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# Questioning ‘feminine managerial behavior’ – a European study considering gender ideology

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**Abstract:** The concept of a ‘feminine managerial behavior’ which implies that women in managerial positions behave differently to men in similar positions by exhibiting a more supportive management style, is both widespread and controversial. To gain new insight into the debate, this study looks at the role national gender ideology plays in structuring the relationship between sex and perceived managerial support. Based on a representative sample of 22,391 employees from 26 European countries, our findings reveal that, on average, perceived managerial support is higher when supervisors are women. However, if we control for the moderating role of national gender ideology, this difference disappears. Therefore, this article contributes to the nature/nurture debate by showing that gender differences in perceived managerial support stem primarily from persistent gender stereotypes.

**Keywords:** Gender, perceived managerial behavior, European sample, quantitative methods

## Introduction

Gender equality is one of the United Nations' Sustainable Development Goals, and gender equality in the workplace and access to managerial positions are an important dimension of this field. The assumption of the existence of 'feminine management,' i.e., of female managers exhibiting different managerial behaviors from male managers, is both widespread and controversial (Peterson, 2015; Stewart & Wiener, 2021). Previous research has shown that women tend to adopt transformational and supportive leadership more often than men (Eagly et al., 2003; Peterson, 2015; Ye et al., 2016). This result supports the argument that, as managers, women bring unique contributions to organizational performance through their supportive managerial behavior, which leads to higher team efficiency (Hoobler et al., 2018). Gender role theory has been widely used to explain this gender difference: due to gender norms and socialization, women are encouraged to engage in more supportive and caring behaviors, and therefore to adopt a more supportive management style (Eagly et al., 2003). However, the idea that women managers are more supportive than men also fuels an essentialist discourse that naturalizes the differences between women and men (Pigeyre & Vernazobres, 2013).

Most of the studies dealing with managerial support do not measure it concretely, but only assess managerial support as it is perceived by subordinates. Yet, *perceived* managerial support can differ from *concrete* managerial support, according to the supervisor's sex<sup>1</sup>. Indeed, as gender role theory has shown, perceptions of 'feminine management' could be based on differences in social expectations of women and men (Pigeyre & Vernazobres, 2013; Saint-Michel & Wielhorski, 2011), with the same behavior eliciting different perceptions based on whether a woman or a man performs it. More precisely, women and men are not similarly

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<sup>1</sup> Throughout the article, the word 'sex' will be used to refer to the statistical variable indicating whether someone identifies as a woman or a man. The term 'gender' will be used mostly when referring to 'gender role theory,' which relates to the roles and behaviors expected from a woman and a man.

evaluated: for example, employees perceived female managers who self-described as communal to be more transformational than male managers (Saint-Michel, 2018). In addition, the subordinate's sex can also influence perceived managerial support. Particularly, it has been shown that supervisors and subordinates in same-sex dyads report better managerial relationships, with a more common understanding of their roles and expectations (Bender et al., 2017; Ghaus et al., 2018). Hence, sex (dis)similarity between supervisor and subordinate can shape perceived managerial support.

While gender role theory, in contrast to the essentialist discourse, highlights the importance of gender stereotypes in shaping perceived and actual individual behaviors, research on gender differences in managerial support has not paid much attention to national cultures and, in particular, to gender ideologies. Gender ideologies refer to perceptions of the appropriate behaviors for women and men (Dolan et al., 2011; Gaunt & Benjamin, 2007). Gender socialization during childhood shapes these perceptions (Grunow et al., 2018). They vary across countries and can influence sex differences in managerial behavior, as well as the expectations that employees can have of their managers. This, in turn, can impact the perceived managerial support depending on the supervisor's sex (Beblo & Görge, 2018; Ye et al., 2016). Finally, depending on the subordinate's sex, these perceptions can also shape subordinates' expectations of their supervisor (Ghaus et al., 2018).

Overall, the existing literature on perceived managerial support has not simultaneously taken national gender ideology, supervisor's sex, subordinate's sex, and sex (dis)similarity into account. The current study attempts to fill this gap by investigating the extent to which perceived managerial support is simultaneously shaped by the supervisor's sex, the subordinate's sex, sex (dis)similarity between subordinate and supervisor, and the extent to which national gender ideology plays a role in this relationship. To do so, this article uses a unique combination of two data sources. It relies mainly on the European Working Conditions

Survey (EWCS) database, which offers the opportunity to study a representative sample of employees (representative at both the national and the European level and allowing comparisons between countries). The paper also aggregates data from the European Values Study (EVS) database to measure gender stereotypes among employees at the national level. Overall, the study is based on a representative sample of 22,391 employees from 26 European countries. The results reveal that, on average, perceived managerial support is higher when supervisors are women, regardless of the subordinate's sex and the sex (dis)similarity between subordinate and supervisor. However, this difference between male and female supervisors disappears when the moderating role of national gender ideology is controlled for.

The current study provides several insights and makes various contributions to the debate on gender and perceived managerial support, heeding Ye et al.'s (2016) call to simultaneously take national cultures, the supervisor's sex, and the subordinate's sex into account when studying perceived managerial support. The article's main contribution is to show that gender differences in perceived managerial support stem primarily from persistent gender stereotypes. This insight jeopardizes the essentialist discourse which presumes that women are intrinsically different to men, with different skills and abilities. By doing so, the article contributes to the nature/nurture debate related to sex differences in professional behaviors and choices. This study is also important regarding the managerial issues. The article shows that, instead of assuming that female managers behave differently from their male counterparts, organizations should pay attention to gender stereotypes, which can influence how female and male subordinates perceive female and male supervisors' managerial support.

The article is structured as follows. The first section is devoted to a literature review of the debate on 'feminine management' and managerial support. The second section presents the data used and the methodology, and the third section presents the results obtained. Finally, the fourth section discusses the results.

## **I. Literature review**

### **I.1. The relationship between sex and perceived managerial support: A rich and inconsistent literature**

Previous studies have debated the existence of sex differences in managerial behaviors (Stewart & Wiener, 2021), inviting scholars to take this debate further. Some authors use the gender role theory (Eagly & Karau, 2002) to suggest that gendered socialization, as well as gender stereotypes and social expectations of women and men (Essig & Soparnot, 2019), are the reasons for feminine and masculine management styles, with feminine management styles focusing more on managerial support than the men's (Saint-Michel, 2018). A meta-analysis indicated that female leaders exhibit more supportive and transformational leadership (focused on subordinates' development) than male leaders, who tend to display transactional leadership (focused on subordinates' performance) (Eagly et al., 2003; Maher, 1997). The current study focuses on managerial support, which refers to how managers 'provide organizational support through their managerial role by caring for subordinates' well-being and providing work advisory' (Sawang, 2010, p. 248). Previous studies suggest that female managers engage in more supportive managerial behaviors (Peterson, 2015; Ye et al., 2016).

However, several scholars have criticized this idea of feminine management behavior being distinct from and more supportive than men's (Due Billing & Alvesson, 2000; Pigeyre & Vernazobres, 2013). Particularly, this idea is the basis of an essentialist discourse, challenged by critical gender studies, in which the differences between women and men are naturalized in that all women are assumed to have different managerial styles from men, and that these differences are supposedly innate (Hoobler et al., 2018). Consequently, some academic work has highlighted the limitations of the research that shows differences in managerial support between women and men. First, the magnitude of the sex differentials has been questioned, with some scholars arguing that the similarities in management style between women and men

outweigh the differences between them (Wajcman, 1996). Relatedly, previous studies have revealed that non-compliance with management ideals can result in negative evaluations, leading women to strive for compliance with the same management ideals as men (Due Billing & Alvesson, 2000; Wajcman, 1996). Second, studies about female and male managers might be subject to selection bias. In a situation where access to managerial positions is more difficult for women than for men, women who become managers might be chosen because they comply with gender stereotypes or other types of expectations (Eagly et al., 2003). Third, and most importantly, most studies dealing with sex and management measure perceived (either self-perceived or perceived by employees) managerial behaviors instead of concrete managerial behaviors. Yet, an employee's perception of their manager's support might be influenced by the manager's sex (Saint-Michel, 2018; Saint-Michel & Wielhorski, 2011).

Particularly, sex (dis)similarity between supervisor and subordinate can influence perceived managerial support (Douglas, 2012). For example, supervisors and subordinates in same-sex dyads reportedly have better working relationships – a result which can be explained by the greater ease of working with similar people (Vecchio & Brazil, 2007), or by the fact that supervisors and subordinates in same-sex dyads may have a greater shared understanding of role expectations than otherwise (Ghaus et al., 2018). Incidentally, having a supervisor of the same sex is associated with fewer discrimination claims (Bender et al., 2017); also, sex (dis)similarity between subordinate and supervisor moderates the effect of the managerial relationship quality on voice behavior (Wijaya, 2019).

Overall, both supervisors' and subordinates' sex, and sex (dis)similarity between subordinates and supervisors, must be considered when we study perceived managerial support. This limitation applies to a study Ye et al. (2016) conducted on cross-national and gender differences in managerial support, which did not take the subordinate's sex into account.

## **I.2. The moderating role of gender ideology**

While gender role theory underlines the importance of gender stereotypes in shaping perceived and concrete individual behaviors, research on gender differences in managerial support has not paid much attention to national gender ideologies. Yet, the relationship between the supervisor's and the subordinate's sex and perceived managerial support can be shaped by beliefs about and expectations of the adequate roles and behaviors of women and men, which will be referred to as gender ideology: 'gender norms influence individuals' beliefs regarding the appropriate behavior for men and women in the context of work and family' (Gaunt & Benjamin, 2007, p. 343). Gaunt and Benjamin (2007), as well as Davis and Greenstein (2009), use the term 'gender ideology.' Other papers use terms like gender roles, gender orientation, gender stereotypes, or gender differences (Bagger et al., 2008; Bueno Merino & Duchemin, 2022; Dolan et al., 2011; Zhao et al., 2019). All these terms relate to beliefs and representations about acceptable behaviors for women and men, which are internalized during the socialization process. More precisely, gender ideology is generally operationalized as a unidimensional construct that ranges from traditional to egalitarian (Gaunt & Benjamin, 2007). Traditional gender ideology refers to a world vision in which men should be the breadwinners and women are responsible for the household and childcare (Bagger & Li, 2012). Egalitarian gender ideology corresponds to a universe in which women and men have the same roles and responsibilities in the personal and professional spheres (Davis & Greenstein, 2009; Gaunt & Benjamin, 2007). Overall, gender ideology can influence perceptions of the behaviors observed, depending on whether they are performed by a woman or a man. In addition, gender ideology varies according to sex, with men generally reporting a less egalitarian gender ideology than women do (Davis & Greenstein, 2009; Grunow et al., 2018).

Gender ideology is deeply connected to national cultures (Alesina et al., 2013; Fernández, 2007; Fernández & Fogli, 2009; Fogli & Veldkamp, 2011). For example, Beblo and Görge



(2018) show the differences between East and West Germany in the 1980s concerning the expectations of women and men regarding paid and unpaid work. Sweet et al. (2016) emphasize differences between China and Japan concerning women's and men's career centrality. In a comparative national approach, Fortin (2005) studies the gender ideology differences across different countries and the influence national gender ideologies have on women's labor market outcomes. Other studies have highlighted national differences in the prevalence of gender stereotypes (Sweet et al., 2016).

Overall, national cultures vary in gender ideology, ranging on a continuum from egalitarian to traditional. These differences can shape both the sex differences in managerial behaviors and the expectations and perceptions that employees have concerning their managers, depending on the manager's sex. Therefore, gender ideology might play a moderating role in the relationship between the supervisor's sex, the subordinate's sex, and perceived managerial support. Further, if sex differences are due to gender stereotypes, they should disappear if the moderating role of gender ideology is controlled for.

This article delves into these relationships. Previous research has examined separately, and without reaching consensus, the roles of the subordinate's sex, the supervisor's sex, sex (dis)similarity between subordinate and supervisor, and gender ideology. This study aims to integrate these different variables in the same analysis, to get a deeper understanding of this complex phenomenon. More precisely, the study investigates the extent to which perceived managerial support is shaped simultaneously by the supervisor's sex, the subordinate's sex, sex (dis)similarity between the different parties, and the extent to which national gender ideology plays a role in this relationship (and moreover, what happens to the relationship between sex and perceived managerial support if the moderating role of gender ideology is controlled for). A standard hypothetico-deductive approach would require precisely defining the effect of each

variable, which in this case, is impossible because previous research has not reached consensus on these effects. That is why the current study uses an exploratory approach rather than a hypothetico-deductive one.

The following section explains the concrete steps and characteristics of the research design, thereby also clarifying this approach.

## **II. Data and methodology**

### **II.1. Data**

The main individual data used in this study is drawn from the 2015 EWCS (*European Working Conditions Survey*). This survey provides insight into working conditions throughout 35 European countries (28 EU member states, as well as Norway, Switzerland, Albania, North Macedonia<sup>2</sup>, Montenegro, Serbia, and Turkey). The sample is a multistage stratified random sample of the working population in each country. It was restricted to employees who answered the question, ‘Is your immediate boss a man or a woman?’ The EWCS dataset is a stratified weighted sample, i.e., it is provided with individual weights which allow researchers to produce representative results at the national and international levels. The sample accounts for underrepresented categories by assigning higher weights to correspond to the target population in each country (all individuals aged 15 or more living in private households and employed). In the following analyses, weights (provided with the dataset) were used to produce representative results (both nationally and for national comparison).

To measure gender ideology at the national (and not at the individual) level, data from the 2017 European Values Study (EVS) was used to complement the EWCS data with those national measures. The preceding wave, a World Values Survey, which took place between

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<sup>2</sup> FYROM (Former Yugoslav Republic of Macedonia) in the survey. The data is from 2017, before the country changed its name to North Macedonia in 2019.

2010 and 2014 covered only a limited number of countries. We assume that national gender ideologies remained stable between 2015 (EWCS) and 2017 (EVS). The EVS survey is a representative, large-scale, and cross-national survey on human values. It contains individual declarative data on gender stereotypes, and weights are provided with the data to extrapolate the results at the country level. Owing to differences in perimeter and country coding, the initial EWCS sample had to be restricted to the 26 countries that appear in both samples, therefore Belgium, Cyprus, Greece, Ireland, Latvia, Luxembourg, Malta, the UK, and Turkey were eliminated. The final sample has data of 22,391 employees (11,889 female and 10,502 male). Table 1 gives the unweighted distribution of respondents across the different countries.

Table 1. Sample

<b>Country</b>	<b>Number of respondents</b>
Albania	452
Austria	788
Bulgaria	793
Croatia	727
Czech Republic	741
Denmark	833
Estonia	803
Finland	738
France	1,188
Germany	1,545
Hungary	732
Italy	718
Lithuania	774
Montenegro	606
Netherlands	738
North Macedonia	647
Norway	881
Poland	759
Portugal	592
Romania	718
Serbia	573
Slovakia	764
Slovenia	1,232
Spain	2,378
Sweden	865
Switzerland	806

## II.2. Measures

*Perceived managerial support.* Seven items from the EWCS can be used to measure perceived managerial support. Respondents were asked to rate seven statements regarding their applicability to their manager's behavior, e.g., 'Your immediate boss helps and supports you' (see Table A1 in Appendix for the full list of items). Each item was measured on a Likert scale, in which respondents indicate their degree of agreement ('Strongly disagree'/'Tend to disagree'/'Neither agree nor disagree'/'Tend to agree'/'Strongly agree'). The Cronbach's alpha for the seven items is 0.89. An index corresponding to the aggregation (average) of the seven items was computed. Items were reversed so that a high score would indicate high perceived managerial support, as in previous research that uses the same items (Ariza-Montes et al., 2018; Artz et al., 2020).

*Subordinate's sex, supervisor's sex, and sex (dis)similarity.* The interviewees reported each subordinate's sex (contrary to the other variables that correspond to the interviewees' answers). It is coded as 'woman,' 'man,' or 'Don't know.' However, only nine individuals in the whole sample correspond to 'Don't know.' Therefore, only the answers 'woman' and 'man' were kept. This is a binary variable, which does not consider the possibility of a nonbinary vision of humans. Although this binarity is regrettable, it is necessary, as this study focuses on the possible differences between women and men. The supervisor's sex is determined by the question: 'Is your immediate boss a man or a woman?' Again, only the answers 'man'/'woman' were kept. The subordinate's sex, the supervisor's sex, and their sex (dis)similarity were integrated into one only variable, called 'Dyad,' which corresponds to the combination of the subordinate's and the supervisor's sex. Four categories were created: the woman–woman dyad, the man–man dyad, the woman–man dyad, and the man–woman dyad. Such a strategy was used previously in research on sex differences in managerial behavior (Stewart & Wiener, 2021).

*National gender ideology.* First, the individual's gender ideology in the EVS sample was measured by averaging responses to seven statements about traditional gender roles and behaviors, e.g., 'When a mother works for pay, the children suffer' (see Table A2 in Appendix for the full list of items). Each item was measured on a Likert scale, with respondents having to indicate their degree of agreement ('Agree strongly'/'Agree'/'Disagree'/'Disagree strongly'). The Cronbach's alpha for the seven questions is 0.88. A high score, therefore, represents an egalitarian ideology, while a low score corresponds to a traditional one. Although the unidimensionality of gender ideology has been debated (Grunow et al., 2018), those items have been used as a proxy for gender ideology (Davis & Greenstein, 2009; Fortin, 2005). Second, national gender ideology was computed as the average of the gender ideology of the country's employees (restricted to employees and based on weighted data for representativeness). This was added to the EWCS database.

*Control variables.* Several variables supposed to affect perceived managerial support were used in this study. Previous research has shown that temporary employment can influence employees' experience and, specifically, their satisfaction at work (De Cuyper et al., 2019), as well as their psychological contract and behavior (Chambel & Castanheira, 2006). In the EWCS data, the type of contract is an unordered categorical variable classified into four categories: unlimited duration, limited duration, temporary employment agency contract, and no contract. Part-time work has also been linked to job expectations and satisfaction (Booth & Ours, 2008). Working time reported in the EWCS data can be either full-time or part-time. Education level, which can influence work expectations and, thus, expectations of management and perceived managerial support (Ganzach, 2003; Tlaiss & Mendelson, 2014), is an unordered categorical variable recorded using the ISCED classification: primary education, lower secondary education, upper secondary education, postsecondary non-tertiary education, short-cycle

tertiary education, bachelor or equivalent, master, or doctorate. Age has been shown to influence employees' expectations and experience at work (Broadbridge et al., 2007). The EWCS survey records age in years. Previous research also used tenure (Saint-Michel, 2018), which the EWCS data expresses in years. Phenomena of employees being overskilled or underskilled can also affect their expectations of their work and relationships (McGuinness & Wooden, 2009). The EWCS survey recorded skills in three categories, as an unordered categorical variable: 'I need further training to cope well with my duties,' 'My present skills correspond well with my duties,' and 'I have the skills to cope with more demanding duties.' Two additional company-related control variables were also included. The sector is an unordered categorical variable with four modalities: private, public, joint private–public, and other. The workforce is an unordered categorical variable referring to the number of employees within the organization (1, 2–9, 10–249, 250+, and don't know).

Table 2 contains univariate descriptive statistics of the variables used in the study for the whole sample, and for women and men samples.

Table 2. Descriptive statistics

	<b>Whole sample N=22,391</b>	<b>Women sample N=11,889</b>	<b>Men sample N=10,502</b>
Employee's sex/ Supervisor's sex			
Woman–Woman	25.99%	52.12%	0%
Woman–Man	23.88%	47.88%	0%
Man–Woman	7.19%	0%	14.35%
Man–Man	42.94%	0%	85.65%
Perceived manager's behavior	m (mean)=3.92, sd (standard deviation)=0.87	m=3.94, sd=0.85	m=3.89, sd=0.88
Type of contract			
Unlimited duration	81.41%	81.67%	81.16%
Limited duration	13.60%	13.89%	13.32%
Temp. empl. agency	1.26%	1.14%	1.38%
No contract	3.73%	3.31%	4.15%
Time			
Full-time	84.51%	76.99%	91.93%
Part-time	15.49%	23.01%	8.07%
Education			

Primary	2.52%	2.30%	2.74%
Lower secondary	9.29%	8.10%	10.48%
Upper secondary	46.21%	42.50%	49.90%
Postsec. non-tertiary	8.50%	8.78%	8.21%
Short-cycle tertiary	8.05%	9.49%	6.61%
Bachelor	14.10%	16.76%	11.46%
Master or doctorate	11.33%	12.06%	10.59%
Age	m=41.56, sd=11.90	m=41.63, sd=11.35	m=41.50, sd=12.50
Tenure	m=9.72, sd=9.65	m=9.57, sd=9.23	m=9.88, sd=10.11
Skills			
Underskilled	14.40%	14.70%	14.10%
Adequate	57.99%	59.08%	56.91%
Overskilled	27.61%	26.22%	28.99%
Sector			
Private sector	65.50%	58.67%	72.30%
Public sector	28.54%	34.88%	22.24%
Joint PP	3.77%	3.76%	3.78%
Not-for-profit	1.09%	1.47%	0.70%
Other	1.10%	1.22%	0.98%
Workforce			
1	0.98%	1.32%	0.65%
2–9	18.89%	20.11%	17.67%
10–249	44.33%	44.26%	44.39%
250+	31.90%	30.25%	33.53%
Don't know	3.91%	4.06%	3.76%

### II.3. Methodology

The study uses an exploratory approach, in the sense that it is not based on a precise hypothesis drawn from previous literature. Indeed, the lack of academic literature on perceived managerial support which simultaneously studies the supervisor's sex, the subordinate's sex, sex (dis)similarity, and gender ideology, does not allow the formulation of a specific hypothesis, particularly not about the precise moderating effect of gender ideology.

First, this research started with descriptive statistics on the different variables of interest (perceived managerial behavior, sex dyad) in a comparative national logic. National gender ideology was then added to the analysis. Descriptive statistics were used to measure the variations in gender ideology across countries, which prompted us to investigate the moderating role gender ideology plays in the relationship between the supervisor's sex, the subordinate's sex, their sex (dis)similarity, and perceived managerial support more deeply. To this end, hierarchical linear modeling, i.e., multilevel modeling, was used. Multilevel modeling is useful

in studying phenomena that are explained both by the individual and at a more general level (organization or, in this case, country) (Renkema et al., 2016; Smyth & Steinmetz, 2008). Multilevel models give unbiased estimates for nested data and help determine the percentage of variation explained by the different levels (Goldstein et al., 2002). In this study, two levels are considered: individual and national. SAS software and the mixed procedure were used for the analysis.

### III. Results

#### III.1. National differences concerning perceived managerial support

First, the data was used to produce statistics concerning perceived managerial support across the different countries for the whole sample. A GLM (generalized linear model) showed that the differences between countries were significant (Denmark as the reference group). Table 3 reports the results (the average perceived managerial behavior and, in parentheses, the standard deviation).

Table 3. Perceived managerial support across the countries

Country	Whole sample m (sd)
Albania	3.98 (0.70)
Austria	3.91 (0.91)
<i>Bulgaria</i>	<i>4.16 (0.80)***</i>
Croatia	3.83 (0.89)**
Czech Republic	3.96 (0.79)
Denmark	3.91 (0.88) (ref.)
<b>Estonia</b>	<b>3.72 (0.78)***</b>
Finland	3.96 (0.90)
<b>France</b>	<b>3.75 (0.96)***</b>
<b>Germany</b>	<b>3.74 (0.84)***</b>
<i>Hungary</i>	<i>4.00 (0.87)**</i>
<b>Italy</b>	<b>3.67 (0.70)***</b>
Lithuania	3.89 (0.75)
<b>Montenegro</b>	<b>3.69 (0.89)***</b>
Netherlands	3.91 (0.90)
<i>North Macedonia</i>	<i>4.29 (0.80)***</i>
<i>Norway</i>	<i>4.20 (0.79)***</i>
Poland	3.79 (0.84)***
<i>Portugal</i>	<i>4.13 (0.77)***</i>



<i>Romania</i>	4.14 (0.73)***
<b>Serbia</b>	<b>3.69 (0.97)***</b>
<b>Slovakia</b>	<b>3.76 (0.74)***</b>
Slovenia	3.99 (0.97)**
<i>Spain</i>	4.03 (0.93)***
Sweden	3.78 (0.80)***
Switzerland	3.97 (0.77)

The stars indicate the significance of the difference in perceived managerial support between countries, with Denmark as the reference group.

Significance levels: \*:  $p < 0.1$ ; \*\*:  $p < 0.05$ ; \*\*\*:  $p < 0.01$

Table 3 shows huge differences between countries related to perceived managerial support. The countries with the lowest reported average levels of perceived managerial support are, in ascending order: Italy, Montenegro, Serbia, Estonia, Germany, France, and Slovakia (indicated in bold in Table 3). The countries with the highest reported average levels of perceived managerial support are, in descending order: North Macedonia, Norway, Bulgaria, Romania, Portugal, Spain, and Hungary (indicated in italics in Table 3).

### **III.2. The relationship between sex (dis)similarity and perceived managerial support**

Besides the national differences, the study focuses on the effects of the subordinate's and the supervisor's sex in relation to perceived managerial support. To measure these effects, GLM (generalized linear models) models were used to check the significant differences in perceived managerial behavior according to the subordinate's sex (Table A3 in the Appendix) and the supervisor's sex (Table A4 in the Appendix).

Nine countries exhibit significant differences between subordinate women and men concerning their perception of their manager's support (indicated in bold type in Table A3). In all these countries, women consistently report higher managerial support from their managers than men do.

In some countries, there are also differences in perceived managerial support according to the supervisor's sex. In nine countries (indicated in bold in Table A4), employees with a female

supervisor report higher perceived managerial support. In the other countries, the difference is not statistically significant. In none of the countries did employees with a female supervisor report lower perceived managerial support than employees with a male supervisor. This finding tends to support the idea that female managers are more supportive than male managers.

In addition, statistics concerning perceived managerial support across the different countries for each of the dyads (subordinate's sex–supervisor's sex) were produced to determine whether perceived managerial support varies according to the sex similarity or dissimilarity between subordinate and supervisor. In each country, GLM models were used to check the significance of the difference according to the dyads (Table A5 in the Appendix).

There are significant differences between the dyads in twelve countries (indicated in bold type in Table A5). The differences vary across the countries. For example, in Austria, Croatia, Germany, the Netherlands, North Macedonia, Serbia, and Spain, female subordinates with a female supervisor report a higher level of perceived managerial support than all the other dyads. In Albania, female subordinates with male supervisors report the highest level of perceived managerial support from such men, followed by male subordinates with female supervisors. In Switzerland, male subordinates with female supervisors report the highest level of perceived managerial support from such women, followed by female subordinates with male supervisors, female subordinates with female supervisors, and male subordinates with male supervisors.

To summarize, the descriptive statistics provide initial insights. First, there are significant cross-country differences in perceived managerial support. Second, in some countries, there are also differences between female and male subordinates, and in others between subordinates who have a female supervisor and those with a male supervisor. In countries where there are differences, female subordinates consistently report a higher level of perceived managerial support, as do subordinates with a female supervisor. This finding prompted a further analysis

that considered the sex (dis)similarity between the subordinate and the supervisor, which showed that the relationship is somewhat more complex than what was expected, with some countries where female subordinates with a female supervisor report higher levels of perceived managerial support than all the other dyads, and others where this is the case for male subordinates with a female supervisor. This finding highlights the importance of considering the dyad (subordinate's sex-supervisor's sex) and not only the supervisor's sex as in previous research.

### III.3. The moderating role of gender ideology

It is worth considering whether this sex difference in perceived managerial support can be shaped (at least, in part) by gender ideology, and what happens when the moderating role of gender ideology is controlled for. As underlined in the literature review, gender ideology often differs across countries. Besides, gender ideology can influence both sex differences in managerial support and sex differences in perceived managerial support – sex differences referring to both the subordinate's sex and the supervisor's sex. First, Table 4 gives the average gender ideology for each country: a higher score indicates a more egalitarian gender ideology; the score is given at the country level, not at the individual level.

Table 4. Gender ideology across countries

Country	Average gender ideology
Albania	2.79
Austria	3.14
<i>Bulgaria</i>	2.62
Croatia	2.99
<i>Czech Republic</i>	2.69
<b>Denmark</b>	<b>3.48</b>
Estonia	2.90
<b>Finland</b>	<b>3.33</b>
<b>France</b>	<b>3.44</b>
Germany	3.19
Hungary	2.80
Italy	2.87
<i>Lithuania</i>	2.55
<i>Montenegro</i>	2.70

Netherlands	3.22
North Macedonia	2.77
Norway	3.61
Poland	2.80
Portugal	3.03
Romania	2.76
Serbia	2.83
<i>Slovakia</i>	2.64
Slovenia	2.98
<b>Spain</b>	<b>3.45</b>
<b>Sweden</b>	<b>3.57</b>
Switzerland	3.12

The countries with the most egalitarian gender ideology are Sweden, Denmark, Spain, France, and Finland (indicated in bold in Table 4). The countries with the most traditional gender ideology are Lithuania, Bulgaria, Slovakia, the Czech Republic, and Montenegro (indicated in italics in Table 4).

A correlation matrix shows no correlation between gender ideology and perceived managerial support (Table 5).

Table 5. Correlation matrix

	n	M	SD	1	2	3	4
1. Perceived MS	22,391	3.92	0.87	-			
2. Gender ideology	22,391	3.07	0.32	0.01	-		
3. Age	22,391	41.56	11.90	-0.04***	0.02***	-	
4. Tenure	22,391	9.72	9.65	-0.01	0.02***	0.57***	-

Significance levels: \*:  $p < 0.1$ ; \*\*:  $p < 0.05$ ; \*\*\*:  $p < 0.01$

However, a quick analysis indicates that countries with significant differences between the dyads have a higher average gender ideology (i.e., a more egalitarian gender ideology on average) than those without significant differences (average gender ideology in countries with

significant differences: 3.19; average gender ideology in countries with no significant differences: 2.94).

Thus, we assume the national and sex differences are partly shaped by national gender ideology. Specifically, we propose this ideology leads to differences in perceived managerial support between female and male supervisors, as well as for female and male subordinates. This would explain both the national differences and why, when there are significant differences, they all go in the same direction, indicating that perceived managerial support is higher for female supervisors.

To check this proposition, hierarchical linear models with and without interaction effects are used. The dependent variable for both models is perceived managerial support. Model 1 includes only individual variables and does not include gender ideology or interaction effects. Model 2 includes individual variables and gender ideology (i.e., a country-level variable). Model 3 includes individual variables, gender ideology, and interaction effects between gender ideology and the supervisor's/subordinate's sex dyad. The results are reported in Table 6. To simplify the presentation of the results, the effects of control variables are not reported in Table 6 (see Table A6 in the Appendix for the full detailed results with the effects of control variables). ICC(1), ICC(2), and *rwg* were computed and justify aggregation, as indicated in Table 6. The *rwg* index, which measures the within-group agreement to justify aggregating individual-level data, is around 0.65 and shows moderate agreement (close to strong agreement, at a 0.71 threshold) (Woehr et al., 2015). The ICC(1) of 0.04 indicates 4% of the variation in perceived managerial support can be attributed to the country-level (Biemann et al., 2012). It is below the suggested 0.1 cutoff, but this is frequent in cross-national comparisons (Autio et al., 2013). Further, Bliese et al. (2018) show that when the data is nested, as is the case here, multilevel modeling is appropriate even when ICC(1) values are small and non-significant. The ICC(2), which provides an estimate of the reliability of the country-level means (Bliese, 1998;

Shieh, 2016; Woehr et al., 2015), is around 0.52. This is slightly lower than the suggested 0.7; however, this cutoff has been criticized, and another proposal is that an ICC(2) between 0.4 and 0.7 indicates good reliability (Lance et al., 2006; Shieh, 2016). The pseudo-R2 were also computed and are low. However, the current study pays attention to the effect some variables have on perceived managerial support, and does not aim to predict or find all the determinants of perceived managerial support. In this case, a low R2 does not preclude a model from being informative (Rights & Sterba, 2019). To check the robustness of the results, non-hierarchical models were also estimated and give the same overall results for the effect of the dyad subordinate's sex and supervisor's sex, with and without interaction effects with national gender ideology.

Table 6. Results of the models

	Model 1 Estimate (SE)	Model 2 Estimate (SE)	Model 3 Estimate (SE)
<b>Individual level variable</b>			
Employee's sex/Supervisor's sex (ref. Man–Man)			
Woman–Woman	0.06 (0.01)***	0.06 (0.01)***	-0.10 (0.14)
Woman–Man	-0.00 (0.01)	-0.00 (0.01)	0.05 (0.14)
Man–Woman	0.06 (0.02)***	0.06 (0.02)***	-0.14 (0.22)
<b>Country level variable</b>			
Gender ideology	-	0.02 (0.11)	0.01 (0.11)
<b>Cross-level interactions</b>			
GI x dyad	-		
GI * WW			0.05 (0.04)
GI * WM			-0.02 (0.05)
GI * MW			0.07 (0.07)
-2*Log Likelihood	56388	56391	56400
AIC	56392	56395	56404
<i>rwg</i>	0.65	0.65	0.65
Variation explained by country level (ICC1)	0.04	0.04	0.04
ICC2	0.52	0.53	0.52
Pseudo-R2	0.02	0.02	0.02

*Significance levels: \*:  $p < 0.1$ ; \*\*:  $p < 0.05$ ; \*\*\*:  $p < 0.01$*

Table 6 shows that even when controlling for type of contract, working time, education, age, tenure, skills, sector, and workforce, the effect of sex (dis)similarity on perceived managerial support remains significant. Perceived managerial support is higher in dyads where

the manager is a woman, i.e., in Woman–Woman and Man–Woman dyads. The effects are the same when controlling for gender ideology (Model 2). However, Model 3 shows that when controlling for gender ideology as a moderator of the relationship between the dyad and perceived managerial support, the effect of the subordinate’s sex and the supervisor’s sex becomes insignificant.

#### **IV. Discussion and conclusion**

The current study contributes to the debate on sex differences in perceived managerial support by simultaneously considering the subordinate’s and the supervisor’s sex, their sex (dis)similarity, and national gender ideology. Indeed, most previous research has focused on the relationship between the supervisor’s sex and perceived managerial support, without looking at the role played by national gender ideology. Besides, only a few studies pay attention to the effect of the subordinate’s sex. A research question was formulated based on the literature review and the theoretical framework of gender ideology or gender norms, asking to what extent perceived managerial support is simultaneously shaped by the supervisor’s sex, the subordinate’s sex, sex (dis)similarity between subordinate and supervisor, and to what extent national gender ideology plays a role in this relationship. The results show that, on average, perceived managerial support is higher if supervisors are women, regardless of the subordinate’s sex and, thus, of sex (dis)similarity between the subordinate and the supervisor. In addition, the difference between female and male supervisors disappears when controlling for the moderating role of national gender ideology.

##### **IV.1. Theoretical contributions**

This study finds that female managers are perceived as being more supportive than their male counterparts. This finding aligns with prior studies that found women exhibit more supportive and more coaching managerial behaviors than men (Eagly et al., 2003; Ye et al.,

2016). In a context where companies increasingly value transformational leadership based on managerial support (Hoobler et al., 2018; Saint-Michel, 2018), this finding argues for greater inclusion of women in managerial positions. Previous research has explained these gender differences by gender role theory, which suggests that managerial behaviors are influenced by gender roles (Saint-Michel & Wielhorski, 2011; Ye et al., 2016): ‘to the extent that gender roles exert some influence on leaders, female and male occupants of the same leadership role would behave somewhat differently’ (Eagly et al., 2003, p. 572). In particular, there exist a lot of injunctions for women to display more supportive and service-oriented behaviors than men (Saint-Michel, 2018). However, gender role theory not only emphasizes that individual behaviors are constrained by gender norms; it also highlights how *perceived* individual behaviors are constrained by gender norms. For example, behaviors that correspond to masculine stereotypes (e.g., authority, ambition) are evaluated less favorably in women, because with such behavior, women deviate from the gender norms (Eagly & Karau, 2002). That is why the current study emphasizes perceived managerial behavior. The data used here relates to how subordinates perceive their supervisors’ behaviors and shows that female managers are perceived as more supportive than their male counterparts.

While gender role theory underlines the importance of gender stereotypes in shaping perceived and concrete individual behaviors, research on gender differences in managerial support has not paid much attention to the role national gender ideologies play. Gender ideology refers to beliefs and representations regarding acceptable behaviors for women and men, which are internalized during the socialization process. Gender ideology, as a set of beliefs, can be measured at the individual level, but by aggregating individual beliefs it is also possible to produce a national index, as in other research on values and cultures (Hofstede, 2011; Leung & Morris, 2015). The current study has focused on the role national gender ideology plays in the relationship between sex and perceived managerial support, based on the fact that gender



ideology shapes individual behaviors and expectations (Gaunt & Benjamin, 2007). In fact, the results show that, although gender ideology does not directly affect perceived managerial support, the effect of the dyad subordinate's sex–supervisor's sex becomes non-significant when gender ideology is introduced as a moderator. The fact that the difference between the dyads disappears when we control for the moderating role of gender ideology indicates that it is mostly national gender ideology that creates differences in perceived managerial support between female and male supervisors and for female and male subordinates. This result brings a new insight to the debate related to the existence of a specific feminine management style. Indeed, it jeopardizes the essentialist discourses which presume that women are essentially different from men, with different skills and abilities (Ellingsæter, 2013; Grunow et al., 2018). It shows that female managers are not intrinsically different from male managers, but their behavior can be perceived as different due to beliefs about gender. With this insight, the current study brings an additional argument to the nature/nurture debate related to sex differences in professional behaviors and choices (Beblo & Görge, 2018; Eagly & Wood, 2017). Overall, the study underlines the importance of considering and measuring gender ideology at the national level in cross-cultural research on gender issues.

Previous research has shown that subordinates and supervisors in same-sex dyads have better working relationships (Ghaus et al., 2018; Vecchio & Brazil, 2007). This result has been explained by the 'similarity-attraction paradigm' (or the homophily paradigm), namely by the principle that an increase in demographic similarity leads to an improvement in interpersonal attraction and relations. However, the current study's results suggest that this paradigm does not hold. More precisely, the supervisor's sex plays a more important role than the sex similarity between subordinate and supervisor. For example, Models 1 and 2 show that perceived managerial support is higher among subordinates with female managers, whatever the subordinates' sex. Descriptive statistics are useful to explain this result. Indeed, they show that

the effect of sex (dis)similarity is not the same in every country. In most countries where the dyad has an effect, female subordinates with a female supervisor report a higher level of perceived managerial support than all the other dyads, but in other countries (e.g., Switzerland), male subordinates with female supervisors report the highest level of perceived managerial support. These national differences, compared to the fact that female managers are perceived as more supportive than male managers in every country where the effect is significant, suggest that the similarity-attraction paradigm is less adequate than the gender role theory in explaining variations in perceived managerial support according to gender.

#### **IV.2. Methodological contributions**

This study is based on the unique combination of two databases (EWCS and EVS). Its measurement of gender ideology, because of the representative and large-scale EWS sample, allows for generalizing the aggregate at the country level, unlike other data sources on national cultures, like researcher-administered surveys (Saint-Michel, 2018; Ye et al., 2016). Notably, it shows that the usual comparative data sources used in cross-cultural research, such as Hofstede's project (Hofstede, 2011), are not sufficient in investigating gender issues, as they do not contain information about perceptions and norms related to gender. Particularly, gender ideology does not correspond at all with Hofstede's 'masculinity' dimension, which is supposed to measure the differences between men's and women's values. Lithuania, which has a very traditional gender ideology according to the EVS survey, has a low masculinity score, i.e., close to Sweden's, which according to the survey has a very egalitarian gender ideology. This result highlights the absence of data on concrete gender norms in Hofstede's dimensions, a point previously raised by feminist scholars regarding cross-national typologies (Orloff, 1993) yet not in management cross-cultural research.

The cross-country differences also underline the relevance of a multilevel approach, which incorporates both country-level and individual-level variables, in management research related

to gender and perceptions. As Figureau et al. (2020) underlined, multilevel data collection is required in management research on behavioral and cognitive issues.

Another key methodological issue relates to the approach this study uses, which deviates from the typical quantitative research in management. The study employs an exploratory approach since the complexity of the topic, the relationships between the variables, the conflicting results from previous studies on the existence of a specific feminine managerial style, and the limited research on the impact of national gender ideology made it difficult to formulate specific hypotheses (Min et al., 2022; Witt et al., 2022). Therefore, instead of a precise hypothesis, a general research question was formulated based on the literature review and the theoretical framework of gender ideology or gender norms, asking whether national gender ideology plays a role in the relationship between the subordinate's and the supervisor's sex and perceived managerial support. For this reason, the approach used here has been described as exploratory, rather than hypothetico-deductive. Adopting an exploratory approach in quantitative research helps avoid the pitfalls of hypothetico-deductive research, such as defining hypotheses after the results are known (HARKing) (Murphy & Aguinis, 2019) and being locked in a binary position of (in)validating hypotheses without being able to describe concrete situations and formulate new theoretical proposals (Locke, 2007; Ketokivi & Mantere, 2010). This exploratory approach also heeds some scholars' call for more variety in research design in management research (Alvesson & Gabriel, 2013; Greasley & Thomas, 2020; Harley, 2015). Additionally, it is all the more important that new paradigms are seen to emerge in management research due to 'big data,' namely, data-driven science (Kitchin, 2014). Several scholars in management research have underlined the advent of this new paradigm: 'For the most part, OMS (organizational and management scholarship) largely confines its interests to preconceived hypotheses [...]. However, Big Data can contain analytical value that exceeds any a priori conception [...]. Phenomenon-driven, exploratory approaches may not precisely

explain why something is happening, but they can identify (ir)regularities or shed light on boundary conditions, thereby generating novel questions' (Wenzel & Van Quaquebeke, 2018, p. 555). Data-driven science seems closed to exploratory approaches like the one used here, where data is used to enrich existing knowledge without hypothesizing *a priori* what the results will be.

### **IV.3. Practical implications**

Although gender equality is one of the United Nations' Sustainable Development Goals, women still lag behind men in access to leadership positions. The current study can help companies try to close this gap. Indeed, it challenges the 'think manager – think male' paradigm (Peterson, 2015) and the notion of a specific 'feminine managerial behavior.' It shows that when controlling for the moderating role of gender ideology, there is no (subordinate's and supervisor's) sex difference in perceived managerial support. Hence, the article shows that, instead of assuming that female managers behave differently from men, organizations should pay attention to gender stereotypes among their employees and managers, which can influence how female and male subordinates perceive managerial support from female and male supervisors. This is especially true for multinational corporations, which face different national gender ideologies. This paper shows that average perceived managerial support and national gender ideology vary drastically across countries. Companies should try to reduce gender stereotypes among their employees. This could imply training and sensitization workshops focused on unconscious biases and stereotypes, dedicated to both women and men (Madsen & Andrade, 2018). Besides, the study suggests that, due to gender ideology, subordinates do not evaluate their female and male managers in the same way. Therefore, companies should also limit the effects of gender stereotypes on individual evaluations or be cautious when using individual evaluations.

#### **IV.4. Limitations**

Unlike most quantitative studies, the current study does not suffer from common-method bias, because two different data sources were used. In addition, the representative sample allows the results to be extrapolated to the countries included in the survey. However, the study does present some limitations that offer new research areas. The main limitation relates to the scale used to measure gender ideology. It is a unidimensional scale, as in most previous research, but in recent years, some scholars who advocate a multidimensional approach have questioned this unidimensionality (Grunow et al., 2018). The second limitation refers to the low value of ICC(1) and pseudo-R<sup>2</sup>. Although academic research has shown that multilevel modeling is adequate for nested data even if ICC(1) is low, it means that the country level does not play a very important role in perceived managerial support. Similarly, although the low pseudo-R<sup>2</sup> does not preclude the model from providing information about the relationships between the variables, it does indicate that the models do not predict perceived managerial support very well. One explanation for this low value could be that several factors can influence perceived managerial behavior, such as those related to the work environment. Future research using micro-level and qualitative data could provide deeper insight into the organizational and managerial environment.

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## Appendix

Table A1. Items used to measure perceived managerial support

Item	Type of question
'Your immediate boss helps and supports you.'	Likert scale, with respondents having to indicate their degree of agreement: 1='Strongly agree' 2='Tend to agree' 3='Neither agree nor disagree' 4='Tend to disagree' 5='Strongly disagree'
'Your immediate boss respects you as a person.'	
'Your immediate boss gives you praise and recognition when you do a good job.'	
'Your immediate boss is successful in getting people to work together.'	
'Your immediate boss is helpful in getting the job done.'	
'Your immediate boss provides useful feedback on your work.'	
'Your immediate boss encourages and supports your development.'	



Table A2. Items used to measure national gender ideology

Item	Type of question
‘When a mother works for pay, the children suffer.’	Likert scale, with respondents having to indicate their degree of agreement: 1=‘Agree strongly’ 2=‘Agree’ 3=‘Disagree’ 4=‘Disagree strongly’
‘A job is alright, but what most women truly want is a home and children.’	
‘All in all, family life suffers when the woman has a full-time job.’	
‘A man’s job is to earn money, a woman’s job is to look after the home and family.’	
‘On the whole, men make better political leaders than women do.’	
‘A university education is more important for a boy than for a girl.’	
‘On the whole, men make better business executives than women do.’	

Tables A3, A4, and A5 report the average perceived managerial support and, in parentheses, the standard deviation.

Table A3. Perceived managerial support according to the subordinate's sex

<b>Country</b>	<b>Women m (sd)</b>	<b>Men m (sd)</b>
<b>Albania</b>	<b>4.03 (0.64)*</b>	<b>3.91 (0.76)</b>
Austria	3.96 (0.91)	3.86 (0.90)
Bulgaria	4.18 (0.73)	4.15 (0.88)
Croatia	3.88 (0.86)	3.78 (0.92)
Czech Republic	3.96 (0.79)	3.96 (0.79)
Denmark	3.89 (0.90)	3.93 (0.87)
<b>Estonia</b>	<b>3.77 (0.73)*</b>	<b>3.67 (0.86)</b>
Finland	3.93 (0.90)	3.99 (0.90)
France	3.71 (0.96)	3.78 (0.96)
<b>Germany</b>	<b>3.79 (0.81)**</b>	<b>3.70 (0.86)</b>
Hungary	4.03 (0.87)	3.97 (0.88)
Italy	3.66 (0.71)	3.68 (0.70)
Lithuania	3.90 (0.71)	3.87 (0.80)
Montenegro	3.69 (0.91)	3.68 (0.86)
<b>Netherlands</b>	<b>3.98 (0.60)**</b>	<b>3.84 (0.89)</b>
<b>North Macedonia</b>	<b>4.35 (0.74)*</b>	<b>4.23 (0.85)</b>
Norway	4.22 (0.78)	4.18 (0.81)
Poland	3.82 (0.84)	3.75 (0.85)
<b>Portugal</b>	<b>4.18 (0.69)*</b>	<b>4.07 (0.87)</b>
Romania	4.13 (0.76)	4.15 (0.71)
<b>Serbia</b>	<b>3.78 (0.99)**</b>	<b>3.60 (0.94)</b>
Slovakia	3.77 (0.70)	3.75 (0.81)
Slovenia	3.99 (0.93)	3.98 (1.02)
<b>Spain</b>	<b>4.08 (0.92)**</b>	<b>3.98 (0.93)</b>
Sweden	3.78 (0.81)	3.79 (0.79)
<b>Switzerland</b>	<b>4.05 (0.74)***</b>	<b>3.90 (0.79)</b>

*The stars indicate the significance of the difference between supervisors' perceived managerial support among female employees compared to their male counterparts in each country (GLM models), with men being the reference group.*

*Significance levels: \*:  $p < 0.1$ ; \*\*:  $p < 0.05$ ; \*\*\*:  $p < 0.01$*

Table A4. Perceived managerial support according to the supervisor's sex

Country	Women m (sd)	Men m (sd)
Albania	4.04 (0.61)	3.96 (0.73)
Austria	3.98 (0.94)	3.88 (0.89)
Bulgaria	4.23 (0.68)	4.13 (0.85)
Croatia	3.91 (0.85)	3.79 (0.90)
<b>Czech Republic</b>	<b>4.03 (0.77)*</b>	<b>3.93 (0.80)</b>
Denmark	3.94 (0.89)	3.89 (0.88)
Estonia	3.73 (0.78)	3.72 (0.79)
Finland	4.02 (0.89)	3.91 (0.91)
France	3.79 (0.94)	3.73 (0.97)
<b>Germany</b>	<b>3.84 (0.76)***</b>	<b>3.71 (0.86)</b>
Hungary	4.00 (0.97)	4.01 (0.83)
Italy	3.67 (0.77)	3.67 (0.67)
Lithuania	3.88 (0.72)	3.90 (0.77)
Montenegro	3.69 (0.89)	3.68 (0.88)
<b>Netherlands</b>	<b>4.12 (0.80)***</b>	<b>3.82 (0.92)</b>
North Macedonia	4.34 (0.79)	4.26 (0.81)
Norway	4.25 (0.79)	4.17 (0.79)
<b>Poland</b>	<b>2.13 (0.80)*</b>	<b>2.25 (0.87)</b>
Portugal	3.87 (0.72)	3.75 (0.79)
Romania	4.13 (0.76)	4.14 (0.72)
<b>Serbia</b>	<b>3.86 (0.85)***</b>	<b>3.61 (1.01)</b>
<b>Slovakia</b>	<b>3.84 (0.69)**</b>	<b>3.71 (0.77)</b>
Slovenia	4.05 (0.92)	3.96 (1.00)
<b>Spain</b>	<b>4.10 (0.92)***</b>	<b>3.99 (0.93)</b>
<b>Sweden</b>	<b>3.87 (0.76)***</b>	<b>3.72 (0.83)</b>
<b>Switzerland</b>	<b>4.08 (0.70)**</b>	<b>3.93 (0.79)</b>

*The stars indicate the significance of the difference between women supervisors' perceived managerial support compared to their male counterparts in each country (GLM models), with men being the reference group.*

*Significance levels: \*:  $p < 0.1$ ; \*\*:  $p < 0.05$ ; \*\*\*:  $p < 0.01$*

Table A5. Perceived managerial support according to the dyads

Country	Woman– Woman m (sd)	Woman–Man m (sd)	Man–Woman m (sd)	Man–Man m (sd)
<b>Albania</b>	<b>4.01 (0.62)</b>	<b>4.05 (0.67)**</b>	<b>4.20 (0.58)*</b>	<b>3.88 (0.77)</b>
<b>Austria</b>	<b>4.00 (0.93)*</b>	<b>3.92 (0.90)</b>	<b>3.86 (0.99)</b>	<b>3.86 (0.89)</b>
Bulgaria	4.22 (0.68)	4.14 (0.79)	4.25 (0.71)	4.13 (0.90)
<b>Croatia</b>	<b>3.92 (0.86)*</b>	<b>3.83 (0.87)</b>	<b>3.85 (0.85)</b>	<b>3.77 (0.92)</b>
Czech Republic	4.03 (0.77)	3.88 (0.81)	4.03 (0.74)	3.95 (0.79)
Denmark	3.91 (0.91)	3.87 (0.89)	4.02 (0.83)	3.90 (0.88)
<b>Estonia</b>	<b>3.75 (0.75)</b>	<b>3.80 (0.71)*</b>	<b>3.66 (0.99)</b>	<b>3.67 (0.83)</b>
<b>Finland</b>	<b>3.95 (0.91)</b>	<b>3.87 (0.89)</b>	<b>4.34 (0.66)***</b>	<b>3.93 (0.92)</b>
France	3.76 (0.94)	3.66 (0.98)	3.85 (0.96)	3.77 (0.96)
<b>Germany</b>	<b>3.85 (0.76)***</b>	<b>3.74 (0.85)</b>	<b>3.81 (0.76)</b>	<b>3.69 (0.87)</b>
Hungary	4.02 (0.94)	4.05 (0.79)	3.87 (1.10)	3.99 (0.85)
Italy	3.63 (0.77)	3.68 (0.66)	3.76 (0.77)	3.66 (0.68)
Lithuania	3.87 (0.68)	3.97 (0.75)	3.91 (0.94)	3.87 (0.78)
Montenegro	3.66 (0.91)	3.71 (0.92)	3.77 (0.85)	3.67 (0.86)
<b>Netherlands</b>	<b>4.17 (0.80)***</b>	<b>3.82 (0.95)</b>	<b>3.94 (0.79)</b>	<b>3.82 (0.90)</b>
<b>North Macedonia</b>	<b>4.40 (0.75)*</b>	<b>4.30 (0.74)</b>	<b>4.05 (0.96)</b>	<b>4.25 (0.84)</b>
Norway	4.29 (0.76)	4.12 (0.80)	4.14 (0.89)	4.19 (0.79)
Poland	3.85 (0.81)	3.77 (0.87)	3.98 (0.69)	3.73 (0.86)
Portugal	4.20 (0.67)	4.16 (0.71)	4.01 (0.98)	4.08 (0.85)
Romania	4.16 (0.74)	4.09 (0.78)	4.01 (0.86)	4.17 (0.69)
<b>Serbia</b>	<b>3.90 (0.80)***</b>	<b>3.66 (1.13)</b>	<b>3.70 (1.02)</b>	<b>3.58 (0.91)</b>
Slovakia	3.84 (0.65)	3.68 (0.74)	3.83 (0.96)	3.74 (0.79)
Slovenia	4.04 (0.91)	3.93 (0.96)	4.05 (0.93)	3.97 (1.03)
<b>Spain</b>	<b>4.12 (0.90)***</b>	<b>4.04 (0.94)</b>	<b>4.05 (0.99)</b>	<b>3.97 (0.92)</b>
<b>Sweden</b>	<b>3.85 (0.76)</b>	<b>3.66 (0.88)</b>	<b>3.91 (0.76)*</b>	<b>3.75 (0.81)</b>
<b>Switzerland</b>	<b>4.03 (0.70)**</b>	<b>4.06 (0.78)***</b>	<b>4.31 (0.63)***</b>	<b>3.86 (0.79)</b>

*The stars indicate the significance of the difference between the dyads in each country (GLM models), the dyad Man-Man being the reference group.*

*Significance levels: \*:  $p < 0.1$ ; \*\*:  $p < 0.05$ ; \*\*\*:  $p < 0.01$*

Table A6. Full results of the models

	Model 1 Estimate (SE)	Model 2 Estimate (SE)	Model 3 Estimate (SE)
<b>Individual level variable</b>			
Employee's sex/Supervisor's sex (ref. Man–Man)			
Woman–Woman	0.06 (0.01)***	0.06 (0.01)***	-0.10 (0.14)
Woman–Man	-0.00 (0.01)	-0.00 (0.01)	0.05 (0.14)
Man–Woman	0.06 (0.02)***	0.06 (0.02)***	-0.14 (0.22)
<b>Country level variable</b>			
Gender ideology	-	0.02 (0.11)	0.01 (0.11)
<b>Cross-level interactions</b>			
GI x dyad	-		
GI * WW			0.05 (0.04)
GI * WM			-0.02 (0.05)
GI * MW			0.07 (0.07)
<b>Individual control variables</b>			
Type of contract (ref. Unlimited duration)			
Limited duration	-0.08 (0.02)***	-0.08 (0.02)***	-0.08 (0.02)***
Temp. empl. agency	-0.25 (0.06)***	-0.25 (0.06)***	-0.25 (0.06)***
No contract	-0.08 (0.04)**	-0.08 (0.04)**	-0.08 (0.04)**
Time (ref. Full-time)			
Part-time	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Education (ref. Upper secondary)			
Primary	-0.06 (0.04)*	-0.06 (0.04)*	-0.06 (0.04)
Lower secondary	-0.10 (0.02)***	-0.10 (0.02)***	-0.10 (0.02)***
Postsec. non-tertiary	0.00 (0.02)	0.01 (0.02)	0.01 (0.02)
Short-cycle tertiary	0.10 (0.02)***	0.10 (0.02)***	0.10 (0.02)***
Bachelor	0.11 (0.02)***	0.11 (0.02)***	0.11 (0.02)***
Master's or Doctorate	0.15 (0.02)***	0.15 (0.02)***	0.15 (0.02)***
Age	-0.00 (0.00)***	-0.00 (0.00)***	-0.00 (0.00)***
Tenure	0.00 (0.00)***	0.00 (0.00)***	0.00 (0.00)***
Skills (ref. Adequate)			
Underskilled	0.06 (0.02)***	0.06 (0.02)***	0.06 (0.02)***
Overskilled	-0.05 (0.01)***	-0.05 (0.01)***	-0.05 (0.01)***
Sector (ref. Private sector)			
Public sector	0.03 (0.01)**	0.03 (0.01)**	0.03 (0.03)**
Joint PP	0.03 (0.03)	0.03 (0.03)	0.03 (0.03)
Not-for-profit	0.01 (0.06)	0.01 (0.06)	0.01 (0.06)
Other	0.07 (0.06)	0.07 (0.06)	0.07 (0.07)
Workforce (ref. 10-249)			
1	0.25 (0.06)***	0.25 (0.06)***	0.25 (0.06)***
2–9	0.20 (0.02)***	0.20 (0.02)***	0.20 (0.02)***
250+	-0.03 (0.01)**	-0.03 (0.01)**	-0.03 (0.01)**
Don't know	-0.06 (0.03)**	-0.06 (0.03)**	-0.06 (0.03)*
-2*Log Likelihood	56388	56391	56400
AIC	56392	56395	56404
<i>rwg</i>	0.65	0.65	0.65
Variation explained by country level (ICC1)	0.04	0.04	0.04
ICC2	0.52	0.53	0.52
Pseudo-R2	0.02	0.02	0.02

Significance levels: \*:  $p < 0.1$ ; \*\*:  $p < 0.05$ ; \*\*\*:  $p < 0.01$

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