54-67. <https://doi.org/10.1006/ceps.1999.1020>

- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Slemp, G. R., Kern, M. L., & Vella-Brodrick, D. A. (2015). Workplace well-being: The role of job crafting and autonomy support. *Psychology of Well-being*, 5(1), 7. <https://doi.org/10.1186/s13612-015-0034-y>
- Slemp, G. R., Kern, M. L., Patrick, K. J., & Ryan, R. M. (2018). Leader autonomy support in the workplace: A meta-analytic review. *Motivation and emotion*, 42(5), 706-724. <https://doi.org/10.1007/s11031-018-9698-y>
- Springer, G. J. (2011). A study of job motivation, satisfaction, and performance among bank employees. *Journal of Global Business Issues*, 5(1), 29.
- Steers, R. M., Mowday, R. T., & Shapiro, D. L. (2004). The future of work motivation theory. *Academy of Management review*, 29(3), 379-387. <https://doi.org/10.5465/amr.2004.13670978>
- Stone, D. N., Deci, E. L., & Ryan, R. M. (2009). Beyond talk: Creating autonomous motivation through self-determination theory. *Journal of General Management*, 34(3), 75-91. <https://doi.org/10.1177/030630700903400305>
- Teven, J. J. (2007). Effects of supervisor social influence, nonverbal immediacy, and biological sex on subordinates' perceptions of job satisfaction, liking, and supervisor credibility. *Communication Quarterly*, 55(2), 155-177. <https://doi.org/10.1080/01463370601036036>
- World Health Organization (WHO). (2021, may 27th). *Gender and health*. https://www.who.int/health-topics/gender#tab=tab_1

Appendix A

Informed consent

Dear Sir, Madam,

By means of this letter, we would like to invite you to participate in my Master thesis research project "Supervisors' Autonomy Support and Employees Work Motivation ".

The goal of this research

The purpose of this study is to get more insight in employees' work motivation and how this is influenced by their supervisors autonomy support. The research can offer new perspectives as well as knowledge on supervisor support in the workplace. This study requires us to collect some of your personal data. We need this data in order to be able to answer the research question properly.

Confidentiality of your data

This personal data will be stored on a different computer than the research data itself (the so-called raw data). The computer on which your personal details is stored is secured to the highest standards, and only researchers involved will have access to this data. The data itself will also be protected by a security code. Your data will be stored for at least 10 years. This is in accordance with the guidelines provided by the VSNU Association of Universities in the Netherlands. Please refer to the website of the Authority for Personal Data:

<https://autoriteitpersoonsgegevens.nl/nl/onderwerpen/avg-europese-privacywetgeving>, for more information about privacy.

Your right to withdraw from the study

Participation in this study is voluntary. You can end your participation in the study at any time, without any explanation and without any negative consequences. If you end your participation, we will use the data collected up to that point, unless you explicitly inform us otherwise. Then it is possible to remove your data. If you have any questions or comments about the study, please contact me: c.m.f.vandenberg@students.uu.nl. If you have an official complaint about the study, you can send an email to [??]

Eligibility

The first part of the questionnaire consists of multiple questions to determine if you are eligible for this research. If this is not the case, the survey will end.

By participating in this questionnaire, you confirm that you are 18 years of age or older and that you have consented to participate in this study. The duration of the survey is approximately ten minutes.

With kind regards,

Colette van den Berg

Appendix B

Timetable

<i>Week</i>	<i>What to do</i>
4 (25th of january - 31st of january)	Hand in final research plan
5 (1st of february - 7th of february)	Wait for result and feedback on final research plan
6 (8th of february - 14th of february)	Start making questionnaire & assignment 1
7 (15th of february - 21st of february)	Finalize questionnaire & hand in ethical procedure UU
8 (22nd of february - 28th of february)	Start collecting data
9 (1st of march - 7th of march)	Collecting data
10 (8th of march - 14th of march)	Collecting data & assignment 2
11 (15th of march - 21st of march)	Collecting Data
12 (22nd of march - 28th of march)	Analyze data
13 (29th of march - 4th of april)	Analyze data
14 (5th of april - 11th of april)	Result section & assignment 3
15 (12th of april - 18th of april)	Result section
16 (19th of april - 25th of april)	Result section
17 (26th of april - 2nd of may)	Discussion
18 (3rd of may - 9th of may)	Discussion
19 (10th of may - 16th of may)	Finalize draft version (complete thesis) & peer feedback & assignment 5
20 (17th of may - 23rd of may)	Deadline draft thesis
21 (24th of may - 30th of may)	Apply feedback and peer feedback
22 (31st of may - 6th of june)	Finalize thesis
23 (7th of june)	Deadline master thesis
24 (16th of june)	Master thesis conference

Appendix C

Assignment 4 – Academic integrity

All participants were informed that they would participate in a study about employee motivation and managerial autonomy support. Participants were excluded if the organization was a micro organization with less than 10 employees (European Commission, 2020). Several control variables were included, such as; gender, age, nationality and participants' supervisors gender. Using Limesurvey, an online questionnaire was created that took approximately ten minutes to fulfill. The questionnaire was in English. All respondents were aged 18 and higher this was done to increase the likelihood of selecting participants who are in the working force.

All participants were informed with the informed consent on the aim of the study, confidentiality and the right to withdraw (Appendix A). When participants agreed to participate, they were asked to provide information about the control variables (e.g., their own gender, age and nationality) and if their organization consisted of a minimum of 10 employees. After completing this section, questions on perceived supervisors' autonomy support, supervisors' gender, supervisors' gender role characteristics and their work motivation were measured. All participants' information was made anonymous by giving the respondents a random number.

This personal data will be stored on a different computer than the research data itself. The computer on which your personal details is stored is secured to the highest standards, and only the researcher and supervisors involved will have access to this data. This is in accordance with the guidelines provided by the VSNU Association of Universities in the Netherlands.

Participation in this study is voluntary. You can end your participation in the study at any time, without any explanation and without any negative consequences. If you end your

participation, we will use the data collected up to that point, unless you explicitly inform us otherwise. Then it is possible to remove your data.

The first part of the questionnaire consists of multiple questions to determine if the participants are eligible for this research. If this is not the case, the survey will end.

By participating in this questionnaire, participants confirm that they are 18 years of age or older and that have consented to participate in this study. The duration of the questionnaire is approximately ten minutes.

Appendix D. Questionnaire

Algemene items	
Item	Antwoordmogelijkheid
Met welk geslacht identificeert u zich?	Man/Vrouw/Anders
Wat is uw leeftijd?	[Open antwoord]
Wat is uw nationaliteit?	Nederland, etc. overige
Wat is uw hoogst genoten opleiding?	MAVO/VMBO HAVO VWO MBO HBO WO
In welke branche werkt u momenteel?	[Open antwoord]
Hoeveel jaar werkt u in de huidige organisatie?	<1 jaar 1-5 jaar 5-10 jaar 10-20 jaar > 20 jaar
Hoeveel medewerkers (ongeveer) telt de organisatie waar u werkzaam bent?	<10 10-50 50-100 100-250 >250

Werktevredenheid De volgende uitspraken hebben betrekking over hoe u uw werk ervaart. Kies voor de elke stelling het antwoord dat het beste uw eigen ervaringen weergeeft.		
Item vanuit bron	Bron	Vertaalde item
I am satisfied with my work	-	Ik ben tevreden met mijn werk
I get along with my supervisors	Macdonald & MacIntyre (1997)	Ik kan goed opschieten met mijn leidinggevende
All my talents and skills are used	Macdonald & MacIntyre (1997)	Al mijn talenten en vaardigheden worden gebruikt

I feel good about my work	Macdonald & MacIntyre (1997)	Over het algemeen ben tevreden over mijn werk
I receive recognition for a job well done	Macdonald & MacIntyre (1997)	Ik word door mijn supervisor vaak goed beoordeeld
I feel good about working at this company	Macdonald & MacIntyre (1997)	Ik vind het fijn om voor deze organisatie te werken
I feel close to the people at my work	Macdonald & MacIntyre (1997)	Ik voel mij verbonden met mijn collega's
I feel secure about my job	Macdonald & MacIntyre (1997)	Ik voel me zelfverzekerd over deze baan
I believe management is concerned about me	Macdonald & MacIntyre (1997)	Ik denk dat het management rekening met mij houdt
On the whole, I believe work is good for my physical health	Macdonald & MacIntyre (1997)	Over het algemeen denk ik dat deze baan goed is voor mijn fysieke gezondheid
My wages are good	Macdonald & MacIntyre (1997)	Mijn loon is goed

Uw leidinggevende

De volgende vragen hebben betrekking op hoe u uw leidinggevende ziet (een leidinggevende is een persoon die uw werk leidt en overziet). Mocht u meerdere leidinggevers hebben, dan kiest u voor de leidinggevende die voor u het belangrijkste is.

Wat is de sekse van uw leidinggevende?
Heeft uw leidinggevende dezelfde sekse als uzelf?
Wat is ongeveer de leeftijd van uw leidinggevende?
Is uw leidinggevende ouder of jonger dan uzelf?
Hoeveel jaar is deze persoon uw leidinggevende?

Autonomie ondersteuning door uw leidinggevende			
Kies voor elke stelling het antwoord dat het beste uw eigen ervaringen weergeeft.			
Item vanuit de bron	Bron	Aangepast naar werk	Vertaald item

I feel that PE teacher provides me with choices, options, and opportunities about whether to do active sports and/or vigorous exercise in my free time	Hagger et al. (2007)	I feel that my supervisor provides me with choices, options, and opportunities for work	Ik heb het gevoel dat mijn leidinggevende mij keuzes, opties en kansen op werk biedt
I think that my PE teacher understands why I choose to do active sports and/or vigorous exercise in my free time	Hagger et al. (2007)	I think that my supervisor understands why I choose to do certain work	Ik denk dat mijn leidinggevende begrijpt waarom ik bepaalde werkzaamheden verricht
My PE teacher displays confidence in my ability to do active sports and/or vigorous exercise in my free time	Hagger et al. (2007)	My supervisor displays confidence in my ability to work	Mijn leidinggevende geeft blijk van vertrouwen in mijn werkvermogen
My PE teacher encourages me to do active sports and/or vigorous exercise in my free time	Hagger et al. (2007)	My supervisor encourages me to do certain work tasks	Mijn leidinggevende moedigt mij aan om bepaalde werktaken te doen
My PE teacher listens to me about my active sports and/or vigorous exercise in my free time	Hagger et al. (2007)	My supervisor listens to me about my work tasks	Mijn leidinggevende luistert naar mij over mijn werktaken
My PE teacher provides me with positive feedback when I do active sports and/or vigorous exercise in my free time	Hagger et al. (2007)	My supervisor provides me with positive feedback when I work	Mijn leidinggevende geeft mij positieve feedback als ik werk
I am able to talk to my PE teacher about the active sports and/or vigorous exercise I do in my free time	Hagger et al. (2007)	I am able to talk to my supervisor about work	Ik kan met mijn leidinggevende over werk praten
My PE teacher makes sure I understand why I need to do active sports and/or vigorous exercise in my free time	Hagger et al. (2007)	My supervisor makes sure I understand why I need to do work	Mijn supervisor zorgt ervoor dat ik begrijp waarom ik werk moet doen

My PE teacher answers my questions about doing active sports and/or vigorous exercise in my free time	Hagger et al. (2007)	My supervisor answers my questions about work	Mijn leidinggevende beantwoordt mijn vragen over werk
My PE teacher cares about the active sports and/or vigorous exercise I do in my free time	Hagger et al. (2007)	My supervisor cares about the work I do	Mijn supervisor geeft om het werk dat ik doe
I feel I am able to share my experiences of active sports and/or vigorous exercise with my PE teacher	Hagger et al. (2007)	I feel I am able to share my experiences of work with my supervisor	Ik voel dat ik mijn werkervaringen met mijn leidinggevende kan delen
I trust my PE teacher's advice about the active sports and/or vigorous exercise I do in my free time	Hagger et al. (2007)	I trust my supervisors advice about my work	Ik vertrouw mijn leidinggevendens advies over mijn werk

Motivation Geef aan de hand van onderstaande schaal voor elk van de volgende uitspraken aan in welke mate deze op dit moment overeenkomen met de redenen om uw werk te verrichten.			
Deelconstruct	Item vanuit de bron	Bron	Vertaald item
Intrinsic motivation	Because I enjoy this work very much	Gagne et al., 2010	Omdat ik dit werk erg leuk vind
	Because I have fun doing my job	Gagne et al., 2010	Omdat ik plezier heb in mijn werk
	For the moments of pleasure that this job brings me	Gagne et al., 2010	Voor de momenten van plezier die deze baan mij brengt
Extrinsic motivation	I chose this job because it allows me to reach my life goals	Gagne et al., 2010	Ik koos voor deze baan omdat ik mijn levensdoelen hierdoor kan bereiken
	Because this job fulfills my career plans	Gagne et al., 2010	Omdat deze baan mijn carrièreplannen vervult

	Because this job fits my personal values	Gagne et al., 2010	Omdat deze baan past bij mijn persoonlijke waarden
	Because I have to be the best in my job, I have to be a “winner”	Gagne et al., 2010	Omdat ik de beste moet zijn in mijn werk, ik moet een "winnaar" zijn
	Because my work is my life and I don't want to fail	Gagne et al., 2010	Omdat mijn werk mijn leven is en ik niet wil falen
	Because my reputation depends on it	Gagne et al., 2010	Omdat mijn reputatie ervan afhangt
	Because this job affords me a certain standard of living	Gagne et al., 2010	Omdat deze baan mij een bepaalde levensstandaard oplevert
	Because it allows me to make a lot of money	Gagne et al., 2010	Omdat ik er veel geld mee kan verdienen
	I do this job for the paycheck	Gagne et al., 2010	Ik doe dit werk voor mijn salaris
Amotivation	I don't, because I really feel that I'm wasting my time at work	Gagne et al., 2012	Ik heb geen reden om te werken, omdat ik het gevoel heb dat ik mijn tijd aan het verspillen ben op werk
	I do little because I don't think this work is worth putting efforts into	Gagne et al., 2012	Ik doe weinig omdat ik niet denk dat dit werk de moeite waard is
	I don't know why I'm doing this job, it's pointless work.	Gagne et al., 2012	Ik weet niet waarom ik dit werk doe, het is zinloos werk.

Gender characteristics De volgende uitspraken gaan over kenmerken van uw leidinggevende. Geef aan hoe u uw leidinggevende ziet. Mijn leidinggevende is...			
Deelconstruct	Item vanuit de bron	Bron	Vertaalde item
Masculine characteristics	Acts as a leader	Bem, 1981	Treedt op als leider
	Aggressive	Bem, 1981	Agressief

	Ambitious	Bem, 1981	Ambitieu
	Assertive	Bem, 1981	Assertief
	Dominant	Bem, 1981	Dominant
Feminine characteristics	Affectionate	Bem, 1981	Aanhankelijk
	Cheerful	Bem, 1981	Vrolijk
	Compassionate	Bem, 1981	Medelevend
	Gentle	Bem, 1981	Teder
	Loyal	Bem, 1981	Loyaal

Traditional Gender Role Beliefs De volgende uitspraken gaan over uw perceptie op genderrollen. Geef aan hoe u over de volgende stellingen denkt.		
Item vanuit de bron	Bron	Vertaalde item
In general, men are more reliable on the job than women	Dicke et al., 2019	Over het algemeen zijn mannen betrouwbaarder op het werk dan vrouwen
It bothers me to see a man being told what to do by a woman.	Dicke et al., 2019	Het stoort me om te zien dat een man wordt verteld wat hij moet doen door een vrouw.
Men are naturally better than women at mechanical things.	Dicke et al., 2019	Mannen zijn van nature beter in het uitvoeren van mechanische en technische taken dan vrouwen
It is usually better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.	Dicke et al., 2019	Het is meestal beter voor alle betrokkenen als de man de presteerder buitenshuis is en de vrouw voor het huis en het gezin zorgt.