Gendered Support Matters at Work

How Giving and Receiving Support Is Linked to Work Outcomes

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How Giving and Receiving Support Is Linked to Work Outcomes

Gender en steun op het werk

Hoe geven en ontvangen van steun samenhangt met werkuitkomsten

(met een samenvatting in het Nederlands)

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CHAPTER

1

SYNTHESIS

This chapter benefited from feedback from Tanja van der Lippe, Eva Jaspers, and Jojanneke van der Toorn.

1.1 Introduction

Gender equality is a fundamental value, one of the 20 principles of the European Pillar of Social Rights, and has been enshrined in EU law since the Treaty of Rome in 1957. Despite ongoing efforts to achieve greater economic equality, for example, in labor force participation, pay, and career opportunities, gender differences persist (European Institute for Gender Equality, 2025a). Women continue to be underrepresented in the labor market and earn 13% less than men (European Commission, 2024b). They hold only about one-third of board positions in Europe's largest companies (European Institute for Gender Equality, 2025b), and are perceived to have lower promotion opportunities than men (European Commission, 2024a). Persisting inequalities are often attributed to occupational segregation, career penalties linked to caregiving, and gender norms and stereotypes (Bettio & Verashchagina, 2009). Less attention has been paid to work-related social support and its benefits for men and women[1]. Employees give and receive social support, such as information, advice, help with tasks, empathy, and encouragement. Exchanging support is a way for individuals to expand their resource pool by tapping into the resources of others (Patterer et al., 2023), and has been shown to matter for employees' well-being and productivity as well as for organizational functioning (Jolly et al., 2021; M. Mathieu et al., 2019; Viswesvaran et al., 1999). By focusing on supportive relationships, this dissertation offers insights into how workplace relationships may maintain or reduce persistent gender inequalities.

Workplaces are social sites where people habitually form so-called informal relationships, which are voluntary and extend the organization's formally defined roles and reporting lines. Beyond being nice for social reasons, these informal relationships matter as they can provide tangible, career-relevant, and emotional resources. In this way, they benefit employees' careers, for example, by enhancing individual performance, increasing influence, and contributing to job satisfaction (Seibert et al., 2001). However, not all relationships are equally beneficial. Benefits may depend on who informal relationships are formed with, as colleagues differ in the resources they can share in the workplace. Opportunities to build influential and resource-rich social networks are often gendered, advantaging men because of occupational segregation. Men tend to work in more prestigious, higher-paying sectors than women (e.g., IT versus education) or are clustered in higher-ranking positions within the same industries and organizations (e.g., men are often doctors, while women are often nurses; Charles, 2003). One example of such dynamics is the so-called 'old boys' club', which describes an exclusive, often

[1] Gender is treated as a binary construct in this dissertation for analytical purposes; however, it is acknowledged that gender and gender identities are more diverse.

informal network among men that can have formal consequences by providing professional advantages through the exchange of information, influence, and status (McDonald, 2011). At the same time, women are often portrayed as social experts, as they tend to have more intimate relationships and receive more support in general (Auster & Ohm, 2000; Sapadin, 1988; Umberson et al., 1996). However, women's relational advantage may not translate into benefits for their careers. Research has shown that social networks often do not pay off for women to the same extent as they do for men either because they lack social relationships that are important for career success or because they receive fewer benefits from them (Brands & Kilduff, 2014; Ibarra, 1997; Ibarra et al., 2010, 2013; McPherson & Smith-Lovin, 1982; G. Moore, 1990; Woehler et al., 2021). To advance our understanding of how informal relationships contribute to the work outcomes of men and women, this dissertation focuses on work-related social support, investigating the levels and types of support employees give and receive, and the potential benefits associated with it.

Support takes place in workplaces that differ not only in their objectives but also in their structure and culture. These organizational characteristics may not only shape the availability, types, and benefits of supportive relationships but also gender differences in support network characteristics. While the organizational structure determines which employees need to interact and what resources they have access to, thereby creating opportunities to form ties with others, this formal structure is distinct from the informal relationships in which support is actually exchanged. While the formal structure creates the conditions, who gives and receives what kind of support may also be influenced by the culture of the organization, specifically by the extent to which it reinforces or reduces societal gender differences and gender norms. For example, how women see other women and the degree to which they identify with them affects whether they perceive them as a source of support or as threatening competition (Ely, 1994; Scheepers & Ellemers, 2019). The roles men and women occupy in an organization implicitly convey information about what it means to be a man or a woman in this context. When men and women are unequally represented, especially in senior positions and high ranks, it signals limited organizational mobility for women and implies that they are perceived as less suited for these roles. In gender skewed environments, those in the numerical minority become more visible and are often seen as representatives of their gender, and gender roles become more salient, with individuals behaving accordingly (Ridgeway & Smith-Lovin, 1999; Woehler et al., 2021). With more equal gender representation, individuals observe a wider range of behaviors from both genders, including those that are less consistent with gender role expectations. In this way, gender role expectations are challenged, and individuals rely less on them, while the similarities between gender

groups are highlighted (Ely, 1994; Kanter, 1976). This dissertation accounts for the organizational context in shaping support at work and addresses the following research question: *How are gendered patterns of giving and receiving work-related social support associated with differences in work outcomes across various organizational contexts?*

As part of the research program, 'Sustainable Cooperation – Roadmaps to Resilient Societies' (SCOOP, 2019), this dissertation aims to contribute to a better understanding of sustainable cooperation, which is fundamental to resilient organizations and societies. The SCOOP approach focuses on individuals embedded in their social context as key arenas for sustainable cooperation, with this dissertation investigating individuals in their work organizations. Organizations depend on the motivation and contribution of their members to thrive. However, cooperation at work is not sustainable when it fails to create value for all employees and wider society (Wittek et al., 2025). Gendered patterns in workplace support networks can restrict women's access to resources and opportunities, potentially leading to larger cooperation benefits for men than women, which is especially relevant in light of continuously increasing female labor force participation (Halim et al., 2023). Such inequality can threaten the sustainability of cooperation, as disadvantaged employees may disengage or reduce their contribution. The dissertation benefits from SCOOP's interdisciplinary approach, drawing on theories and methods from sociology and psychology.

1.2 Theoretical Background

1.2.1 Work-related Social Support

In many workplaces, employees rely on each other for resources to get their job done, and research has documented that such social support[2] plays a crucial role in employees' well-being, performance, and career advancement (Cohen & Wills, 1985; House, 1987; Jolly et al., 2021; M. Mathieu et al., 2019; Nabi, 2001). Social support has been described and defined in different ways, for example, as emotional and instrumental elements of social relationships (House et al., 1988), the tangible and intangible resources that individuals access through their social ties, groups, and larger communities (Lin et al., 1979), or broadly as any process through which social relationships might provide health and well-being (Cohen et al., 2000). Common among these definitions is that they refer to relational content focused on aiding someone (Song et al., 2011). Receiving social support can impact employees directly, for example, by providing needed resources, or indirectly

[2] The concept of social support originally stems from health research and the idea that social relationships generally promote well-being is consistently documented across a variety of study topics. For instance, it has been shown that social relationships contribute to higher self-esteem (Harris & Orth, 2020), that more friendships increase life satisfaction (Mader & Franzen, 2025), and strong social relationships lower the mortality risk (Holt-Lunstad et al., 2010). These beneficial social relationships have been labeled as social capital, social networks, and social support.

by reducing the adverse effects of stress and increasing coping abilities (Cohen & Wills, 1985; Lakey & Cohen, 2000; Thoits, 1995). For example, the Social Exchange Theory (Blau, 1964; Gouldner, 1960) posits that individuals aim to maximize their benefits and minimize their costs by exchanging support, and it is often used as a theoretical framework to analyze the antecedents and consequences of support perceptions at work, with the underlying assumption that when employees are treated well and receive support, they will be motivated to treat others and the organization likewise (Rhoades & Eisenberger, 2002). The Conservation of Resources model (Hobfoll, 1989; Hobfoll et al., 1990; Neveu et al., 2014) focuses on how individuals utilize social support at work to regulate personal resources such as self-efficacy, organizational self-esteem, and optimism, and job-related behaviors such as work effort, performance, and counterproductive behavior. The Job Demands-Resources model (Bakker & Demerouti, 2007) posits that receiving support is a key job resource that helps employees cope with job demands such as time pressure, workload, and conflict, thereby affecting their engagement, chances of burnout, and performance. Self-Determination Theory (Ryan & Deci, 2000) argues that social support can satisfy the basic human need for relatedness and, in this way, enhance psychological and social functioning, as well as motivation at work. Studies have empirically documented that receiving social support at work is linked to a variety of positive outcomes, such as job satisfaction, job involvement, meaningful work, and organizational commitment, as well as lower work-family conflict, turnover intention, and emotional exhaustion (Adriaenssens et al., 2015; Chiaburu & Harrison, 2008; Colbert et al., 2016; French et al., 2018; T. W. H. Ng & Sorensen, 2008).

At work, social support can take different forms such as helping others complete tasks, answering job-related questions (task support), discussing career plans or identifying development opportunities (career support), supporting someone to cope with stress, venting frustrations, or simply socializing (emotional support; Colbert et al., 2016; Diewald & Sattler, 2010). In this dissertation, these different forms are summarized using the common distinction[3] between instrumental and emotional support. Generally speaking, instrumental support is more about the 'doing' and work-related help needed to address a specific demand (e.g., advice on a particular issue, sharing materials, introducing a contact). In contrast, emotional support refers to the 'feeling' and well-being at work (e.g., socializing, talking about problems, encouragement). Instrumental support is primarily structured around the exchange of job and career-related resources, while emotional support includes social connection, confirmation, counselling, and friendship

[3] In the literature, other categorizations are along the lines of form (behavior vs. perception; Barrera, 1986), tangibility (tangible vs. intangible (McGuire, 2012), types (instrumental, socioemotional/affective, and work–family; Chiaburu & Harrison, 2008b; Halbesleben, 2006), content (e.g., emotional, instrumental, informational, appraisal; Cohen & McKay, 1984) and source (coworker vs. supervisor; Ford et al., 2007).

(LePine et al., 2012; Zarankin & Kunkel, 2019). The distinction is fitting for this dissertation because men and women have been shown to differ in the types of support they give and receive (House et al., 1988; Ibarra, 1992). Moreover, many stressors at work are either instrumental or emotional, and support is expected to be most effective in reducing the adverse effects of stressors when it addresses the stressors' demands; thus, these types may be most relevant at work (Cohen & Wills, 1985).

The exchange of social support at work involves a giver and a receiver; however, most research has focused on receiving support and related consequences. While these consequences are typically beneficial, the consequences of providing support may be more mixed. On the one hand, it is a prosocial behavior that can enhance well-being (Batson, 1998), and people who give support also often receive support (Bowling et al., 2005). On the other hand, supporting someone requires the investment of personal resources, such as time and energy, and may therefore come at a cost (Bergeron, 2007). Studies documented both positive and negative aspects of giving support. For example, helping others was shown to enhance employees' perception of job meaningfulness (Colbert et al., 2016), yet a higher number of coworkers seeking advice from a person was associated with an increase in that individual's turnover intention (Soltis et al., 2013).

In summary, prior research has shown that social support is a valuable resource commonly exchanged at work. Being embedded in social relationships, its availability and benefits depend on the relationships someone potentially has access to, the nature of these relationships, and what resources they provide. Prior studies often focused on whether and how much support employees receive; however, less attention has been paid to characteristics of the support contact, the support relationship, and the support network. In light of the findings on gendered social networks (Ibarra, 1997; Ibarra et al., 2013; G. Moore, 1990; Smith-Lovin & McPherson, 1993), it seems worthwhile to move beyond investigating levels of support. Therefore, this dissertation also considers who provides it and conjointly investigates the content, function, and structure of supportive relationships at work. The social network perspective provides a framework for examining how the structure of supportive relationships is linked to work outcomes.

1.2.2 Gender and Social Networks

Although formal workplace structures define the relationships that exist on the job, including explicit workflows and hierarchies, individuals also regularly form informal social relationships within the workplace. Such networks of informal relationships function as channels for various resources, including general information, assistance, material goods, and work-related social support (Lin, 1999). Social networks are formally defined as a set of actors and the relations that connect them (Wasserman & Faust, 1994).

Individuals and their actions are not seen as fully autonomous but dependent on their relationships, with social networks providing both opportunities for and constraints on individual action. Empirical studies, usually investigating informal networks within a single workplace, have shown that characteristics of such networks are linked to outcomes such as salary, performance, and promotions (Burt, 1998; Markiewicz et al., 1999; Methot et al., 2016; Woehler et al., 2021).

Informal networks at work are not gender neutral, as gender plays a central role in structuring them (Brands et al., 2022). In this way, they might reinforce existing gender inequalities, either because men and women have different social networks, with women relatively lacking relationships that contribute to career success (Ibarra, 1997; Ibarra et al., 2013; G. Moore, 1990; Smith-Lovin & McPherson, 1993), or because women cannot use their social relationships to the same extent for career advancement (Brands et al., 2022; Ibarra, 1992; Ibarra et al., 2010; Woehler et al., 2021). Gender differences in the link between workplace networks and career outcomes can emerge in these two ways, which may operate separately or simultaneously. First, men and women may form different kinds of social networks. Second, they may experience different returns from similar networks (Woehler et al., 2021).

The first explanation of gender differences describes that men and women have different networks, for example, in size, composition, or access to influential contacts, and these differences in network characteristics account for disparities in career outcomes. According to this view, similar opportunities and similar networks would yield similar outcomes for all individuals. Explanations for why men and women have different social networks at work focus on opportunities and gender role behaviors (Woehler et al., 2021). Structural explanations emphasize the positioning of men and women in the organization, particularly their numerical (under-)representation and access to high-status positions (Ibarra, 1992; Kanter, 1976; G. Moore, 1990). These differences shape opportunities for relationship formation: women in less prestigious roles and lower levels of the organizational hierarchy may have fewer chances to form resource-rich relationships. In addition, homophily, the principle that individuals tend to form relationships with others similar to themselves, reinforces these patterns (McPherson et al., 2001). Gender is a key dimension of homophily and plays a crucial role in workplace social interactions, which means that same-gender connections form more easily and facilitate reciprocal exchanges, further contributing to women's disadvantaged position. Additionally, the opportunities to invest in professional relationships are also shaped by gender roles (Woehler et al., 2021). While men are often able to prioritize the professional domain, women are expected to balance their careers with disproportionate household and

caregiving responsibilities (Blair-Loy et al., 2015). This 'second shift' limits the time and energy women can dedicate to career-benefiting relationships.

This explanation is supported by empirical evidence. For example, Ibarra (1992, 1997) showed that in organizations where men are overrepresented in higher ranks, women's networks, compared to men's, included more cross-gender relationships, potentially to ensure access to resources. Additionally, it was shown that networks of men and women were segregated in a publishing company in the US, and that women were structurally excluded from the majority male network (Brass, 1985). This exclusion, in turn, was linked to lower influence and fewer promotions. However, based on the findings that women in more gender-integrated groups presented an exception from this pattern, the study concluded that men and women can benefit from structurally similar networks in terms of influence and promotions when structural exclusion is low, and both genders have access to the organizational majority group.

The second explanation states that even when men and women have comparable networks, they may still receive unequal benefits from them. That is, men often derive greater career advantages from their networks than women do, even when the networks are structurally similar. This utilization perspective emphasizes that status differences, gender roles, behavior, and stereotypes shape not only network structure but also network returns and constrain women's capacity to mobilize their social networks (Khattab et al., 2020). Two key aspects contribute to this process of different returns: how individuals use their social relationships and the willingness of their contacts to provide the requested or needed resources. Gender impacts both of these aspects (Woehler et al., 2021). For instance, women may be more hesitant to seek instrumental support from a contact due to concerns about their ability to reciprocate, or because such behavior violates communal gender norms (Lin, 2000). In contrast, men are generally perceived as more legitimate in leveraging their relationships for instrumental gains, in line with gender stereotypes (Ellemers, 2017). These dynamics can limit women's ability to utilize their networks for career advancement or can even expose them to skepticism or backlash (Rudman & Phelan, 2008; Woehler et al., 2021). Other studies have shown that women need different social network structures to reach similar outcomes to men. For example, for men, early promotions were associated with connections to multiple disconnected groups (brokerage positions), whereas for women, the opposite held: early promotions were linked to a network of interconnected contacts (Burt, 1998). Another study found that men were more often perceived to occupy brokerage positions high in entrepreneurial activity, whereas women in these positions received fewer returns and could face sanctions for violating gender expectations (Brands & Kilduff, 2014). It was also shown that women benefit less from a mentor: although women had similar chances

of having a mentor, these relationships did not provide the same career benefits, e.g., promotions, as they did for men (Ibarra et al., 2010). Moreover, it has been documented that women focus more on ties that provide friendship and emotional support, whereas men focus more on ties that provide job-related information (e.g., Broadbridge, 2010; van Emmerik, 2006). Research on workplace friendships further emphasizes these differences, showing that men often viewed these relationships as beneficial for job performance and career advancement, whereas women emphasized their social and emotional benefits, particularly in reducing stress (Morrison, 2009).

Although the research discussed so far highlights gendered patterns in social networks, these patterns may vary across organizational contexts. However, informal networks are rarely studied across organizational contexts, largely because collecting detailed data on employee relationships, along with information about the organization, across multiple organizations is challenging. This dissertation contributes to the literature by empirically examining supportive relationships across different organizational contexts.

1.2.3 The Role of the Organizational Context

The organizational context likely shapes gender differences in work-related support relationships. First, organizations and their practices impact their employees' ability to create and maintain supportive relationships at work (House, 1987). For example, formal organizational structures, roles, and practices largely determine with whom employees work together, have frequent contact, and close proximity, thereby creating the opportunity structure for supportive relationships to form. Second, organizations shape gender dynamics as they reflect broader societal power dynamics, mirroring gender norms, stereotypes, and status hierarchies within society to a certain extent.

Depending on their structure and practices, including present status hierarchies, gender norms, and stereotypes, organizations can both reinforce and mitigate existing gender inequalities in status-related resources. In this way, organizations function as key sites where societal inequalities are reproduced to varying degrees, with potential consequences for supportive relationships. Gender roles refer to societally shared expectations regarding the behaviors and attitudes that are considered acceptable, appropriate, and desirable for men and women (Eagly & Wood, 2012). They are related to beliefs about the attributes of men and women that are internalized through socialization processes. These attributes, inferred from physical differences, task specialization, and the division of labor, stereotypically characterize men as agentic (i.e., assertive, competitive, and task-oriented) and women as communal (i.e., emotionally expressive, friendly, and supportive). Studies have shown that gender roles shape

professional roles and workplace interactions. For example, a study on physicians found that female doctors engaged more in communal behaviors than their male counterparts (Roter et al., 2002). Studies on academia have found that gender roles shape expectations and behavior: women were often expected to contribute to collective interests, while this was less the case for men, and they could more often pursue their individual interests, increasing their chances of career advancement (Hanasono et al., 2019; Järvinen & Mik-Meyer, 2024).

Furthermore, status characteristics theory explains how widely recognized social characteristics shape social interactions and expectations about status and competence (Berger et al., 1972; Ridgeway, 2009, 2014), potentially affecting how many men and women form supportive relationships. Given the historical dominance of men in workplaces and their control over power, influence, and capital, they are typically associated with higher status and competence than women (Acker, 1990). The presence of gender stereotypes further contributes to this dynamic of men being perceived as more agentic and competent (Ellemers, 2017). Research has shown that even when men made mistakes at work, their competence was not undermined, while women's errors were judged more harshly (Brescoll et al., 2010).

The extent to which assumptions about men's higher status and competence come into play depends on how strongly the setting is culturally connoted as masculine or feminine. In masculine settings with skewed gender compositions (e.g., finance, engineering), assumptions of higher status among men, reinforced by gender stereotypes and group dynamics, tend to disadvantage women the most. In organizations that appear mixed and rather gender neutral, men are expected to have a slight advantage in terms of competence and deservingness of status. In contrast, in workplaces culturally linked to women (e.g., nursing, teaching), bias will slightly favor women. It also matters which positions men and women occupy within the organization. Of particular importance is the representation of women in senior positions, as it implicitly conveys which roles are appropriate and achievable for women in that organization. When women are represented in senior positions, this can serve as a powerful signal that can elevate the perceived status of the entire group. In contrast, the absence of female role models in such positions can signal that being a woman is a liability, reducing support and solidarity among women (Tajfel & Turner, 1979). In organizations with few or no women in leadership positions, employees may perceive that women have limited access to instrumental resources and that men hold the majority of status and power. For example, a study on law firms with varying levels of female representation across seniority ranks found that in firms with more women in senior positions, female employees were more likely to view their female superiors as sources of validation and support, and their

relationships with female peers tended to be more supportive, less competitive, and less envious (Ely, 1994). Evidence suggests that in more gender-balanced contexts, traditional gender roles are less pronounced than in male-dominated ones (Ely, 1994; Kanter, 1976). However, the role of organizational context in shaping men's and women's social networks and supportive relationships remains empirically understudied. Therefore, this dissertation investigates organizational characteristics, such as the workforce's gender composition and the manager's gender, in relation to support networks at work.

1.3 Contributions

This dissertation makes several contributions to the literature. First, it argues that societal and workplace dynamics, such as gender norms and workplace composition, may shape giving and receiving support, the types of support exchanged, and associated benefits differently for men and women. This approach extends prior research that often assumes similar benefits of workplace support for men and women (Chiaburu & Harrison, 2008; Jolly et al., 2021; M. Mathieu et al., 2019; Viswesvaran et al., 1999) or investigates gender differences in social networks at work rather than social support directly (e.g., Burt, 1998; Woehler et al., 2021). As a result, it remains unclear whether and to what extent gendered patterns in work-related social support exist. By empirically examining gender differences across multiple types of relationships and their associations with work outcomes, this dissertation advances our understanding of gendered patterns in supportive relationships and their implications for men and women.

Second, this dissertation moves beyond studying workplace support at the level of the individual employee and accounts for the role of the organization in shaping supportive workplace relationships. This extends prior research that was often conducted in single (or very few) organizations, usually male-dominated (e.g., Markiewicz et al., 1999; McGuire & Bielby, 2016; Spurk et al., 2015; Stackman & Pinder, 1999; Woehler et al., 2021), which does not allow for a systematic investigation of the role of workplace characteristics. However, theories of gendered organizations indicate that workplaces may treat men and women differently, given that organizational norms, values, and structural positions have often been designed to privilege men and disadvantage women (Acker, 1990). For example, gender differences in support may depend on organizational structure (e.g., gender composition and power distribution) and organizational culture (e.g., norms on gender and supportiveness). Based on this argument, gender patterns in social support need to be investigated in light of the work context in which they are embedded. For that reason, this dissertation investigates supportive relationships across three levels: (1) at the individual level, focusing on the link between content and function of support, broadly distinguishing between instrumental and emotional types of support,

and objective and subjective work outcomes like salary, career success, and performance; (2) at the interpersonal relationship level, analyzing structural dimensions of the support relationship and networks, such as support contact, gender homophily, and tie strength; and (3) at the organizational level, considering how workplace characteristics like gender composition and gender and support norms in teams shape the support-outcome link.

Third, it contributes by adopting an interdisciplinary perspective on social support at work, combining theories and approaches primarily from sociology and psychology. This combination allows the study of the interplay between individual attitudes and behaviors and the context that shapes individual opportunities, constraints, and preferences. More specifically, it provides insights into how structural factors, such as the organizational gender composition and the representation of men and women in different roles, and cultural expectations such as gender roles and stereotypes, jointly shape the types of supportive relationships employees have, with whom, and what benefits these relationships bring. In this way, the dissertation combines ideas and findings from the largely disconnected literatures on gendered organizations, social networks, and social support, thereby advancing our understanding of the gendering of supportive relationships in workplaces. Embedded in the SCOOP project, it views social support at work as a form of sustainable cooperation. Across the empirical chapters, it focuses on different supportive relationships employees can have, including workplace friendships, career and emotional support, helping behaviors, and both giving and receiving support. In this way, it contributes to a comprehensive understanding of work-related support.

Last, the dissertation leverages multiple unique data sources to address its research question. The European Sustainable Workforce Survey is a large-scale, multi-organization, multi-sector, and cross-national multilevel dataset. It not only allows for an investigation of the role of organizational characteristics in shaping supportive work relationships for men and women, but also, given its scope, enhances the generalizability of the findings to many European workplaces. Using the German Socioeconomic Panel, the benefits of career support and its association with career success are tested using a large-scale, representative population dataset. To dive deeper into the structure of support relationships at work, a survey conducted in a Dutch health care organization is used, which includes ego-network measures of career and emotional support networks, including information on the network size, gender, and status composition, and tie strength. It was collected recently in a female-dominated organization, giving the first evidence on support networks in such a context, whereas prior studies have focused mainly on male-dominated workplaces (e.g., Burt, 1998; Ibarra, 1997; Spurk et al., 2015; Woehler et al., 2021). Insights into such workplaces are particularly relevant because measures such as gender quotas are increasing women's representation, suggesting that

the gender composition of many organizations will likely continue to change in the future. Finally, the measures of support used in this dissertation are constructed to capture received support rather than perceived support, which is relatively understudied and relevant for understanding the association between support and work outcomes.

1.4 Data

This dissertation uses data from four sources, including survey and ego-network data from multiple European countries. Because it is challenging to gather comparable data on employees' social relationships and the workplace contexts in which they take place, this dissertation draws on several datasets to provide insights into such supportive relationships across organizational contexts.

The European Sustainable Workforce Survey – Wave 2

Chapter 2 uses data from the second wave of the European Sustainable Workforce Survey (ESWS; van der Lippe et al., 2022). It is a unique multi-actor dataset containing information on private and public sector organizations in nine European countries (Bulgaria, Finland, Germany, Hungary, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom) and six sectors (financial services, health care, higher education, manufacturing, telecommunications, and transportation). Using a mix of stratified random sampling and personal connections, organizations were selected from statistical and commercial business registers and stratified by country, sector, and size. Organizations vary in their workforce composition (e.g., percentage of women or older employees, flexible employment, and technological development) and size (small: 40–99 employees, medium: 100–249, large: 250+). The second wave was collected between March 2018 and January 2019. A total of 4,345 employees in 376 departments from 101 organizations participated. In addition to the survey items of wave 1, wave 2 included a name generator instrument measuring affective workplace networks, which allows the identification of workplace friendships. Here, employees were asked to name up to 3 people at work with whom they liked to work and up to three people with whom they met outside of the workplace. Additionally, the names' gender is obtained by a three-step gender identification strategy combining information provided by organizations, machine processing based on the 'World Gender-Name Dictionary', and manual gender assignment. The final sample used in the analyses of workplace friendships consists of 2,606 employees in 260 departments from 98 organizations.

The German Socio-Economic Panel (SOEP)

Chapter 3 uses data from the 2016 wave of the German Socio-Economic Panel (SOEP; doi:10.5684/soep.core.v38.1eu), an annual household panel survey representative of the

German population aged 16 and older. The SOEP includes approximately 15,000 households and 30,000 respondents each year. The 2016 wave contains a resource generator on types of support, including career support, in which respondents could nominate up to five support contacts from a list of groups (e.g., parents, friends, partner, coworkers). The final sample consists of 8,719 respondents.

Sustainable Workforce Survey – Wave 3

Chapter 4 uses data collected from a female-dominated Dutch health care organization that provides specialized care for children and young adults. Its workforce consists of a diverse group of professionals, including, for example, psychologists and social workers, who work across various departments to deliver foster care, crisis intervention, and broader family support services. The workforce of the organization consists of around 2,000 employees. The majority are women, and the board and supervisory board are also predominantly women.

To investigate career and emotional support of men and women in this female-dominated organization, employees were asked to report on their career and emotional support networks. They could name up to five contacts for career support and five contacts for emotional support, using either a full name, an abbreviation, or a nickname. After listing these contacts, respondents provided additional information about each person, including their work relationship, emotional closeness, and gender. In total, 286 employees (50 men and 236 women) provided valid network data.

The data collection was part of the Sustainable Workforce Survey, with this organization participating in an additional, organization-specific module. This third wave of the Sustainable Workforce Survey was carried out in 2024 among Dutch organizations only and was distributed to organizations using a national business registry (van der Put et al., 2024). Organizations received a personalized benchmark report for their participation.

The European Sustainable Workforce Survey – Wave 1

Chapter 5 uses data from the first wave of the European Sustainable Workforce Survey (van der Lippe et al., 2016). The ESWS wave 1 data collection took place in 2015 and 2016. Waves 1 and 2 were collected using the same approach and in the same countries and sectors. Wave 1 contains three instruments: the Organization Questionnaire, covering information on the whole organization, filled in by an HR manager, the Manager Questionnaire, collecting information on the managers themselves and on their teams, and the Employee Questionnaire, filled in by the employees. In total, 11,011 employees in 869 teams from 259 organizations participated. The analytical sample consists of 690

teams in 249 organizations for the team analysis. In the employee-level analysis, the analytical sample includes 8,821 employees across 704 teams and 251 organizations.

1.5 Overview of the Empirical Chapters

To address the overarching research question of this dissertation 'How are gendered patterns of giving and receiving work-related social support associated with differences in work outcomes across various organizational contexts?', the empirical chapters examine men's and women's types of informal supportive relationships, and whether they derive different career-related benefits from these relationships. Chapters 2 and 3 focus on gendered patterns in informal relationships, specifically workplace friendships (Chapter 2) and career support (Chapter 3). Chapters 3, 4, and 5 analyze gendered returns to informal relationships. Chapters 2, 3, and 4 focus on receiving social support, and Chapter 5 examines giving social support and its implications for individual and team performance.

Workplace Friendships of Men and Women: Examining Employee Gender, Manager Gender, and Gender Composition in European Workplaces

Chapter 2 focuses on potential gender differences in workplace friendships. Specifically, it investigates the number of workplace friends and the gender composition of workplace friendship networks. Moreover, it analyzes whether gender differences in the number and composition are shaped by the gender composition of the department and the gender of the manager. The research question of this chapter is thus: Are there gender differences in workplace friendships, and do these differences vary with respect to characteristics of the workplace?

Drawing on theories of multiplex relationships, gendered socialization, homophily, and the role of organizational opportunity structures, women were expected to have more workplace friendships and more female and fewer male friends than men. The gender composition and the manager's gender were also expected to shape workplace friendship networks, with women having more gender homophily with higher shares of women and a female manager.

This chapter extends previous literature by investigating gender composition of friendship networks in addition to the number of workplace friends, by testing two contextual moderators, namely the share of women in the department and the gender of the manager, and by utilizing a dataset on multiple organizations, sectors, and countries, which extends the scope of prior small sample and single firm or single sector studies (e.g., Ibarra, 1992; Markiewicz et al., 1999; Stackman & Pinder, 1999).

Using data from 2,606 employees in 260 departments across 98 organizations and 9 European countries, three-level mixed-effects regression models revealed that women

have more workplace friendships overall, more female workplace friends, and fewer male workplace friends than men. The gender composition of a department also mattered for whom individuals formed friendships with: in departments with higher shares of women, both men and women had more female workplace friends. In addition, the gender of the manager played a role. Regardless of their own gender, employees had more female friends when they worked under a female manager and more male friends when they worked under a male manager, independent of the department's gender composition.

Overall, the findings suggest that women have more workplace friendships than men, but they have similar preferences for same-gender friendships. It also highlights that structural factors, such as workplace composition and power distributions, rather than personal preferences alone, influence workplace friendships. In this way, the organizational context can facilitate or constrain opportunities to build supportive relationships differently for men and women. Because workplace friendships may emphasize the emotional component more than the instrumental, the next chapter focuses on career support, which more strongly reflects the instrumental component.

Career Support and Career Success of Men and Women: Investigating Work and Non-Work Support Contacts

Chapter 3 examines what individuals gain from supportive relationships and whether these benefits are similar for men and women. Specifically, it analyzes how receiving career support relates to objective (salary) and subjective (job satisfaction) career success. The research question is: To what extent is receiving career support from work and non-work relationships related to men's and women's career success?

This chapter adds to previous studies by differentiating between non-work and work contacts. More specifically, it distinguishes between no support, non-work support (e.g., family, friends, acquaintances), and work support (e.g., coworkers and supervisor). This distinction is based on the argument that different individuals have access to career-benefiting resources of different types and qualities, which likely shapes the strength of the relationship between career support and career success. In general, work support contacts, and particularly supervisors, were expected to provide the most valuable career support.

Based on gender roles, gender stereotypical behavior, and status-based expectations, women were expected to be able to utilize their social relationships to a lesser extent than men, for instrumental gains, resulting in weaker links between career support and career success. This may be because women are less likely to engage in agentic networking, or because others are less willing to provide them with instrumental resources due to gender stereotypes or lower perceived status.

Using data from the German Socio-Economic Panel (SOEP) and 8,719 respondents, results showed that career support is beneficial for both objective and subjective aspects of career success. Additionally, support from workplace contacts, especially from supervisors, is most useful. For men, the links between career support and salary were consistently positive, whereas for women, these links were weaker or absent. This suggests that career support translates into lower financial returns for women than for men, particularly when the support comes from a supervisor. A limitation of the data is that it was not possible to control for the aspect that men and women may work in different jobs and organizations. To limit these potential confounding factors, the next chapter focuses on one organization and the access to and returns from social support that men and women have in this organization.

Career and Emotional Support Networks and Subjective Career Success: Examining Gender Differences in a Female-Dominated Organization

Chapter 4 zooms in on social support networks of men and women within a female-dominated organization. Here, the focus lies on characteristics of career and emotional support networks and their returns for subjective career success (perceived career success and job satisfaction). The research question is: How do male and female employees differ in the characteristics of their career and emotional support networks and in the returns they derive from these networks within a female-dominated workplace?

Previous studies have been mainly conducted in male-dominated organizations (e.g., Burt, 1998; Ibarra, 1997; McGuire & Bielby, 2016; Spurk et al., 2015; Woehler et al., 2021). The context of a female-dominated organization presents an opportunity to examine whether expectations play out in the same way when the organization's gender composition is different. Drawing on status characteristics theory and gender role theory, this chapter argues that the overall gender composition of an organization may be a relevant factor shaping support networks and their returns for subjective career success.

Using data on the career and emotional support networks of 286 employees (50 men and 236 women), results showed that men and women in this organization had similarly sized career and emotional support networks. However, there were also some gender differences, for instance, women’s emotional support networks contained more strong ties, and both their career and emotional support networks showed higher gender homophily. Additionally, some evidence for gendered network returns was found, as career support network size, the percentage of men, and having a supervisor in the career support network were associated with perceived career success for men only, and the percentage of same-gender contacts was linked to job satisfaction for men but not for women. The chapter shows that gender differences in workplace networks and their benefits are altered in a female-dominated context, providing a first step towards a better

understanding of how gendered patterns are shaped by characteristics of the organization.

Does Helping Benefit You or the Team? A Multilevel Investigation of the Helping–Performance Link in European Workplaces

Chapter 5 examines how helping coworkers with work-related tasks is linked to individual and team performance and whether this relationship varies with the supportiveness of the work environment and the helper's gender. The chapter's research question is: How is helping coworkers linked to the helper's individual performance and team performance? Is this relationship dependent on the supportiveness of the work environment and the helper's gender?

This chapter contributes by focusing on the consequences of giving (task) support, which has received much less attention than getting support at work (Bolino & Grant, 2016; Colbert et al., 2016). It also explores how supportive team norms and the helper's gender shape the link between individual helping and performance. Additionally, this chapter uses data from multiple organizations across sectors and countries, providing more robust insights than prior single-organization or single-sector studies.

While social exchange theory and reciprocity norms suggest that helping is positively associated with team performance, the consequences for individual performance are less clear due to competing arguments. Social exchange theory predicts positive performance outcomes, as such an exchange of resources increases efficiency in the long run. In contrast, conservation of resources theory and the allocation of resources framework predict that helping will have negative implications for individual performance, as time and energy are spent on someone else's tasks. Gender roles and stereotypes posit that helping is more expected from women; therefore, the help of women may be less acknowledged, leading to lower helping returns for women.

Using ESWS Wave 1 data, analyses were based on 8,821 employees in 704 teams and 251 organizations (individual level) and 690 teams in 249 organizations (team level). Multilevel regression models showed that helping is positively associated with both team and individual performance, overall providing support for the social exchange theory and contradicting predictions of the allocation framework and performance costs. Moreover, coworker support strengthened the positive relationship between helping and individual performance, whereas manager support did not moderate this relationship. Men and women benefited equally from helping, indicating no gendered performance returns to task support. These findings suggest that helping behavior is generally beneficial for everyone and that supportive coworkers can amplify these benefits, potentially because of higher levels of reciprocity.

Table 1.1
Overview of the Empirical Chapters

Chapter	Focus	Data	RQ	IVs	DVs	Method
2	Workplace friendships	ESWS Wave 2 9 EU countries	Are there gender differences in workplace friendships, and do these differences vary with respect to characteristics of the workplace?	Gender Moderators: share of women in the department, gender manager	Number of workplace friendships, number of male/female workplace friends, gender homophily in friendship networks	Multilevel analysis
3	Career support	SOEP (v38) Germany	To what extent is receiving career support from work and non-work relationships related to men's and women's career success?	Career support (work and non-work contacts) Moderator: gender	Salary, job satisfaction	Regression analysis
4	Career and emotional support	SWS Wave 3 Netherlands	How do male and female employees differ in the characteristics of their career and emotional support networks and in the returns they derive from these networks within a female-dominated workplace?	Gender, career support, and emotional support network characteristics (size, number of strong ties, gender, and status composition)	Job satisfaction, perceived career support	T/chi2 tests; regression analysis
5	Task support	ESWS Wave 1 9 EU countries	How is helping coworkers linked to the helper's individual performance and team performance? Is this relationship dependent on the supportiveness of the work environment and the helper's gender?	Team helping, employee helping Moderators: gender, supportive climate	Team performance, individual task performance	Multilevel analysis

1.6 Overarching Conclusions

Bringing together the main insights from the empirical chapters, the following section presents the dissertation's overarching conclusion. First, it focuses on general findings on the links between work-related support and work outcomes, and then zooms in on conclusions regarding how these patterns differ for men and women. Last, insights into the role of the organizational context in shaping gendered patterns of support are discussed.

1.6.1 Giving and Receiving Support is Beneficial for Individuals and Teams

This dissertation shows that giving and receiving support is beneficial for both individuals and teams. The studies conducted showed that support was associated with positive work outcomes on the individual level, consistent with the idea that support at work is a valuable resource that contributes to employee functioning and well-being. For example, employees who received support were more satisfied with their jobs and earned higher salaries. Employees also benefited from giving support, as those who more frequently helped their coworkers with work-related problems performed better themselves. These results are in line with expectations from the social exchange theory, which highlights that exchanges of resources create mutual gains (Blau, 1964). This increased productivity may occur through direct consequences of helping, such as strengthening and practicing skills, or indirectly by increasing the chances of receiving help in the future. The findings that the link between giving support and individual performance was stronger in teams with stronger support norms suggest that the latter explanation is especially plausible. This implies that when individuals feel supported by others, they are motivated to return support due to feelings of obligation and reciprocity (Gouldner, 1960). Although other theoretical perspectives, such as the Allocation of Resources Framework or the Conservation of Resources Theory, emphasize the potential cost of helping others, the findings of this dissertation did not support those perspectives.

Support is not only positive for individual work outcomes of the giver and receiver but also benefits teams. Findings showed that teams in which more employees provided task support to their coworkers were evaluated as more productive by managers. This aligns with the idea that mutual support among employees enhances the team's overall effectiveness by improving individual efficiency and team dynamics, for example, through knowledge sharing, training new members, improved information flow, and reduced conflict (P. M. Podsakoff et al., 2000). This implies that organizations and managers may foster a work environment where people help each other to increase team efficiency, for

example, by creating structures that encourage and reward collaboration. Overall, it can be concluded that social support at work can indeed be viewed as a form of sustainable cooperation, as it has positive consequences for all actors involved: the giver, the receiver, and the organization.

1.6.2 Receiving Instrumental Support from the Supervisor Matters Most

It is not only important to have supportive relationships at work, but it also matters what kind of resources they provide. This dissertation shows that instrumental support is more relevant to career outcomes, while emotional support seems to matter less. Findings showed that career support is beneficial not only for objective outcomes but also for subjective outcomes, such as being satisfied with the job. This highlights that work-related support is not only about having supportive relationships, but also what kind of (instrumental) resources they offer. This suggests that the value of supportive relationships may lie in the practical resources they provide, thereby helping employees fulfill their work roles, achieve their professional goals, and be happy in their jobs, rather than solely being friendly or caring coworkers. This also means that when people have supportive relationships, but these contacts lack the relevant resources, they might feel supported in some way, but cannot get the full benefits. It could even be that when instrumental resources are lacking, emotional support, such as talking about the issue or venting, emphasizes the issue rather than solving it, which may lower job satisfaction.

It also matters from whom one gets career support. Career support from work contacts had a larger impact than career support from non-work contacts, underlining that these supportive relationships likely lack instrumental resources specific to the workplace and relevant to career outcomes. Moreover, at the workplace, support from supervisors was more beneficial than support from coworkers alone. Given the finding that instrumental resources matter most, it is logical that support from supervisors is especially important, as they have greater access to and control over resources than coworkers or contacts outside the workplace. Moreover, having a supportive relationship with someone higher in the hierarchy might also allow access to other important contacts via the supervisor. Overall, these findings support the matching hypothesis, which posits that support is most valuable when it directly addresses a specific work demand (Cohen & Wills, 1985; De Jonge & Dormann, 2007). For instance, coworkers' support may be particularly relevant in addressing a work demand because they have specific knowledge, resources, and influence within the workplace. They can help complete a task and reduce work pressure, whereas a partner outside the workplace typically cannot offer this type of task-specific assistance.

1.6.3 Support Relationships Show Gendered Patterns

Investigating multiple support relationships at work and the related benefits, this dissertation shows some gendered patterns in work-related support. Overall, men and women receive similar levels of support, and when differences exist, women receive even more support than men. Findings showed that the same proportion of men and women received any type of career support, and their support networks were of the same size, yet women had more workplace friends. Gender differences emerged regarding the type of social support and the source that provides it: women's supportive relationships focused more on emotional support, whereas men's supportive relationships focused more on instrumental support. For example, women had more workplace friends and more strong ties in their emotional support networks, but not in their career support networks at work. They received career support more often from contacts outside of work, while at work, they mainly received it from coworkers. In contrast, men received career support more often from work contacts and at work more often from their supervisor. These findings, that women have more emotional support and men have more instrumental support, align with expectations from gender role theory and gender stereotypes, reflecting stereotypical ideas of women as communal and men as agentic (Brands et al., 2022; Eagly, 1987; Ellemers, 2017; Ibarra et al., 2010). Consequently, women have supportive relationships at work and may also feel supported, but they could lack access to resources needed for career advancement, such as supervisor career support. Although the findings in this dissertation did not reveal that differences in support explained gender disparities in salary and job satisfaction, such gender differences may still be relevant for other outcomes, such as high-visibility tasks, opportunities, and promotions, and in this way contribute to career disadvantages for women. Moreover, maintaining emotional support ties can also be taxing, and without providing instrumental career benefits, they might put an additional burden on women.

Furthermore, men and women do not benefit equally from the support they receive, with larger differences in terms of instrumental support. For example, women benefited less from career support from work and non-work contacts in terms of salary. More generally, support was more strongly linked to career outcomes for men, while for women this association was weaker or absent, indicating gender differences in the returns to support. These findings further support the idea that gender roles, stereotypes, and status characteristics shape workplace relationships, despite the presence of professional roles that are ostensibly gender neutral (Eagly & Wood, 2012).

1.6.4 The Workplace Context Shapes Supportive Relationships and their Benefits

The workplace context, specifically the structural and cultural characteristics of the organization, shapes both the kinds of supportive relationships employees have and their benefits. For example, it was shown that the gender composition of the organization matters for workplace friendships. With more women working in the organization, both men and women had more female friends. Not only the gender composition but also the manager's gender appeared to be important for workplace friendship networks. Having a female manager led women to have more gender homophily in their informal networks, while the opposite was the case for men, and a female manager reduced gender homophily. These findings support the structural view of gender differences in workplace relationships, which emphasizes that such differences are more attributable to the positions men and women occupy in the organization than to gendered attitudes and behavior (Ibarra, 1992; Kanter, 1976; G. Moore, 1990). With higher shares of women in the organization, women have more opportunities to form relationships with other women. Additionally, having a female manager may increase women's legitimacy. With higher legitimacy, women might become more attractive as workplace friends, and the need for female employees to befriend male colleagues for instrumental resources decreases. This explanation also implies that a higher representation of women in management positions could have consequences for other women lower in the hierarchy by shaping their opportunities to form supportive workplace relationships. Contrary to this perspective, in a female-dominated workplace, it was found that the returns from support networks are only linked to career success for men, not for women. This example illustrates that even in an organization where structural characteristics, such as female representation, are expected to benefit women, gender differences persist. This highlights that a solely structural explanation of gender differences is not sufficient and that gendered status expectations, gender roles, and gender-stereotypical behavior continue to play a role (Eagly & Wood, 2012; Ridgeway, 2014). It also implies that structural changes, such as greater representation of women in leadership positions, may not necessarily decrease gender differences if gender norms do not change accordingly.

Moreover, this dissertation found that the higher the supportive climate in a team, the more beneficial helping was for individual performance. This suggests that a cooperative norm facilitates helping and thus the exchange of resources, which enhances efficiency. In summary, these findings show that the organizational context is relevant to the study of workplace support.

1.6.5 Limitations and Future Research

Despite the contributions of this dissertation, some limitations need to be discussed. First, this dissertation focuses on gendered patterns of work-related support, considering both individual differences and the organizational context. Studying gender and support is a relevant first step because women represent the largest 'minority' group in European workplaces. However, research should be extended to other minority groups, which may be constrained in building and utilizing their workplace networks (Ibarra, 1993). Moreover, focusing solely on gender may overlook heterogeneity within the group of women. An intersectionality perspective (Crenshaw, 1989; McCall, 2005) emphasizes that social categories, such as gender, ethnicity, age, and sexual orientation, intersect in complex ways. These intersecting identities may influence both access to supportive relationships and associated benefits. Therefore, future research could benefit from applying an intersectional lens to the study of work-related support. In this context, it could be especially interesting to investigate how diversity efforts and interventions affect access to supportive relationships and the benefits they provide.

Second, this dissertation broadly distinguishes between instrumental and emotional support and examines multiple types of supportive relationships and work outcomes. However, the exact nature of the underlying supportive behaviors remains unclear. For example, this dissertation relied on single-item self-reports, which respondents may have interpreted differently. Future research could focus on specific, well-defined types of support, use multiple items to assess supportive behaviors, and describe them with clear theoretical links to work outcomes. The network measures used truncated nomination counts and lacked data on relationships between alters or the full organizational network, thereby limiting the understanding of the structure and quality of employees' support networks. Nevertheless, only because of their efficiency could these measures be incorporated into a survey distributed across multiple organizations, allowing for the collection of data for the study on the role of organizational characteristics in support networks.

Third, this dissertation investigates both giving and receiving support at work, yet it relies on empirical data collected at a single point in time. In this way, it does not offer insights into the underlying processes by which support contributes to work outcomes. Particularly, qualitative approaches can deepen our understanding of such processes. Additionally, the dissertation does not directly assess the bidirectionality or changes of support exchanges over time. Although relationships are often guided by reciprocity, it has been shown that reciprocity levels vary over time, and some employees profit more than others (Patterer et al., 2023). Over longer periods, even small differences can accumulate. The timing of support may also matter, as at some career points, support

may have a greater impact. For example, career support early in one's career might be especially beneficial, and even small differences at this stage can grow over time, producing a cumulative advantage, also known as the Matthew effect (Merton, 1968).

Last, although the dissertation employs rich databases, there are two issues related to the cross-sectional nature and the generalizability of the data. All used data are from a single point in time, and while the directions of the associations are theoretically substantiated, causal claims cannot be made. The possibility of reverse causality cannot be excluded; for example, more successful or satisfied employees may attract greater career support. The findings of the dissertation may not generalize to non-European workplaces, where the role of informal workplace relationships may deviate from that in the studied context. In summary, future research could profit from using qualitative methods to delve deeper into the processes underlying work-related support, employing longitudinal designs to better understand the relationships between support and work outcomes, and systematically investigating how organizational characteristics influence support relationships and networks. Moreover, a cross-cultural comparison may provide further insights into how organizational norms on gender and cooperation shape both giving and receiving support and related returns.

Overall, this dissertation shows that workplace support matters for employees. However, men and women differ in the type of support they receive and from whom they receive it. Women receive more emotional support, and men receive more instrumental support. Additionally, women benefit less than men from similar work-related support. Organizational characteristics further shape the formation of support networks and their impact on work outcomes. The dissertation takes a step towards a better understanding of work-related social support by investigating its link to work outcomes while accounting for gendered patterns and the organizational context.

CHAPTER

2

WORKPLACE FRIENDSHIPS OF MEN AND WOMEN: EXAMINING EMPLOYEE GENDER, MANAGER GENDER, AND GENDER COMPOSITION IN EUROPEAN WORKPLACES

A slightly different version of this chapter has been published as:

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The chapter is coauthored by Eva Jaspers, Tanja van der Lippe, and Jojanneke van der Toorn. The authors jointly developed the main ideas of the chapter. Hoffmann wrote the manuscript and performed the analyses. Japers, van der Lippe, and van der Toorn contributed substantially by providing extensive feedback on earlier versions.

An earlier version of this chapter was presented at Dutch Sociology Day (16-06-2022).

Abstract

The chapter investigates gender differences in workplace friendships, focusing on the number of friends, the gender of these friends, and the extent of same-gender friendships, while accounting for workplace characteristics that shape these differences. Three-level data (employees nested in departments and organizations) from six different sectors across nine countries, and multilevel mixed-effects models were used to test the hypotheses. The results indicate that women have more workplace friends than men. Given sufficient opportunities, both men and women prefer same-gender workplace friendships. Moreover, when having a manager of the same gender, not only men but also women have significantly more same-gender workplace friends. This chapter contributes to the understanding of workplace friendships by utilizing unique data from 2606 employees across various organizations and different sectors. Additionally, it provides insights into how organizational contexts can shape friendship networks among employees and gender dynamics therein.

2.1 Introduction

Many people do not work in isolation but are socially embedded in their workplace. Prior research has shown that social networks are associated with relevant outcomes like salary (Markiewicz et al., 1999), performance (Methot et al., 2016), and promotions (Burt, 1998; Woehler et al., 2021). These social networks do not only consist of the formal, organization-prescribed relationships between job roles, but men and women also form informal, voluntary relationships, which foster collaboration, are central for organizational functioning, and provide social support and inclusion (Morrison & Cooper-Thomas, 2017). A common type of informal relationship is workplace friendships (WPF), characterized by combining a formal work relationship with a friendship. Given the combination of both relationships, they inherently provide instrumental and emotional resources. For example, they not only make work more enjoyable (Rawlins, 1992), but they also allow individuals to mobilize the resources of others, which help them to perform better and get ahead at work (Lin, 1999). Prior research has documented that men and women differ in how and with whom they form, behave within, and utilize their informal social networks at work (Fang et al., 2021; Ibarra, 1992, 1993). In and outside the workplace, men mainly use their relationships for instrumental benefits, while women additionally use them for social and emotional support, alongside instrumental benefits (Apostolou et al., 2021; van Emmerik, 2006). However, how these differences specifically apply to WPF remains underexplored (Horan et al., 2021). Therefore, this chapter aims to investigate gender differences in WPF and examine how they are shaped by the organizational context.

It matters whether or not employees have WPF, as WPF play a crucial role for both individuals and organizations. Coworkers frequently need to collaborate and exchange resources with each other and WPF facilitate these behaviors, helping them to achieve goals (Stackman & Pinder, 1999). Studies have shown that WPF are associated with several positive outcomes for both, the individual and the organization. People with more WPF were less often the target of negative gossip, WPF indirectly reduced stress, fostered team member well-being and collaboration, increased perceived employee productivity and quality of work, and enhanced perceived job significance and organizational commitment, while they decreased employee absenteeism and turnover intentions (Berman et al., 2002; Ellwardt et al., 2012; LePine et al., 2012; Liu et al., 2019; Mao et al., 2012; Pedersen & Lewis, 2012). Further, research showed that groups of friends tend to perform better than those composed of non-friends, as friendships improve coordination and motivation within teams (Chung et al., 2018). WPF are an important part of the informal network of an organization (Markiewicz et al., 1999). Informal networks are the glue that keeps organizations together, facilitate resource sharing and cooperation,

and allow for an organizational culture to emerge. Investigating how men and women potentially differ with respect to WPF, a part of this informal structure, helps to understand, if and how men and women may experience segregated informal networks, which may block access to resources for some or lead to the emergence of conflicting norms.

It also matters *who* one has as a WPF because the friend's gender likely impacts both the nature of the friendship and the potential benefits associated with it. Not everyone has equal access to organizational resources, which means that some WPF are more valuable than others. While it has been shown that there are gender differences in the correlation between WPF and organizational outcomes (e.g., job satisfaction; Morrison, 2009), many studies on WPF pay little attention to the friend's gender (Morrison & Cooper-Thomas, 2017). One exception, Markiewicz and colleagues (2000), documented gender differences in friendship network size and found that whether men or women were judged more favorably as WPF depended on the workplace. However, their study was limited to only three workplaces and was thus not suited for a systematic investigation of the role of the organizational context.

Previous research has shown that who is friends with whom is dependent on individual factors (e.g., gender) and workplace characteristics (e.g., composition; Kram & Isabella, 1985; Sias & Cahill, 1998; Zarankin & Kunkel, 2019). Like many other types of relationships (e.g., marriage, general friendships), WPF are guided by the principle of homophily, which describes that similarity breeds connection and that people are attracted to similar others (McPherson et al., 2001). Focusing on WPF, gender is an important dimension of similarity. Research showed that many WPF are same-gender relationships (Horan et al., 2021), and that such relationships tend to be stronger (Markiewicz et al., 1999). At the workplace, people cannot decide with whom to work together, and the gender composition of the workforce limits the opportunity structure for WPF, so men and women potentially differ in their chances of finding same-gender contacts. Additionally, the question of who a valuable WPF is largely depends on the organization's power structure, which defines who has access to what resources. On the one hand, organizations reflect broader societal power dynamics, mirroring the prevailing status hierarchies within society. On average, men still have more status, power, and resources in organizations and are therefore often of greater instrumental value and thus potentially more attractive as WPF. In line with this argument, having more male WPF was associated with higher salaries, while having more female WPF was negatively associated with financial outcomes (Markiewicz et al., 1999). Combining the preference for gender homophily with a gendered power structure in organizations could place women in a disadvantaged situation, as their preferred WPF may lack specific status-

related instrumental resources. This can make their friendships less beneficial (Ibarra, 1992), potentially reinforcing gender inequalities. On the other hand, organizations can both reinforce and mitigate existing gender inequalities in status-related resources, depending on their structure and practices. As such, organizations serve as the sites where societal inequalities are enacted, though the extent may vary across different organizations. For example, having a female manager could signal that women can have access to power and resources and could improve their status, thereby increasing their attractiveness as WPF. While this chapter does not test the returns from WPF patterns, it investigates potential variation between organizations by focusing on the following research question: *Are there gender differences in workplace friendships, and do these differences vary with respect to characteristics of the workplace?*

We contribute to the literature in three ways. First, we extend the scope of prior studies by not only investigating the number of WPF but also potential gender differences in the number of same-gender/different-gender friends, and gender homophily in the WPF network. By including these different measures in our analyses, we aim to provide more nuanced insights into patterns of informal relationships. Second, we empirically test two theoretically relevant workplace characteristics as moderators (gender composition and manager's gender), which help to understand how gender differences may vary across different organizations. Third, the rich 'European Sustainable Workforce Survey' provides information on employees in different organizations, sectors, and countries, allowing us to study WPF on a large scale, and extending the scope of prior small sample and single-firm or single-sector studies (e.g., Ibarra, 1992; Markiewicz et al., 1999; Stackman & Pinder, 1999).

2.2 Theory

2.2.1 Workplace Friendships

WPF are relevant to an interdisciplinary audience, including scholars in Management, Communication, Psychology, Personal Relationships, Organizational Behavior, Sociology, and Gender Studies (Chory & Horan, 2023). Previous studies focused on the development of WPF (Sias & Cahill, 1998), potential tension experiences (Bridge & Baxter, 1992), gender differences in attitudes, as well as ideal and actual friendship experiences (Devine & Markiewicz, 1990; Sapadin, 1988). Management and sociology scholars often use social network analysis to investigate WPF (Hood et al., 2017; Methot et al., 2016; Tasselli & Kilduff, 2018).

Although WPF are somewhat differently labeled in the literature (e.g., business friendships, work friends), they essentially describe a voluntary relationship between coworkers which comprises a professional and a personal element and in this way span

professional and private lives (i.e., blended relationships; Chory and Horan, 2023). Based on the notion that all peer relationships at work serve some instrumental and career-enhancing functions (Kram & Isabella, 1985), WPF are defined by the addition of an emotional component to the relationship. Foundational work on WPF emphasizes their significant instrumental functions for both the organizations (e.g., enhanced employee commitment) and the employees (e.g., career development; Rawlins, 1992). Due to their multi-layered nature, WPF are comparatively strong and related to high trust and reliability (Ibarra, 1993, 1995; Liu et al., 2019).

Compared to other relationships at the workplace (overview in Genkin et al., 2022), WPF are distinct because of the combination and interaction of the two types of relationships. First, the instrumental relationship is structured around the job role and the exchange of job-related resources (e.g., information, expertise, material resources) and, in this way, is linked to employee performance. Second, the emotional relationship fulfills the psychological need for social connection, provides support, and is associated with well-being at work (LePine et al., 2012; Zarankin & Kunkel, 2019). The emotional relationship can enhance the instrumental one, as it motivates individuals to share resources and seek help, thereby positively impacting work performance and career advancement (Ibarra, 1997). Investigating task-related networks in multiple organizations, Casciaro and Lobo (2008) have shown that not competence but active liking of coworkers is necessary to contact them and to ask for access to their organizational knowledge. Compared to friendships outside the workplace, which can offer general support, WPF have a unique set of resources, due to a shared understanding of the workplace and physical proximity during work hours. For example, WPF help to identify and discuss opportunities within the organization, share career-relevant information, and can use their influence in a way that benefits their friends (Rawlins, 1992). Knowing the workplace and other employees, they can offer specific advice on handling difficult situations or people and provide immediate support in challenging moments. When coworkers provide emotional support beyond simple conversations, people tend to view them as friends (Agneessens et al., 2006).

2.2.2 Gender Differences in WPF

Research on friendships outside of work suggests that while friendships of men and women share many similarities (Wright, 1988), there are consistent patterns of gender differences (Markiewicz et al., 1999; Sapadin, 1988; Winstead, 1986; Wright, 1982). Women's friendships are described as 'face-to-face relationships' in which interaction is more dyadic than group-oriented, involving confiding, personal concerns, and empathetic communication. Men’s friendships are described as 'side-by-side', instrumental, and

agentic. Their communication is characterized by lower self-disclosure, while the interaction is more aggressive, competitive, and oriented towards the exchange of external information (e.g., sport/work). Activities are often structured around shared interests and are action- rather than person-oriented (Sapadin, 1988).

Many people experience work-related stress (Griffin & Clarke, 2011). Women's stress reaction includes the creation and maintenance of social networks, and they tend to seek social support from coworkers when distressed (Taylor et al., 2000). This social behavior is expected to facilitate WPF, while, in contrast, men's stress reactions do not specifically promote WPF because of general tendencies of lower disclosure and higher competitiveness. Furthermore, men and women seem to evaluate the importance of friendships in the workplace differently. It has been shown that for men, workplace friendships increase satisfaction, yet they are not dissatisfied when they lack them. For women, WPF do not increase satisfaction but their absence leads to dissatisfaction (Herzberg, 2017; Morrison, 2009). Based on these arguments, we expect that general friendship patterns of men and women also apply to the workplace, and further that workplace-specific behavior of women promotes WPF.

H1a: Women tend to have more WPF than men.

Besides the number of friends, the friend's gender plays a central role. The concept of homophily is central to understanding the impact of gender on WPF (Winstead & Morganson, 2009). Homophily describes the tendency for people to connect with others who are similar to themselves, serving as a key organizing principle of social relationships across various relationship types (McPherson et al., 2001). Studies on general adult friendships have shown that men and women appreciate different aspects of friendships, different kinds of interactions, and they provide different kinds of support to their friends. Specifically, men tend to be more motivated to build general friendships to derive opportunistic benefits from them (e.g., career advancement), while women value the support and social input gained from friendship more (Apostolou et al., 2021). Furthermore, women are on average more satisfied with their friendships, have more intimate friendships, and experience friendships with other women as most rewarding (Sapadin, 1988).

Extensive research on homophily in the workplace has demonstrated that same-gender relationships develop more easily and that many WPF are same-gender relationships (Brass, 1985; Horan et al., 2021; Markiewicz et al., 1999; McPherson et al., 2001). Especially in the initial stages of WPF development, perceived similarity plays an important role (Sias & Cahill, 1998) and gender is an important dimension of similarity (Winstead & Morganson, 2009). These findings suggest that the friendship needs,

expectations, and attitudes of women are best met by other women, and those of men by other men.

H1b: Women tend to have more female WPF than men.

H1c: Women tend to have fewer male WPF than men.

Same-gender WPF likely represent the majority of WPF; however, men and women could vary in their share of such. While both men and women provide instrumental resources to their WPF, the nature of these resources might differ. In today's organizations, men still have more power and resources, so social relationships with men are, on average, more beneficial in an instrumental way. Although WPF always serve some instrumental function, as even purely emotional support can help employees to cope and perform better, certain high-value instrumental resources (e.g., career advancement opportunities) are often controlled by men. In contrast, the instrumental resources provided by women might contribute less directly to career advancement (task support). While men may find different kinds of instrumental and emotional resources in their gender-homophilous relationships, women could rely on their gender-homophilous relationships for emotional resources but may need to turn to men for certain instrumental resources, as they cannot extract equal benefits from their homophilous relationships. At the workplace, people make strategic choices about relationship investments (Ibarra, 1993). For that reason, women might have more different-gender WPF than men, despite their equal preference for homophily. This is not the case for men, as they have higher chances of having homophilous and simultaneously instrumentally beneficial relationships. Findings of previous research suggested that men have more homophilous, and women have more heterophilous friendship networks in organizations (Ibarra, 1992, 1993, 1997; Woehler et al., 2021). In line with this argument, we expect women to have more WPF (H1a) and more female WPF (H1b) in comparison to men. To ensure access to organizational resources, women might have additional WPF with men, which reduces their overall homophily in WPF. For example, when comparing a male employee having two male WPF, to a female employee having one male and two female WPF, the woman would have a higher number of WPF, a higher number of female WPF but less homophily in WPF.

H1d: Compared to men, women have, on average, less homophily in WPF.

2.2.3 WPF and Characteristics of the Workplace

While gender differences in WPF are often attributed to gendered socialization and are thus somewhat stable, structural explanations focus on the impact of the workplace on gender differences in WPF (e.g., Ibarra 1992; Markiewicz et al. 2000). Organizations are not only viewed as containers of social relationships, but their culture can actively

influence the formation and existence of WPF (Sias & Cahill, 1998). While individual factors like personality and perceived similarities are especially important at the beginning of friendship formation, characteristics of the workplace, which determine proximity and frequency of interaction among coworkers, fundamentally impact WPF in the long term (Morrison & Cooper-Thomas, 2017).

We deem two characteristics of the workplace central in shaping gender differences in WPF: (1) the 'opportunity structure' or share of women; and (2) the 'distribution of power' or having a female manager. First, the opportunity structure to build and maintain WPF constrains employees in the sense that they have little to no choice with whom to work together, have frequent contact, and have proximity, as coworker relations are prescribed by the formal structure of the organization. Organizations or single departments differ in gender representation and are often not gender heterogeneous (McPherson et al., 2001). This implies that the possibility of following personal and homophily preferences in WPF is limited by the availability of suitable contacts. In other words, the question is whether women have enough female coworkers who are in proximity and suitable as potential WPF. Here, both a sufficient absolute number of female employees as well as the share of women impact the opportunity structure. With increasing numbers of female employees, the opportunity structure for women becomes better, and they are expected to have more female WPF, which also increases their total number of WPF.

H2a: The more women in the department the stronger the positive link between being a woman and the number of WPF.

H2b: The more women in the department, the stronger the positive link between being a woman and the number of female WPF.

The second important aspect is related to the hierarchy and distribution of power and resources in the organization and to the question of whether or not women are represented in management positions. The gender of the manager might influence the relationship between gender and WPF in several ways. Men and women differ in their leadership style, with women being less central in their teams and leading more democratically, emphasizing consensual relationships (Appelbaum et al., 2003; Claes, 1999; Eagly & Johannesen-Schmidt, 2001; Webster et al., 1999). They contribute to enhanced communication, cooperation, and team spirit, as well as supporting a climate that is less competitive and that presumably fosters positive social relationships among team members. Thus, in teams with a female manager, opportunity structure and culture might support the development of WPF for both men and women. Research has shown that women (van Hek & van der Lippe, 2022), as well as men (S. Moore et al., 2005), report higher levels of social support when having a female manager. We expect the

magnitude of this effect to differ between men and women, particularly supporting men in having WPF by increasing interaction and interdependence among team members, while maintaining low levels of competition. In this way, female managers could have an equalizing effect on the gender differences in the numbers of WPF.

H3a: Compared to teams with a male manager, in teams with a female manager, the positive effect of being a woman on the number of WPF is weakened.

Second, we expect the association between gender and homophily in WPF to be dependent on the manager's gender. Women might not always be desired as WPF for their lack of instrumental resources. In organizations with few or no women in leadership positions, employees may perceive that women have limited access to resources and that men hold the majority of status and power. The absence of female role models in senior positions could signal that being a woman is a liability, which negatively influences the potential for identification and the attractiveness of female WPF (Ely, 1994). Yet, having women in supervisory positions may change the situation as a female manager implicitly transmits information about an organization's power distribution and signals to others that being female and having power and resources are compatible, thereby increasing women's status and their attractiveness as WPF.

Following the arguments above, we expect that a female manager influences homophily in WPF for men and women differently. For women, a female manager signals that resources can be possessed by women, which increases their attractiveness as WPF, while simultaneously lowering the necessity to have contact with men for instrumental support. Thus, we expect a stronger positive link between being a woman and higher levels of homophily in WPF when having a female manager. For male employees, on the other hand, a female manager signals that women can be valuable WPF. Without the liability of lower status, women's friendship qualities of emotional support and closeness might make them the better WPF, so men might consider WPF with women more often, reducing homophily in WPF. We thus hypothesize contrasting effects on WPF homophily for men and women:

H3b: In departments with a female manager (vs. male manager), the homophily tendency in WPF is strengthened for women and weakened for men.

2.3 Methods

2.3.1 Data

The hypotheses were tested using cross-sectional data from the 'European Sustainable Workforce Survey' (wave 2; van der Lippe et al., 2022). The ESWS is part of the 'Sustainable Workforce' research project that explores the role of organizations in fostering and investing in a sustainable workforce. The survey was initiated and organized

by the University of Utrecht and carried out in cooperation with partners from all participating countries. Data was collected in 9 European countries (Bulgaria, Finland, Germany, Hungary, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom), in 259 differently sized organizations (40–99 employees, 100–249 employees, 250+ employees) from six organizational sectors (financial services, health care, higher education, manufacturing, telecommunications, and transportation) between March 2018 and January 2019. The data combines information on three levels: employees nested in departments and organizations. The ESWS consists of three instruments: the Organization Questionnaire (OQ), the Manager Questionnaire (MQ), and the Employee Questionnaire (EQ). HR managers provide information on the organization as a whole, while managers and employees give information on themselves and their departments. 101 (39%) organizations from the first wave participated again, and 12 Bulgarian organizations were added to compensate for dropouts. In wave 2, a total of 8017 employee questionnaires, 586 manager questionnaires, and 113 organization questionnaires were distributed and yielded response rates of 54% (EQ), 64% (MQ), and 89% (OQ), resulting in a sample of 4345 employees in 376 departments in 101 organizations. Additional information about the data can be obtained from the codebook (van der Lippe et al., 2022).

The second wave of the ESWS was used because it included name generator items on affective networks of employees, which we used to identify WPF. This item was not included in the first wave of the survey. According to privacy guidelines, this information is anonymized so that only the number of coworkers and their gender is provided. The department-level variables 'share of women in the department' and 'female manager' have quite high numbers of missing values, which explains the reduced observations in the final sample. Listwise deletion was used to obtain the final sample, which includes 2606 employees in 260 departments in 98 organizations. Note that for the analysis of the homophily of WPF, a smaller sample is used, including only the 726 employees who have at least one WPF.

2.3.2 Measures

Dependent Variables

Using the employee survey, four different measures of the dependent variable were created. *Number of WPF* describes the sum of workplace friends an employee has. As discussed above, there are different theoretical definitions of WPF and inconsistent operationalizations in the literature, so operationalizations range from asking respondents who they have worked closely with to who they would consider close friends (e.g., Lincoln & Miller, 1979; Markiewicz et al., 1999), to indicating for each team member whether they

are considered to be a friend (e.g., Hood et al., 2017). We conceptualized a WPF as relationships at the workplace that involve liking and voluntariness beyond the functions and relations that the organization assigns to its employees. We use the affective network data of the ESWS, consisting of two items 'Whom in your department do you also see outside work?' and 'Whom do you like to work with in your department?'. Respondents can name up to three colleagues under each item. The variable number of WPF combines both items, counting all mentioned unique names, and ranges from 0 to 6. The first item is a measure adapted from other friendship-at-work measures, such as Ibarra (1992). While Ibarra's measure allowed respondents to list as many friends as they wished, male respondents indicated an average of 3.4 WPF and female respondents 2.3 WPF, showing the typical magnitude of WPF. As name generator questions can be very demanding for respondents, we decided to limit answers to a maximum of three names per item to balance efficiency/respondent effort and data quality. In addition to the first item, we also included the item 'liking to work together', to capture the emotional component within WPF, even when these relationships do not extend outside of work. Including this item is particularly relevant for the investigation of cross-gender relationships, where extending the friendship to outside the workplace might be a bigger hurdle due to concerns that such interactions could be misinterpreted as romantic interest by the friend or others (Horan et al., 2021; Sias et al., 2003). The name's gender was obtained by a three-step gender identification strategy combining information provided by organizations, machine processing based on the 'World Gender-Name Dictionary', and manual gender assignment (van der Lippe et al., 2022). The WPF's gender was used in the second and third variables, *female WPF* and *male WPF*, representing the number of female and male WPF an individual has. The fourth measure, *homophily*, describes the ratio of male and female friends relative to the respondent's gender (same-gender WPF/all WPF) and ranges from 0 (no homophily) to 1 (total homophily). For example, a female respondent with one male and two female WPF has a homophily score of .66.

Independent Variables

The main independent variable *female* was assessed in the employee questionnaire with the question 'Are you male or female?' and recoded as a dummy variable with values 0 (male) and 1 (female). The variable *share of women in the department* was measured at the department level, using the information of the manager survey item 'How many employees in your department are female?' with the answer categories 0 – none, 1 – 1-9%, 2 – 10-19%, 3 – 20-39%, 4 – 40-59%, 5 – 60-79%, 6 – 80-89%, 7 – 90-99%, and 8 – all. The variable share of women in the department was treated as continuous in the multivariate analysis.

The dummy variable *female manager* used the gender item of the manager questionnaire and shows whether an employee has a male (0) or a female manager (1).

In the analyses, we controlled for the following variables: *years in the organization* and *years in the department*, metric variables displaying the respondent's answers to the questions 'How many years have you been working for this organization?' and 'How many years have you been working for this department?'. We controlled for these variables as longer years might be linked to a higher likelihood of having friends. The variable *age* (in years) was added as a control variable because younger employees potentially have more WPF than older employees. Prior research showed that being a parent has consequences for time spent with friends (Pedersen & Lewis, 2012). Therefore, we included the variable *child* ('Do you have children living at home?'). The more time one spends in the organization, the more occasions there are for building and maintaining friendships; thus, we controlled for *working from home*. Furthermore, we controlled for other potential influences on the outcomes of interest, including *years of education*, the *number of employees in the department,* and the dummy variables *country* and *sector* (Manufacturing (ref.), Health Care, Higher Education, Transport, Financial Services, Telecommunications).

2.3.3 Analytical Strategy

We estimated 3-level mixed-effects regression models to test the proposed hypotheses. Multilevel models were chosen because of the hierarchical structure of the data (employees nested in departments, nested in organizations). Accordingly, we expected differences between employees of the same department/organization to be smaller than differences between employees of different contexts. Not accounting for this context dependency could lead to bias and a poor quality of coefficients and standard errors. For the three dependent variables, number of WPF, female WPF, and male WPF, mixed-effects negative binomial regression models are most suitable because they are overdispersed (variance > mean) count variables (max. 6; Twisk, 2019). It is important to account for present overdispersion as it invalidates the statistical inference of the models when neglected (Guimarães, 2005). We report the effects as incidence rate ratios (IRR) for better interpretability. Comparisons of the mixed-effects negative binomial model and mixed-effects Poisson model supported the existence of overdispersion as well as the appropriateness of the model choice in terms of fit[4] (Perumean-Chaney et al., 2013). Moreover, there is significant variation at the organization-, department-, and employee-

[4] Despite significant overdispersion, the negative dispersion parameter in the models indicated a poor fit. Therefore, we also ran multilevel mixed-effects Poisson models, which yielded results largely consistent with negative binomial models.

level, supporting the choice of multilevel models shown by lower values of the Akaike Information Criterion (AIC). For the dependent variable homophily, mixed-effects linear regression models were used. In these models, random effects for female[5] were included to allow for variation of the gender effect between departments and organizations, and all variances and covariances were estimated distinctly which improves model fit and is recommended when testing cross-level interactions (Heisig & Schaeffer, 2019).

2.4 Results

2.4.1 Descriptive Analysis

Observations of the first dependent variable, number of WPF, ranged from 0 to 6, with employees on average having a number of .64 WPF. The largest group of individuals indicated that they do not have any WPF (72.14%), followed by 2 WPF (9.98%), 3 WPF (7.18%), 1 WPF (7.14 %), 4 WPF (2.49%), 5 WPF (1.00%), and 6 WPF (0.08%). In the bivariate analysis, men and women did not differ significantly with respect to their number of WPF ($\chi^2(6, N = 2606) = 10.5250$, $p = 0.104$). Table 2.1 shows the descriptive statistics. On average, women had .63 WPF and men .65 WPF. Furthermore, women had, on average, more female WPF (.44) than men (.16) and men had more male WPF (.49) than women .18). Concerning the average homophily scores, both, men (.75) and women (.71) showed homophily in their WPF.

2.4.2 Multivariate Analysis

To investigate potential gender differences in WPF outcomes, mixed-effect models are presented and interpreted in the following section. Tables 2.2 and 2.3 show mixed-effect negative binomial models with the outcomes WPF as well as female and male WPF. In Table 2.4, the results of the mixed-effect models with the outcome homophily are presented. For the first set of hypotheses on the association between gender and the number of WPF, we expected women to have more WPF than men (H1a). Table 2.2 Models 1&2 show that women have significantly more WPF, even when controlling for years in the organization, years in the department, age, years of education, sectors, children, working from home, and country (IRR = 1.324, $p < .001$). The incident rate ratios can be interpreted as follows: in comparison to men, women have 1.324 times more WPF than men. In other words: for every WPF, a man has, a woman has 1.324 WPF. We also found support for our expectations that women have significantly more female (H1b; IRR = 2.499, $p < .001$), and less male WPF (H1c; IRR =.704, $p = .001$; Table 2.3 Model 2&6). As suggested by the bivariate analysis, we did not find support for hypothesis H1d, that

[5] We also attempted to include random slopes in the negative binomial models, but this resulted in non-convergence.

women have lower levels of homophily in WPF. Table 2.4 Model 2 shows a small and insignificant coefficient of female (IRR: -.045, p = 0.311), demonstrating no gender difference in homophily. Hence, we accept H1a, H1b, and H1c and reject H1d.

The second set of hypotheses states that the association between being a woman and both the number of WPF and the number of female WPF varies with the share of women in the department. Against our expectations, higher shares of women did not strengthen the association between gender and number of WPF (H2a; Table 2.2 Model 4). Looking at the number of female WPF, the share of women in the department significantly moderated the gender effect, but in the opposite direction than expected. The higher the share of women, the weaker the association between being female and female WPF (Table 2.3 Model 4; IRR =.788, p < .001). While we found a positive association between the share of women in the department and the number of female friends, it was not the case that this association was stronger for women. Thus, we reject H2a and H2b.

The last two hypotheses expect that the gender effect of WPF outcomes is dependent on the manager's gender. For teams with a female manager, we expected a weaker association between being female and the number of WPF (H3a; Table 2.2 Model 5). This hypothesis was not supported by the data. Yet, we found that the association between gender and homophily significantly differed between teams with a female manager and teams with a male manager (H3b). Having a female manager strengthened the homophily tendency of women, while it weakened it for men (Table 2.4 Model 4; Figure 2.1). In departments with a male manager, women had, on average, lower homophily in WPF (b = -.271, p < .001), while in teams with a female manager, they had, on average, higher homophily scores (b = .583, p < .001). Controlling for all variables in the model, the average homophily score for women with a male manager is .577, for women with a female manager .758, for men with a male manager .849, and for men with a female manager .447. While when having a female manager, women reached levels of homophily closer to those of men with a male manager, men with a female manager still had higher homophily than women with a male manager. These findings support the argument that women have generally equal preferences for homophily but have less homophilous WPF in contexts where male WPF are more valuable, which underlines the importance of accounting for theoretically relevant contextual factors such as the gender of the manager. Otherwise, gender differences are easily overlooked (Table 2.4 Model 3), leading to incorrect conclusions[6].

[6] We argue above that by combining the items 'Whom in your department do you also see outside work?' and 'Whom do you like to work with in your department?', we employ a gender-sensitive measure of WPF. Additionally, we conducted all analyses using only the 'see outside work' item as a dependent variable (Appendix A). This stricter

2.5 Discussion and Conclusion

Although WPF are a widespread phenomenon, findings on WPF of men and women, gender differences, and their contextuality remain inconclusive (Morrison & Cooper-Thomas, 2017). Previous research on WPF mainly focused on single organizations, firms, or sectors. This is not only a disadvantage for generalizability but also makes an investigation of the role of workplace characteristics impossible. This chapter addressed this gap by investigating the question: *'Are there gender differences in workplace friendships, and do these differences vary with respect to characteristics of the workplace?'*, using the 'European Sustainable Workforce Survey', mixed-effects negative binomial and mixed-effects linear regression models. This chapter has shown that men and women differ in their workplace friendship outcomes. This suggests that these differences do not solely reflect personal preferences but are shaped by the specific context of the workplace.

Our first goal was to analyze potential differences in the number of WPF between men and women. In line with our expectations, we conclude that women have more WPF. It is often assumed that having more WPF is advantageous, but this might not always be the case. On the one hand, while WPF are beneficial, they also require maintenance and are thus associated with costs (Methot et al., 2016). On the other hand, more WPF could be a strategy to ensure sufficient access to resources at work. While we have theorized about this, we did not directly investigate the implications of having different numbers of WFP for work outcomes. Future research should thus investigate whether men and women derive similar benefits from their WPF.

Our data showed that both men and women have more same-gender than different-gender WPF (homophily preference). Supporting our expectations and prior research, women had more female and fewer male WPF than men, again underlining the tendencies for homophily (McPherson et al., 2001). Comparing the homophily levels of men and women, we did not find any gender differences in homophily in WPF, suggesting that both have a tendency for same-gender WPF. Our findings oppose prior studies, which found men to have more homophily in their social relationships at work (e.g., Ibarra, 1997; Stackman & Pinder, 1999). This discrepancy in results may be due to differences in the sample of organizations studied. As men are overrepresented in managerial positions, single-firm studies were more likely to analyze the homophily of

measure yielded similar results. However, an exception was observed in the number of coworkers someone sees outside of work. In comparison to the original measure of WPF, gender differences decreased and only reached marginal significance (IRR =1.219, $p = 0.051$) in the full model including department-level characteristics and controls. Additionally, we also observed that women had lower chances of meeting male coworkers outside of work. Together, these findings support our argument that cross-gender WPF are less likely to extend beyond the workplace. However, our theoretical arguments suggest that even if not extended to the private sphere, WPF offer unique resources and supports the appropriateness of the chosen measurement.

men and women who had male managers. This overrepresentation of departments with male managers leads to the incorrect conclusion that men always have a higher preference for homophily at work. Moreover, earlier studies were conducted in the 90s and mainly focused on organizations in male-dominated industries (e.g., banking, pharma). Since then, more and more women have entered the labor market, and the gendered power structure of organizations has changed. Our more recent sample provides a better picture of the job situation of employees nowadays and includes organizations from different (and sometimes more gender-equal) sectors such as health care. Overall, we conclude that generally men and women have the same preference for homophily, but that the context of the workplace naturally limits the opportunities to realize these individual preferences. Furthermore, it is important to recognize that neglecting this context dependency can lead to overlooking existing gender differences in WPF. In the future, we expect gender differences in WPF to decrease, as more women continue to enter male-dominated occupations and sectors and managerial positions (Wellington et al., 2003). Our findings on workplace characteristics further support the argument that organizational characteristics constrain personal friendship preferences.

Our second goal was to examine gender differences in WPF with respect to the characteristics of the workplace. We found support for the hypotheses that workplace characteristics 'opportunity structure' (gender composition) and 'distribution of power' (manager's gender) shape gender differences in WPF. First, our results showed that a higher share of women in the department was positively associated with the number of female friends, and women tended to select other women as WPF. Contrary to our expectations, this tendency was weakened as the share of women increased, suggesting that the absolute presence of same-gender individuals plays a crucial role. In workplaces where women are a minority, the tendency to form same-gender WPF might be especially strong, as support from this in-group might be particularly important in such environments. In contexts with higher shares of women, the necessity for this specific support might be declining. Second, we hypothesized that an organization's distribution of power affects who is perceived as instrumentally valuable WPF, and that female managers signal that women can hold power positions. We found that women with a female manager had higher levels of homophily. In contrast, women with a male manager had much lower levels of homophily, potentially because male WPF are more valuable as instrumental support in these cases (Ibarra, 1992). This suggests that women's lower levels of homophily may not be a preference but a strategy to ensure access to instrumental support. This interpretation aligns with the findings of Burt (1998), who argues that in situations where women are not legitimate group members, they rely on male strategic partners to overcome their disadvantaged position. In organizations, where

a large majority of management positions is occupied by men, women are likely to be perceived as illegitimate in terms of instrumental resources. Men have an advantage in such work contexts, as they can have legitimate and instrumentally valuable relationships with other men and simultaneously realize their preference for homophily. Having a female manager could enhance the legitimacy and instrumental value of women, potentially changing the situation. Here, women might be more attractive as WPF, so that they do not need to rely on male WPF as strategic partners for instrumental resources. Large discrepancies in the extent of homophilous WPF between men and women potentially contribute to gender inequality because these relationships are particularly beneficial at work due to high levels of trust and reciprocity (Ibarra, 1993; Markiewicz et al., 1999). Therefore, organizations seeking to improve gender equality should consider workplace characteristics influencing the opportunities for homophilous WPF. One promising avenue is to increase efforts to promote women's entry into management positions. First, this ensures that enough women are in key positions where they have access to resources. Second, it supports a culture of equality and mitigates women's lower status at work so that they become more legitimate and attractive as WPF. Moreover, in organizations with a strong dominance of male power, time and consideration should be devoted to the question of how to ensure that women have equal access to resources and opportunities to build friendships with other women. Support from the organization, programs, groups, or workshops directly targeted at women could be promising interventions.

We also contribute to the body of literature investigating the link between the manager's gender and gender equality in the work domain. Here, the central question is whether or not female managers have the potential to improve the situation of their female subordinates and thereby decrease gender inequality overall. Findings on this topic are mixed. Some evidence suggested that female managers can be 'agents of change' (e.g., decrease wage gap; Zimmermann, 2022), others found that female managers only have limited power or motivation to change the situation (van Hek & van der Lippe, 2019, 2022). In line with the change agent hypothesis, we found that having a female manager has relational consequences for the informal networks of employees.

The chapter has several limitations. First, the data contains many individuals who have no WPF. Due to the survey design, it remains undifferentiable whether these individuals have zero WPF or have a missing value on this question. However, since we were interested in how gender and workplace characteristics influence those who have WPF, those without WPF were not the focus of the analyses. Second, even though the ESWS is an unparalleled database, it is not representative of all organizations in participating countries. Because of the use of convenience sampling, the selection of

specific sectors, and the low numbers of organizations for some countries, findings should not be interpreted as universally valid. Moreover, given the need to balance efficiency and data quality in large-scale surveys, time-effective single-item measures were used. While this dataset allowed us to explore the understudied topic of the gender of WPF and the organizational context shaping WPF outcomes, it should be viewed as a preliminary investigation. Future research should employ validated measures to ensure robust findings.

Third, the two items used in the operationalization of WPF capture the emotional component more than the instrumental. We argue that by being coworkers, there is automatically an instrumental relationship, but we do not have any information on the strength or quality of the instrumental component. Future research could test this assumption, directly measuring the amount and nature of instrumental resources provided by WPF.

Last, due to the nature of the data, our analysis treated gender as binary and does not account for non-binary employees. While this chapter focused solely on WPF and binary gender, our findings may extend to other dimensions of workforce diversity, such as race and sexual orientation. From a numerical representation standpoint, for employees belonging to these minority groups, it is harder to find similar WPF, particularly when identities intersect (e.g., Black lesbian women). At the same time, these employees may encounter unique workplace challenges, making homophilous WPF especially valuable for their support and well-being. A more diverse workforce increases opportunities for employees with diverse social identities to form homophilous relationships. Future research should explore the topic of workplace friendships, focusing on additional dimensions of diversity and their intersections. For example, researchers could investigate if and to what extent categories such as race and sexual orientation affect the number of WPF, the characteristics of these relationships, and the benefits employees derive from them.

Nonetheless, the findings of this chapter contribute to the literature as they provide new insights into the subject of WPF, especially on its contextuality. Recognizing that the gender of the employee, the gender composition of the department, and the gender of the manager are factors that play a role in the question of who is friends with whom is crucial to understanding the phenomenon of friendships at the workplace. Additionally, we show the importance of analyzing various WPF outcomes (number of WPF, number of female/male WPF, homophily) to detect gender differences. This shows that gender differences can manifest in many forms beyond mere numbers, and subtle differences can be overlooked easily. This may explain the partially inconclusive findings of prior studies (Schoen et al., 2018). If organizations are more aware and intentional

about these factors, efforts to increase gender equality at work may be more effective. Future research should aim to connect findings on the presence and patterns of men's and women's WPF to important job outcomes like performance or well-being at work. This could help to understand how WPF are connected to persisting gender inequality and provide a foundation for interventions.

Table 2.1
Descriptive statistics of the central variables

	Mean/%	SD	Minimum	Maximum
Number of WPF	.64	1.18	0	6
Number of female WPF	.33	.80	0	5
Number of male WPF	.31	.77	0	5
Homophily	.72	.36	0	1
Female	.59		0	1
Share of Women Department			0	8
None	4.68			
1-9%	9.02			
10-19%	7.33			
20-39%	11.09			
40-59%	16.00			
60-79%	16.00			
80-89%	17.61			
90-99%	10.86			
All	7.41			
Female manager	.44		0	1
Years in the organization	11.99	10.70	0	60
Years in the department	8.85	8.73	0	49
Age	44.57	11.46	19	79
Years of education	13.60	3.62	3	21
Number of employees	86.34	226.85	1	1750
Sector (%)			0	6
Manufacturing	31.66			
Health Care	25.02			
Higher Education	21.72			
Transport	9.36			
Financial Services	6.02			
Telecommunication	6.22			
Child	.51		0	1
Work from Home (%)			0	6
(almost) never	70.84			
less monthly	10.90			
less weekly	6.83			
Weekly	4.83			
2 days/week	3.15			
3 days/week	1.38			
4 or 5 days/week	2.07			
Countries (%)			1	9
UK	1.30			
Germany	4.53			
Finland	2.38			
Sweden	9.13			
Netherlands	20.03			
Portugal	2.61			
Spain	5.03			
Hungary	14.43			
Bulgaria	40.56			

Note. ESWS Wave 2.

Table 2.2

Regression coefficients predicting number of WPF (mixed-effects negative binomial regression; incidence-rate ratios, standard errors in parentheses)

	(1) Without Controls	(2) With controls	(3) Department character-istics	(4) Interaction Share of Women	(5) Interaction Female Manager
Female (Ref: Male)	1.312**	1.324***	1.310**	1.467*	1.420**
	(.180)	(.105)	(.105)	(.265)	(.146)
Share of Women Department			1.06	1.073	1.057
			(.043)	(.047)	(.043)
Female Manager			.764	.770	.871
			(.124)	(.126)	(.168)
Female x Share of Women Department				.972	
				(.039)	
Female x Female Manager					.820
					(.131)
Controls included		x	x	x	x
Constant	.183	1.137	.923	.893	.879
	(.045)	(1.182)	(.967)	(.364)	(.922)
Dispersion Parameter	-.584	-.657	-.657	-.664	-.664
Random Effect Variances					
Organization-Level	4.489	3.312	3.308	3.308	3.307
	(.997)	(.740)	(.737)	(.738)	(.737)
Department-Level	.214	.194	.178	.183	.178
	(.068)	(.064)	(.061)	(.062)	(.061)
AIC	4543.383	4534.891	4535.728	4537.24	4536.186
Log-likelihood	-2266.691	-2237.446	-2235.864	-2235.62	-2235.093

Note. ESWS Wave 2.

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

N(Organizations) = 98; N(Departments) = 260; N(Employees) = 2606

Controls: years in the organization, years in the department, age, years of education, number of employees, sector, children, work from home, country

Table 2.3

Regression coefficients predicting number of female and male WPF (mixed-effects negative binomial regression; incidence-rate ratios, standard errors in parentheses)

	Female WPF				Male WPF		
	(1) Without Controls	(2) With controls	(3) With department characteristics	(4) Interaction	(5) Without Controls	(6) With controls	(7) With department characteristics
Female	2.435***	2.499***	2.374***	6.838***	.690**	.704**	.726**
	(.259)	(.267)	(.252)	(1.801)	(.075)	(.077)	(.080)
Share of Women Department			1.198**	1.388***			.989
			(.074)	(.097)			(.044)
Female Manager			1.102	1.106			.522**
			(.249)	(.244)			(.099)
Female x Share of Women Department				.788***			
				(.042)			
Controls included		x	x	x		x	x
Constant	.054***	.458	.205	.111*	.120***	.310	.335
	(.014)	(.466)	(.217)	(.119)	(.029)	(.320)	(.347)
Dispersion Parameter	-1.502	-1.687	-1.725	-2.055	-.211	-.234	-.233
Random Effect Variances							
Organization-Level	3.608	2.763	2.892	2.902	3.275	2.285	2.307
	(.912)	(.707)	(.727)	(.728)	(.807)	(.587)	(.584)
Department-Level	.633	.542	.427	.401	.232	.214	.117
	(.188)	(.167)	(.142)	(.133)	(.097)	(.092)	(.074)
AIC	2910.55	2903.047	2893.017	2875.481	3022.66	3031.127	3019.119
Log-likelihood	-1450.275	-1421.523	-1414.508	-1404.741	-1506.335	-1485.563	-1477.559

Note. ESWS Wave 2.

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

N(Organizations) = 98; *N*(Departments) = 260; *N*(Employees) = 2606

Controls: years in the organization, years in the department, age, years of education, number of employees, sector, children, work from home, country

Table 2.4

Regression coefficients predicting homophily in WPF (mixed-effects linear regression, regression coefficients, standard errors in parentheses)

	(1) Without Controls	(2) With Controls	(3) Department character-istics	(4) Interaction Female Manager
Female	-.025	-.045	-.043	-.271***
	(.045)	(.046)	(.047)	(.051)
Share of Women Department			.002	.008
			(.011)	(.010)
Female Manager			-.061	-.402***
			(.044)	(.062)
Female x Female Manager				.583***
				(.080)
Controls included		x	x	x
Constant	.691***	.581***	.568***	.750***
	(.035)	(.139)	(.142)	(.135)
Random Effect Variances				
Organization-Level	.011	.008	.007	.005
	(.007)	(.005)	(.005)	(.004)
Department-Level	.060	.058	.053	.029
	(.016)	(.015)	(.016)	(.011)
Employee-Level	.073	.074	.072	.072
	(.005)	(.005)	(.005)	(.005)
Random-Slope Female	.161	.158	.170	.098
	(.035)	(.035)	(.037)	(.026)
Covariance	-.086	-.087	-.087	-.045
(Female - Constant)	(.021)	(.021)	(.022)	(.015)
AIC	426.569	440.6589	443.2347	400.3215
Log-likelihood	-206.2848	-193.3295	-192.6174	-170.1608

Note. ESWS Wave 2.

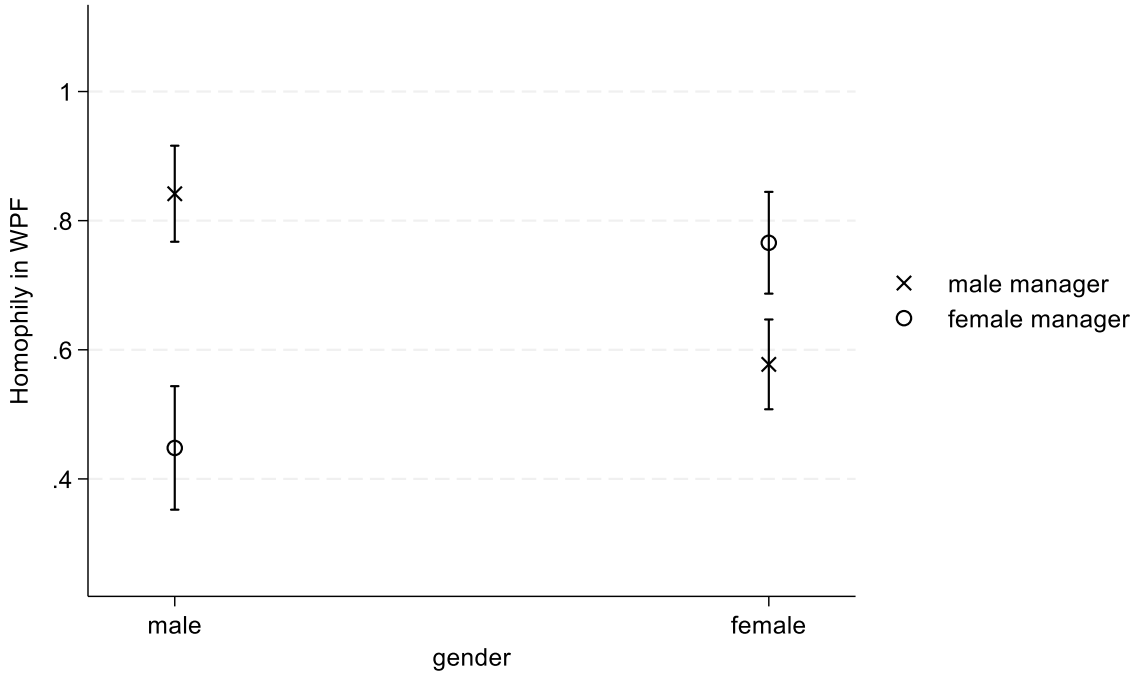
* $p < .05$, ** $p < .01$, *** $p < .001$

N(Organizations) = 68; *N*(Departments) = 150; *N*(Employees) = 726

Controls: years in the organization, years in the department, age, years of education, number of employees, sector, children, work from home, country

Figure 2.1

Predictive margins with 95% CIs of homophily in workplace friendships by employee and manager gender



CHAPTER

3

CAREER SUPPORT AND CAREER SUCCESS OF MEN AND WOMEN: INVESTIGATING WORK AND NON-WORK SUPPORT CONTACTS

The chapter is coauthored by Eva Jaspers and Tanja van der Lippe. The authors jointly developed the main ideas of the chapter. Hoffmann wrote the manuscript and performed the analyses. Japers and van der Lippe contributed substantially by providing extensive feedback on earlier versions.

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Abstract

Social support can be beneficial for employees' career success. However, it remains unclear whether men and women benefit equally from career support. Prior research shows that women may be disadvantaged in leveraging social relationships for instrumental returns. Drawing on social support and social network theory, this chapter analyzed the relationship between career support and two aspects of career success, namely salary (objective) and job satisfaction (subjective). Based on the argument that the usefulness of career support depends on the support contact and what they can provide, we investigated support from different career contacts, differentiating between career support from non-work and work contacts. Using data from the German Socio-Economic Panel Study (SOEP) and 8719 employees, our findings showed that overall, men and women receive similar levels of career support, yet from different sources: men received support more often from work contacts, and particularly supervisors, while women received career support more often from non-work contacts and coworkers. Career support was consistently positively associated with salary and job satisfaction, and support from work contacts, especially from supervisors, was most beneficial for career success. We also found evidence for gender differences in the returns to career support, with men benefiting more from career support, especially in terms of salary. These results suggest that although career support contributes to career success, it does not do so equally for men and women, thereby potentially contributing to persistent gender inequalities at work.

3.1 Introduction

Social relationships embed individuals in networks that span different life domains, including the personal sphere, such as relationships with family members and friends, as well as the professional sphere, including relationships with coworkers and supervisors. Such relationships form the basis for providing and receiving social support, which can take different forms and involves the exchange of psychological or material resources. It has been shown to promote well-being or act as a buffer in adverse life situations (Cohen & Wills, 1985; Jolly et al., 2021; S. Lee et al., 2018; Thoits, 1995). Support likely matters not only for people's private life but also for their professional life and overall career success, both in terms of subjective experiences like job satisfaction and tangible outcomes like salary. In the work context, career support can be a crucial form of support. For example, people may discuss career decisions, share information and job opportunities, and give advice and emotional encouragement regarding workplace challenges or conflicts. While anyone can provide career support, its effectiveness for career success likely depends on the specific resources possessed by the supporter. Social relationships from the private domain might offer more general resources and support, such as conversations and encouragement about difficult situations at work and career decisions, and practical help that eases focusing on the job. In contrast, work contacts are familiar with the workplace and can provide specific resources helpful to career advancement, such as insider information on promotion opportunities, help to network with influential contacts, and support in navigating workplace norms and politics.

Organizational psychological research documented that support at the workplace promotes employee happiness and functioning. For instance, support was linked to higher job satisfaction (Chiaburu & Harrison, 2008; M. Mathieu et al., 2019), lower work stress (Dawson et al., 2016; Viswesvaran et al., 1999), lower burnout symptoms (Halbesleben, 2006), and lower work-family conflict (French et al., 2018). In addition to that, social network studies, focusing on the structure and composition of networks, highlight the benefits of social relationships for career advancement. Studies have shown that social networks help to find jobs (Granovetter, 1973), get promoted (Burt, 1992), and gain influence within organizations (Brass, 1984). While previous research has documented that social support can indeed be beneficial at work (M. Mathieu et al., 2019), it is less clear if and to what extent this equally holds for men and women. On the one hand, career support may be a way to deal with barriers that hinder career advancement, such as work-family conflict, gender stereotyping, and underrepresentation in leadership positions, and thus be especially beneficial for women (Hanek & Garcia, 2022). On the other hand, it has been shown that men and women differ in how they build their social networks at work (Brass, 1985; Ibarra, 1992, 1997), and how they use them, with women being generally

less successful than men in developing and leveraging social networks for career success (McGuire, 2000; G. Moore, 1990; Woehler et al., 2021). This suggests that men and women might not equally benefit from their social relationships, potentially disadvantaging women. Studies focusing on specific types of support at work rather than on social networks in general document clear benefits for employees, yet rarely consider gender differences (Chiaburu & Harrison, 2008; Jolly et al., 2021; M. Mathieu et al., 2019; Viswesvaran et al., 1999). Thus, it remains unclear whether men and women benefit differently from career support. Examining gender differences in the returns from such support can deepen our understanding of how social relationships shape career outcomes and how career support may contribute to the persistence of gender inequality at work. For that reason, this chapter investigates how career support from different support relationships contributes to the career success of men and women. This leads to the following research question: *To what extent is receiving career support from work and non-work relationships related to men's and women's career success?*

To address this question, we investigate the link between career support and career success, which is defined as 'positive psychological or work-related outcomes or achievements one has accumulated as a result of one's work experiences' (Judge et al., 1995, p. 486). Career success refers to both objective and subjective indicators of progression and achievement (Heslin, 2005; Judge et al., 1995; T. W. H. Ng et al., 2005). Objective career success is based on external evaluations or visible criteria (e.g., salary), while subjective career success refers to the personal perceptions and feelings of professional accomplishment (e.g., job satisfaction). Studies have identified key factors influencing career success, primarily focusing on individual resources such as competencies, agentic behaviors, and personality traits (Spurk et al., 2019), while paying less attention to social relationships and the resources they provide. Understanding the role of support for career success is relevant to employees who see it as a life goal, as well as organizations that value its impact on performance, engagement, and retention (Abele et al., 2011).

We aim to enrich previous studies in the following ways: First, we investigate how career support translates into career success for men and women. We argue that gender roles, gender-stereotypical behavior, and status-based expectations likely shape relationships in which resources like career support are exchanged. Prior studies that do not consider these gender differences (Chiaburu & Harrison, 2008; Jolly et al., 2021; M. Mathieu et al., 2019; Viswesvaran et al., 1999) may overlook the possibility that women are less able to leverage their social relationships for career advancement, potentially overgeneralizing the positive impact of support. Second, we distinguish different sources of support (e.g., non-work, coworker, supervisor) because different people have access to

different kinds of resources, making their support more or less beneficial. For example, comparing non-work and work contacts, work contacts have more job-related knowledge, which increases the usefulness of their support for career success. In this chapter, we not only distinguish between coworker and supervisor support, as is common in studies that include information on the support contact (Jolly et al., 2021), but also investigate career support from non-work contacts. Third, we investigate salary and job satisfaction, representing objective and subjective aspects of career success. Particularly in the context of gender and career, it is crucial to examine both dimensions, as men and women often assess them differently, with women generally placing greater emphasis on the subjective aspect (Mayrhofer et al., 2008). Finally, we use representative population data from the German Socio-economic Panel (SOEP), extending the prior scope of single-organization studies. This allows us to investigate the extent to which gender shapes the benefits of career support at work across various workplaces (House, 1987).

3.2 Theory

3.2.1 Career Support and Career Success

Supportive relationships within and outside the workplace are likely to play a role in individual career success and have been studied in organizational behavior, social networks, and human resource management. Across these different literatures, social support is conceptualized in various ways and investigated using different theoretical perspectives[7] (e.g., Bakker & Demerouti, 2017; Blau, 1964; Halbesleben et al., 2014; Lin, 2000). However, a shared assumption is that supportive relationships provide a variety of resources, including material goods, practical help, information, advice, and affection. By receiving support, individuals can leverage the resources of others and obtain returns such as better jobs, higher earnings, promotions, and improved mental health and well-being. Career support refers to support specifically related to someone's job and professional development and can cover the exchange of work-related help, information, expertise, and advice. Examples of career support include sharing information about new job openings, giving advice on career decisions or challenging situations, and introducing someone to a valuable professional contact.

Career support may contribute to objective career success, such as salary, via several ways, such as improved performance and longer tenure, better access to information and opportunities, increased influence and reputation, and greater professional involvement. It has been shown that crucial resources for career outcomes

[7] In this chapter, career support from work and non-work contacts is analyzed as a binary measure, whereas in Chapter 4, the size, gender, and status composition, and number of strong ties in career and emotional support networks are investigated.

include information, influence, and career sponsorship (Seibert et al., 2001). Meta-analytic evidence showed that instrumental support is positively associated with task performance and negatively associated with turnover intentions (M. Mathieu et al., 2019). In turn, higher performance and longer tenure might be rewarded with higher salaries. Career support can also give employees access to more information and knowledge about opportunities for career advancement, in this way, facilitating effective job matching (Ibarra & Deshpande, 2007). Access to information and resources is also closely tied to social power, affecting one's perceived influence and reputation within an organization (Brass, 1984). This influence and good reputation can lead to better organizational positioning and potentially higher salaries, independent of performance. Finally, career support may connect to networking activities, such as increasing visibility and engaging in professional activities, which are positively related to the number of promotions and total compensation (Forret & Dougherty, 2004).

Additionally, career support might also play a role for subjective career success dimensions such as job satisfaction. Access to resources through career support within organizations can promote job satisfaction due to the experience of control and competence (Seibert et al., 2001). While career support often focuses on instrumental aspects, feeling supported can also have emotional returns. For instance, career support, in the form of advice and encouragement, can reduce stress and strain, and can help individuals to cope with challenges, thereby maintaining satisfaction (Thoits, 1995; Viswesvaran et al., 1999). Moreover, supportive relationships more broadly foster feelings of inclusion, belongingness, socialization, and enjoyment. At work, they have been shown to foster closeness and appreciation among coworkers, contributing to a higher sense of being cared for and increased job satisfaction (M. Mathieu et al., 2019; Schieman, 2006).

H1: Individuals receiving career support tend to have higher salaries and greater job satisfaction than those who do not receive career support.

3.2.2 Non-Work and Work Support Contacts

Supportive relationships can be formed with a variety of people, including friends, family members, acquaintances, and professional contacts. Besides general social support, these relationships can provide career support. However, as support contacts differ in the types of resources they possess, their career support may have varying impacts on career success (French et al., 2018). Overall, career support from non-work contacts tends to be more general. For example, many people share experiences at work with their close relationships, like their partners or friends (e.g. Golsch, 2012). Such support may contribute to overall happiness and productivity at work by providing opportunities to talk about workplace problems, give advice, and discuss career decisions. However, non-

work contacts typically lack insider knowledge of the workplace, limiting their ability to provide workplace-specific information or contacts. For this reason, their career support might be less effective in promoting career success, especially in terms of salary.

In contrast, the career support of work contacts, such as coworkers or supervisors, may be more beneficial to career success, as these contacts have insider information and knowledge of the workplace. These specific resources might be critical forms of career support and a better match with support demands at work (i.e., domain-specificity; Cohen & Wills, 1985; De Jonge & Dormann, 2007). The value of such insider knowledge is illustrated by research showing that applicants with a relationship to an insider in the organization had more successful salary negotiations at the start of their new employment (Seidel et al., 2000). Moreover, because of familiarity with work tasks and close proximity, work contacts can immediately give advice or help with assignments, and in this way, contribute to employees' performance. For these reasons, we expect that career support from work contacts, compared to non-work contacts, is more effective in promoting career success.

H2: Employees receiving career support from work contacts (vs. non-work contacts) tend to have higher salaries and greater job satisfaction.

Also, *within* the workplace, support from people in different roles might have varying impacts on career success. Direct coworkers are often in a similar position within the organization and thus typically have access to similar resources. They can provide practical assistance, help organize and prioritize tasks, buffer the negative impact during stressful periods, relate to day-to-day experiences in the workplace, and provide information and guidance on organizational practices and norms. This type of support may improve subjective career success, but it is less likely to benefit objective career success, as those who provide it often lack power or influence. Here, having access to diverse and dissimilar resources could be an advantage (Burt, 1992).

Supervisors, more than coworkers, are likely to possess such resources. Positioned higher in the organizational hierarchy, they have more influence within the organization, both generally and specifically, over the development of employees. They evaluate performance, give raises and promotions, and can act as sponsors, in this way directly supporting someone's career. Supervisor career support can include both instrumental resources (advice, challenging assignments, sponsorship), and emotional resources (counseling, role modeling, confirmation; Kram, 1988). For these reasons, supervisor career support might be more beneficial than coworker support. Studies have shown that supervisor support is linked to promotions (Burt, 1998), and is more strongly correlated than support from coworkers with attitudes like job satisfaction and turnover intentions (M. Mathieu et al., 2019).

H3: Individuals receiving career support from their supervisor (vs. coworkers) tend to have higher salaries and greater job satisfaction than those who do not.

3.2.3 Gender Differences in the Link between Career Support and Career Success

Even if men and women receive similar levels of career support, there might be gender differences in how effectively this support translates into objective and subjective career success. The effectiveness of career support depends on both how individuals utilize their supportive relationships and how willing the support contact is to provide the requested resources (Khattab et al., 2020; Woehler et al., 2021). Although these are two distinct theoretical processes, in practice, they are difficult to disentangle. Gender is considered to be a primary feature in the perception of an individual, acts as a salient base for social categorization, and conveys information about status (Ellemers, 2017; Ridgeway, 2009). Additionally, men are often perceived to fit better the 'ideal worker', who is characterized as a rational, strong leader who is fully committed to work (Brumley, 2014). Categorizing others as men and women can activate gender stereotypes related to expectations of competence and leadership, which in turn shape social interactions by enabling or constraining the utilization of supportive relationships (Khattab et al., 2020).

First, due to gender roles and stereotypes, men and women may *use* their supportive relationships in different ways. Gender stereotypes are internalized, shared beliefs about men and women, portraying men as agentic (i.e., assertive, competitive, instrumentally focused), and women as communal (i.e., friendly, emotionally expressive, and concerned with others; (Eagly & Wood, 2012; Ellemers, 2017). These shared beliefs may make it easier for men to network strategically and actively pursue instrumental resources from their career support contacts, as such behavior aligns with gender roles. For example, men may be more confident to engage in networking behaviors, such as increasing their visibility by accepting new, high-profile work assignments, which have been shown to positively impact promotions, compensation, and subjective career success (Forret & Dougherty, 2004). For women, however, seeking instrumental resources from their relationships in this way is inconsistent with gendered expectations and might violate female communal norms. Research has shown that women who deviate from these norms by displaying high agency often face negative reactions and sanctions (Rudman & Phelan, 2008). Additionally, women tend to encounter more resistance than men when they proactively negotiate their roles and salaries (Bowles et al., 2019). This implies that even when men and women have someone to support their career, men may derive greater benefits from the relationship as they can use them in a more agentic way to achieve tangible outcomes like raises, promotions, and better positions.

Second, besides an individual's use of supportive relationships, the willingness of the contact to provide resources also plays a role in how career support translates into career success (Woehler et al., 2021). During social interactions, the support contact evaluates the individual and their request for resources, leading to the provision of specific resources of a certain quality. Gender roles and stereotypes shape normative assumptions about what resources are appropriated to desire, seek, and receive for men and women. Gender also serves as a diffuse status characteristic that associates women with lower competence, legitimacy, and deservingness (Ridgeway, 2009). Given that men tend to be perceived as more competent and legitimate, they may be offered more instrumental and higher-quality resources and opportunities, which are directly linked to career success (e.g., new job opportunities, high-visibility assignments, or introductions to valuable contacts; Woehler et al., 2021). In contrast, women might be perceived to want or deserve such resources to a lesser degree, leading them to receive support that is less directly tied to career success, such as support related to navigating workplace barriers or combining work and family (Bowles et al., 2019). As a result, although both men and women may perceive that they are receiving career support, the type and quality of resources might differ, leading men to receive more instrumental benefits that more directly translate into career success. This argument likely applies to career support from non-work and work contacts. However, it may be more pronounced for career support from work contacts, especially when these are instrumentally resourceful, such as the support from supervisors. Studies have shown that despite similar social networks at work, women receive less instrumental resources from their social relationships (McGuire, 2002), that men are more effective in using close social relationships for instrumental returns than women (van Emmerik, 2006), and that women are generally less successful than men in developing and leveraging their social networks for career success (McGuire, 2000; G. Moore, 1990; Woehler et al., 2021). For these reasons, we expect that career support translates less effectively into career success for women in comparison to men.

H4: The positive association between (a) career support, (b) career support from work, and (c) career support from supervisor and career success is weaker for women than for men.

3.3 Methods

3.3.1 Data

The hypotheses were tested using data from the German Socio-Economic Panel (SOEP; doi:10.5684/soep.core.v38.1eu), one of the most comprehensive and long-running household panel surveys globally, collected annually since 1984. It provides high-quality, representative data on the adult population (aged 16 and older) living in private

households in Germany. Each year, approximately 15,000 households and 30,000 respondents are interviewed on a broad range of topics through face-to-face interviews and questionnaires. For our analysis, we focused on the year 2016 as it includes a measure of career support. The support information was collected using a resource generator instrument (van Der Gaag & Snijders, 2005), which presents respondents with questions on support and from whom they receive it. The career support question was 'Who supports your advancement in your career or educational training and fosters your progress?'. From a list of various relationship types, such as partner, coworkers, children, neighbors, including an option for no support from anyone, respondents could select up to five support contacts (see Appendix B1). In large-scale surveys like the SOEP, resource generators are preferred over name generators due to their efficiency and scalability. The resource generator is designed to efficiently capture whether or not an individual has access to different dimensions of support and who provides this support, without having to collect a complete social network of a respondent (Diewald et al., 2006).

Our analysis covers all employed individuals in private households who completed the questionnaire in 2016 (N = 27401) and reported being full- or part-time employed with an income in 2016 (N = 12180), excluding respondents with missing or invalid data on the variables of interest (N = 3461). Our final analytical sample consisted of 8719 respondents.

3.3.2 Measures

Dependent Variables

The dependent variables in this chapter are salary and job satisfaction. Salary was measured as the respondent's annual gross earnings from their main job in euros in 2016. This information is drawn from the ijob1 variable in the 2017 SOEP data, which records gross labor earnings in the previous year for all household members aged 16 and older.

Job satisfaction was operationalized using the item: How satisfied are you currently with your job? The scale ranged from 0 to 10, with higher values corresponding to higher satisfaction.

Independent variables

Based on the information from the career support resource generator, which asks the respondents to indicate from which relationships they receive career support, the following three career support variables were created. The first variable showed whether respondents received career support at all, while the second and third variables gave more details about who provided support. Given the phrasing of the item, they measure received support instead of perceived support.

Career support. This dummy variable was coded 1 if the respondent reported that at least one of the listed contacts provides career support and 0 if the respondent reported that no one supports their career.

Career support contacts. This categorical variable indicated whether respondents received career support from no one (0), only from non-work contacts (1), only from work contacts (2), or from both work and non-work (3). Contacts were classified as 'work' contacts if they belonged to the group 'coworkers' or 'supervisors' in the name generator; all other contacts were considered 'non-work'.

Career support contacts at work. This categorical variable split up the 'work' support contacts further into three categories. It had the value 0 for 'coworker' (the respondent listed at least one coworker but no supervisors), 1 for 'supervisor' (the respondent listed at least one supervisor but no coworkers), and 2 for 'coworker & supervisor' (the respondent listed both coworkers and supervisors).

While some respondents reported receiving support exclusively from either non-work or work contacts, or from either coworkers or supervisors, others reported receiving support from both. Although our hypotheses do not specifically focus on receiving support from different contacts combined, adding this category could offer valuable insights beyond the primary comparison. By including the combined group, we might gain further insights into whether career support benefits stem primarily from certain contacts and their specific resources, or from accumulating and potentially complementing resources received from multiple support contacts.

The moderator variable *female* was assessed with the question 'Are you male or female?' and recoded as a dummy variable with values 0 (male) and 1 (female).

Control variables. We included the following variables in the analyses to control for potential confounding effects: *age in years, years of education, partnership* status (partner/no partner), *children* in the household (yes/no), *years in the organization, size of the organization* (< 20, 20 – 200, 200 – 2000, > 2000), and *industry* (agriculture, energy, mining, manufacturing, construction, trade, transport, bank/insurance, services).

3.3.2 Analytical Strategy

To test the hypotheses on the relationship between career support and career success, we used multiple linear regression analysis. We estimated a series of regression models with three career support measures as the main independent variables and salary and job satisfaction as the dependent variables. To examine whether the returns to career support differ for men and women, we included interaction terms between gender and each of the three support variables and reported average marginal effects for men and women separately. We controlled for age, years of education, partnership status, children in the

household, tenure in the organization, organization size, and industry, as these factors may confound the relationship between career support and career success. All full models, including control variables, are presented in the Appendix (Tables B6 & B7).

3.4 Results

3.4.1 Career Support from Different Sources: Non-Work contacts, Coworkers, and Supervisors

Table 3.1 shows the descriptive statistics of the variables included in the analyses. It shows that the majority of respondents receive career support (5846/ 67.05%). Most of them reported support from non-work contacts (3596/41.24 %), followed by those who received it from both work and non-work (1364/15.64%) and those who received support only from work contacts (886/10.16%). Among the group who received career support from work, the largest group received it from coworkers (974/43.29%), followed by support from the supervisor (660/29.33%), and coworker and supervisor (616/27.38%). One reason for the relatively high prevalence of non-work career support contacts may be the ordering of the resource generator list of relationships, where 'partner' was on top, which may have led to it being frequently named.

Looking at overall career support, men and women did not differ significantly in how often they reported receiving career support. However, regarding the question of whom they received it from, there are small but significant gender differences. Men more often reported career support from work contacts compared to women, whereas women received career support more often from non-work contacts. Specifically, there was a significant gender difference in whether career support is received from work contacts, non-work contacts, both, or no one (χ^2 (3, N = 8719) = 9.89, p = 0.020; Figure 3.1). In addition, there was a significant gender difference in the source of support within the workplace (coworker vs. supervisor vs. both), with χ^2 (2, N = 2250) = 6.22, p = 0.044; Figure 3.2). Men reported more often career support from the supervisor or from the supervisor and coworkers, whereas women reported more support from coworkers.

3.4.2 Link Between Career Support and Career Success

Table 3.2, Models 1 and 4 show the bivariate relationships between career support and salary and job satisfaction, which are positive and statistically significant. In Models 2 and 5, control variables are added, and the significant positive association between career support and both salary and job satisfaction remained. Controlling for age, years of education, partner, children in the household, industry, size of the organization, years in the organization, and working hours, people who received career support had, on average, an annual salary €1242.433 higher (p = .001) than those who did not. This

corresponds to 3.6% of the average annual salary in the sample. They were also more satisfied with their jobs, showing 0.318 higher job satisfaction ($p < .001$) on a scale of 0 to 10. This supports our expectations that people who receive career support have higher career success, and we therefore accept H1.

3.4.3 Sources of Career Support

We hypothesized that not only whether someone receives career support matters, but also from whom this support comes. The first distinction was made between work and non-work contacts, with the expectation that receiving support from work contacts would be more beneficial for both salary and job satisfaction than receiving support from non-work sources (H2). Table 3.3, Models 1 and 4, show the bivariate link between career support contact and salary and job satisfaction. Including controls, Model 2, shows that receiving career support from someone at work (vs non-work contact) was associated with a higher average annual salary of €3,202.619 ($p < .001$). Model 5 shows that individuals receiving career support at work had, on average, job satisfaction scores 0.405 points higher ($p < .001$) than those receiving career support from non-work contacts. Thus, we accept H2, which states that employees receiving support from work contacts have higher salaries and greater job satisfaction than those who receive support from non-work contacts. When we look at the combined category of support from the work & non-work contacts, it shows that those who receive support from both types of contacts also had higher salaries ($b = 2085.878$, $p < .001$) and job satisfaction (b= 0.290, $p < .001$) than those who only received career support from non-work contacts.

Hypothesis 3 predicted that having supervisor career support, compared to coworker support, would be more beneficial for salary and job satisfaction. In line with our expectations, Table 3.4, Models 1 and 3, show the bivariate associations between career support from work contacts and career success. Model 2 shows that receiving career support from the supervisor ($b = 3688.810$, $p < .001$) in comparison to receiving career support from only coworkers was associated with higher salaries. A similar pattern emerges in Model 5, where support from the supervisor ($b = 0.396$, $p < .001$) in comparison to support from coworkers, was significantly associated with higher job satisfaction. These results provide support for our expectations, and we therefore accept H3. When we look at the combined category of support from the supervisor & coworkers, we found that employees who received career support from both contacts had higher salaries ($b = 1858.631$, $p = 0.035$) and job satisfaction ($b = 0.303$, $p < .001$) than those who only received career support from their coworkers.

3.4.4 Gender Differences

To investigate whether the relationship between career support and career success differs for men and women, we included interactions between career support and gender. In addition to the interaction effect of career support and gender in the Models 3 and 6 in Tables 3.2, 3.3, and 3.4, we present average marginal effects in Table 3.5. We expected the positive link between career support (H4a), career support at work (H4b), and career support from the supervisor (H4c) to be weaker for women than for men.

Women, on average, benefited significantly less from overall career support compared to no career support, as the positive association between career support and salary was €2,070.946 smaller for women than for men (p = 0.004; Table 3.2 Model 3). Only the average marginal effect for men was significant, while this was not the case for women. This means that receiving career support is associated with higher annual salaries for men but not for women. In contrast, interaction effects of career support and gender for job satisfaction were not significant (Table 3.2 Model 6 & Table 3.5), suggesting no gender differences in the link between career support and job satisfaction. Given the significant interaction effects for salary but not job satisfaction, these findings provide partial support for H4a, which expected the positive association between career support and career success to be weaker for women.

When examining the interaction of gender and career support from work and non-work contacts (Table 3.3, Models 3 & 6; Table 3.5), we found a significant interaction coefficient for support from work contacts (b = -2673.795, p = 0.025) and that link was stronger for men (b = 4489.924, p < .001) than for women (b = 1816.129, p= 0.037). For job satisfaction, there was a significant interaction effect (b = -0.370, p = 0.009). This shows that the positive association between career support at work and job satisfaction was also weaker for women (b = 0.215, p = 0.038) than for men (b = 0.584, p < .001). We therefore accept H4b.

Finally, when comparing coworker career support with supervisor career support, we expected lower returns for women from supervisor support. We found significant gender differences for salary (b = -4336.550, p = 0.011), showing that women, on average, benefited less in terms of salary when they received career support from their supervisor. In fact, Table 3.5 shows that the average marginal effect of receiving career support from supervisors was only significant for men (€5,813.335, p < .001), but not for women (€1,476.785, p = 0.233). For job satisfaction, we also found a significant interaction effect, albeit in the opposite direction to what was expected. For both men and women, supervisor career support was significantly positively associated with job satisfaction, but for women this effect was stronger (b= 0.575, p < .001) than for men (b = 0.225, p = 0.049). Overall, these findings provide partial support for H4c, men and women receive different

returns from career support from supervisors, with salary returns being smaller, and job satisfaction returns being larger for women in comparison to men.

3.4.5 Robustness Checks

To evaluate the robustness of our findings, we conducted additional checks (see Appendix B). First, we considered whether the observed effects actually reflect career support as a specific type of support or rather measure the effects of general social integration. To test this, we used an additional survey item in which respondents indicated whether and who would help them if they needed long-term care after an accident or illness. We included this 'care support' measure in the models predicting salary and job satisfaction (Table B2). We found that this care support was not associated with salary but had a positive relationship with job satisfaction. Yet, after including care support, the coefficient of career support did not substantively change, showing the independent relationship with job satisfaction. These findings provide additional support for the idea that career support is a particular type of support that involves the exchange of specific resources, which are distinct from generally having supportive relationships in life.

Second, we estimated models with lagged outcomes (salary and job satisfaction measured in 2017 and 2018; Table B3 &B4) to gain more insights into the associations over two years, because the benefits of support, especially with regard to salary, might unfold gradually and could take longer to materialize than job satisfaction benefits. For salary, the coefficient became larger after one year, diminished after two years, and was significant in both years. For job satisfaction, the coefficients were significant one and two years later, but smaller than when measured in the same year with career support. Comparing supervisor support, coworker support, and support from both showed that supervisor support was positively associated with salary in both 2017 and 2018, but with job satisfaction only in 2017, becoming nonsignificant in 2018. Overall, this suggests that supervisor career support has a substantive link with salary and job satisfaction, yet the link with salary might be present longer after career support is received, whereas its link with job satisfaction may be more immediate.

Last, we used an alternative operationalization of career support. Instead of a categorical variable for workplace sources (coworkers, supervisor, both), we created a dummy variable for supervisor career support (yes/no; Table B5). Results with this specification were consistent with our main findings, underlining the positive relationship between supervisor career support and salary and job satisfaction.

3.5 Discussion and Conclusion

This chapter examined how career support from different contacts (e.g., non-work, work, supervisor) is related to career success and whether men and women benefit equally from such supportive relationships in terms of salary and job satisfaction. Using data from the German Socioeconomic Panel and regression models, our findings showed that men and women overall receive similar levels of career support, yet we found small gender differences in whom they receive career support from. Women received career support more often from non-work contacts and coworkers in comparison to men, who received career support more often from work contacts and supervisors. Career support from different contacts was consistently linked to both salary and job satisfaction; however, more strongly so for men than for women.

First, we conclude that men benefit more from career support than women. This means that when men and women report receiving similar career support, it does not translate into career success to the same extent. This highlights that it is not only about having relationships with the 'right' people but also about the benefits that come from these relationships. Across career support from different contacts, men receive greater returns, especially regarding salary. Our findings showed that career support is consistently and positively related to objective and subjective career success of men. In contrast, these links were weaker or absent for women. This suggests that career support relationships are not gender neutral as they operate less effectively for women, especially regarding objective outcomes. While men can use their supportive relationships to advance in their careers, women are limited in doing so, which may reinforce persisting gender inequalities at work. Moreover, even small differences in returns can lead to additional opportunities and career support, and in this way, men's advantage might cumulate over time.

The finding of gendered returns to career support is in line with prior research on social networks at work, showing that women often do not benefit as much as men, especially from their instrumental relationships (Woehler et al., 2021). Furthermore, it fits into a broader pattern showing that women often receive lower returns on their career investments, for example, from education, work experience, and labor market strategies (e.g., Dreher & Cox, 2000; Forret & Dougherty, 2004; Tharenou et al., 1994). In the literature on the role of social networks for career outcomes, one explanation of gender differences posits that men and women build and maintain different social networks at work (Brass, 1985; Ibarra, 1992, 1997). Our findings demonstrate that this is only part of the story, as even receiving a similar kind of support from a similar contact translates differently into career success for men and women, highlighting the importance of a network utilization perspective (Khattab et al., 2020; Woehler et al., 2021). In fact, our

findings suggest that both explanations operate simultaneously, as we found, in addition to different returns, small but significant gender differences in the career support contacts that men and women had. Women received support more often from non-work and at work from coworkers instead of supervisors, so overall, their support contacts might be less instrumentally resourceful.

Second, for women, career support matters especially for job satisfaction. While men gain returns from career support in both objective and subjective career success, indicating that career support functions in both instrumental and emotional ways, women's returns are mostly subjective. Our findings showed that for women, receiving career support from various contacts is consistently linked to higher job satisfaction, with support from supervisors being particularly important. Notably, the job satisfaction returns from supervisor support represented the only case where women gained larger career support returns than men. A possible explanation for these findings might be that supportive supervisors can help manage work-family conflict (French et al., 2018), which is linked to stress and lower job satisfaction, and is more prevalent among women.

Since we found that career support is positively linked to job satisfaction for both men and women, organizations could actively foster supportive relationships among their employees. However, one issue is that career support yields additional returns for men, and in this way can contribute to economic inequality between men and women. Investigating both subjective and objective career success, we show that the most significant gender differences emerge in the objective dimension. This highlights the need for organizations to ensure that women's career support also translates into tangible career outcomes. Knowing that men and women do not equally benefit from career support is a first important step that can be used to inform efforts that ensure that women have equal opportunities and chances to advance in the organization. We argued that differences in returns can be rooted in gender stereotypes and related to judgments about competence, status, and deservingness. To counter these dynamics, organizations may actively deconstruct traditional gender norms, for example, by promoting diverse role models across all levels of the organizational hierarchy.

This chapter shows that social identities (i.e., gender) and psychological processes of categorization are influential in shaping how social relationships and overall social capital can be leveraged for individual career success. The network utilization perspective proves helpful for understanding why men and women may gain different career-related benefits from similar social relationships. It provides a theoretical underpinning of how members of different social groups vary in their ability to make use of their social relationships, based on the argument that social identities can evoke judgments about status and competence. While this chapter focused on differences in returns from career

support between men and women, similar mechanisms likely apply to other categories of social identities that are related to work ideals. For example, individuals who are minorities based on ethnicity, sexual orientation, or disability status likely experience lower returns as well, since they are also less congruent with the ideal worker norm (Khattab et al., 2020).

Third, besides gender differences, career support is beneficial for both objective and subjective dimensions of career success. The fact that both salary and job satisfaction are linked to career support suggests that this specific form of support provides a variety of benefits, contributing not only to job-specific advancement but also to well-being at work. These findings support the idea that supportive social relationships (i.e., social capital; Coleman, 1988; Seibert et al., 2001) are relevant to professional success, in terms of objective dimensions like job attainment (Granovetter, 1973), and promotions (Burt, 1992), but also to subjective experiences of success, such as job satisfaction. As such, career support appears to provide a combination of instrumental and emotional benefits. While this chapter focused on the relationship between career support, salary, and job satisfaction, these benefits likely contribute to other favorable work outcomes, both objective and subjective. This interpretation is consistent with the broader literature on social support, where social support at work has been linked to reduced stress (Viswesvaran et al., 1999), lower emotional exhaustion (Garmendia et al., 2023), and improved quality of work (Kaiser et al., 2018).

In line with arguments on domain specificity (Cohen & Wills, 1985; De Jonge & Dormann, 2007), we found support for the expectation that career support from work contacts, especially from the supervisor, was more strongly related to career success than support from non-work contacts. This shows that support from work contacts is more effective for career success, potentially because they are in local proximity and have specific knowledge of and influence at the workplace. It highlights the instrumental dimension of career support, showing that it is not only about feeling supported but also about the actual help someone receives. It can be expected that the more instrumentally resourceful the support contact is, the greater the benefits of their support for other objective but also subjective career outcomes. Therefore, it is important that studies of career support not only consider whether support is received, but also who the support contact is, distinguishing between those who are workplace insiders and those who are not.

Several limitations of this chapter warrant discussion. First, we were unable to account for the gender of the support contacts, which is relevant since same gender relationships are often stronger and play an important role in the workplace (Markiewicz et al., 1999). This might be particularly important for the supportive relationships with

supervisors. Prior research showed that men and women benefit differently from having a male vs a female supervisor: while having a male supervisor comes with career advantages for men, especially in workplaces with traditional gender norms (Cullen & Perez-Truglia, 2023), under female supervisors, both male and female employees experience higher levels of support (S. Moore et al., 2005; van Hek & van der Lippe, 2022). Given the overrepresentation of men in supervisory positions, women often have male supervisors, potentially limiting the benefits from this career support. For this reason, future research should aim to include the gender of the supervisor when investigating the career benefits linked to supervisor support for men and women.

Second, we could not control for the fact that men and women occupy different positions in the hierarchy of the labor market and work in different sectors and jobs (Bettio & Verashchagina, 2009). This is problematic because it can confound the relationships between career support and career success. While we use a rich, population-representative survey, it is not possible to account for characteristics of the workplace in which individuals are embedded. We address this limitation in part by controlling for sectors. However, future research should investigate returns to career support, considering characteristics of the workplace, such as the gender composition across organizational levels.

Third, the use of a single measure of career support in combination with the naming of groups of people, on the one hand, allows it to be included in a large-scale survey, keeping the respondents' burden low; on the other hand, it leaves it open to the respondent to judge what being supported in one's career means. This raises the possibility that the evaluation of career support is gendered and that women receive career support that is lower in quality to promote career success, for example, receiving advice on career options versus actual job referrals. By distinguishing career support from different support contacts, assuming that these different groups have access to different resources, we tried to reduce the variability in the concrete behaviors considered as career support. However, uncertainty remains regarding the extent to which men and women perceive and receive career support in the same ways, which could be addressed in future research, for example, by studying processes of specific support exchange by applying a social network approach, or by following exchange patterns over time. Additionally, the order in which the different groups were presented in the list to the respondents may have influenced their response behavior. For example, many respondents indicated that they received career support from their partner, which was the first option in the list.

Fourth, this chapter found that receiving career support was linked to greater objective and subjective career success; however, we cannot make causal claims about

the effects of career support. Given the cross-sectional nature of our data, we relied on theoretical arguments of why support might lead to success and included control variables in our analysis. However, it could also be the case that more successful employees receive more support. While this question lies beyond the scope of our analysis of gender differences in the link between support and career success, future research should investigate the direction of the observed associations using longitudinal data.

Despite these limitations, this chapter offers valuable insights that can inform organizations interested in increasing employee satisfaction, which has been linked to enhanced productivity and reduced turnover (Zelenski et al., 2008). To tap into these benefits, organizations may encourage supportive relationships, for example, through mentor or buddy systems, and foster recognition and role model stories of people who support others. However, our findings also call for caution in primarily relying on support as a means to decrease inequality. Many organizational equality approaches focus on supportive relationships, such as mentoring programs and (informal) network events. Yet, our findings suggest that such measures may be overestimated in their effectiveness, especially for women, as they benefit less from career support than men. To address that, organizations should aim to reduce the negative impact of gender norms and stereotypes. In addition, formal arrangements and policies that are focused on flexible arrangements around work-life could be implemented to promote gender equality (van der Lippe et al., 2018).

Table 3.1

Descriptive statistics of the variables by gender

	Total					Women		Men	
	n	M / %	SD	Min	Max	M / %	SD	M / %	SD
Female	8719	0.51		0	1				
Salary	8719	34583.85	22118.31	761	389512	25476.33	18163.72	42403.70	23987.84
Job satisfaction	8719	7.20	1.90	0	10	7.20	1.93	7.21	1.87
Career Support (CS; yes/no)	8719	0.67		0	1	0.66		0.67	
CS from	8719			0	3				
no one	2873	0.33				0.33		0.33	
non-work only	4056	0.41				0.42		0.40	
work only	886	0.10				0.09		0.11	
both work & non-work	1364	0.16				0.15		0.16	
CS at work from	2250			0	2				
coworker(s)	974	0.43				0.46		0.41	
supervisor	660	0.29				0.28		0.30	
both coworker(s) & supervisor	616	0.27				0.26		0.29	
Age	8719	44.21	10.82	18	65	44.41	10.62	44.01	11.01
Year of education	8719	12.74	2.70	7	18	12.91	2.64	12.56	2.75
Partnership	8719	0.75		0	1	0.71		0.80	
Children	8719	0.50		0	1	0.48		0.52	
Industry	8719			0	8				
agriculture	117	0.13				0.01		0.02	
energy	105	0.12				0.01		0.02	
mining	12	0.01				0.00		0.00	
manufacturing	2,096	0.24				0.13		0.35	
construction	456	0.52				0.02		0.09	
trade	1135	0.13				0.16		0.10	
transport	495	0.57				0.03		0.08	
bank/insurance	319	0.37				0.04		0.03	
services	3984	0.46				0.60		0.31	
Size of the organization	9658			0	3				
Organization < 20	1682	0.19				0.22		0.17	
20 - 200	2361	0.27				0.27		0.27	
200 - 2000	2044	0.23				0.23		0.23	
> 2000	2632	0.30				0.28		0.32	
Years worked in the organization	8719	11.57	10.55	0	49	10.60	10.12	11.99	10.80
Working hours	8719	34.7578	8.21428	1.7	65	30.9105	9.0884	38.759	4.51098

Note. SOEP 2016.

Table 3.2

Relationship between career support, salary and job satisfaction (OLS-regression, unstandardized coefficients)

	Salary			Job satisfaction		
	(1)	(2)	(3)	(4)	(5)	(6)
Career support	1880.711***	1242.433**	2287.984***	0.425***	0.318***	0.298***
(Ref: no support)	(503.577)	(381.869)	(528.974)	(0.043)	(0.045)	(0.063)
Female		-8223.406***	-6823.795***		-0.083	-0.109
		(413.002)	(640.896)		(0.049)	(0.076)
Career support x female			-2070.946**			0.039
			(725.360)			(0.086)
Age		268.546***	266.046***		-0.010***	-0.010***
		(19.907)	(19.918)		(0.002)	(0.002)
Years of education		3102.799***	3107.670***		-0.013	-0.013
		(67.570)	(67.564)		(0.008)	(0.008)
Partnership		2346.948***	2426.270***		0.036	0.034
(Ref: no partner)		(425.472)	(426.204)		(0.050)	(0.050)
Children		3503.300***	3483.218***		0.117**	0.118**
(Ref: no children)		(372.096)	(372.010)		(0.044)	(0.044)
Industry (Ref: Agriculture)						
Energy		8845.743***	8908.113***		0.128	0.127
		(2146.295)	(2145.524)		(0.254)	(0.254)
Mining		10063.610*	10288.361*		-0.494	-0.498
		(4819.096)	(4817.759)		(0.570)	(0.571)
Manufacturing		7768.297***	7804.979***		0.057	0.057
		(1517.538)	(1516.969)		(0.180)	(0.180)
Construction		3611.978*	3673.999*		0.163	0.162
		(1645.684)	(1645.151)		(0.195)	(0.195)
Trade		2435.655	2463.694		0.020	0.020
		(1550.985)	(1550.379)		(0.184)	(0.184)
Transport		1939.177	1994.123		-0.124	-0.125
		(1642.906)	(1642.344)		(0.194)	(0.194)
Bank/Insurance		12067.132***	12114.753***		0.014	0.013
		(1743.321)	(1742.685)		(0.206)	(0.206)
Services		4516.340**	4554.135**		0.284	0.284
		(1510.024)	(1509.462)		(0.179)	(0.179)
Orga. Size (Ref: < 20)						
20 to 200		2407.495***	2395.040***		-0.012	-0.012
		(516.023)	(515.829)		(0.061)	(0.061)
200 to 2000		5265.001***	5224.324***		-0.016	-0.016
		(544.526)	(544.488)		(0.064)	(0.064)
more than 2000		9358.997***	9324.610***		-0.032	-0.032
		(529.329)	(529.249)		(0.063)	(0.063)
Years in the organization		260.721***	262.234***		-0.009***	-0.009***
		(19.851)	(19.850)		(0.002)	(0.002)
Working hours		842.181***	842.313***		-0.001	-0.001
		(24.398)	(24.388)		(0.003)	(0.003)
Constant	33322.856***	-59066.289***	-59815.968***	6.920***	7.544***	7.559***
	(412.346)	(2142.816)	(2157.970)	(0.035)	(0.254)	(0.256)
Adjusted R^2	0.001	0.486	0.486	0.011	0.023	0.023
AIC	199185.07	193417.133	193410.966	35839.70	35747.56	35749.35

Note. SOEP 2016.

$N = 8719$; Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3.3

Relationship between career support, salary and job satisfaction (OLS-regression, unstandardized coefficients)

	Salary			Job satisfaction		
	(1)	(2)	(3)	(4)	(5)	(6)
Career support (Ref: nonwork only)						
work only	7636.949***	3202.619***	4489.924***	0.328***	0.405***	0.584***
	(820.996)	(603.123)	(826.838)	(0.071)	(0.071)	(0.098)
both work & nonwork	7772.857***	2085.878***	3943.112***	0.284***	0.290***	0.403***
	(696.075)	(512.432)	(721.751)	(0.060)	(0.061)	(0.085)
No one	1090.297*	-245.860	-614.357	-0.309***	-0.186***	-0.107
	(547.738)	(416.413)	(580.153)	(0.047)	(0.049)	(0.069)
Female		-8140.376***	-7462.861***		-0.072	0.055
		(412.425)	(584.794)		(0.049)	(0.069)
work only x female			-2673.795*			-0.370**
			(1191.462)			(0.141)
both work & nonwork x female			-3701.363***			-0.220
			(1008.623)			(0.119)
no one x female			723.516			-0.157
			(795.289)			(0.094)
Controls included		X	X		X	X
Constant	32232.559***	-58179.814***	-58678.495***	7.229***	7.817***	7.747***
	(365.025)	(2116.332)	(2125.943)	(0.031)	(0.250)	(0.252)
Observations	8719	8719	8719	8719	8719	8719
Adjusted R^2	0.021	0.488	0.489	0.015	0.028	0.029
AIC	199018.523	193384.697	193367.550	35808.118	35707.005	35704.191

Note. SOEP 2016.

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Controlled for: age, years of education, partnership, children, industry, size of the organization, years in the organization, working hours

Table 3.4

Relationship between career support at work, salary and job satisfaction (OLS-regression, unstandardized coefficients)

	Salary			Job satisfaction		
	(1)	(2)	(3)	(4)	(5)	(6)
Career support (Ref: Coworker)						
Supervisor	5924.368***	3688.810***	5813.335***	0.358***	0.396***	0.225*
	(1200.951)	(867.873)	(1200.129)	(0.082)	(0.083)	(0.114)
Coworker & Supervisor	4946.552***	1858.631*	3932.421**	0.315***	0.303***	0.179
	(1226.251)	(879.697)	(1214.159)	(0.084)	(0.084)	(0.116)
Female		-9350.013***	-6874.019***		-0.155	-0.329**
		(843.874)	(1186.031)		(0.080)	(0.113)
Supervisor x female			-4336.550*			0.350*
			(1714.121)			(0.163)
Coworker & Supervisor x female			-4251.116*			0.252
			(1752.320)			(0.167)
Controls included		X	X		X	X
Constant	36859.828***	-67902.242***	-69303.084***	7.339***	8.076***	8.173***
	(763.258)	(4704.142)	(4720.854)	(0.052)	(0.448)	(0.450)
Observations	2250	2250	2250	2250	2250	2250
Adjusted R^2	0.012	0.501	0.502	0.010	0.039	0.040
AIC	51740.577	50223.372	50218.493	8603.683	8553.734	8552.576

Note. SOEP 2016.

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Controlled for: age, years of education, partnership, children, industry, size of the organization, years in the organization, working hours

Table 3.5

Average marginal effects of career support on career success for men and women

	Salary			Job satisfaction		
	Men	Women	Women vs Men	Men	Women	Women vs Men
Career support	2287.98 ***	217.04	-2070.95 **	0.30 ***	0.34 ***	0.04
(Ref: no career support)						
Career support from						
work	4489.92 ***	1816.13 *	-2673.80 *	0.58 ***	0.21 *	-0.37 **
non-work & work	3943.11 ***	241.75	-3701.36 ***	0.40 ***	0.18 *	-0.22
no one	-614.36	109.16	723.52	-0.11	-0.26 ***	-0.16
(Ref: non-work)						
Career support at work from						
supervisor	5813.34 ***	1476.79	-4336.55 *	0.23 *	0.58 ***	0.35 *
coworker(s) & supervisor	3932.42 **	-318.70	-4251.12 *	0.18	0.43 ***	0.25
(Ref: coworker(s))						

Note. SOEP 2016.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Controlled for: age, years of education, partnership, children, industry, size of the organization, years in the organization, working hours

Figure 3.1

Career support by gender and contact.

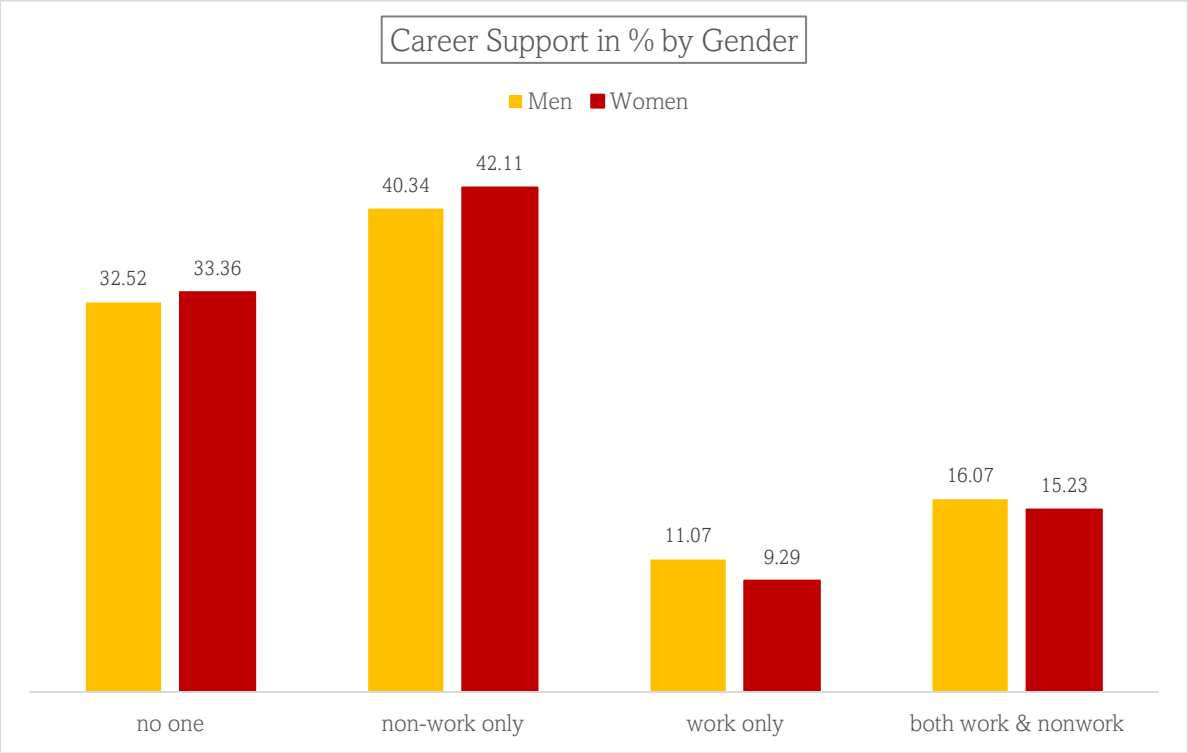
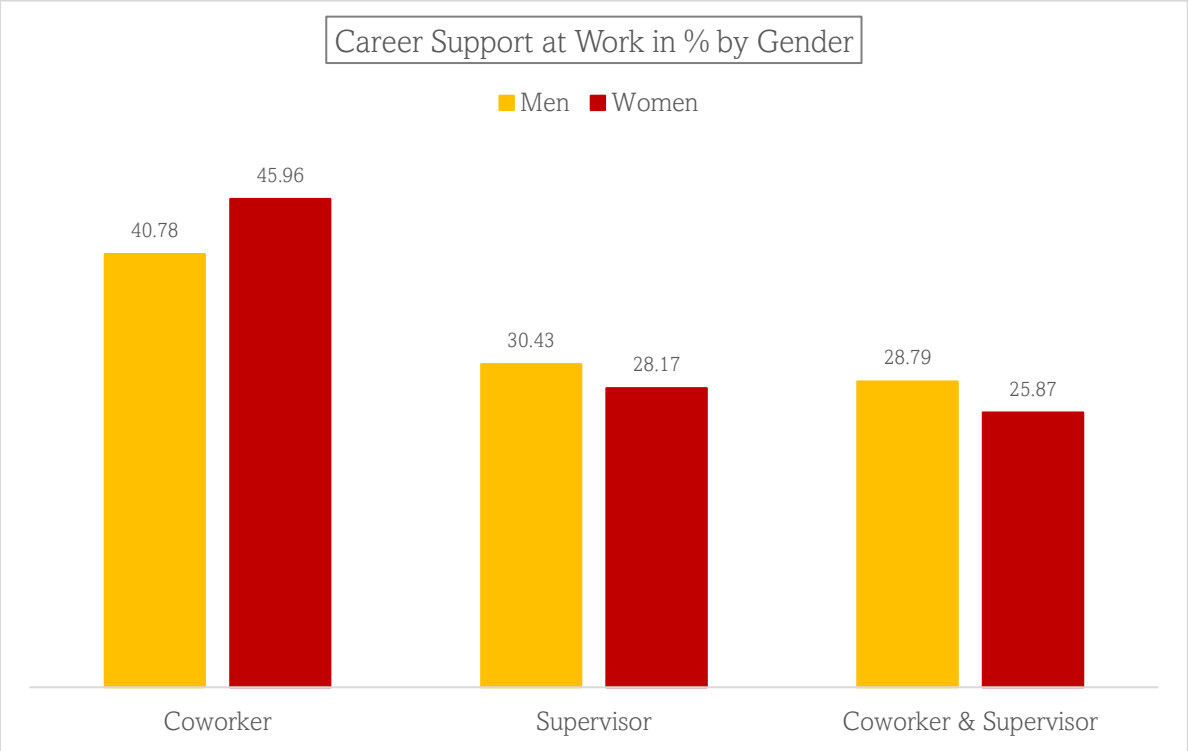


Figure 3.2

Career support at work by gender and contact.



CHAPTER

4

CAREER AND EMOTIONAL SUPPORT NETWORKS AND SUBJECTIVE CAREER SUCCESS: EXAMINING GENDER DIFFERENCES IN A FEMALE-DOMINATED ORGANIZATION

The chapter is coauthored by Miranda Lubbers and Jojanneke van der Toorn. The authors jointly developed the main ideas of the chapter. Hoffmann wrote the manuscript and performed the analyses. Lubbers and van der Toorn contributed substantially by providing extensive feedback on earlier versions.

Abstract

Support at work is an important factor in shaping employees' career-related outcomes. Despite this, relatively little is known about gender differences in the structure of support networks and in the benefits they offer. Drawing on status characteristics theory and gender role theory, this chapter argues that gender differences in informal networks at work are shaped by characteristics of the specific work context, such as the gender composition. Previous studies have primarily examined informal networks in male-dominated workplaces, whereas less is known about support networks in female-dominated workplaces. This chapter addresses this gap by investigating the characteristics and returns of support networks in a Dutch healthcare organization with a predominantly female staff. Using survey data from 286 employees, we constructed ego-network measures of career and emotional support (size, gender and status composition, and number of strong ties) and analyzed their associations with two aspects of subjective career success, namely perceived career success and job satisfaction, through regression models. We found similarities between men and women in the size of career and emotional support networks, but also differences: women's emotional support networks contained more strong ties, and both their career and emotional support networks showed higher gender homophily. We also found some evidence for gendered network returns, as career support network size, the percentage of men, and having a supervisor in the career support network were associated with perceived career success for men only, and the percentage of same-gender contacts was associated with job satisfaction for men but not for women.

4.1 Introduction

In recent years, the Netherlands has increased its efforts to reduce persistent gender inequalities in organizations. For instance, in 2022, Dutch legislation introduced a gradual entry quota and target figures for greater diversity in the boardrooms of Dutch companies (Sociaal-Economische Raad, 2025). Despite these efforts, gender equality in Dutch workplaces is far from being achieved. For example, in the private sector, women earn 19 percent less than men and are underrepresented in leadership positions, particularly on executive boards (CBS, 2024). Additionally, women still work fewer hours and take on more of the unpaid care work and housework. For instance, in 2025, women worked an average of 27.8 hours per week, while men worked an average of 35.4 hours (CBS, 2025). Because women often occupy different organizational positions and work fewer hours, they might have limited opportunities to build relationships with colleagues and to participate in informal workplace events. As a result, they might be disadvantaged in terms of social networks at work.

One important, yet often overlooked, contributor to gender inequality in organizations is social connections, which are crucial for career success. Research has consistently shown that social networks help individuals find jobs, get promotions, and improve their occupational status (Brass et al., 2004; Burt, 1992; Granovetter, 1973). These informal networks are typically built and maintained through workplace relationships with coworkers and supervisors, providing valuable resources for career advancement (Lin, 1999). However, social network research has documented gender-specific patterns in access to and composition of workplace networks, highlighting that their structure, composition, and benefits are not neutral (Brands et al., 2022; Ibarra, 1992, 1993; G. Moore, 1990). In comparison to women, men often have more advantageous networks that facilitate career advancement (Woehler et al., 2021).

Gender specific patterns in social networks likely differ between workplaces, as the gender composition of the organization and the prevailing gender norms and role expectations may influence the supportive relationships men and women have (Brands et al., 2022). In this way, characteristics of the organizational context, particularly the gender of coworkers and leaders, not only influence access to networks but also affect the cultural beliefs and status hierarchies that guide workplace interactions (Ridgeway, 2014). Yet, most existing studies, and the other empirical chapters, have been conducted in predominantly male-dominated workplaces (e.g., Burt, 1998; Ibarra, 1997; McGuire & Bielby, 2016; Spurk et al., 2015; Woehler et al., 2021; Chapter 2), leaving open the question of whether these patterns of gender differences persist in female-dominated settings. In male-dominated settings, assumptions of higher status among men, reinforced by gender stereotypes and group dynamics, tend to disadvantage women. In contrast, in a female-

dominated workplace, the presence of women in senior roles may signal belonging and legitimacy, fostering identification and support among female employees (Ely, 1994). In contexts culturally associated with women, gender stereotypes may shift in ways that favor women (Ridgeway, 2014). Evidence suggests that in more gender-balanced contexts, traditional gender roles are less pronounced than in male-dominated ones (Ely, 1994; Kanter, 1976), which may lead to the formation of different informal networks. For example, women with a female manager tend to have higher proportions of female workplace friends compared to women with a male manager (Hoffmann et al., 2025). To address this gap, this chapter specifically focuses on a female-dominated workplace, examining the characteristics and career-related benefits of support networks among men and women in that context.

While different kinds of informal networks at work have been studied (e.g., advice, friendship, communication), this chapter focuses on support networks[8], which refer to the set of workplace relationships that provide social support, a key resource associated with numerous positive outcomes for employees (Jolly et al., 2021). Specifically, we distinguish two types of support networks: career support and emotional support networks, with each network consisting of the workplace contacts an employee identified as providing the respective type of support. First, career support, given its goal orientation, can be seen as a primarily instrumental form of support that helps employees advance professionally by providing access to information, influence, and career sponsorship (Seibert et al., 2001). Besides, receiving career support can also contribute to employee job and career satisfaction (Chapter 3; Spurk et al., 2015). Second, emotional support promotes well-being and is negatively associated with job strain, including burnout, across a variety of work contexts (Viswesvaran et al., 1999), and positively associated with job satisfaction (M. Mathieu et al., 2019). Organizational and psychological research has documented these positive consequences of social support but has mainly focused on the extent to which employees feel supported, leaving structural dimensions, such as support network size or gender composition, underexplored. Studies that integrate a structural perspective on the receipt of workplace support (e.g., McGuire & Bielby, 2016) and its effects on work outcomes (e.g., turnover; Porter et al., 2019) rarely investigate gender differences.

Gender differences in workplace social networks could emerge in two ways (Woehler et al., 2021). First, men and women may differ in their ability, opportunities, and preferences for building support networks, leading to different network characteristics. Second, even having similar support network characteristics, men and women may not

[8] In contrast to Chapter 3, which analyzed career support from different work and non-work contacts as a binary measure, this chapter focuses on the characteristics of support networks at work, including all work contacts that provide career and emotional support. In addition to the career support studied in Chapter 3, emotional support is investigated.

derive the same benefits from them, resulting in different returns of support networks for men and women. Either explanation could account for gender differences, or both could operate simultaneously. This highlights the importance of distinguishing between the two explanations for understanding how support networks contribute to career success. For that reason, we first investigate potential gender differences in support network characteristics. Specifically, we focus on size (the number of support contacts), gender composition (i.e., how many men and women are in the support network), number of strong ties (i.e., how many close relationships are among the support ties), and status composition (i.e., whether the supervisor is part of the support network or if it consists only of coworkers). Then, we analyze whether these characteristics or the returns individuals receive from them are linked to disparities in subjective career success (i.e., perceived career success and job satisfaction). Subjective career success describes the individual's perception of their career (Hughes, 1937; I. Ng & Chow, 2005), in contrast to objective career success (e.g., salary, promotions). We focus on this dimension as employees' career perceptions are increasingly important in decentralized organizations with multidisciplinary teams, collaborative work, and salaries aligned with collective agreements (Kundi et al., 2022). To this end, we pose the following research question: *How do male and female employees differ in the characteristics of their career and emotional support networks and in the returns they derive from these networks within a female-dominated workplace?* Addressing this question will not only shed light on the support networks of men and women and the career-related benefits they provide, but also advance our understanding of informal networks in a female-dominated organization. Thus, this chapter responds to Gremmen, Akkerman, and Benschop's (2013) call to explore gender differences in network structures and outcomes, contributing to the development of gender-sensitive approaches in organizational network research.

We address this question using data on career and emotional support networks collected from a Dutch healthcare organization. The organization specializes in psychiatric care, mental health, and family support through a range of services, including specialized education, residential programs, and outpatient care. Its workforce comprises a diverse group of professionals, such as psychologists, family therapists, and social workers, who operate across various departments to deliver intensive care, foster care, crisis intervention, and broader family support services. The organization is female-dominated, with women representing the majority across different levels.

4.2 Theory

4.2.1 Workplace Social Networks, Gender, and Career Success

The literature offers two main explanations for how workplace social networks contribute to gender differences in career success: differences in network characteristics and differences in network returns. The first explanation argues that men and women have structurally different networks, for example, in size, composition, or access to influential contacts. These differences in network characteristics account for disparities in career outcomes. According to this view, similar networks would yield similar outcomes for all individuals. The second explanation argues that even when men and women have comparable networks, they may still receive unequal benefits from them. That is, men often derive greater career advantages from their networks than women do, even when the networks are structurally similar. This perspective emphasizes that network returns are shaped by gender roles and behavior, which can limit the effectiveness of women's networks in advancing their careers.

4.2.2 Differences in Network Characteristics

Support networks at work can differ in several dimensions, including size, composition, and tie strength. Gender differences in these network characteristics have been attributed to workplace structure, status-based expectations, gender roles, and gender stereotypical behavior. Depending on the types of support, these dynamics can shape men's and women's support networks similarly or differently. Two mechanisms are particularly relevant to understanding how gender differences in support network characteristics can emerge: how individuals invest in their relationships and how receptive others are to such efforts. Structural explanations emphasize how men and women are positioned differently within organizations, particularly in terms of numerical (under-) representation and access to high-status positions (Ibarra, 1992; Kanter, 1976; G. Moore, 1990). Combined with the principle of homophily, which posits that individuals tend to form ties with others who are similar to them, this creates different opportunities for men and women to form supportive relationships. Gender is a central axis of homophily and plays a crucial role in shaping social interactions in the workplace (McPherson et al., 2001). Same-gender ties often form more easily, tend to be stronger, and facilitate reciprocal exchange (Ibarra, 1993; Kanter, 1976; McGuire & Bielby, 2016; G. Moore, 1990; Woehler et al., 2021). Consequently, gender differences in the size and composition of social networks are frequently rooted in unequal opportunities for network development. In male-dominated organizations, women's ability to form same-gender ties is often constrained by their numerical underrepresentation. When women occupy lower-status positions in such male-dominated organizations, they may have limited access to specific instrumental

resources. Under these conditions, women have been shown to develop functionally differentiated networks, forming instrumental ties with men and emotional ties with other women, while men typically derive both types of resources from the same relationships (Ibarra, 1992). This differentiation disadvantages women by reducing the efficiency and effectiveness of their networks. Moreover, being in such a position may further limit women's access to valuable resources, as men might be less inclined to reciprocate or initiate meaningful ties with them. The majority of social network studies have been conducted in male-dominated organizations where the described conditions apply, biasing our evidence base (e.g., Burt, 1998; Ibarra, 1997; McGuire & Bielby, 2016; Spurk et al., 2015; Woehler et al., 2021).

Another explanation for gender differences in workplace social networks focuses on status-based expectations, gender roles, and gender-stereotypical behavior. According to status characteristics theory, widely recognized social attributes, such as gender, create implicit status hierarchies that shape social interaction patterns and expectations of competence and influence (Berger et al., 1972; Ridgeway, 2014). Because men have historically held dominant positions in the workplace, controlling access to power, influence, and capital, they are typically associated with higher status by default (Acker, 1990). In this way, gender functions as a salient background identity that subtly guides workplace behavior and expectations. It influences how individuals perform their formal roles and shapes the interpersonal dynamics around them (Ridgeway, 2014). Gender roles, developed and internalized through socialization processes, reflect shared beliefs about the typical attributes of men and women (Eagly & Wood, 2012). These roles typically characterize men as agentic (i.e., assertive, competitive, and task-oriented), and women as communal (i.e., friendly, emotionally expressive, and supportive).

Gender roles lead to normative expectations that impact both workplace behavior and opportunities to build and invest in relationships in professional settings (Woehler et al., 2021). For example, men are often able to prioritize the professional domain, while women are expected to balance their careers with disproportionate household and caregiving responsibilities (Blair-Loy et al., 2015). This 'second shift' limits the time and energy women can dedicate to career-benefiting relationships. Moreover, gender stereotypes influence perceptions of competence and commitment (Ellemers, 2017). Men are more likely to be perceived as agentic and competent, making it easier for them to form instrumental professional relationships that can provide career support. Research has shown that even when they underperform, men's competence is less likely to be questioned than women's (Brescoll et al., 2010). In contrast, women are perceived as more communal, which can help them form supportive workplace relationships. These

dynamics may lead men to have more career support relationships, whereas women could have more emotional support relationships at work.

Research has consistently shown that, despite the formal and ostensibly gender-neutral nature of professional roles, gender norms continue to shape workplace interactions, contributing to men and women building different workplace networks (Eagly & Wood, 2012). For example, studies have found that female physicians tend to engage more in communal behaviors, such as emotionally focused talk, asking questions, and counseling, than their male counterparts (Roter et al., 2002). Similarly, research in academia indicated that women are often expected to focus on and take on more collective interest, low-visibility tasks, such as committee work and mentoring students, which are less rewarded in terms of career advancement. In contrast, men could focus on individual interest and high-visibility tasks, which are more closely tied to professional success (Hanasono et al., 2019; Järvinen & Mik-Meyer, 2024).

Building on these findings, this chapter explores how the gendered dynamics of workplace social relationships may be altered or reinforced within a female-dominated organizational context. We expect that the structural environment, particularly the high representation of women at all levels of the organization, will modify the network dynamics outlined above. From a structural perspective, the high proportion of women across different levels of the organization suggests that female employees should have ample opportunities to form same-gender connections, potentially enabling them to build career support networks similar to their male colleagues. However, Status Characteristics Theory suggests that the influence of internalized gender roles and stereotypes may persist even in such contexts, advantaging men. For example, research has shown that in female-dominated occupations, men are disproportionately more likely to be promoted into managerial roles than women (Dämmrich & Blossfeld, 2017). Men, still associated with higher status and agentic traits, may continue to prioritize career-benefiting relationships, while women may build more emotionally supportive ties. As a result, even in female-dominated workplaces, gender roles may influence the kinds of relationships employees form, leading women to develop smaller career support networks and larger emotional support networks than men.

H1: Women, on average, have smaller *career* support and larger *emotional* support networks than men.

The gender composition is a key characteristic of support networks. Homophily, the tendency to form relationships with similar others, is a foundational principle in many social networks (McPherson et al., 2001). Homophily can stem from two sources: contextual constraints and preferences. Induced homophily reflects the influence of contextual factors that shape individuals' opportunities to meet similar and dissimilar

others. Choice homophily, by contrast, refers to individuals' preferences for forming connections with those who share similar attributes (Ibarra, 1997).

In male-dominated organizations, the predominance of men means both men and women are more likely to have men in their networks (induced homophily). As a result, prior research has consistently found that men are more likely to have gender-homogeneous networks at work than women (Ibarra 1997; Markiewicz et al., 1999; Spurk et al., 2015). This is especially the case for instrumental networks and can be interpreted as a strategy of women to gain access to career-relevant resources from men (Ibarra, 1992). However, these studies were conducted in male-dominated environments and may not generalize to female-dominated workplaces. In settings where women are the numeric majority, opportunities to form same-gender ties shift. Women may be more likely to develop gender-homogeneous networks for both career and emotional support, whereas men, as the numerical minority, may form more cross-gender relationships. Additionally, as women are represented in higher ranks, women are less likely to need connections to men to ensure access to instrumental resources. Thus, both induced and choice homophily suggest that because of the gender composition in female-dominated workplaces, women will have more same-gender contacts in their career and emotional support networks than men.

H2: Women have more same-gender contacts in their *career* and *emotional* support networks than men in a female-dominated workplace.

Another key characteristic of support networks is tie strength, encompassing elements such as time spent together, emotional intensity, intimacy, and reciprocity (Granovetter, 1973). In general, weak ties provide access to a broader range of career-benefitting resources, like information about job vacancies, due to their reach across different social circles. Strong ties, on the other hand, tend to yield more strategic and hard-to-obtain resources, such as sponsorship or influence (Woehler et al., 2021). Within workplace networks, trust facilitates supportive behaviors, making strong ties particularly effective for navigating organizational challenges and advancing one's career (Ibarra, 1995; McGuire & Bielby, 2016). Moreover, strong ties are highly motivated to help each other, and offer repeated opportunities for resource exchange, making them particularly beneficial in the day-to-day functioning of a given work context (McGuire, 2002; McGuire & Bielby, 2016).

However, gender norms may influence how strong ties are formed and maintained, with female gender norms facilitating stronger relationships and potentially leading to more strong ties in both career and emotional support networks for women. Women, typically socialized to be communal, warm, and nurturing, may find it easier to develop close, trust-based relationships (Ellemers, 2017). Gender role socialization

encourages women to view relationships as central to their self-concept, fostering comfort with emotional closeness and interpersonal support (Sapadin, 1988). Additionally, research has shown that women are more likely to adopt a 'tend and befriend' stress response, which involves caring for others, creating and maintaining social networks, and providing resources (Morrison, 2009; Taylor et al., 2000). These behaviors can further promote the formation of strong ties. In contrast, men are often expected to be independent, competitive, and task-focused and may therefore be less encouraged to seek out close relationships or deepen existing ties. While male gender norms may lead men to prioritize instrumental contacts, resulting in larger career networks, these same norms can limit the extent to which they build strong, trust-based ties in both career and emotional support networks.

H3: Women, on average, have more strong ties in their *career* and *emotional* support networks than men in a female-dominated workplace.

A fourth crucial characteristic of support networks is the status and hierarchical position of their members. This factor is particularly relevant for career support, as high-status individuals, especially supervisors, possess valuable resources such as information, experience, and professional connections, and can actively influence career advancement. In contrast, emotional support is often effectively provided by colleagues at similar hierarchical organizational levels, as it relies less on organizational resources (Ibarra, 1992; Podolny & Baron, 1997).

From a structural perspective, we expect that in organizations with a high representation of female managers, women will have greater chances to receive career support from their supervisor, partly due to gender homophily facilitating the formation of such relationships. Previous research conducted in male-dominated workplaces, where women held lower-status positions, found that men were more likely to have high-status contacts in their support networks than women (McGuire, 2000). However, in female-dominated workplaces where women are represented across all hierarchical levels, these patterns may shift. In such contexts, structural barriers to accessing high-status support are reduced for women, and they may even benefit from a greater likelihood of forming supervisory ties through gender homophily.

H4: In comparison to men, women more often have a supervisor in their *career* support networks in a female-dominated workplace.

4.2.3 Differences in Network Returns

Beyond gender differences in the characteristics of support networks at work, men and women may also differ in the benefits they derive from similar career and emotional support networks. This raises the question of whether career and emotional support

networks contribute to subjective career success in the same way for both genders. Two mechanisms influence how effectively support translates into subjective career success: the way individuals utilize their network contacts and the willingness of those contacts to provide resources. Gender role expectations impact both of these processes (Woehler et al., 2021). For instance, women may be more hesitant to use their existing relationships, especially in an instrumental way, due to concerns about their ability to reciprocate, or because such behavior contradicts communal gender norms (Lin, 2000).

When navigating support networks, individuals assess whether their contacts have valuable resources and whether it is appropriate to request them. At the same time, the contact evaluates the requester's legitimacy and competence, influencing their decision to offer support, for example, in the form of solicited or unsolicited advice (Marin, 2012). Research suggests that men are generally perceived as legitimate in leveraging social relationships for instrumental gains, while women's use of networks for self-advancement can be met with skepticism or backlash (Rudman & Phelan, 2008; Woehler et al., 2021). Consequently, men may receive career support, while women may face social penalties for agentic behavior or be directed toward emotionally supportive rather than instrumental relationships. Furthermore, women have been shown to prioritize and sometimes benefit more from the emotional aspects of their social relationships, for example, through stress reduction (Beehr et al., 2003; Bellman et al., 2003; Morrison, 2009; van Emmerik, 2006).

We explore whether different network characteristics, specifically size, network composition, and tie strength, are differently linked to career success for men and women. Existing research and theoretical arguments predominantly focused on the returns from networks in male-dominated workplaces. We extend this work by exploring how these processes may differ in a female-dominated workplace. Although we discuss potential changes, we do not formulate specific hypotheses, as prior studies provide limited grounds for how processes could work differently in a female-dominated context.

The impact of gender composition in networks depends on the broader workplace context. In male-dominated workplaces, same-gender contacts are especially beneficial for men, as male contacts often provide access to high-value resources, given men's dominance in leadership roles. This combination of gender homophily and structural advantage contributes to men's higher returns from social networks in such settings (Woehler et al., 2021). Prior research has consistently shown that men's networks have a higher proportion of male contacts, which are positively associated with outcomes like salary and subjective career success (Markiewicz et al., 1999; Spurk et al., 2015).

Gender role expectations shape how men and women evaluate the value of their relationships. Women are more likely to prioritize emotional connection and view strong

interpersonal relationships as central to their self-concept (Sapadin, 1988), which may make strong ties more predictive of their subjective career success. Men, on the other hand, are stereotypically less relational and may not place the same emphasis on emotional closeness (Ellemers, 2017).

The role of supervisory support may also differ by gender and organizational context. In male-dominated workplaces, women often face challenges related to legitimacy and access to influential relationships. In these cases, supervisory support can help women gain credibility and visibility (Burt, 1992). This 'borrowed legitimacy' allows women to form more influential networks and navigate male-dominated organizational hierarchies. However, in female-dominated organizations, where women are the majority and represented across all hierarchical levels, legitimacy concerns may be less pronounced.

4.3 Methods

4.3.1 Data

The data was collected as part of a larger survey on the role of organizations in creating a sustainable workforce in multiple workplaces in the Netherlands in the year 2024 (van der Put et al., 2024). Using a national business list, organizations were approached via email and invited to participate in the online survey. As an incentive, organizations could receive a personalized benchmark report. Due to anonymous distribution, the number of invited participants was unknown in some cases. However, for 80 percent of the sample, this information was available, and the response rate for employees was 48 percent. The survey consisted of three instruments: the Organization Questionnaire, the Manager Questionnaire, and the Employee Questionnaire. HR managers provided information on the whole organization, while managers and employees were asked about themselves and their departments. Employees of one specific organization received an additional survey to collect information on their career and emotional support networks. This public benefit organization supports children and young adults who require assistance or psychiatric care by providing services such as therapy, foster care, managing crises, coordinating care, and offering administrative or advisory assistance. In 2023, the organization employed over 2000 staff members in various professions and roles, including psychologists, behavioral scientists, social workers, therapists, and care coordinators. The proportion of women ranged from about 40% to 100% across departments. The board was female, and the supervisory board consisted of more women than men. In total, 288 employees (50 men and 236 women) filled in the question on their support networks at work. Two respondents did not provide information on their gender and were excluded from the final sample (N=286).

4.3.2 Measures

Information on respondents' career and emotional support networks was collected using two separate name-generator questions: 'Who at work supports your advancement in your career and fosters your progress?' (career support) and 'With whom at work do you discuss matters important to you?' (emotional support; see Appendix C). To balance thorough data collection and respondent burden, we limited the answer to five support contacts per question. Each nominated contact was then followed up with name interpreter questions, which gathered additional information on the support contact's gender, the emotional closeness, and their formal relationship (supervisor, coworker, subordinate). This information formed the basis for constructing the network characteristics measures: size, gender composition, number of strong ties, and status composition.

Network size. We summed all the mentioned names per support network and created a variable ranging from 0 to 5.

Gender composition. To reflect the theoretical arguments, two measures of gender composition were used: one indicating the *percentage of same-gender* ties, meaning that for women, this variable shows the percentage of women and for men the percentage of men, and another indicating the *percentage of men* for both men and women. Based on theoretical arguments, when evaluating differences in network characteristics, we focused on the percentage of same-gender ties, as individuals often exchange support with similar others. For returns from career support networks, we focused on the proportion of men because the literature documents that they hold higher positions, therefore providing access to instrumental resources. In a female-dominated organization, this may still show in a higher ascribed status for men.

Number of strong ties. The strength of support network ties is measured with the question 'How emotionally close do you feel to person x?' with answer categories 1 (very much) to 5 (very little). The scale was reversed so that higher values correspond with stronger ties. The variable number of strong ties counts all support contacts where the relationship was described as very close or close.

Status composition was measured using a dummy variable indicating whether a respondent had at least one supervisor in their support network: *supervisor present*. While some individuals named two supervisors in their career support network (N=29) or emotional support network (N=3), they were grouped in the same category for reasons of power.

Subjective career success. Two measures of subjective career success, *job satisfaction* and *perceived career success*, were used in the analysis. Job satisfaction was measured on a 10-point Likert scale, and the question 'All things considered, how satisfied

are you with your current job?' Perceived career success consisted of four items (e.g., 'Compared to your coworkers, how successful is your career?'; Appendix C1) with answer options ranging from 1 (much less than average) to 5 (much more than average). Values across the items were averaged, and the scale had a good internal consistency with a Cronbach's alpha coefficient of 0.76.

Gender. The respondent's gender was assessed with the question 'Are you… male/female/other/rather not say?' and recoded as a dummy variable *female* with values 0 (male) and 1 (female). Given the focus on binary gender categories, respondents who indicated 'other' or 'rather not say' were excluded from the analysis (N= 2).

Control variables. We included *age* and *education* as control variables in all regression models. Age was measured in years. Education was recoded into an ordinal scale ranging from 1 (lower-level secondary education) to 6 (doctoral degree).

4.3.3 Analytical Strategy

To investigate whether and to what extent men and women differ in their support network characteristics, we conducted descriptive analyses and tested gender differences using t-tests for network size, gender composition, and number of strong ties, and a chi-square test for the presence of a supervisor. To examine whether these network characteristics help explain gender differences in career success and job satisfaction, we estimated a series of regression models that included network characteristics and relevant control variables. To test whether men and women derive different benefits from their networks, we added interaction terms between gender and network characteristics, and report average marginal effects for men and women separately.

Table 4.1 shows that the data contained missing values for the gender composition of networks and the outcome variables. To address item nonresponse, we used multiple imputation by chained equations implemented in Stata, which replaces missing values with plausible values predicted from observed data (Little & Rubin, 2019). Specifically, we used truncated regression models for bounded continuous variables to ensure that imputed values remained within plausible ranges. In total, 20 imputed datasets were generated based on respondents' section, gender, career success, job satisfaction, age, education, and support network characteristics. In the regression models, we used clustered standard errors at the section level to account for employees working in teams.

4.4 Results

Respondents reported having, on average, larger career support networks (M = 2.86, SD = 1.64) than emotional support networks (M = 2.06, SD = 1.55). Figure 4.1 shows the career support network size and highlights a general tendency for men to have no or only

one career support contact in this organization, while women reported more career support contacts. Figure 4.2 shows that men in this organization frequently reported having one emotional support contact, while the majority of women had an emotional network size ranging from zero to three. Table 4.1 shows the descriptive statistics of the study's variables and Table 4.2 their pairwise correlations. Respondents in this organization were satisfied with their jobs (M = 7.41, SD = 1.02; Table 4.1) and perceived their careers as rather successful (M = 3.36, SD = 0.54).

First, we assessed whether men and women have different support networks in a female-dominated organization, investigating the network characteristics, size, gender composition, number of strong ties, and whether they have a supervisor in their career and emotional support networks. Table 4.3 shows the means of these network characteristics for men and women, and gender differences were tested using t-tests and chi2-tests. It becomes clear that men and women overall have similar networks but differ with regard to some network characteristics. We expected that men would focus more on career, and women more on emotional support ties, resulting in men having larger career support networks and women having larger emotional support networks (H1). The findings do not support this expectation and show that men and women have career and emotional support networks of similar sizes; thus, H1 is rejected.

Given the context of the female-dominated organization, we expected women to have more same-gender contacts in their support networks than men (H2). We found support for this hypothesis as in both career support networks (76% same-gender ties for women vs 22% for men) and emotional support networks (68% vs 28%), the percentage of same-gender contacts was higher for women than for men.

The third hypothesis expected women to have stronger ties in their support networks than men. While there are no significant differences in the career support networks, women had, on average, more strong ties in their emotional support network (1.11 vs 0.70, p = 0.023), providing partial support for H3.

We also expected women to more often have a supervisor in their career support network (H4). While we observed that women more often than men, have a supervisor as a career support contact, the difference was not statistically significant, leading to the rejection of H4.

To investigate if differences in support network characteristics contribute to variations in career success and job satisfaction, we ran multiple regression analyses, including gender and network characteristics as well as controls as predictors for perceived career success and job satisfaction (Table 4.4). In this organization, men and women did not differ in their average levels of subjective career support and job satisfaction. The regression models showed no support for the explanation that gender

leads to the formation of support networks with different characteristics, which in turn would be linked to differences in career outcomes. Although Table 3 shows that some network characteristics differ by gender, none of the network characteristics significantly predicted career success and job satisfaction in the regression models. Thus, the idea that men and women build different support networks, which then produce differences in subjective career success (i.e., the mechanism of different network characteristics), was not supported by our data.

To test potential differences in the returns to support networks, we estimated models predicting subjective career success, including interaction terms (gender x network characteristics). We found some evidence for gender differences in the returns from support networks, specifically regarding career support. Table 4.5 shows the average marginal effects of network characteristics on career success and suggests that men and women differ in the benefits they derive from their career support networks, with significant associations observed for men but not for women. This was the case for the size of the career support network (b = 0.13, p =.024), the percentage of men in the career support network (b = −0.63, p = .018), and the presence of a supervisor in the network (b = −0.43, p = .015). For men, having a larger career support network was positively associated with perceived career success, whereas having more men in the network and a supervisor present were negatively associated with it. Regarding emotional support networks, there were no differences in network returns between men and women, with the exception of the percentage of same-gender ties and job satisfaction (Table 4.6). Only for men, a higher proportion of same-gender ties was positively related to job satisfaction (b = 0.88, p =.033), whereas this factor appeared unrelated to women's job satisfaction. Overall, these findings suggest that even if network characteristics are broadly similar, they matter more for men's career outcomes, especially their perceived career success, than for women's, providing some support for differences in returns between men and women in a female-dominated work context.

4.5 Discussion and Conclusion

This chapter examined men's and women's career and emotional support networks in a predominantly female Dutch health care organization. Based on arguments about different network characteristics and returns, we investigated the network characteristics, size, gender, and status composition, tie strength, and their association with perceived career success and job satisfaction, contributing to research on gendered informal networks at work.

Our first goal was to investigate gender differences in the support network characteristics in a female-dominated organization. We found that men and women have

largely similar support networks in terms of size and hierarchy composition, while they showed differences regarding the strength of their support ties and the gender composition of their support networks. This shows that in this organization, men and women have similar access to both types of support. Contrary to theoretical expectations based on gender roles and stereotypes, which suggested men's greater agency and focus on instrumental relationships would translate into larger career support networks, and women's communal orientation would translate into having larger emotional networks (Ellemers, 2017; Morrison, 2009; van Emmerik, 2006), we did not observe gender differences in the size of career and emotional support networks. This indicates that pressures from gender role scripts and structural constraints in forming career and emotional support relationships may not affect how many supportive ties men and women have at work, in line with accumulating evidence on instrumental and emotional social networks at work, documenting the absence of gender differences in terms of size (Woehler et al., 2021).

Instead, some gendered patterns emerged regarding the quality of the supportive relationships and the gender of the support contact. For example, women had more strong ties in their emotional support networks, which is consistent with gender norms and women's communal and emotional orientation. While women had more strong emotional support connections, they did not have more strong career support connections, which shows this orientation is specific to emotional support ties and does not extend to instrumental relationships, highlighting the different nature of the two types of support. The fact that gender differences emerged only in emotional support networks, but not in career support networks, which typically disadvantage women in male-dominated settings, suggests that in female-dominated organizations, forming career support networks is less gendered. We also found gender differences in the gender composition of the support networks. Consistent with our expectations, women had a higher proportion of female contacts across both types of support. In contrast, previous research, which primarily focused on managers and entrepreneurs and male-dominated workplaces, consistently documented men to have more gender homophily in their informal networks than women, specifically in their instrumental networks (e.g., Brass, 1985; Ibarra, 1992, 1997; Woehler et al., 2021). Our findings from a female-dominated organization highlight the role of the workplace context. Here, structural factors, like numerical representation, availability, and organizational positioning of men and women, are altered, shaping the size and gender composition of informal networks. Because women are the majority, they have ample opportunity to have same-gender support ties, while men have more often cross-gender ties.

Prior research has shown that in contexts where women are concentrated in lower-status positions, they lack access to support from higher-status contacts such as the supervisor (McGuire, 2000; G. Moore, 1990). In a female-dominated organization, where women hold positions at all levels, including supervisory roles, we expected this pattern to reverse. However, we did not find support for women more often having a supervisor in their support networks than men. Prior studies have documented a male-to-male career advantage in employee–supervisor relationships, especially in workplaces with strong traditional gender norms (Cullen & Perez-Truglia, 2023), whereas female supervisors were linked to higher levels of support for both male and female employees (S. Moore et al., 2005). Our findings may reflect this equalizing effect of female supervisors, and weaker traditional gender norms could lead both men and women to be equally often supported by their supervisors.

Our second goal was to investigate two ways in which gender differences could emerge, linking support networks to subjective career success: different network characteristics and different network returns despite similar networks. We tested whether gender was related to differences in network characteristics and subsequently to differences in subjective career success. We did not find support for this, as gender and network characteristics were unrelated to career success and job satisfaction in this organization. However, when investigating the relationships between network characteristics and subjective career success for men and women separately, we found gender differences, providing some support for the different returns argument. For men, career support network size, the percentage of male contacts, and the presence of a supervisor were related to subjective career success, while they were unrelated for women. Previous research on male-dominated workplaces suggests that men often benefit more from instrumental ties, while women rely more on emotional ties (McGuire, 2000; van Emmerik, 2006). We argued that in a female-dominated organization, these gendered patterns might differ, as the workforce composition and the status of women may alter the returns from support networks. Our findings provide partial support for this expectation. In line with the expectations, we found gender differences as only men gained career success returns from their support networks, while women did not gain any returns. Yet, men's returns were not only positive, indicating a more complex returns pattern than observed in prior research on male-dominated workplaces. For men, the size of the career support network was positively related to perceived career success, but a higher share of male contacts and having a supervisor in the network were linked to lower perceived career success for men. This finding suggests that ties to high-status individuals, such as men or supervisors, enhance career outcomes for men only when men are the dominant group in the organization. Contrary to the expectations from male-

dominated workplaces, we also found that men benefit more from emotional support in terms of job satisfaction. This could reflect men's minority position in the workplace, where the unique value of same-gender emotional support could offer a sense of belonging and psychological safety.

These findings may offer insights for organizations. Taken together, they suggest that structural factors such as numerical representation shape how employees build informal networks at work, specifically, the gender and status composition of support networks. While prior research has shown that women often lag in forming same-gender instrumental relationships and higher-status contacts, higher shares of women in an organization may help reduce this exclusion and promote more equal access to support contacts. However, our findings still support the idea that gender roles and expectations influence how close relationships are formed and how individuals use and benefit from their support ties. This means that gender norms can continue to produce gender differences, even when structural barriers are removed (Ridgeway, 1997). To create lasting change and make organizations more gender equal, they need to address both structural conditions and the beliefs related to gender.

While this research offers valuable insights into gendered support networks, it is important to acknowledge several limitations. First, we rely on cross-sectional data, which limits our ability to draw causal conclusions. We provide theoretical arguments for the direction of support influencing subjective career success, yet it is also possible that individuals who appear more successful attract support from others. Rather than identifying a causal effect between support networks and career success, the focus of this chapter was on gender differences in support network characteristics and returns. Even if the causal order was reversed and subjective career success leads to support, observed gender differences would still reflect gendered patterns of support networks, indicating that men and women differ in how effectively they use success to build support relationships. Nevertheless, future research could use longitudinal data to provide more clarity on the causal relationship between workplace support and career success. Second, our data were collected within a single organization. While we argue that the gender composition of this organization reflects structural patterns relevant to other settings, generalizability should be approached with caution. Future research could examine other female-dominated contexts as well as more gender-balanced environments, and explicitly test whether gender composition moderates the relationship between support networks and career outcomes. Third, to balance data depth with respondent burden, we limited the number of support network contacts to a maximum of five per type of support. Future studies could expand on this by allowing for an unlimited number of nominations and by incorporating additional types of support, such as task-related assistance. Last, although

we developed theoretical arguments about how structural factors like gender composition and social-psychological mechanisms such as gender roles and categorization shape support networks and career outcomes, we did not directly measure these mechanisms.

In summary, our findings point to context-conditioned returns rather than universal network effects. In other words, what employees get from similar-looking networks depends on local organizational factors, such as gender composition, status beliefs, psychological safety, or inclusion. This implies a clear agenda for future work: modelling the interaction of networks × gender × context directly, testing which contextual factors moderate the returns for men and women, and moving the field beyond main-effects models of diversity and toward contingency theories of network returns. Overall, this chapter shows that in a female-dominated workplace context, gender differences in the characteristics and returns of workplace networks are altered, providing a first step toward a comprehensive understanding of gendered workplace dynamics across organizations.

Table 4.1

Descriptive statistics of the variables

	Total					Women (n=236)		Men (n=50)	
	n	M	SD	Min	Max	M	SD	M	SD
female	286	0.83		0	1				
career support network									
size	286	2.86	1.64	0	5	2.94	1.6	2.46	1.75
number of strong ties	286	1.32	1.44	0	5	1.36	1.43	1.12	1.48
% men	275	0.14	0.24	0	1	0.13	0.23	0.21	0.3
% same gender	275	0.67	0.4	0	1	0.77	0.34	0.21	0.3
supervisor present	286	0.56		0	1	0.58		0.44	
emotional support network									
size	286	2.06	1.55	0	5	2.13	1.57	1.76	1.46
number strong ties	286	1.05	1.19	0	5	1.12	1.23	0.7	0.86
% men	266	0.12	0.26	0	1	0.08	0.21	0.28	0.4
% same gender	266	0.62	0.45	0	1	0.69	0.42	0.28	0.4
supervisor present	286	0.24		0	1	0.24		0.26	
job satisfaction	269	7.41	1.02	3	10	7.37	1.05	7.6	0.83
perceived career success	285	3.36	0.54	1.25	5	3.38	0.54	3.25	0.55
age	286	41.85	11.71	24	70	40.96	11.69	46.06	10.95
education	285	4.17	0.86	1	6	4.26	0.8	3.72	1.01

Note. SWS Wave 3.

Table 4.2

Pairwise correlations of the studied variables

		1	2	3	4	5	6	7	8	9	10	11	12	13
1	cs size	1												
2	cs % men	0.113	1.000											
3	cs % same gender	0.459***	-0.239***	1.000										
4	cs strong ties	0.581***	0.032	0.254***	1.000									
5	cs supervisor	0.327***	0.102	0.284***	0.167**	1.000								
6	es size	0.059	-0.158**	0.015	0.198***	0.041	1.000							
7	es % men	-0.053	0.394***	-0.275***	-0.034	0.011	0.097	1.000						
8	es % same gender	-0.036	-0.277***	0.281***	0.061	0.072	0.527***	-0.032	1.000					
9	es strong ties	0.144*	-0.081	0.104	0.449***	0.111	0.579***	-0.001	0.494***	1.000				
10	es supervisor	-0.021	-0.082	-0.033	0.017	0.138*	0.298***	0.052	0.242***	0.206***	1.000			
11	job satisfaction	0.069	0.004	-0.013	0.097	0.098	0.023	0.091	-0.021	0.032	0.078	1.000		
12	per. career success	0.118*	-0.024	0.041	0.157**	0.032	0.027	-0.092	-0.015	0.038	-0.014	0.217***	1.000	
13	age	-0.183**	-0.001	-0.184**	-0.092	-0.146*	0.026	0.075	-0.052	-0.060	-0.028	0.126*	-0.076	1.000
14	education	0.110	-0.114	0.155*	0.010	0.100	-0.007	-0.148*	0.094	0.013	0.015	-0.105	0.220***	-0.290***

Note. SWS Wave 3.

Table 4.3

Gender differences in support network characteristics

Support Characteristic	Men	Women	Difference		*p*
Career support					
Size	2.46	2.94	-0.48		0.059
% Same-Gender	0.22	0.76	-0.54	***	0.000
% Men	0.24	0.14	0.10	*	0.011
Number of strong ties	1.12	1.36	-0.24		0.284
Supervisor present	0.44	0.58	-0.14		0.061
Emotional support					
Size	1.76	2.13	-0.37		0.130
% Same-Gender	0.28	0.68	-0.40	***	0.000
% Men	0.31	0.11	0.20	***	0.000
Number of strong ties	0.70	1.12	-0.42	*	0.023
Supervisor present	0.26	0.24	0.02		0.733

Note. SWS Wave 3.

N=286; Mean difference reported for interpretability; t-test and chi2 test

Table 4.4

Relationship between gender, career, and emotional support and career success and job satisfaction (OLS-regression, unstandardized coefficients)

	1	2	3	4	5	6
		Career success			Job Satisfaction	
Female	0.123	0.049	0.069	-0.216	-0.139	-0.17
	-0.059	-0.064	-0.099	-0.116	-0.123	-0.143
Career support network						
Size			-0.001			0.011
			-0.035			-0.051
% Men			-0.012			-0.176
			-0.101			-0.337
Number of strong ties			0.063			0.069
			-0.032			-0.055
Supervisor present			-0.012			0.207
			-0.06			-0.153
Emotional support network						
Size			0.018			-0.012
			-0.032			-0.068
% same gender			-0.086			-0.029
			-0.133			-0.205
Number of strong ties			-0.017			-0.005
			-0.049			-0.049
Supervisor present			-0.011			0.168
			-0.038			-0.129
Age		-0.001	0		0.008	0.01
		-0.004	-0.005		-0.006	-0.007
Education		0.132*	0.136*		-0.068	-0.077
		-0.052	-0.055		-0.069	-0.071
Constant	3.255***	2.791***	2.704***	7.594***	7.480***	7.246***
	-0.046	-0.307	-0.362	-0.102	-0.495	-0.591
Observations	286	286	286	286	286	286
R^2	0.007	0.05	0.079	0.007	0.021	0.054

Note. SWS Wave 3.
Standard errors in parentheses, clustered at the section level.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4.5

Average marginal effects of network characteristics on career success

Support Characteristic	Men	Women	Women vs Men	SE	*p*
Career support					
Size	0.13 *	-0.03	-0.16 *	0.05	0.015
% Male	-0.63 *	0.08	0.71 *	0.22	0.013
Number of strong ties	0.10	0.06	-0.04	0.08	0.648
Supervisor present	-0.43 *	0.06	0.50 *	0.17	0.023
Emotional support					
Size	0.03	0.01	-0.02	-0.02	0.632
% Same-Gender	0.27	-0.11	-0.38	0.19	0.084
Number of strong ties	-0.12	-0.01	0.11	0.10	0.309
Supervisor present	-0.15	0.00	0.15	0.13	0.293

Note. SWS Wave 3.
Control vars: age and education, robust standard errors for section

Table 4.6

Average marginal effects of network characteristics on job satisfaction

Support Characteristic	Men	Women	Women vs Men	SE	*p*
Career support					
Size	0.12	-0.01	-0.13	0.07	0.105
% Male	-0.52	-0.36	0.17	0.35	0.652
Number of strong ties	0.05	0.06	0.01	0.12	0.944
Supervisor present	-0.18	0.28	0.46	0.29	0.158
Emotional support					
Size	0.00	0.01	0.01	0.10	0.928
% Same-Gender	0.89 *	-0.32	-1.21 **	0.32	0.008
Number of strong ties	-0.12	0.03	0.14	0.18	0.455
Supervisor present	0.02	0.20	0.17	0.19	0.405

Note. SWS Wave 3.
Control vars: age and education, robust standard errors for section

Figure 4.1

Size of career support network (frequency in per cent)

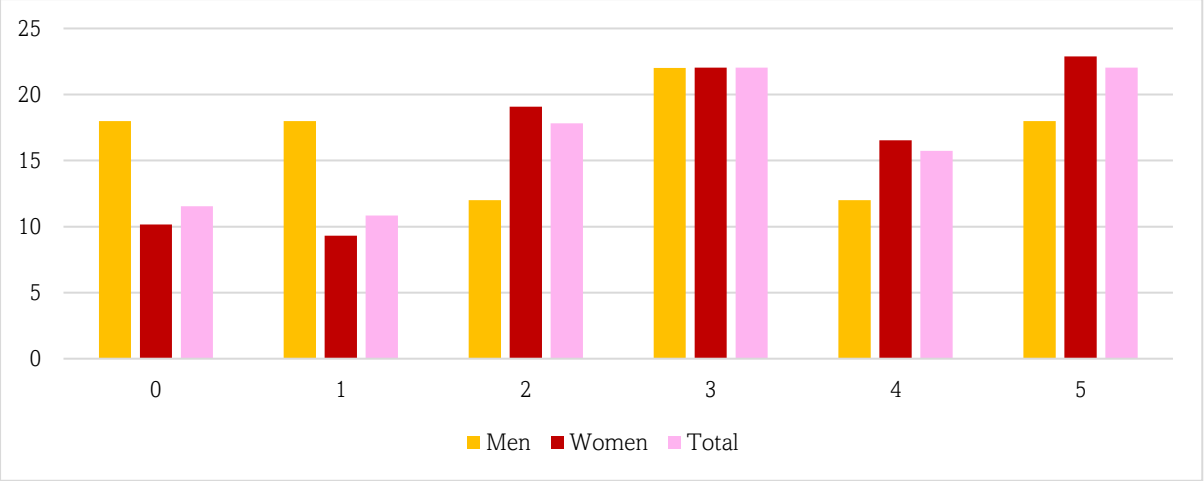
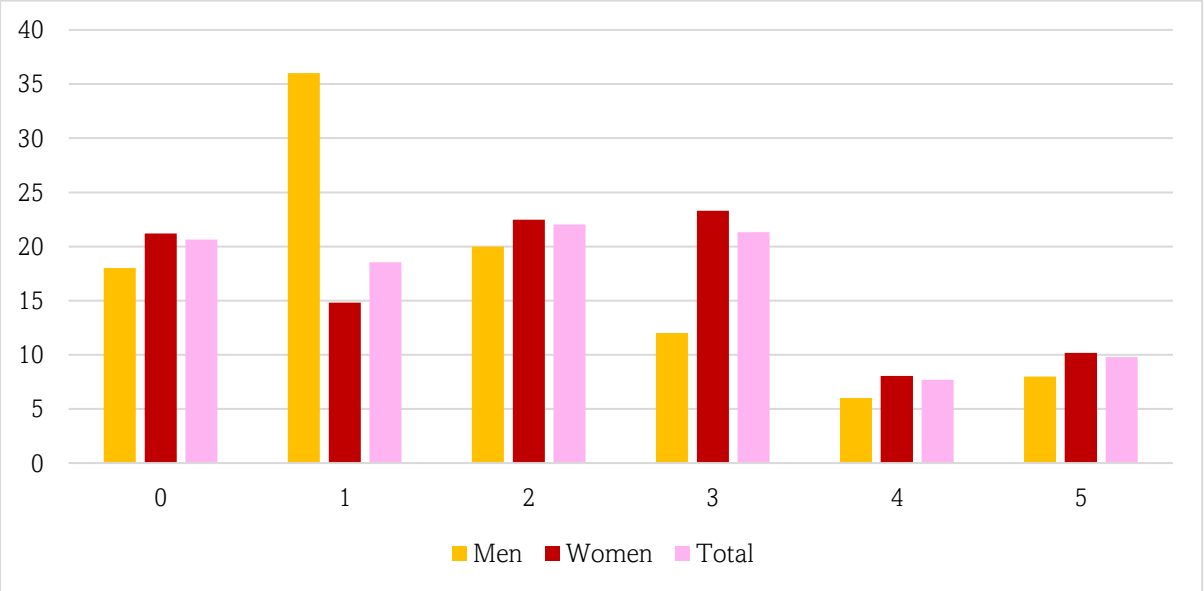


Figure 4.2

Size of emotional support network (frequency in per cent)



CHAPTER

5

DOES HELPING BENEFIT YOU OR THE TEAM? A MULTILEVEL INVESTIGATION OF THE HELPING-PERFORMANCE LINK IN EUROPEAN WORKPLACES

The chapter is coauthored by Eva Jaspers and Tanja van der Lippe. The authors jointly developed the main ideas of the chapter. Hoffmann wrote the manuscript and performed the analyses. Japers and van der Lippe contributed substantially by providing extensive feedback on earlier versions.

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Abstract

Helping coworkers with their work tasks is a common phenomenon at many workplaces. While getting help is typically advantageous for the receiver, the costs and benefits for the helper are less clear. This chapter focuses on the relationship between helping coworkers and performance, both at the team and individual levels. Additionally, we examined whether a supportive work environment and the helper's gender moderate this link. We tested our hypotheses using unique three-level data (employees, departments, organizations) gathered from six different sectors across nine European countries and hierarchical regressions. We found a positive association between helping coworkers and performance for teams and individuals, as predicted by the Social Exchange Theory. This association was strengthened the more supportive one's coworkers are. Unexpectedly, there were no gender differences in performance benefits derived from helping others. Results suggest that organizations should foster a supportive work environment to enhance team and individual performance.

5.1 Introduction

In many workplaces, it is common for employees to voluntarily support each other beyond their officially defined tasks, for example, by helping, giving advice, or taking over work assignments (Glomb et al., 2011). In general, receiving social support at work is beneficial and has been shown to positively impact various aspects of employee functioning and health, such as reduced work stress and strain (M. Mathieu et al., 2019), job satisfaction (Humphrey et al., 2007), and well-being at work (Craig & Kuykendall, 2019). Support involves two parties, the helper and the receiver, who may face different consequences. While there is a substantial body of literature on those who are receiving support at work (Chiaburu & Harrison, 2008; Jolly et al., 2021; Viswesvaran et al., 1999), mostly highlighting benefits, limited research focuses on those who are helping and the price they might pay.

Yet, for a thorough understanding of workplace helping and to inform workplaces, it is crucial to include the flip side of the coin- the consequences for the helper. On the one hand, helping is a prosocial behavior known to enhance well-being (Batson, 1998). On the other hand, helping requires investing one's time and resources in a coworker, potentially leading to costs (Bergeron, 2007) such as harming the helper's individual performance. Existing studies focused on different outcomes and yielded mixed evidence, which supports the idea that there might be both positive and negative implications of helping at work. For instance, while it has been shown that helping others enhances employees' perception of job meaningfulness (Colbert et al., 2016), it was found that higher numbers of coworkers seeking advice from a person are associated with an increase in that individual's turnover intentions (Soltis et al., 2013). Such findings emphasize a lack of clarity regarding the relationship between helping coworkers and work outcomes (Bolino et al., 2013). Additionally, the synthesis of existing findings on the implication of helping at work is complicated by the fact that the topic is studied by different disciplines using various concepts such as social support (Taylor, 2011), prosocial behavior (Batson, 1998), and Organizational Citizenship Behavior (OCB; Podsakoff et al., 2000). While these concepts all describe helping behavior to some extent, they often intertwine it with other voluntary behaviors (e.g., adherence to organizational rules and regulations). This conflation of behaviors makes it difficult to understand the precise relationship between helping and performance. In this chapter, we do not delve into a discussion of the concepts and their similarities and differences; instead, we exclusively focus on helping behavior directed toward other coworkers (as recommended by Podsakoff et al., 2014).

We define helping as a voluntary and discretionary prosocial behavior with a primary focus on work-related tasks (c.f. George & Brief, 1992). Such behaviors could be

assisting a coworker who is struggling with a task, giving advice or feedback on how to do things, or taking over work from someone who is overburdened. The voluntary nature of helping beyond the formal tasks of the employee is central in this context. The extent to which coworkers help each other is likely to impact the performance of employees and teams. We focus on performance as it holds central importance in organizations, representing a key outcome for both individual employees and teams. A shortcoming of prior research is that studies often focus on the implications of helping for either the individual helper or the whole team, yet both outcomes are rarely studied simultaneously. However, it is plausible that although helping appears generally beneficial for team performance, some employees pay the price in terms of reduced individual performance. To capture such nuance, we analyze the performance implications of helping for both teams and employees.

Additionally, we expect the helping-performance link to vary across diverse workplace contexts and among different individuals and investigate two factors that might play a role in this. First, the supportiveness of the work environment, including support from managers and coworkers, indicates how often employees receive assistance, encouragement, or resources needed to achieve their goals. At workplaces where there is a lot of support from managers and coworkers, receivers of help are expected to be more likely to reciprocate, thereby increasing the benefits while decreasing the cost for the helper. Second, we explore if the implications of helping are gendered. Social role theory and gender stereotypes suggest that men and women have different roles and qualities and that those of women are more closely associated with helping behaviors than those of men (Eagly & Crowley, 1986; Ellemers, 2017). Therefore, helping others might be expected more from women, leading employees to distinctly evaluate the helping behavior of male and female coworkers. In other words, as women are more often expected to help others, their acts of helping might receive less recognition and reciprocity from coworkers. Male helpers might receive greater acknowledgment for their help, and as a result, their help is more likely to be reciprocated. Research has shown that people tend to give women less credit than men when they help others but penalize them more when they refuse to help (Heilman & Chen, 2005).

In summary, this chapter poses the following research questions: How is helping coworkers linked to the helper's individual performance and team performance? Is this relationship dependent on the supportiveness of the work environment and the helper's gender? To investigate the link between helping and work outcomes we use data on employees, teams, and organizations from the 'European Sustainable Workforce Survey' (ESWS; Van der Lippe et al., 2016), a unique dataset on differently sized organizations in nine European countries (Bulgaria, Finland, Germany, Hungary, the Netherlands,

Portugal, Spain, Sweden, and the United Kingdom) and six different sectors (financial services, health care, higher education, manufacturing, telecommunications, and transportation). We perform two separate analyses: On the team level, we investigate the relationship between manager-rated team helping and manager-rated team performance. On the individual level, we look at the link between individual helping behavior and self-rated task performance. With this, we aim to contribute to the literature in the following three ways. First, we advance the theoretical understanding of the positive and negative implications of helping at work, taking into account contextual and gender variations. Second, we add to research on helping by studying both team and individual levels of helping and performance. Third, our data allows us to expand the scope of prior studies, examining multiple organizations across different sectors and countries. In this way, our findings on the helping-performance link are more robust than those from single organization or sector studies. Thus, this chapter generates insights that foster a better understanding of the conditions under which helping is beneficial, how it can be fostered, and how associated costs for employees and organizations could be reduced.

5.2 Theory

5.2.1 Helping and Team Performance

To understand how helping coworkers and the performance of teams and employees are theoretically related, we first focus on the team level. In the context of organizations, teams are established with the primary objective of task execution, making team performance a central point of interest and focus in many studies (J. Mathieu et al., 2008). Coworkers who help each other can enhance team performance for several reasons. Podsakoff and colleagues (2000) summarize the theoretical arguments underlying this link. First, helping each other can increase the individual efficiency of employees. By helping, coworkers can share knowledge and 'teach the ropes', enabling new employees to integrate as effective members into the team quickly. Moreover, through helping behavior, best practice examples can be informally spread, leading to optimized task performance within the team. Second, helping one another is assumed to enhance positive social relationships among the team members and foster a cooperative work environment. These relationships and interactions improve communication and reduce conflict, which facilitates the exchange of information among team members, knowledge sharing, and the generation of new knowledge, which both contribute to organizational functioning (Fu, 2015; Nahapiet & Ghoshal, 1998). Moreover, improved social relationships lead to greater team spirit, morale, and cohesiveness, all of which further contribute to overall team performance (Podsakoff et al., 2000). Third, coworkers helping each other promotes the stability of team performance over time. For example, in cases

where team members face high workloads, fall sick, or are unable to complete their work tasks, others who have more capacity can help or pick up the slack. In this way, coworkers can complement each other through helping. Regarding empirical evidence on the link between helping and team-level performance, we can draw on the OCB literature that commonly includes helping coworkers in a combined measure with other organizational citizenship behaviors such as civic virtue (i.e., taking an interest in the life of the organization) and conscientiousness (i.e., adhering to rules; Podsakoff et al., 2009). Meta studies have shown a positive association between unit-level OCB and unit-level performance indicators such as measures of profitability, efficiency, and sales (Podsakoff et al., 2014; Whitman et al., 2010). OCB combines a range of extra-role behaviors; however, given the focus of this chapter on supportive relationships, it is important to focus on helping exclusively. We thus hypothesize:

H1: The more team members help each other, the higher the performance of the team.

5.2.2 Helping and Individual Performance

To better understand the link between helping and performance, it is important to consider how they are related on the level of the individual employee. In comparison to the team level, on the individual employee level, (performance) costs for the helper may arise. Individual performance in terms of employees' ability to fulfill their own job responsibilities effectively may not fully correspond with team performance. For example, it is possible that at the team level, overall operations run smoothly, and the team performs well, even if some employees deviate from their assigned tasks to help others. Yet, for these employees who help others, these behaviors could lead to lower individual performance. Arguments and theories regarding the link between individual-level helping behavior and performance do not align, with some theories suggesting a positive association while others propose a negative one.

According to Social Exchange Theory (Blau, 1964) team members interact to maximize their benefits and minimize costs by exchanging valuable resources such as information, skills, and support. Helping each other is a prevalent way of exchanging such resources, and recurring helping behaviors foster reciprocity (i.e., the expectation of some future return; Blau, 1964). In this way, helping contributes to a cooperative work climate which may in turn lead to higher individual performance. In workplaces with a prevalent norm of reciprocity (Gouldner, 1960) employees may benefit from helping others, as they are more likely to receive help in return when they need it. Empirical studies substantiate reciprocity as a ‘golden rule’ of exchange. For instance, a study of social networks of individuals highlighted the principle of reciprocity as a universal norm, showing that

giving support to others in these networks was strongly associated with getting support back (Plickert et al., 2007). This observation also applies to the workplace, where it was shown that people often receive help from those to whom they provide help. Using social network analysis, Lyons and Scott (2012) found reciprocity to be one of the central drivers of whether an employee received help. This holds for different kinds of support, as it was shown that giving support in the form of communication about positive and negative aspects of work was also associated with receiving such support (Bowling et al., 2005). These findings imply that helping coworkers is not solely about helping those who are in need but extends to mutual exchanges that strengthen the relationship.

Moreover, helping at work can have a profound impact on employee well-being and functioning since meaningful social connections are one of the factors central to the happiness of individuals (Diener & Seligman, 2002). Helping each other is one way of forming and strengthening these social connections. Moreover, the prosocial behavior of helping itself can lead to psychological benefits like pleasure and satisfaction for the helper (Helliwell et al., 2017). It has also been shown that positive emotions are predictive of helping behavior (Muric et al., 2022). According to the 'doing good, feeling good' idea, helping coworkers can also function as a mood regulator as attention is drawn to a social activity that may lead to feelings of gratitude. Research shows that helping at work increases positive affect, job satisfaction, and affective commitment (Koopman et al., 2016). Collectively, these factors may also increase individual performance, as posited by the 'happy productive worker' thesis (Zelenski et al., 2008), which predicts employees with high well-being to be more productive. Meta-analytical evidence supports this idea and has shown that employees with higher well-being perform better in their jobs (Salgado & Moscoso, 2022).

Besides the arguments suggesting a positive link between individual helping and performance, other theories explicate the costs for the helper. The Conservation of Resource Theory (COR; Hobfoll, 1989) describes that individuals try to acquire, protect, and maintain personal resources such as time or energy to avoid stress and gain well-being. From this perspective, helping does both generate and exhaust resources. Helping, on the one hand, is a positive interpersonal activity that generates psychological resources, but on the other hand, it consumes the crucial resource time that is spent on someone else's tasks (Koopman et al., 2016). Similarly, the 'allocation of resources' framework (Bergeron, 2007) focuses on the potential costs of helping coworkers. This perspective emphasizes that employees have limited time and resources available for task completion. Therefore, when this time is utilized for helping others, less time can be devoted to the own work of employees. As a result, employees need to decide how to spend their time and resources, introducing a trade-off between working on their tasks

and helping coworkers. It has been shown that helpers experience more difficulties in managing their work tasks due to negative implications of helping, such as role overload, stress, and work-family conflicts (Bolino & Turnley, 2005). Although helping may contribute to feeling good, it may also reduce individuals' perceived progress toward work-related goals (Koopman et al., 2016).

A similar premise is central in the social support literature, where receiving social support can protect against adverse outcomes of stress at work for the recipient, but comes at a cost for the giver (Taylor, 2011). In this context, the focus shifts from the trade-off between working on one's own task vs. helping others to considering additional costs of helping. For example, is has been shown that helping can be draining (Gabriel et al., 2018) and exhaustion, in turn, was negatively related to task performance (Halbesleben & Wheeler, 2011). Finally, helping others can lower performance since it often requires the helper to pause the workflow. These interruptions have been demonstrated to decrease performance by increasing completion time and error rates (B. C. Lee & Duffy, 2015). Given contrasting theoretical predictions and inconclusive empirical findings on the implications of helping, we propose contrasting hypotheses for the relationship between helping and employee performance:

H2a: The more an employee helps coworkers, the higher the individual performance.

H2b: The more an employee helps coworkers, the lower the individual performance.

5.2.3 The Moderating Role of a Supportive Work Environment

The implications of helping for performance are likely contingent upon the organizational context, specifically, on coworkers and the manager, as they can reciprocate support. Research has shown that the social support provided by leaders and colleagues is beneficial and directly influences various employee outcomes, including helping and task performance (M. Mathieu et al., 2019). The existence of these supportive workplace relationships potentially shapes the link between helping and performance for the following reasons. First, when managers and coworkers are supportive, they reduce the burden that can be associated with the act of helping others. For example, stress caused by prioritizing time between personal and coworker tasks could be alleviated when the employee feels that the manager is understanding and values a collaborative culture. Second, the amount of coworker support demonstrates how committed team members are to helping each other, and implicitly provides information on cooperation and reciprocity norms and thereby the likelihood that the helper can expect help in return (Gouldner, 1960). Research has shown that a strong group feeling increases altruism in

the group (Podsakoff et al., 2000) and that perceptions of coworker support are positively associated with helping behavior (Ladd & Henry, 2000). Overall, this suggests that in supportive work environments, helping might lead to better performance, as time and resources that have been invested in others are likely to be reciprocated in situations where support is needed. Moreover, a supportive supervisor may promote a culture of helping so that such behavior is more recognized and less damaging to individual performance. In contrast, in low-support teams where help is less likely to be reciprocated, we expect a stronger negative impact of helping on performance, as helping mainly leads to more interruptions and higher workloads. Since we derived contradicting hypotheses for hypothesis 2, we formulate the following hypotheses accordingly. H2a posits that helping leads to higher individual performance, and the contrary H2b that helping leads to lower performance, is written in brackets.

H3a: The more supportive the manager, the stronger (weaker) the positive (negative) association between helping and performance.

H3b: The more supportive the coworkers, the stronger (weaker) the positive (negative) association between helping and performance.

5.2.4 Gendered Implications of Helping

Besides investigating the role of a supportive work environment, we aim to understand if the implications of helping are different for men and women. Gender roles and stereotypes (Eagly & Crowley, 1986) significantly shape people's expectations when it comes to helping behaviors and influence the standards to which we hold them (Ellemers, 2017). According to these stereotypes, women are likely to have qualities such as warmth and caring for others. Due to these qualities, people expect women more than men to help others when they sense a need for assistance or when they are asked. In contrast, the stereotypes for men emphasize agency, and people anticipate that men focus on behaviors such as task performance. Thus, the expectations to help coworkers are less pronounced for men. Empirical evidence has supported both the presence of these stereotypes and their relation to helping expectations. For example, it has been shown that women are not only more likely to volunteer but also more often asked to do so than men (Babcock et al., 2017). These gendered expectations of helping might shape the helping performance link. Because women are more expected to help their coworkers, and men and women are held to different standards when judging their helping behavior, this could lead to an under-recognition of women's supportive efforts. This may result in lower helping returns for women as they might receive less acknowledgment for helping, leading to lower reciprocity of helping because helping behaviors are perceived as inherent to their role. Helping behavior of men might be more visible because it is not as

strongly associated with their gender stereotypical behavior and role expectations. Therefore, men's helping efforts may be reciprocated more often, leading to better performance. In this way, for women, the benefits of helping might be decreased while the costs are increased, and vice versa for men.

H4: The positive (negative) link between helping and performance is weaker (stronger) for women than for men.

5.3 Methods

5.3.1 Data

To investigate the implications of helping for team and employee performance, data from the 'European Sustainable Workforce Survey' (ESWS; Van der Lippe et al., 2016) is employed. The ESWS is a unique multi-actor dataset containing information on private and public sector organizations from nine European countries (Bulgaria, Finland, Germany, Hungary, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom). The organizations stem from six different sectors (financial services, health care, higher education, manufacturing, telecommunications, and transportation) that vary in terms of their workforce (e.g., percentage of women/older employees, flexible employment, and technological development). Additionally, different workforce sizes, including small (40–99 employees), medium (100–249 employees), and large (250+ employees) organizations, are represented in the data. The data were collected in 2015 and 2016 (van der Lippe et al., 2016). The ESWS consists of three instruments: the Organization Questionnaire (OQ – answered by the CEO or HR manager), the Manager Questionnaire (MQ – answered by the department manager), and the Employee Questionnaire (EQ – answered by employees). Response rates were 61% for the employee questionnaire and 81% for the manager questionnaire. In total, 11,011 employees from 869 teams and 259 organizations completed the survey online or on paper. For the sample of the team-level analysis, we removed 178 teams. Among them, 134 teams were excluded because the respective manager did not fill in the manager questionnaire, and another 44 were excluded due to item non-response on one of the relevant variables. Thus, the analytical sample consists of 690 teams in 249 organizations for the team analysis. For the employee-level analysis, 2140 respondents were removed because of item non-response. Most of these missing values are due to a lack of information from the manager questionnaire (see Table 5.1). In the employee level analysis, the analytical sample covers 8821 employees in 704 teams and 251 organizations.

5.3.2 Measures

Team-level

Team performance is the dependent variable of the team-level analysis and was obtained from the Manager Questionnaire of the ESWS. The variable was measured using the question 'How would you rate your department's labor productivity? Answer options included 'very good', 'rather good', 'neither good nor bad', 'rather poor', and 'very poor'. The scale was reversed so that higher values indicated higher performance. Note that no manager indicated 'very poor' performance, resulting in the variable ranging from 1 to 4.

The main independent variable is *team helping*, measured by asking the manager about their agreement with the following statement: 'Employees regularly ask one another for help or advice regarding work issues' using a 5-point Likert scale with answer categories ranging from 'strongly disagree' to 'strongly agree'. The scale was reversed so that higher values indicated more team helping.

To control for potential confounding influences on the relationship of interests, we included the following control variables in the analysis: *number of employees in the department,* the *share of women in the department,* how autonomous employees can decide to organize their work (*autonomy*), and the extent to which employees need to rely on each other to finish their tasks (*interdependence*). Additionally, we included dummy variables to control for *sector* and *country* differences.

Employee-level

The second dependent variable, *employee task performance*, was measured using task performance items of the 'Individual Work Performance Survey', which has strong psychometric properties and high consistency across countries and job domains (Koopmans et al., 2014; Ramos-Villagrasa et al., 2019). Employees rated their performance on five items (e.g., 'I was able to plan my work so that I finished on time' and 'I was able to do my work efficiently') using a 5-point Likert scale (see Appendix D10). Values across the items were averaged, and the scale was reversed so that higher numbers corresponded with higher performance. The Cronbach's alpha coefficient for the measure was 0.85, indicating a high level of internal consistency. This measure is particularly fitting for the purpose of this chapter, as it allows for capturing potential costs of helping associated with the time and resources of employees, described in the resource allocation framework. Consequently, the cost of helping would manifest if employees who help a lot indicate having problems sticking to their schedule or feel that they work less efficiently.

Employee helping is the main independent variable, which was assessed with a 4-item scale consisting of questions like 'I often help my colleagues solve work-related problems' and 'I often volunteer to cover work assignments for colleagues when needed'. Employees rated their behavior on a 5-point Likert scale. Again, values were averaged,

and the scale was reversed so that higher numbers indicate more helping. The internal consistency was good with a Cronbach's alpha coefficient of 0.76.

We analyzed the role of three moderating variables, all assessed with the employee's questionnaire. First, *manager support* was created using a 4-item scale where employees indicate on a 5-point Likert scale how supported they feel by their manager (e.g., 'My supervisor shows understanding if I have problems or wishes concerning my job'). The values were averaged, and the scale was reversed so that higher numbers indicated more perceived support. The internal consistency of the scale was very high, with a Cronbach's alpha coefficient of 0.91.

Second, *coworker support* included information about employees' perception of the team using four items (e.g., 'Everyone feels like part of the team'). The items were answered using a 5-point Likert scale, and the scale was reversed so that higher values correspond with stronger support. The internal consistency was very high (Cronbach's alpha = 0.85).

Third, the variable *female* was assessed with the question 'Are you male or female?' and recoded as a dummy variable with values 0 (male) and 1 (female).

In the individual-level analyses, we controlled for *age* and *years of education*, measured with the employee questionnaire. Additionally, we included the *number of employees in the department*, the *share of women in the department*, *interdependence* ('Employees in this department depend on one another's work to do their job') of work tasks, and *autonomy* ('Employees in this department are free to decide how to organize their work') from the manager questionnaire. We included the latter two variables to specifically capture voluntary help, distinguishing it from helping behaviors that are inherent to job responsibilities. Like in the team-level analysis, we also controlled for *sector* and *country*.

5.3.3 Analytical Strategy

To test our hypotheses on the link between helping and team and individual performance, we used hierarchical linear regression analysis. Given the hierarchical structure of the data (employees nested in teams, nested in organizations), a multilevel approach was most suited. Employees of the same team or organization were expected to be more similar than employees across different teams and organizations, and neglecting this context dependency can result in bias and compromised accuracy in both coefficients and standard errors. Moreover, there was significant variation in organization, team, and employee levels, supporting the choice of multilevel models. The intraclass correlations were .10 for team performance, indicating that 10% of the total variance in team performance can be attributed to differences between organizations. For employee

performance, the ICC is .047 on the level of the organization and .097 on the team level. This means that approximately 5% of the total variance in individual performance can be attributed to the differences between organizations and 10% to differences between teams.

As shown in Tables 5.2 and 5.3, the majority of pairwise correlations were small to moderate. The highest estimated correlation among variables in the analyses was between female and share of women (corr = .473), manager support and coworker support (corr = .469), and helping and coworker support (corr = .456).

We present the following models: First, we estimated the link between team helping and team performance using 2-level mixed effects linear models. Subsequently, we moved to the level of the individual employee, employing 3-level mixed effects models to assess the association between employee helping and employee performance. In these models, we additionally investigated the potential role of manager support, coworker support, and gender. This is done in a stepwise manner: first, we show the bivariate association, then add the control and moderator variables, and finally, the interaction terms. To avoid problems of multicollinearity and for better interpretability, we applied the method of grand-mean centering to the independent and moderating variables in the employee-level analysis (Hofmann & Gavin, 1998). Full tables, including the coefficients for all control variables, are presented in Appendix D4.

5.4 Results

5.4.1 Team-level Analysis

Table 5.4 Model 1 presents the estimates of the multilevel regression analysis of the link between team helping and team performance. Our first hypothesis predicted a positive association between team helping and team performance. The bivariate model (not shown) shows a positive relationship between team helping and team performance (b = 0.302, $p < .001$). This association only slightly decreases and remains highly significant after adding the control variables: number of employees, share of women, autonomy, interdependence, sector, and country. In teams where employees help each other more, the team performance was, on average, higher. We found that a one-step increase on the team helping scale was related to an 0.289 increase on the 4-point scale team performance scale, which corresponds to slightly less than half a standard deviation in team performance. Note that the positive link between team helping and performance was found across different sectors and countries. These results are in line with our expectations, and we therefore accept H1.

5.4.2 Employee-level Analysis

We formulated contrasting hypotheses for the link between employee helping and employee performance, as there were both theoretical arguments that pointed to the benefits and the costs of helping for task performance. Table 5.4 Models 2-6 summarize the multilevel regression models predicting employee task performance as well as the moderation analyses. Model 2 shows a highly significant positive bivariate association between employee helping and employee performance ($b = 0.330$, $p < .001$). After adding manager support, coworker support, female, age, years of education, autonomy, interdependence, sector, and country, this association decreased but remained highly significant ($b = 0.217$, $p < .001$). This means that a one-unit increase from the mean of the helping scale was associated with a 0.217-unit increase in employee task performance, holding all other factors constant. This shows that employees who help more have better task performance on average, which is in line with H2a. We thus accept H2a and reject H2b.

Furthermore, we expected support from the manager, support from coworkers, and the helper's gender to shape the link between employee helping and employee task performance. Manager support, coworker support, and being female were significantly positively related to task performance (Model 3). In Model 4, the interaction effect of manager support is insignificant, showing no support for H3a, which we therefore reject.

In addition to support from the manager, we also investigated coworker support. In Model 5, coworker support is added as a predictor and shows a highly significant association with task performance. On average, employees who felt supported by their team members performed better (Model 5; $b = 0.069$, $p < .001$). Adding the interaction term of helping and coworker support in Model 5 shows a significant interaction effect ($b = 0.035$, $p < .01$). When employees perceived more support from their coworkers, the association between helping and task performance was stronger, supporting H3b.

Last, hypothesis 4 predicted gender differences in the implications of helping and expected women to have a weaker positive helping-performance link. The data did not support this hypothesis, as the interaction coefficient showed the expected direction but was insignificant (Model 6). These results showed that men and women have the same performance benefits from helping coworkers.

We only briefly discuss the control variables (Appendix D5). It shows that, except for the country, none of the control variables had a significant association with employee task performance. In comparison to the UK, employees in Sweden and Portugal reported, on average, lower task performance, while those in Hungary reported higher task performance.

5.4.3 Robustness Checks

To test the robustness of our findings, we carried out the following additional analyses. First, for a stricter measure of helping, we used a dummy variable with a value of one only if respondents were in the highest quartile of the helping variable. In all other cases, we coded the variable as 0. The results remained largely unchanged, except for the interactions with manager and coworker support which became insignificant (Appendix D8). Second, to see if the results could be country or sector-specific, we performed jack-knife procedures excluding one country or sector from the analysis (Appendix D2, D3, D6, and D7). While there were some variations in the magnitude of the coefficient, it remained robust across the different models. Regarding the interaction effect with coworker support, overall, across the nine European countries and six sectors, we found that the positive link between helping and task performance was stronger when coworker support was higher. Yet, this does not imply that the interaction is significant in all countries and sectors. In fact, when excluding Bulgaria from the sample, the interaction between coworker support and helping became non-significant (b = .024, p = .097; not shown). The same happened excluding higher education (b = .018, p = .216) and financial services (b = .026, p = .068). Fourth, because we had to exclude a quite high number of respondents due to non-response on the manager items, we ran the employee analysis including 10338 respondents without the team-level variables. The results are in line with those of the model that includes team-level characteristics (Appendix D9). Fifth, based on theoretical arguments, we expected that helping influences performance. However, due to the cross-sectional nature of our data, we refrain from making causality claims. To empirically assess this question, we also estimated a model where helping was treated as the dependent variable and individual task performance as the main independent variable. In this model, the coefficient was smaller (b = 0.093, p < .001) than in the one where helping predicts performance (b = 0.217, p < .001), providing additional support for the expected direction of the effect. Sixth, because of the 4-point Likert scale of team performance, we also estimated multilevel mixed-effects ordered probit regressions (Appendix D4). However, since these models produced comparable results showing a positive association between team helping and team performance, linear models were preferred for ease of interpretability.

5.5 Discussion and Conclusion

This chapter aimed to investigate the performance consequences of helping at work, following up on prior research that suggested both positive and negative implications of helping. In comparison to previous research, which often looked at combined measures of prosocial workplace behavior, we explicitly focused on helping coworkers, voluntary

workplace behavior that goes beyond the job role and formal tasks. In this way, we effectively isolated and analyzed the performance consequences of helping without consolidating them with other behaviors that contribute to organizational functioning but are quite different from helping (e.g., representing the organization positively to outsiders). Based on our multilevel analysis of nearly 9000 employees and their teams, covering multiple organizations, sectors, and countries, our findings consistently demonstrated a positive association between helping and performance, on both the team and individual level. It is important to note that this positive link was present across diverse organizations, sectors, and countries, underscoring the universality of the performance benefits of helping. Focusing on the team level, in line with the proposed theoretical arguments, our analyses showed that more helping within a team is associated with better team performance. On the employee level, we found a positive relationship between helping coworkers with their work and the helper's task performance. These results closely align with the Social Exchange Theory (Blau, 1964), which views helping as a means of increasing efficiency through the exchange of resources such as information, skills, best practices, and support. In this way, employees enhance their performance, which supports the idea of helping as a reciprocal social exchange rather than solely an act of kindness towards struggling coworkers. Our findings underscore the centrality of cooperation at work as a key element of both individual and team success. Collaborative efforts play a significant role in fostering success across diverse professional contexts.

Contrary to the expectation drawn from the Resource Allocation Framework (Bergeron, 2007) and the Conservation of Resource Theory (Hobfoll, 1989), we did not find that helping coworkers hurts overall performance, and helpers fall behind in their tasks and goals. In this way, our findings diverge from the following previous studies documenting the costs of helping coworkers. Bergeron and colleagues (2013), for example, found that time spent on different kinds of helping behaviors at work was negatively related to task performance, salary increase, and career advancement speed. However, they focused on organizations with an outcome-based control system, where the trade-off between resources spent on others and one's tasks might be particularly pronounced. The negative implications of helping for performance might represent a distinctive trait of organizations with outcome-based control systems. We controlled for sector, job autonomy, and task interdependence, which capture important differences in work environments, though we did not directly account for control systems. Our sample included a wide range of organizations with different control systems, suggesting that our findings provide a comprehensive and generalizable view of the implications of helping.

Nonetheless, future research could examine whether the type of control system moderates the relationship between helping and performance.

Although our findings convincingly showed that the performance benefits outweigh the disadvantages, this does not mean that helping others at work is solely and always positive for everyone, as some employees could suffer from helping. For example, it was shown that most employees follow the norm of reciprocity, yet some employees receive more support than they give (Patterer et al., 2023). Besides its consequences for task performance, helping may lead to other (negative) work outcomes for individual employees, such as intensification of work, emotional exhaustion, or role conflict. For instance, studies showed that helping can be depleting (Gabriel et al., 2018; Lanaj et al., 2016) or can cause work interference with family life (Halbesleben et al., 2009). While it is important to encourage employees to help one another, managers should remain attentive to potential negative consequences and take steps to mitigate them.

This chapter considered two contextual factors that shape the link between helping and performance, specifically focusing on the supportiveness of the work environment and the gender of the helper. As an indicator of supportiveness, we looked at two significantly different sources of support, namely the manager and coworkers. In line with our expectations, when employees perceived more coworker support, the performance benefits from helping were larger. This finding supports the principle of reciprocity (Gouldner, 1960), suggesting that voluntary helping is likely to be reciprocated in the future. This implies that the time and resources spent on a coworker are not seen as costs; instead, employees anticipate getting help back when needed. Research consistently demonstrates the presence of a norm of reciprocity for supporting each other at work (Patterer et al., 2023; Zeijen et al., 2024) and that cooperative norms are positively associated with individual helping behavior (K. Y. Ng & Van Dyne, 2005). Another possible interpretation is that in teams with a strong norm of support and reciprocity, those who refuse to help might get punished by their coworkers (e.g., by not cooperating with them), which could lead to decreased performance. It is important to note that the sensitivity analyses showed that the generalizability of this finding should be treated with caution, as specific countries and sectors might drive it. Future research should therefore further investigate potential country- and sector-specific characteristics.

We found that support from the manager was positively related to task performance, which is in line with prior research showing that managerial support is beneficial not only for task performance but also for other job outcomes like job satisfaction, turnover intention, and family conflict (Eisenberger et al., 2002; M. Mathieu et al., 2019; Sargent et al., 2022). However, it did not moderate the relationship between helping and performance. One possible explanation is that helping interactions are tied

to specific work tasks which are more likely to occur among coworkers. Thus, norms of reciprocity among coworkers may play a more central role than in relationships with managers, which are more hierarchical and less characterized by mutual exchange in task related help. This finding highlights the distinct nature of these two types of relationships and suggests that coworker support and manager support contribute to performance in different ways.

We investigated whether or not the helping performance link is the same for men and women. Based on gender roles and stereotypes (Eagly & Crowley, 1986; Ellemers, 2017) we expected lower helping returns for women, but found no support. We thus conclude that both men and women enjoy comparable performance benefits from helping. Although we did not find gendered performance returns from helping, in line with prior research, our data showed that women provide more help than men (Babcock et al., 2017). Future studies could examine whether women experience stronger negative reactions than men when they do not help, as it violates the female gender role more strongly than the male gender role.

This chapter has some limitations. First, although we theorized about the mechanisms underlying the link between helping and performance, we did not directly test them. Future research should examine these mechanisms to provide a more nuanced understanding of when and for whom helping is beneficial at work. Second, the relationship between helping and performance might be more complex than conceptualized in this chapter. Based on the cross-sectional nature of our data, we refrain from making causal claims and recognize that performance could also influence helping. For example, high-performing employees might be asked for help more often and also potentially feel a greater sense of responsibility to help. While this might be the case for individual performance, it is less plausible for the team level. When a team is performing at a high level, team members are likely proficient in their individual roles, which reduces the overall need to help each other with tasks. Additionally, research showed that the question of whom people ask for task support in organizations is driven by interpersonal factors like (dis)liking, while competence plays a minor role (Casciaro & Lobo, 2008). Our robustness analysis suggested a reciprocal relationship between employee helping and task performance, although with smaller effect sizes for performance predicting helping than for helping predicting performance. This highlights the complexity of the relationship between the two constructs, which should be investigated in future research using longitudinal designs to disentangle causal pathways. Third, our measure of helping focused largely on task-related helping. This leaves out other common helping behaviors and types of support, like giving emotional support, which are not captured by our analysis (Jolly et al., 2021). Fourth, we relied on self-rating measures, which leave room

for employees to over- or underestimate their helping behavior and performance. While more objective measures could enhance accuracy in future research, for investigating the idea that helping hurts performance and that helpers might fall behind with their tasks, relying on self-measures is justified. Moreover, we incorporated team-level analysis, wherein the manager provides information on both helping behavior and performance.

Despite these limitations, this chapter contributes to the literature by drawing on a large sample that includes organizations from multiple sectors and by conducting analyses at both the team and the individual level. Our findings indicate that helping colleagues enhances performance, suggesting that organizations should actively encourage such behavior. Managers who are concerned that employees' task performance is compromised when they help their coworkers can be reassured. To increase team performance, it is essential to motivate and reward employees to engage in helping behaviors and support coworkers. In addition, prioritizing social relationships among employees and fostering cooperative norms can amplify the benefits of helping others in the workplace.

Table 5.1
Descriptive statistics of the central variables

	N	Mean	SD	Min	Max
Employee level					
Performance	10492	3.775	0.782	1	5
Helping	10558	4.080	0.559	1	5
Manager support	10525	3.813	0.853	1	5
Coworker support	10562	3.688	0.831	1	5
Female	10820	0.561	0.496	0	1
Age	10810	42.271	11.057	14	81
Years of Education	10823	13.597	3.190	3	21
Team level					
Team performance	719	3.218	0.647	1	4
Team helping	714	4.140	0.604	1	5
Autonomy	726	3.620	0.989	1	5
Interdependence	724	3.797	0.909	1	5
Number of employees	717	41.139	148.479	1	2700
Share of women	730	5.096	2.171	1	9
Organization level					
Sector				1	6
Manufacturing	57	22.01			
Health Care	49	18.92			
Higher Education	45	17.37			
Transport	39	15.06			
Financial services	37	14.29			
Telecommunication	32	12.36			
Country				1	9
UK	19	7.34			
Germany	24	9.27			
Finland	22	8.49			
Sweden	35	13.51			
Netherlands	48	18.53			
Portugal	28	10.81			
Spain	23	8.88			
Hungary	23	8.88			
Bulgaria	37	14.29			

Note. ESWS 2016; own calculation.

Table 5.2

Pairwise correlations of the team level analysis variables

	Variables	1	2	3	4	5	6	7
1	Team Performance	1						
2	Team Helping	0.288***	1					
3	Autonomy	0.111**	0.154***	1				
4	Interdependence	-0.026	0.084*	-0.053	1			
5	Number of Employees	-0.082*	-0.136***	-0.043	0.044	1		
6	Share of Women	0.031	0.069	-0.008	-0.007	0.025	1	
7	Sector	0.058	0.140***	0.080*	-0.100**	-0.045	-0.030	1
8	Country	0.021	-0.085*	-0.088*	0.066	0.016	0.109**	-0.008

Note. ESWS 2016 own calculation.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5.3

Pairwise correlations of the employee level analysis variables

	Variables	1	2	3	4	5	6	7	8	9	10	11	12
1	Performance	1											
2	Helping	0.228***	1										
3	Manager Support	0.260***	0.297***	1									
4	Coworker Support	0.227***	0.456***	0.469***	1								
5	Female	0.059***	0.066***	-0.007	0.034***	1							
6	Age	-0.009	-0.008	-0.049***	-0.022*	-0.019	1						
7	Years of education	-0.000	-0.003	0.053***	-0.007	0.052***	-0.092***	1					
8	Autonomy	-0.010	-0.009	0.009	0.018	0.035***	0.008	0.186***	1				
9	Interde-pendence	-0.005	0.020	-0.015	0.039***	0.006	0.068***	-0.066***	-0.025*	1			
10	Number of employees	-0.015	0.021*	-0.043***	-0.055***	0.036***	0.051***	0.007	-0.029**	0.064***	1		
11	Share of Women	0.049***	0.056***	0.006	0.041***	0.473***	0.003	0.104***	0.016	-0.032**	0.047***	1	
12	Sector	-0.004	-0.001	0.052***	0.016	-0.038***	-0.136***	0.162***	0.067***	-0.145***	-0.045***	-0.081***	1
13	Country	0.087***	0.036***	-0.006	0.071***	0.039***	-0.030**	-0.036***	-0.164***	0.073***	0.031**	0.048***	-0.007

Note. ESWS 2016 own calculation.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5.4

Regression coefficients predicting team performance and employee task performance (mixed-effects linear regression, standard errors in parentheses)

	(1)	(2)	(3)	(4)	(5)	(6)
	Team level	Employee level				
Team helping (manager rated)	0.289***					
	(0.041)					
Employee helping		0.330***	0.217***	0.216***	0.225***	0.237***
		(0.015)	(0.016)	(0.016)	(0.016)	(0.022)
Manager support			0.159***	0.159***	0.159***	0.159***
			(0.011)	(0.011)	(0.011)	(0.011)
Coworker support			0.070***	0.070***	0.069***	0.070***
			(0.012)	(0.012)	(0.012)	(0.012)
Female			0.068***	0.068***	0.069***	0.068***
			(0.018)	(0.018)	(0.018)	(0.018)
Helping x manager support				-0.005		
				(0.013)		
Helping x coworker support					0.035**	
					(0.013)	
Female x helping						-0.038
						(0.028)
Controls included	X		X	X	X	X
Constant	2.177***	3.801***	3.748***	3.749***	3.743***	3.747***
	(0.232)	(0.016)	(0.100)	(0.100)	(0.099)	(0.099)
var(organization)	0.013***	0.031***	0.009***	0.009***	0.009***	0.009***
	(0.015)	(0.006)	(0.004)	(0.004)	(0.004)	(0.004)
var(team)	0.355***	0.026***	0.024***	0.024***	0.024***	0.024***
	(0.023)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)
var(employee)		0.516***	0.495***	0.495***	0.494***	0.495***
		(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
N (organization)	249	251	251	251	251	251
N(team)	690	704	704	704	704	704
N(employee)		8871	8871	8871	8871	8871
AIC	1309.653	19804.801	19365.861	19367.722	19360.757	19365.946
Log-likelihood	-633.826	-9897.401	-9655.930	-9655.861	-9652.379	-9654.973

Note. ESWS 2016 own calculation.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Control variables team level analysis: autonomy, task interdependence, number of employees, share of women, sector, country

Control variables employee level analysis: age, years of education, autonomy, task interdependence, number of employees, share of women, sector, country

A

APPENDICES

Appendix A - Chapter 2

Table A1

Regression coefficients predicting number of employees seen outside of work (mixed-effects negative binomial regression; incidence-rate ratios, standard errors in parentheses)

	(1) Without Controls	(2) With controls	(3) Department character-istics	(4) Interaction Share of Women	(5) Interaction Female Manager
Female (Ref: Male)	1.234*	1.195	1.219	1.110	1.151
	(.122)	(.119)	(.124)	(.260)	(.151)
Share of Women Department			1.040	1.029	1.043
			(.040)	(.047)	(.041)
Female Manager			.638**	.638**	.580
			(.099)	(.099)	(.121)
Female x Share of Women Department				1.022	
				(.051)	
Female x Female Manager					1.148
					(.231)
Controls included		x	x	x	x
Constant	.313	.706	.632	.655	.663
	(.039)	(.381)	(.350)	(.367)	(.369)
Dispersion Parameter	.498	.460	.463	.463	.462
Random Effect Variances					
Organization-Level	.543	.195	.228	.234	.227
	(.160)	(.090)	(.091)	(.093)	(.091)
Department-Level	.321	.293	.227	.223	.226
	(.109)	(.099)	(.091)	(.091)	(.091)
AIC	4813.19	4786.113	4781.999	4783.8	4783.527
Log-likelihood	-2401.595	-2363.057	-2358.999	-2358.9	-2358.763

Note. ESWS Wave 2.

* p <.05, ** p <.01, *** p <.001

N(Organizations) = 98; N(Departments) = 260; N(Employees) = 2606

Controls: years in the organization, years in the department, age, years of education, number of employees, sector, children, work from home, country

Table A2

Regression coefficients predicting number of female and male employees seen outside of work (mixed-effects negative binomial regression; incidence-rate ratios, standard errors in parentheses)

	Female				Male		
	(1) Without Controls	(2) With controls	(3) With department characteristics	(4) Interaction Share of Women	(5) Without Controls	(6) With controls	(7) With department characteristics
Female	3.020***	2.908***	2.780***	6.078***	.455***	.461***	.508***
	(.400)	(.387)	(.372)	(2.056)	(.063)	(.065)	(.072)
Share of Women Department			1.129*	1.268***			.963
			(.061)	(.090)			(.047)
Female Manager			.862	.854			.426***
			(.172)	(.172)			(.088)
Female x Share of Women Department				.842*			
				(.056)			
Controls included		x	x	x		x	x
Constant	.054***	.296*	.184*	.109***	.197***	.090*	.097*
	(.014)	(.184)	(.121)	(.075)	(.030)	(.090)	(.097)
Dispersion Parameter	.172	.152	.132	.107	.859	.816	.807a
Random Effect Variances							
Organization-Level	.930	.241	.325	.300	.451	.310	.376
	(.287)	(.138)	(.152)	(.150)	(.209)	(.175)	(.175)
Department-Level	.590	.545	.431	.445	.438	.391	.201
	(.186)	(.174)	(.164)	(.167)	(.194)	(.179)	(.145)
AIC	3270.147	2893.017	3244.403	3239.891	2620.191	2636.525	2616.385
Log-likelihood	-1630.073	-1592.725	-1590.202	-1586.946	-1305.096	-1288.262	-1276.193

Note. ESWS Wave 2.

* p <.05, ** p <.01, *** p <.001

N(Organizations) = 98; *N*(Departments) = 260; *N*(Employees) = 2606

Controls: years in the organization, years in the department, age, years of education, number of employees, sector, children, work from home, country

Table A3

Regression coefficients predicting homophily in employees seen outside of work (mixed-effects linear regression, standard errors in parentheses)

	(1) Without Controls	(2) With Controls	(3) Department character-istics	(4) Interaction Female Manager
Female	.026	.006	.012	-.210***
	(.047)	(.047)	(.050)	(.057)
Share of Women Department			-.001	.004
			(.010)	(.010)
Female Manager			-.018	-.402***
			(.038)	(.070)
Female x Female Manager				.549***
				(.087)
Controls included		x	x	x
Constant	.683***	.874***	.875***	1.050***
	(.038)	(.146)	(.149)	(.144)
Random Effect Variances				
Organization-Level	.020	.010	.009	.007
	(.008)	(.005)	(.005)	(.005)
Department-Level	.070	.086	.082	.047
	(.020)	(.023)	(.024)	(.017)
Employee-Level	.074	.073	.074	.074
	(.005)	(.005)	(.005)	(.005)
Random-Slope Female	.201	.205	.205	.093
	(.044)	(.045)	(.046)	(.025)
Covariance	-.116	-.132	-.130	-.080
(Female - Constant)	(.028)	(.031)	(.032)	(.024)
AIC	423.428	424.8829	428.6384	395.4881
Log-likelihood	-204.714	-185.4414	-185.3192	-167.7441

Note. ESWS Wave 2.

*p <.05, **p <.01, *** p <.001

N(Organizations) = 85; *N*(Departments) = 178; *N*(Employees) = 669

Controls: years in the organization, years in the department, age, years of education, number of employees, sector, children, work from home, country

Appendix B – Chapter 3

B1

Resource generator instrument with variable names in SOEP 2016

151 The following list is composed of people who could be important for you in some way. How do you feel about the following?

Please name up to fie people from the list per question.
Code number [Marriage/partnership]: 01 (marital) partner 02 former (marital)partner, [Family]: 03 Mother 04 Father 05 Stepmother or foster mother 06 Stepfather or foster father 07 Mother-in-law 08 Father-in-law 09 Daughter 10 Son 11 Sister 12 Brother 13 Grandmother 14 Grandfather 15 Grandchild 16 Aunt / niece 17 Uncle / nephew 18 Other female relative 19 Other male relative [Other Persons (Friends / acquaintances)]: 20 Work colleagues 21 Superiors at work 22 People from school / training / education 23 Neighbors 24 People from clubs or recreational activities 25 Paid assistants, outpatient care providers, social workers 26 Other(s)

b) Who supports your advancement in your career or educational training and fosters your progress?

(Only for persons under 65 years of age)

Code number person 1
Code number person 2
Code number person 3
Code number person 4
Code number person 5

151:p1perb	bgp	bgp151b01	Who Supports Career? First Person
151:p1perb	pl	pld0068_v1	Important person asks for progress in job/training (2006 2011 2016)
151:p2perb	bgp	bgp151b02	Who Supports Career? Second Person
151:p2perb	pl	pld0069_v1	Important person asks for progress in job/training (2006 2011 2016)
151:p3perb	bgp	bgp151b03	Who Supports Career? Third Person
151:p3perb	pl	pld0070_v1	Bedeutsame Person 3 foerdert Vorankommen im Beruf, Ausbildung (2006 2011 2016
151:p4perb	bgp	bgp151b04	Who Supports Career? Fourth Person
151:p4perb	pl	pld0071_v1	Bedeutsame Person 3 foerdert Vorankommen im Beruf, Ausbildung (2011 2016)
151:p5perb	bgp	bgp151b05	Who Supports Career? Fifth Person
151:p5perb	pl	pld0072_v1	Bedeutsame Person 5 foerdert Vorankommen im Beruf, Ausbildung (2011 2016)

No one 1

151:pnob	bgp	bgp151b06	No One Supports Career, Education
151:pnob	pl	pld0073	No One Supports Career, Education

Note. Source: SOEP Group, 2019. SOEP-Core – 2016: Individual (A-L1, PAPI, with Reference to Variables). SOEP Survey Papers 657: Series A – Survey Instruments (Erhebungsinstrumente). Berlin: DIW Berlin/SOEP

Table B2

Relationship between care support, salary and job satisfaction (OLS-regression, unstandardized coefficients)

	Salary (1)	Job satisfaction (2)
Care support	901.025	0.519***
	(812.839)	(0.096)
Career support (Ref: nonwork only)		
work only	3226.940***	0.407***
	(604.910)	(0.072)
both work & nonwork	2083.694***	0.284***
no support	-176.585	-0.146**
	(421.858)	(0.050)
	(512.750)	(0.061)
Female	-8197.592***	-0.075
	(413.363)	(0.049)
Controls included	X	X
Constant	-58953.981***	7.318***
	(2257.158)	(0.267)
Observations	8691	8691
Adjusted R^2	0.488	0.031
AIC	192764.772	35577.213

Note. SOEP.

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Controlled for: age, years of education, partnership, children, industry, size of the organization, years in the organization, working hours.

Table B3

Relationship between career support, salary, and job satisfaction (2017 and 2018) (OLS-regression, unstandardized coefficients)

	Salary 2017	Salary 2018	Job satisfaction 2017	Job satisfaction 2018
	(1)	(2)	(3)	(4)
Career support				
(Ref: nonwork only)				
work only	3789.168***	2893.594***	0.247***	0.207**
	(691.533)	(754.201)	(0.073)	(0.078)
both work & nonwork	2605.257***	2429.908***	0.174**	0.081
	(588.073)	(632.650)	(0.062)	(0.066)
no one	-237.603	-1027.016*	-0.218***	-0.188***
	(478.614)	(521.576)	(0.051)	(0.054)
Female	-8130.769***	-8808.712***	-0.088	-0.051
	(473.615)	(515.809)	(0.051)	(0.054)
Controls included	X	X	X	X
Constant	-55703.157***	-52433.662***	7.830***	7.778***
	(2477.694)	(2723.169)	(0.262)	(0.284)
Observations	7558	6592	8367	7215
Adjusted R^2	0.452	0.455	0.021	0.016
AIC	168644.774	147271.847	34478.714	29552.811

Note. SOEP.

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Controlled for: age, years of education, partnership, children, industry, size of the organization, years in the organization, working hours

Table B4

Relationship between career support from work and non-work contacts, salary and job satisfaction (2017 and 2018) (OLS-regression, unstandardized coefficients)

	Salary 2017 (1)	Salary 2018 (2)	Job satisfaction 2017 (3)	Job satisfaction 2018 (4)
Career support (Ref: Coworker)				
Supervisor	3609.339***	3106.879**	0.302***	0.136
	(982.924)	(1138.251)	(0.088)	(0.101)
Coworker & Supervisor	2082.837*	2018.666	0.193*	-0.013
	(997.610)	(1153.106)	(0.090)	(0.102)
female	-10303.551***	-9995.287***	-0.035	-0.003
	(957.368)	(1105.356)	(0.087)	(0.098)
Controls included	X	X	X	X
Constant	-62749.034***	-65440.341***	7.599***	8.369***
	(5657.919)	(6484.925)	(0.484)	(0.587)
Observations	1961	1734	2199	1897
Adjusted R^2	0.471	0.441	0.015	0.007
AIC	43991.043	39193.998	8615.438	7642.219

Note. SOEP.

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Controlled for: age, years of education, partnership, children, industry, size of the organization, years in the organization, working hours

Table B5

Relationship between supervisor career support (dummy coded), salary and job satisfaction (OLS-regression, unstandardized coefficients) (OLS-regression, unstandardized coefficients)

	Salary 2016	Job satisfaction 2016
	(1)	(2)
Career support from supervisors	2794.198***	0.351***
(Ref: no support from supervisor)	(730.217)	(0.069)
Female	-9312.163***	-0.153
	(844.137)	(0.080)
Controls included	X	X
Constant	-68056.223***	8.068***
	(4706.218)	(0.448)
Observations	2250	2250
Adjusted R^2	0.500	0.039
AIC	50225.030	8552.765

Note. SOEP.

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Controlled for: age, years of education, partnership, children, industry, size of the organization, years in the organization, working hours.

Table B6

Relationship between career support, salary, and job satisfaction with controls (OLS-regression, unstandardized coefficients)

	Salary			Job satisfaction		
	(1)	(2)	(3)	(4)	(5)	(6)
Career support (Ref: nonwork only)						
work only	7636.949***	3202.619***	4489.924***	0.328***	0.405***	0.584***
	(820.996)	(603.123)	(826.838)	(0.071)	(0.071)	(0.098)
both work & nonwork	7772.857***	2085.878***	3943.112***	0.284***	0.290***	0.403***
	(696.075)	(512.432)	(721.751)	(0.060)	(0.061)	(0.085)
no one	1090.297*	-245.860	-614.357	-0.309***	-0.186***	-0.107
	(547.738)	(416.413)	(580.153)	(0.047)	(0.049)	(0.069)
Female		-8140.376***	-7462.861***		-0.072	0.055
		(412.425)	(584.794)		(0.049)	(0.069)
work only x female			-2673.795*			-0.370**
			(1191.462)			(0.141)
both work & nonwork x female			-3701.363***			-0.220
			(1008.623)			(0.119)
no one x female			723.516			-0.157
			(795.289)			(0.094)
Age		266.440***	265.769***		-0.010***	-0.010***
		(19.911)	(19.918)		(0.002)	(0.002)
Years of Education		3067.555***	3067.150***		-0.018*	-0.018*
		(67.997)	(67.973)		(0.008)	(0.008)
Partnership (Ref: no partner)		2644.320***	2688.093***		0.074	0.067
		(428.032)	(428.697)		(0.051)	(0.051)
Children (Ref: no children)		3496.011***	3486.163***		0.116**	0.118**
		(371.365)	(371.026)		(0.044)	(0.044)
Industry (Ref: Agriculture)						
Energy		8937.483***	8998.202***		0.138	0.138
		(2142.861)	(2140.513)		(0.254)	(0.253)
Mining		10113.221*	10166.559*		-0.488	-0.509
		(4809.609)	(4804.923)		(0.569)	(0.569)
Manufacturing		7668.164***	7702.311***		0.044	0.040
		(1514.690)	(1513.058)		(0.179)	(0.179)
Construction		3616.747*	3737.393*		0.163	0.166
		(1642.514)	(1640.836)		(0.194)	(0.194)
Trade		2424.460	2371.286		0.018	0.011
		(1548.029)	(1546.412)		(0.183)	(0.183)
Transport		1867.790	1908.098		-0.134	-0.135
		(1639.752)	(1637.983)		(0.194)	(0.194)
Bank/Insurance		11775.127**	11751.112**		-0.025	-0.031
		(1740.595)	(1738.774)		(0.206)	(0.206)
Services		4403.061**	4391.602**		0.268	0.263
		(1507.377)	(1505.756)		(0.178)	(0.178)
Organization size (Ref: < 20)						
20 to 200		2350.396***	2335.995***		-0.020	-0.020
		(515.093)	(514.518)		(0.061)	(0.061)
200 to 2000		5149.675***	5111.761***		-0.032	-0.030
		(543.792)	(543.348)		(0.064)	(0.064)
more than 2000		9182.462***	9135.658***		-0.056	-0.055
		(529.170)	(528.722)		(0.063)	(0.063)

Table B6 Continued.

Years in the organization		257.019***	258.112***		-0.010***	-0.010***
		(19.823)	(19.812)		(0.002)	(0.002)
Working hours		838.886***	843.517***		-0.001	-0.001
		(24.360)	(24.359)		(0.003)	(0.003)
Constant	32232.559***	-58179.814***	-58678.495***	7.229***	7.817***	7.747***
	(365.025)	(2116.332)	(2125.943)	(0.031)	(0.250)	(0.252)
Observations	8719	8719	8719	8719	8719	8719
Adjusted R^2	0.021	0.488	0.489	0.015	0.028	0.029
AIC	199018.523	193384.697	193367.550	35808.118	35707.005	35704.191

Note. SOEP.
Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B7

Relationship between career support, salary, and job satisfaction with controls (OLS-regression, unstandardized coefficients)

	Salary			Job satisfaction		
	(1)	(2)	(3)	(4)	(5)	(6)
Career support (Ref: Coworker)						
Supervisor	5924.368***	3688.810***	5813.335***	0.358***	0.396***	0.225*
	(1200.951)	(867.873)	(1200.129)	(0.082)	(0.083)	(0.114)
Coworker & Supervisor	4946.552***	1858.631*	3932.421**	0.315***	0.303***	0.179
	(1226.251)	(879.697)	(1214.159)	(0.084)	(0.084)	(0.116)
Female		-9350.013***	-6874.019***		-0.155	-0.329**
		(843.874)	(1186.031)		(0.080)	(0.113)
Supervisor x female			-4336.550*			0.350*
			(1714.121)			(0.163)
Coworker & Supervisor x Female			-4251.116*			0.252
			(1752.320)			(0.167)
Age		426.872***	421.952***		-0.012**	-0.012**
		(42.476)	(42.444)		(0.004)	(0.004)
Years of Education		3197.898***	3198.974***		-0.016	-0.016
		(139.832)	(139.642)		(0.013)	(0.013)
Partnership (Ref: no partner)		3380.218***	3438.480***		-0.057	-0.060
		(879.070)	(878.174)		(0.084)	(0.084)
Children (Ref: no children)		3308.986***	3267.434***		0.241**	0.243***
		(774.861)	(773.949)		(0.074)	(0.074)
Industry (Ref: Agriculture)						
Energy		2228.082	2497.531		0.213	0.200
		(4826.611)	(4822.236)		(0.459)	(0.459)
Mining		41204.940***	40717.491**		-2.937*	-2.902*
		(12478.083)	(12460.183)		(1.187)	(1.187)
Manufacturing		7311.946*	7655.764*		-0.074	-0.095
		(3492.282)	(3489.396)		(0.332)	(0.332)
Construction		-2103.942	-1777.155		-0.399	-0.416
		(3899.885)	(3897.308)		(0.371)	(0.371)
Trade		-366.459	-134.264		-0.251	-0.267
		(3600.733)	(3596.139)		(0.343)	(0.343)
Transport		-241.486	120.739		-0.132	-0.156
		(3753.369)	(3749.797)		(0.357)	(0.357)
Bank/Insurance		8848.125*	9254.804*		-0.118	-0.145
		(3774.238)	(3771.252)		(0.359)	(0.359)
Services		1749.752	2000.216		0.061	0.046
		(3471.649)	(3467.698)		(0.330)	(0.330)
Organization size (Ref: < 20)						
20 to 200		2188.332	2078.428		-0.152	-0.144
		(1203.113)	(1201.951)		(0.114)	(0.114)
200 to 2000		4186.174***	4055.562**		-0.134	-0.124
		(1242.579)	(1241.610)		(0.118)	(0.118)
more than 2000		9671.157***	9572.205***		-0.107	-0.099
		(1184.574)	(1183.341)		(0.113)	(0.113)
Years in the organization		155.465***	153.983***		-0.013**	-0.013**
		(45.242)	(45.180)		(0.004)	(0.004)
Working hours		998.836***	1002.680***		0.007	0.007
		(55.252)	(55.183)		(0.005)	(0.005)

Table B7 Continued.

Constant	36859.828***	-67902.242***	-69303.084***	7.339***	8.076***	8.173***
	(763.258)	(4704.142)	(4720.854)	(0.052)	(0.448)	(0.450)
Observations	2250	2250	2250	2250	2250	2250
Adjusted R^2	0.012	0.501	0.502	0.010	0.039	0.040
AIC	51740.577	50223.372	50218.493	8603.683	8553.734	8552.576

Note. SOEP.
Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix C – Chapter 4

C1

Perceived career success scale

	Much less than average	Less than average	Average	More than average	Much more than average
How successful has your career been up to now?	O	O	O	O	O
Compared to your coworkers, how successful is your career?	O	O	O	O	O
How successful do your significant others in your life feel your career has been?	O	O	O	O	O
Given your age, to what extent is your career successful?	O	O	O	O	O

C2

Questionnaire: career support network Resource Generator Instrument (emotional is support equivalent)

Support Networks Sustainable Workforce

Finally, we would like to ask you a few questions about who supports you at work and what your relationship is with these people. To do this, we ask you to answer the same types of questions a number of times. You do not necessarily have to mention the names of people, they can also be nicknames or anonymous designations, as long as you know who you mean by them.

CS_N Who in your workplace supports your career advancement?

Name a maximum of 5 people. You don't have to use names, as long as you know who you mean.

O Person 1: _____

O Person 2: _____

O Person 3: _____

O Person 4: _____

O Person 5: _____

☞ In case you did not nominate anyone, please continue to question ES_N.

C3

Questionnaire: Interpreter Instrument (emotional support is equivalent)

Career support nominee 1

CS1_1 What is your relationship to person 1?

- O Colleague
- O Supervisor
- O Subordinate

CS2_1 How many years have you known person 1?

_____Years

CS3_1 Where did you meet person 1?

- O At work
- O At work in an employee resource group
- O I already knew person 1

CS4_1 How frequently do you have contact with person 1?

- O Daily
- O Weekly
- O Monthly
- O Less then 1x a month

CS5_1 How emotionally close do you feel to person 1?

- O Very much
- O Much
- O Neutral
- O Little
- O Very little

CS6_1 How many years has person 1 been working at the organisation?

_____Years

CS7_1 Is person 1...

- O Male
- O Female
- O Other
- O Rather not say

Appendix D – Chapter 5

Table D1

Regression coefficients predicting team performance, including control variables (mixed-effects linear regression-coefficients, standard errors in parentheses)

	(1)	(2)
Helping team (manager rated)	0.305***	0.305***
	(0.040)	(0.040)
Number of employees		0.033
		(0.025)
Share of women		-0.048
		(0.027)
Autonomy		-0.000
		(0.000)
Task interdependence		0.003
		(0.012)
Sector		0.000
Manufacturing		(.)
Health Care		-0.060
		(0.083)
Higher Education		0.074
		(0.082)
Transport		-0.022
		(0.079)
Financial Services		-0.058
		(0.083)
Telecommunication		0.058
		(0.087)
Country		0.000
UK		(.)
Germany		-0.107
		(0.120)
Finland		-0.270*
		(0.126)
Sweden		-0.017
		(0.119)
Netherlands		-0.187
		(0.106)
Portugal		-0.185
		(0.115)
Spain		-0.016
		(0.126)
Hungary		-0.159
		(0.122)
Bulgaria		0.085
		(0.112)
Constant	1.954***	2.177***
	(0.166)	(0.232)
var(organization)	0.027***	0.013***
	(0.016)	(0.015)
var(team)	0.360***	0.355***
	(0.024)	(0.023)
N (organization)	249	249
N (team)	690	690
AIC	1306.674	1309.653
Log-likelihood	-649.337	-633.826

Note. ESWS Wave 1.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table D2

Regression coefficients predicting team performance, excluding sectors (mixed-effects linear regression, standard errors in parentheses)

	(1) Excluding Manufacturing	(2) Excluding Health Care	(3) Excluding Higher Education	(4) Excluding Transport	(5) Excluding Financial Services	(6) Excluding Telecommunication
Helping team (manager rated)	0.365***	0.272***	0.301***	0.285***	0.224***	0.296***
	(0.046)	(0.044)	(0.045)	(0.044)	(0.045)	(0.045)
Controls included	X	X	X	X	X	X
Constant	1.802***	2.214***	2.153***	2.183***	2.457***	2.147***
	(0.286)	(0.250)	(0.249)	(0.251)	(0.255)	(0.253)
var(organization)	0.019***	0.016***	0.004	0.014***	0.015***	0.008*
	(0.018)	(0.017)	(0.016)	(0.016)	(0.016)	(0.015)
var(team)	0.335***	0.362***	0.360***	0.344***	0.347***	0.373***
	(0.027)	(0.026)	(0.026)	(0.025)	(0.025)	(0.026)
N(teams)	506	575	580	588	587	614
AIC	948.096	1110.854	1099.946	1102.535	1108.595	1188.423
Log-likelihood	-454.048	-535.427	-529.973	-531.268	-534.297	-574.211

Note. ESWS Wave 1.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Control variables: autonomy, task interdependence, number of employees, share of women, sector, country

Table D3

Regression coefficients predicting team performance, excluding countries (mixed-effects linear regression, standard errors in parentheses)

	(1) Excluding UK	(2) Excluding Germany	(3) Excluding Finland	(4) Excluding Sweden	(5) Excluding Netherlands	(6) Excluding Portugal	(7) Excluding Spain	(8) Excluding Hungary	(9) Excluding Bulgaria
Helping team	0.284***	0.264***	0.287***	0.308***	0.323***	0.269***	0.282***	0.284***	0.308***
	(0.043)	(0.044)	(0.042)	(0.043)	(0.047)	(0.044)	(0.043)	(0.042)	(0.045)
Controls included	X	X	X	X	X	X	X	X	X
Constant	2.114***	2.327***	2.191***	2.073***	1.993***	2.142***	2.179***	2.254***	2.151***
	(0.229)	(0.245)	(0.237)	(0.244)	(0.257)	(0.247)	(0.244)	(0.237)	(0.249)
var(organization)	0.012***	0.009**	0.010**	0.011***	0.009*	0.018***	0.018***	0.017***	0.010**
	(0.015)	(0.016)	(0.015)	(0.015)	(0.017)	(0.016)	(0.016)	(0.016)	(0.016)
var(team)	0.358***	0.364***	0.357***	0.356***	0.373***	0.342***	0.350***	0.336***	0.359***
	(0.024)	(0.025)	(0.024)	(0.025)	(0.028)	(0.024)	(0.024)	(0.024)	(0.025)
N(teams)	640	622	636	623	537	604	637	624	597
AIC	1219.607	1190.903	1206.063	1183.760	1047.479	1134.843	1208.327	1159.906	1138.208
Log-likelihood	-589.804	-575.451	-583.032	-571.880	-503.740	-547.422	-584.164	-559.953	-549.104

Note. ESWS Wave 1.

* p < 0.05, ** p < 0.01, *** p < 0.001

Control variables: autonomy, task interdependence, number of employees, share of women, sector, country

Table D4

Regression coefficients predicting team performance (mixed-effects ordered probit regressions -coefficients, standard errors in parentheses)

	(1)
Helping team (manager rated)	.566***
	(.0827)
Number of employees	-.000
	(.000)
Share of women	.008
	.024
Autonomy	.067
	(.049)
Interdependence	-.095
	(.053)
Sector	
Health Care	-.123
	(.162)
Higher Education	3 .155
	(.160)
Transport	-.036
	(.153)
Financial Services	-.088
	(.162)
Telecommunication	.120
	(.172)
Country	
UK	Ref.
Germany	-.219
	(.237)
Finland	-.538*
	(.248)
Sweden	-.047
	(.235)
Netherlands	-.390
	(.208)
Portugal	-.364
	(.227)
Spain	-.041
	(.249)
Hungary	-.309
	(.238)
Bulgaria	.172
	(.223)
Cut-off points	
1	-.442
	(.468)
2	.605
	(.455)
3	2.539
	(.467)
var(organization)	.0467
	(.060)
Observations (Teams)	690
Observations (Organizations)	249
Log-likelihood	-611.25637

Note. ESWS Wave 1.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table D5

Regression coefficients predicting employee task performance, including control variables (mixed-effects linear regression, standard errors in parentheses)

	(1)	(2)	(3)	(4)	(5)	(6)
Employee helping	0.330***	0.217***	0.216***	0.225***	0.237***	0.247***
	(0.015)	(0.016)	(0.016)	(0.016)	(0.022)	(0.022)
Manager Support		0.159***	0.159***	0.159***	0.159***	0.160***
		(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Coworker Support		0.070***	0.070***	0.069***	0.070***	0.068***
		(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Female		0.068***	0.068***	0.069***	0.068***	0.069***
		(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Helping x Manager Support			-0.005			-0.035*
			(0.013)			(0.016)
Helping x Coworker Support				0.035**		0.058***
				(0.013)		(0.016)
Helping x Female					-0.038	-0.044
					(0.028)	(0.028)
Age		0.000	0.000	0.000	0.000	0.000
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Years of Education		-0.003	-0.003	-0.003	-0.003	-0.003
		(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Autonomy		0.017	0.017	0.017	0.017	0.017
		(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Task Interdependence		-0.005	-0.005	-0.005	-0.005	-0.005
		(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Number of Employees		-0.000	-0.000	-0.000	-0.000	-0.000
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Share of Women		0.007	0.007	0.008	0.007	0.007
		(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Sector (Ref: Manufacturing)						
Health Care		-0.063	-0.063	-0.064	-0.062	-0.062
		(0.042)	(0.042)	(0.041)	(0.042)	(0.041)
Higher Education		0.012	0.013	0.009	0.013	0.009
		(0.043)	(0.043)	(0.043)	(0.043)	(0.043)
Transport		-0.019	-0.019	-0.019	-0.018	-0.017
		(0.041)	(0.041)	(0.041)	(0.041)	(0.041)
Financial Services		-0.040	-0.039	-0.041	-0.039	-0.039
		(0.043)	(0.043)	(0.042)	(0.043)	(0.043)
Telecommunication		-0.008	-0.007	-0.010	-0.007	-0.010
		(0.046)	(0.046)	(0.046)	(0.046)	(0.046)
Country (Ref: UK)						
Germany		-0.105	-0.105	-0.105	-0.104	-0.104
		(0.061)	(0.061)	(0.061)	(0.061)	(0.061)
Finland		0.024	0.024	0.023	0.024	0.022
		(0.064)	(0.064)	(0.063)	(0.064)	(0.064)
Sweden		-0.262***	-0.263***	-0.263***	-0.262***	-0.265***
		(0.060)	(0.060)	(0.060)	(0.060)	(0.060)
Netherlands		0.021	0.021	0.024	0.022	0.024
		(0.054)	(0.054)	(0.054)	(0.054)	(0.054)
Portugal		-0.117*	-0.117*	-0.118*	-0.117*	-0.118*
		(0.059)	(0.059)	(0.059)	(0.059)	(0.059)
Spain		-0.107	-0.107	-0.110	-0.107	-0.110
		(0.065)	(0.065)	(0.064)	(0.065)	(0.065)
Hungary		0.233***	0.233***	0.233***	0.233***	0.231***
		(0.060)	(0.060)	(0.060)	(0.060)	(0.060)

Table D5 Continued.

Bulgaria		0.022	0.023	0.019	0.023	0.020
		(0.057)	(0.057)	(0.057)	(0.057)	(0.057)
	3.801***	3.748***	3.749***	3.743***	3.747***	3.743***
Constant	(0.016)	(0.100)	(0.100)	(0.099)	(0.099)	(0.099)
	0.031***	0.009***	0.009***	0.009***	0.009***	0.009***
var(organization)	(0.006)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
	0.026***	0.024***	0.024***	0.024***	0.024***	0.024***
var(team)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)
	0.516***	0.495***	0.495***	0.494***	0.495***	0.494***
var(employee)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
	19804.801	19365.861	19367.722	19360.757	19365.946	19356.955
N (organization)	251	251	251	251	251	251
N(team)	704	704	704	704	704	704
N(employee)	8871	8871	8871	8871	8871	8871
AIC	19804.801	19365.861	19367.722	19360.757	19365.946	19356.955
Log-likelihood	-9897.401	-9655.930	-9655.861	-9652.379	-9654.973	-9648.478

Note. ESWS Wave 1.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table D6

Regression coefficients predicting employee task performance, excluding sectors (mixed-effects linear regression, standard errors in parentheses)

	(1) Excluding Manufac-turing	(2) Excluding Health Care	(3) Excluding Higher Education	(4) Excluding Transport	(5) Excluding Financial Services	(6) Excluding Telecommunication
Employee helping	0.207***	0.180***	0.249***	0.202***	0.228***	0.229***
	(0.018)	(0.019)	(0.018)	(0.017)	(0.017)	(0.017)
Manager support	0.159***	0.168***	0.157***	0.153***	0.158***	0.159***
	(0.012)	(0.012)	(0.011)	(0.011)	(0.011)	(0.011)
Coworker support	0.062***	0.072***	0.071***	0.073***	0.071***	0.071***
	(0.013)	(0.014)	(0.013)	(0.013)	(0.013)	(0.012)
Controls included	X	X	X	X	X	X
Constant	3.622***	3.770***	3.768***	3.844***	3.702***	3.711***
	(0.125)	(0.111)	(0.110)	(0.101)	(0.108)	(0.107)
var(organization)	0.015***	0.008***	0.011***	0.005***	0.006***	0.009***
	(0.005)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)
var(team)	0.017***	0.030***	0.025***	0.019***	0.027***	0.025***
	(0.005)	(0.006)	(0.005)	(0.004)	(0.005)	(0.005)
var(employees)	0.483***	0.510***	0.489***	0.491***	0.499***	0.497***
	(0.009)	(0.009)	(0.008)	(0.008)	(0.008)	(0.008)
N (organization)	195	206	209	212	214	219
N(team)	518	587	591	600	597	627
N(employee)	6,712	6,671	7,504	7,661	7,721	8,086
AIC	14483.544	14819.937	16307.979	16596.082	16919.429	17691.069
Log-likelihood	-7215.772	-7383.968	-8127.990	-8272.041	-8433.715	-8819.535

Note. ESWS Wave 1.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Control variables: age, years of education, autonomy, task interdependence, number of employees, share of women, sector, country

Table D7

Regression coefficients predicting employee task performance, excluding countries (mixed-effects linear regression, standard errors in parentheses)

	(1) Excluding UK	(2) Excluding Germany	(3) Excluding Finland	(4) Excluding Sweden	(5) Excluding Nether-lands	(6) Excluding Portugal	(7) Excluding Spain	(8) Excluding Hungary	(9) Excluding Bulgaria
Employee helping	0.211***	0.226***	0.225***	0.219***	0.227***	0.222***	0.208***	0.215***	0.198***
	(0.017)	(0.017)	(0.017)	(0.017)	(0.019)	(0.017)	(0.017)	(0.018)	(0.017)
Manager Support	0.158***	0.160***	0.156***	0.151***	0.174***	0.162***	0.153***	0.159***	0.157***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.012)	(0.011)	(0.011)	(0.011)	(0.011)
Coworker Support	0.066***	0.066***	0.067***	0.065***	0.066***	0.071***	0.075***	0.075***	0.079***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.014)	(0.012)	(0.012)	(0.013)	(0.012)
Female	0.072***	0.072***	0.073***	0.068***	0.081***	0.067***	0.065***	0.059**	0.058**
	(0.019)	(0.019)	(0.019)	(0.019)	(0.021)	(0.019)	(0.019)	(0.019)	(0.019)
Controls included	X	X	X	X	X	X	X	X	X
Constant	3.619***	3.732***	3.723***	3.734***	3.739***	3.703***	3.760***	3.734***	3.894***
	(0.101)	(0.103)	(0.104)	(0.103)	(0.111)	(0.104)	(0.103)	(0.106)	(0.102)
var(organizations)	0.013***	0.007***	0.010***	0.009***	0.008***	0.010***	0.010***	0.008***	0.005***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)
var(teams)	0.017***	0.027***	0.026***	0.024***	0.028***	0.023***	0.023***	0.027***	0.022***
	(0.004)	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.004)
var(employees)	0.486***	0.498***	0.503***	0.488***	0.525***	0.495***	0.482***	0.502***	0.478***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.009)	(0.008)	(0.008)	(0.008)	(0.008)
N (organization)	233	227	230	218	205	224	228	228	215
N(team)	653	632	648	635	549	616	651	638	610
N(employee)	8257	8121	8224	8031	6826	7985	8108	7733	7683
AIC	17844.494	17778.479	18103.806	17417.671	15321.367	17434.901	17499.461	17017.842	16484.726
Log-likelihood	-8896.247	-8863.240	-9025.903	-8682.836	-7634.683	-8691.450	-8723.730	-8482.921	-8216.363

Note. ESWS Wave 1.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Control variables: age, years of education, autonomy, task interdependence, number of employees, share of women, sector, country

Table D8

Regression coefficients predicting employee task performance, helping dummy-coded (mixed-effects linear regression, standard errors in parentheses)

	(1)	(2)
Helping (dummy-coded)	0.233***	0.266***
	(0.025)	(0.042)
Manager Support	0.169***	0.172***
	(0.011)	(0.011)
Coworker Support	0.109***	0.111***
	(0.011)	(0.012)
Female	0.076***	0.079***
	(0.018)	(0.019)
Helping x Manager Support		-0.021
		(0.029)
Helping x Coworker Support		-0.020
		(0.032)
Helping x Female		-0.023
		(0.049)
Age	0.000	0.000
	(0.001)	(0.001)
Years of education	-0.002	-0.002
	(0.003)	(0.003)
Autonomy	0.016	0.016
	(0.012)	(0.012)
Task Interdependence	-0.003	-0.003
	(0.013)	(0.013)
Number of employees	-0.000	-0.000
	(0.000)	(0.000)
Share of women	0.007	0.007
	(0.006)	(0.006)
Sector (Ref: Manufacturing)		
Health Care	-0.064	-0.063
	(0.041)	(0.041)
Higher Education	-0.004	-0.002
	(0.043)	(0.043)
Transport	-0.028	-0.028
	(0.040)	(0.040)
Financial Services	-0.044	-0.043
	(0.042)	(0.042)
Telecommunication	-0.022	-0.021
	(0.046)	(0.046)
Country (Ref: UK)		
Germany	-0.096	-0.096
	(0.061)	(0.061)
Finland	0.023	0.023
	(0.063)	(0.063)
Sweden	-0.262***	-0.262***
	(0.060)	(0.060)
Netherlands	0.003	0.003
	(0.053)	(0.053)
Portugal	-0.104	-0.103
	(0.058)	(0.058)
Spain	-0.080	-0.080
	(0.064)	(0.064)
Hungary	0.216***	0.216***
	(0.060)	(0.060)
Bulgaria	0.002	0.004

Table D8 Continued.

	(0.056)	(0.056)
Constant	3.712***	3.709***
	(0.100)	(0.100)
var(organization)	0.008***	0.008***
	(0.004)	(0.004)
var(team)	0.025***	0.025***
	(0.005)	(0.005)
var(employee)	0.500***	0.500***
	(0.008)	(0.008)
N (organization)	251	251
N(team)	704	704
N(employee)	8871	8871
AIC	19481.332	19485.594
Log-likelihood	-9713.666	-9712.797

Note.ESWS Wave 1.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table D9

Regression coefficients predicting employee task performance, without team-level variables; (mixed-effects linear regression, standard errors in parentheses)

	(1)	(2)	(3)	(4)
Employee helping	0.207***	0.208***	0.214***	0.217***
	(0.015)	(0.015)	(0.015)	(0.020)
Manager support	0.162***	0.162***	0.162***	0.162***
	(0.010)	(0.010)	(0.010)	(0.010)
Coworker support	0.073***	0.073***	0.072***	0.073***
	(0.011)	(0.011)	(0.011)	(0.011)
Female	0.064***	0.064***	0.064***	0.064***
	(0.016)	(0.016)	(0.016)	(0.016)
Helping x manager support		0.005		
		(0.012)		
Helping x coworker support			0.034**	
			(0.012)	
Female x helping				-0.020
				(0.026)
Age	0.001	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Years of education	-0.002	-0.002	-0.003	-0.002
	(0.003)	(0.003)	(0.003)	(0.003)
Sector (Ref: Manufacturing)				
Health Care	-0.061	-0.061	-0.061	-0.060
	(0.036)	(0.036)	(0.036)	(0.036)
Higher Education	0.023	0.023	0.020	0.023
	(0.038)	(0.038)	(0.038)	(0.038)
Transport	-0.018	-0.018	-0.018	-0.017
	(0.038)	(0.038)	(0.038)	(0.038)
Financial Services	-0.019	-0.019	-0.020	-0.018
	(0.040)	(0.040)	(0.040)	(0.040)
Telecommunication	-0.012	-0.013	-0.015	-0.012
	(0.042)	(0.042)	(0.042)	(0.042)
Country (Ref: UK)				
Germany	-0.099	-0.099	-0.100	-0.098
	(0.057)	(0.057)	(0.057)	(0.057)
Finland	0.050	0.050	0.049	0.050
	(0.059)	(0.059)	(0.059)	(0.059)
Sweden	-0.308***	-0.308***	-0.309***	-0.308***
	(0.055)	(0.055)	(0.055)	(0.055)
Netherlands	0.030	0.030	0.032	0.030
	(0.050)	(0.050)	(0.050)	(0.050)
Portugal	-0.106	-0.106	-0.107*	-0.106
	(0.055)	(0.055)	(0.054)	(0.055)
Spain	-0.083	-0.083	-0.086	-0.083
	(0.059)	(0.059)	(0.059)	(0.059)
Hungary	0.226***	0.226***	0.225***	0.226***
	(0.056)	(0.055)	(0.055)	(0.056)
Bulgaria	0.040	0.040	0.036	0.040
	(0.053)	(0.053)	(0.053)	(0.053)
Constant	3.781***	3.781***	3.779***	3.780***
	(0.067)	(0.067)	(0.067)	(0.067)
var(organization)	0.010***	0.010***	0.009***	0.010***
	(0.003)	(0.003)	(0.003)	(0.003)
var(team)	0.022***	0.022***	0.023***	0.022***
	(0.004)	(0.004)	(0.004)	(0.004)
var(employee)	0.500***	0.500***	0.499***	0.500***
	(0.007)	(0.007)	(0.007)	(0.007)

Table D9 Continued.

N (organization)	259	259	259	259
N(team)	867	867	867	867
N(employee)	10338	10338	10338	10338
AIC	22639.810	22641.652	22633.834	22641.215
Log-likelihood	-11296.905	-11296.826	-11292.917	-11296.608

Note. ESWS Wave 1.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

D10

Scales

Employee task performance

How often have you come across the following situations?

…I was able to plan my work so that I finished on time

…I kept in mind the work results I needed to achieve

…I was able to set priorities

…I was able to do my work efficiently

…I managed my time well

Helping

To what extent do you agree or disagree with the following statements about you and your colleagues?

…I often help my colleagues solve work-related problems

…I often help new colleagues adjust to the work environment

…I often volunteer to cover work assignments for colleagues when needed

…It is most important to me to communicate and work together well with my colleagues

Supervisor support

To what extent do you agree or disagree with the following statements about you and your supervisor?

…My supervisor shows understanding if I have problems or wishes concerning my job

…I feel appreciated by my supervisor

…My supervisor uses his/her influence to help me solve work-related problems

…My supervisor is friendly and approachable

Coworker support

To what extent do you agree or disagree with the following statements about you and your colleagues?

…Everyone feels like part of the team

…Employees regularly ask one another for help or advice regarding work issues

…Employees regularly give one another feedback

…Employees frequently see one another outside the office

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Nederlandse Samenvatting

Achtergrond

Ondanks voortdurende inspanningen om meer sociaal-economische gelijkheid te bereiken tussen mannen en vrouwen, bijvoorbeeld op het gebied van arbeidsparticipatie, beloning en carrièremogelijkheden, blijven genderongelijkheden bestaan (Europees Instituut voor Gendergelijkheid, 2025a). Deze ongelijkheden worden vaak toegeschreven aan verschillen in de soort banen waarin mannen en vrouwen terechtkomen, doordat zorgtaken carrièrekansen kunnen beperken, en door gendernormen en stereotypen (Bettio & Verashchagina, 2009). Er is echter veel minder gekeken naar sociale steun op het werk, zoals het delen van informatie en advies, hulp bij taken, empathie en aanmoediging, en wat dit mannen en vrouwen kan opleveren. Steun krijgen stelt individuen in staat hun hulpbronnen te vergroten (Patterer et al., 2023). Onderzoek toont aan dat zulke steun belangrijk is voor het welzijn en de productiviteit van werknemers en voor het functioneren van organisaties (Jolly et al., 2021; Mathieu et al., 2019; Viswesvaran et al., 1999). Door te focussen op ondersteunende relaties biedt dit proefschrift inzicht in hoe relaties op de werkplek hardnekkige genderongelijkheden kunnen bestendigen of juist verminderen.

Werkplekken zijn sociale omgevingen waar mensen vaak informele relaties aangaan. Deze relaties zijn vrijwillig en vormen een uitbreiding van de formeel gedefinieerde rollen binnen de organisatie. Naast het sociale plezier dat ze bieden, kunnen ze ook gunstig zijn voor de loopbaan, bijvoorbeeld door individuele prestaties te verbeteren, de invloed te vergroten en bij te dragen aan werktevredenheid (Seibert et al., 2001). Niet alle relaties zijn echter even voordelig. De voordelen hangen vaak af van met wie deze informele relaties worden aangegaan, aangezien collega's verschillen in de middelen die zij op de werkplek kunnen bieden. Kansen om invloedrijke en middelenrijke sociale netwerken op te bouwen zijn vaak afhankelijk van gender, waarbij mannen vaak een voordeel hebben door beroepssegregatie. Zo werken mannen doorgaans in prestigieuzere en beter betaalde sectoren dan vrouwen (bijvoorbeeld IT versus onderwijs) of zitten ze vaker in hogere functies binnen dezelfde sectoren en organisaties (bijvoorbeeld mannen zijn vaak artsen, terwijl vrouwen vaker verpleegkundigen zijn; Charles, 2003). Tegelijkertijd worden vrouwen vaak gezien als sociale experts, omdat zij over het algemeen meer sociale relaties hebben en vaker steun ontvangen (Auster & Ohm, 2000; Sapadin, 1988; Umberson et al., 1996). Hun relationele voordeel vertaalt zich echter niet altijd in carrièremogelijkheden. Onderzoek toont aan dat sociale netwerken voor vrouwen vaak minder opleveren dan voor mannen, omdat zij sociale relaties missen die cruciaal zijn voor een succesvolle loopbaan of omdat zij er minder voordeel uit kunnen

halen (Brands & Kilduff, 2014; Ibarra, 1997; Ibarra et al., 2010, 2013; McPherson & Smith-Lovin, 1982; Moore, 1990; Woehler et al., 2021).

De organisatie en haar kenmerken kunnen bepalend zijn voor de beschikbaarheid, het type en de voordelen van ondersteunende relaties, evenals voor de genderverschillen in deze netwerken. Hoewel de organisatiestructuur bepaalt welke werknemers met elkaar communiceren en tot welke middelen zij toegang hebben, waardoor mogelijkheden ontstaan om relaties op te bouwen, verschilt deze formele structuur van de informele relaties waarin daadwerkelijk steun wordt uitgewisseld. De formele structuur schept weliswaar de voorwaarden, maar wie welke steun geeft en ontvangt, wordt ook beïnvloed door de cultuur van de organisatie, met name door de mate waarin deze de maatschappelijke genderverschillen en gendernormen versterkt of juist vermindert. Zo beïnvloedt de manier waarop vrouwen andere vrouwen zien en in hoeverre zij zich met hen identificeren, of zij hen beschouwen als een bron van steun of als potentiële concurrenten (Ely, 1994; Scheepers & Ellemers, 2019). Een centrale factor is de vertegenwoordiging van mannen en vrouwen op verschillende hiërarchische niveaus, aangezien dit inzicht geeft in de rollen die mannen en vrouwen binnen een organisatie kunnen vervullen (Ridgeway & Smith-Lovin, 1999; Woehler et al., 2021). Om deze redenen kijkt dit proefschrift naar de organisatorische context bij werkgerelateerde steun en richt het zich op de volgende onderzoeksvraag: Hoe hangen genderpatronen in het geven en ontvangen van sociale steun op het werk samen met verschillen in werkuitkomsten binnen verschillende organisaties?

Dit proefschrift draagt op vier belangrijke manieren bij aan de literatuur. Ten eerste kijkt het naar genderverschillen in steun op de werkvloer en hoe dit samenhangt met werkuitkomsten. Daarbij wordt expliciet meegenomen hoe gendernormen en de samenstelling van de werkplek zowel het geven als het ontvangen van steun beïnvloeden. Daarmee bouwt het voort op eerder onderzoek naar steun, dat vaak uitging van gelijke voordelen voor mannen en vrouwen of vooral keek naar algemene sociale netwerken. Ten tweede gaat het verder dan het individuele niveau en bekijkt steun op drie niveaus: individueel (soorten steun en werkuitkomsten), interpersoonlijk (netwerkstructuur en kenmerken van banden) en organisatorisch (normen en samenstelling van de werkplek). Ten derde draagt het bij aan een interdisciplinair perspectief door sociologische en psychologische benaderingen van sociale steun op het werk te combineren. Door kennis uit onderzoek naar gender en organisaties, sociale netwerken en sociale steun samen te brengen, laat het zien hoe structurele factoren en culturele genderverwachtingen samen bepalen hoe weknemers elkaar ondersteunen en welke voordelen dit oplevert. Tot slot gebruikt het proefschrift meerdere, unieke gegevensbronnen om een uitgebreid beeld te schetsen: een grote transnationale Europese dataset, het Duitse Socio-Economische

Panel voor analyses op bevolkingsniveau en een gedetailleerd ego-netwerkonderzoek in een door vrouwen gedomineerde Nederlandse zorgorganisatie.

Samenvatting per hoofdstuk

Om de overkoepelende onderzoeksvraag te beantwoorden, onderzoeken de empirische hoofdstukken verschillen tussen mannen en vrouwen in ondersteunende relaties op de werkplek, de middelen die deze relaties bieden en hun verbanden met individuele werk en teamuitkomsten. Daarbij wordt gekeken of mannen en vrouwen verschillen in het soort informele ondersteunende relaties dat zij op het werk hebben en of zij hier verschillende carrièregerelateerde voordelen uit halen.

Hoofdstuk 2: Vriendschappen op de werkplek tussen mannen en vrouwen: onderzoek naar het geslacht van werknemers, het geslacht van managers en de samenstelling van het geslacht op Europese werkplekken

Dit hoofdstuk onderzoekt vriendschappen op de werkplek en de vraag of mannen en vrouwen verschillen in hun vriendschapsnetwerken, en of deze verschillen worden beïnvloed door de context van de organisatie. Hierbij ligt de focus op het aantal vrienden dat werknemers op de werkplek hebben en de samenstelling van het geslacht binnen deze netwerken. Daarnaast wordt geanalyseerd of genderverschillen in aantal en samenstelling worden bepaald door de gendersamenstelling van de afdeling en het geslacht van de manager. De onderzoeksvraag van dit hoofdstuk luidt dan ook: Zijn er genderverschillen in vriendschappen op de werkplek en variëren deze verschillen met de kenmerken van de werkplek? Op basis van gegevens van 2.606 werknemers in 260 afdelingen van 98 organisaties in 9 Europese landen lieten regressiemodellen met gemengde effecten op drie niveaus zien dat vrouwen over het algemeen meer vriendschappen op het werk hebben, vaker vrouwelijke collega's en minder mannelijke collega's dan mannen. Ook bleek dat de genderverhouding binnen een afdeling invloed heeft op met wie werknemers vriendschappen sluiten: in afdelingen met een hoger percentage vrouwen hadden zowel mannen als vrouwen meer vrouwelijke vrienden. Daarnaast hadden werknemers meer vrouwelijke vrienden wanneer zij onder een vrouwelijke manager werkten, en meer mannelijke vrienden bij een mannelijke manager, ongeacht de genderverhouding binnen de afdeling.

Over het geheel genomen wijzen de bevindingen erop dat vrouwen meer vriendschappen op de werkplek hebben dan mannen, maar dat zij, net als mannen, de voorkeur geven aan vriendschappen met collega's van hetzelfde geslacht. De resultaten benadrukken bovendien dat structurele factoren, zoals de samenstelling van de werkplek en machtsverhoudingen, en niet alleen persoonlijke voorkeuren, bepalen wie met wie bevriend is. Zo kan de context van de organisatie de mogelijkheden voor mannen en

vrouwen om ondersteunende relaties op te bouwen op verschillende manieren bevorderen of beperken.

Hoofdstuk 3: Carrièresteun en carrièresucces van mannen en vrouwen: onderzoek naar steun op het werk en daarbuiten

In dit hoofdstuk wordt onderzocht welke voordelen individuen uit hun relaties halen en of deze voordelen gelijk zijn voor mannen en vrouwen. Er wordt specifiek gekeken naar de relatie tussen het ontvangen van carrièresteun en objectieve (salaris) en subjectieve (werkplezier) carrière uitkomsten. Hierbij wordt onderscheid gemaakt tussen geen steun, steun buiten het werk (bijvoorbeeld door familie, vrienden of kennissen) en steun op het werk (bijvoorbeeld door collega's en leidinggevenden). De onderzoeksvraag luidt: In hoeverre hangt het ontvangen van carrièresteun samen met het carrièresucces van mannen en vrouwen?

Op basis van gegevens van het Duitse Socio-Economic Panel (SOEP) met 8.719 respondenten blijkt dat carrièresteun zowel objectieve als subjectieve aspecten van carrièresucces positief beïnvloedt. Steun door contacten op de werkplek, en met name door leidinggevenden, is daarbij het meest nuttig. Voor mannen was het verband tussen carrièresteun en salaris consistent positief, terwijl dit verband voor vrouwen zwakker was of zelfs afwezig. Dit suggereert dat carrièresteun voor vrouwen minder financiële voordelen oplevert dan voor mannen, vooral wanneer de steun afkomstig is van een leidinggevende.

Hoofdstuk 4: Carrière en emotionele steunnetwerken en subjectief carrièresucces: onderzoek naar genderverschillen in een door vrouwen gedomineerde organisatie

Dit hoofdstuk onderzoekt de carrière en emotionele steunnetwerken van mannen en vrouwen en het verband hiervan met subjectief carrièresucces in een door vrouwen gedomineerde organisatie. Eerdere studies zijn voornamelijk uitgevoerd in door mannen gedomineerde organisaties (bijvoorbeeld Burt, 1998; Ibarra, 1997; McGuire & Bielby, 2016; Spurk et al., 2015; Woehler et al., 2021). De context van een door vrouwen gedomineerde organisatie biedt de mogelijkheid te onderzoeken of verwachtingen op dezelfde manier uitkomen in een organisatie met een andere gendersamenstelling. De onderzoeksvraag luidt: Hoe verschillen mannelijke en vrouwelijke werknemers in de kenmerken van hun carrière en emotionele steunnetwerken en in het rendement dat zij uit deze netwerken halen binnen een door vrouwen gedomineerde werkplek?

Op basis van gegevens over de carrière en emotionele steunnetwerken van 286 werknemers (50 mannen en 236 vrouwen) blijkt dat mannen en vrouwen in deze organisatie over het algemeen vergelijkbare carrière en emotionele steunnetwerken hebben. Tegelijkertijd zijn er enkele genderverschillen. Zo bevatten de emotionele steunnetwerken van vrouwen meer sterke banden en vertonen zowel hun carrière als

emotionele netwerken een grotere genderhomofilie. Er werd ook enig bewijs gevonden voor genderspecifieke netwerkopbrengsten: de omvang van het carrièresteunnetwerk, het percentage mannen en het hebben van een leidinggevende in dit netwerk waren alleen bij mannen van belang voor het ervaren van carrièresucces, terwijl het percentage contacten van hetzelfde geslacht alleen bij mannen samenhing met werkplezier, maar niet bij vrouwen.

Samenvattend laat dit hoofdstuk zien dat genderverschillen in netwerken op de werkplek en de voordelen daarvan veranderen binnen een door vrouwen gedomineerde context. Dit vormt een eerste stap naar een beter begrip van hoe genderverschillen worden beïnvloed door de gendersamenstelling van de organisatie.

Hoofdstuk 5: Is helpen goed voor jou of voor het team? Een multilevel onderzoek naar het verband tussen helpen en presteren op Europese werkplekken

In dit hoofdstuk wordt onderzocht hoe het helpen van collega's bij werkgerelateerde taken samenhangt met individuele en teamprestaties, en of deze relatie afhangt van de ondersteunende werkomgeving en het geslacht van de helper. De onderzoeksvraag luidt: Hoe houdt het helpen van collega's verband met de individuele prestaties van de helper en de prestaties van het team? En is deze relatie afhankelijk van de mate van steun in de werkomgeving en het geslacht van de helper?

Aan de hand van European Sustainable Workforce Survey (ESWS) Wave 1-gegevens werden analyses uitgevoerd met 8.821 werknemers in 704 teams en 251 organisaties op individueel niveau, en 690 teams in 249 organisaties op teamniveau in negen Europese landen. Multilevel regressiemodellen lieten zien dat helpen positief samenhangt met zowel team als individuele prestaties. Dit ondersteunt over het algemeen de sociale ruiltheorie. Daarnaast versterkte steun van collega's de positieve relatie tussen helpen en individuele prestaties, terwijl steun van managers hier geen invloed op had. Mannen en vrouwen profiteren in gelijke mate van het geven van hulp, wat suggereert dat er geen gendergerelateerde prestatieverschillen zijn bij taaksteun. Deze bevindingen laten zien dat hulpgedrag over het algemeen gunstig is voor iedereen en dat een ondersteunende werkomgeving deze voordelen kan versterken, mogelijk door een hogere mate van wederkerigheid.

Overkoepelende conclusies

Het proefschrift trekt vier overkoepelende conclusies. Ten eerste is het geven en ontvangen van steun goed voor zowel individuen als teams. Werknemers die steun kregen, waren bijvoorbeeld tevredener over hun werk en hadden vaak een hoger salaris. Maar ook degenen die hun collega's vaker hielpen met werkgerelateerde taken, presteerden zelf beter. Dit sluit aan bij de sociale ruiltheorie, die stelt dat het uitwisselen van middelen wederzijdse voordelen oplevert (Blau, 1964). Steun is dus niet alleen positief

voor individuele werkuitkomsten van de gever en ontvanger, maar ook voor teams. Zo bleken teams waarin meer werknemers taaksteun boden aan elkaar, door hun managers hoger te worden beoordeeld op teamprestaties. Dit laat zien dat wanneer collega's elkaar ondersteunen, de effectiviteit van het team toeneemt door zowel de individuele efficiëntie als de teamdynamiek te verbeteren. Voorbeelden zijn het delen van kennis, het opleiden van nieuwe teamleden, het verbeteren van de informatiestroom en het verminderen van conflicten (Podsakoff et al., 2000). Kortom: organisaties en managers kunnen een werkomgeving creëren waarin mensen elkaar actief helpen, wat de efficiëntie en prestaties van het hele team ten goede komt.

Ten tweede blijkt dat het ontvangen van instrumentele steun van je leidinggevende het belangrijkste is. Uit de resultaten kwam naar voren dat dit soort steun relevanter is voor carrière uitkomsten, terwijl emotionele steun minder belangrijk lijkt te zijn. Bovendien is carrièresteun niet alleen goed voor objectieve uitkomsten, maar ook voor subjectieve uitkomsten, zoals tevredenheid met het werk. Dit benadrukt dat sociale steun op het werk niet alleen draait om de relatie zelf, maar ook om het soort (instrumentele) middelen dat iemand kan bieden. Ook blijkt dat het uitmaakt van wie je de steun krijgt. Steun van collega's is nuttiger dan voor je carrière dan steun van contacten buiten het werk, omdat die vaak niet de middelen hebben die specifiek relevant zijn voor je werk. Daarnaast is steun van leidinggevenden effectiever dan steun van collega's, wat logisch is: leidinggevenden hebben meer toegang tot en controle over belangrijke middelen dan collega's of mensen buiten het werk.

Ten derde laten werkgerelateerde steunrelaties duidelijke genderpatronen zien. Over het algemeen ontvangen mannen en vrouwen ongeveer evenveel steun, en vrouwen soms zelfs iets meer. Het verschil zit vooral in het soort steun en van wie die komt. Vrouwen ontvangen vaker emotionele steun, terwijl mannen vaker instrumentele steun krijgen. Zo hebben vrouwen meer vrienden op het werk en sterkere banden binnen hun emotionele steunnetwerken, maar niet in hun carrière steunnetwerken op het werk. Daarnaast ontvingen vrouwen vaker carrière steun van contacten buiten het werk, terwijl de steun op het werk voornamelijk van collega's kwam. Mannen kregen daarentegen vaker carrièresteun van contacten op het werk en vaker van hun leidinggevende. Dit past bij wat de genderroltheorie en genderstereotypen voorspellen: vrouwen hebben vaak relaties die emotionele steun bieden en mannen vooral relaties die instrumentele middelen opleveren. Dit weerspiegelt stereotypische ideeën over vrouwen als gemeenschapsgericht en mannen als resultaatgericht (Brands et al., 2022; Eagly, 1987; Ellemers, 2017; Ibarra et al., 2010). Hierdoor hebben vrouwen wel ondersteunende relaties op het werk en voelen zij zich mogelijk gesteund, maar hebben zij niet altijd toegang tot middelen die belangrijk zijn voor carrièrevooruitgang, zoals steun door hun

leidinggevende. Hoewel de bevindingen in dit proefschrift niet lieten zien dat verschillen in steun de genderongelijkheid in salaris en werktevredenheid verklaren, kunnen dergelijke genderverschillen relevant zijn voor andere uitkomsten, zoals zichtbare taken, kansen en promoties, en zo bijdragen aan carrièreachterstanden voor vrouwen. Bovendien kan het onderhouden van emotionele steun banden belastend zijn, en zonder tastbare carrièrevoordelen kan dit een extra last voor vrouwen vormen. Daarnaast profiteren mannen en vrouwen niet in gelijke mate van de steun die zij ontvangen, vooral op het gebied van instrumentele steun. Vrouwen profiteerden bijvoorbeeld minder van carrièresteun, zowel door contacten op het werk als daarbuiten, in termen van salaris. Over het algemeen was steun sterker gekoppeld aan carrière uitkomsten voor mannen, terwijl dit verband voor vrouwen zwakker was of ontbrak, wat wijst op genderverschillen in het rendement van steun. Deze bevindingen ondersteunen verder het idee dat genderrollen, stereotypen en statuskenmerken de relaties op de werkplek bepalen, en benadrukken dat gender een rol speelt op de werkplek, zelfs binnen ogenschijnlijk genderneutrale professionele rollen (Eagly & Wood, 2012).

Ten slotte bepaalt de context op de werkplek hoe ondersteunende relaties eruitzien en welke voordelen ze bieden. Zo beïnvloed de genderverhouding binnen een organisatie vriendschappen op de werkplek: naarmate er meer vrouwen in de organisatie werkten, hadden zowel mannen als vrouwen meer vrouwelijke vrienden. Niet alleen de genderverhouding, maar ook het geslacht van de manager speelt een rol in de samenstelling van vriendschapsnetwerken. Het hebben van een vrouwelijke manager leidde ertoe dat vrouwen meer genderhomofilie vertoonden in hun informele netwerken, terwijl dit bij mannen juist afnam: een vrouwelijke manager verminderde de genderhomofilie bij hen. Dit ondersteunt de structurele kijk op genderverschillen in sociale relaties, die benadrukt dat dergelijke verschillen eerder voortkomen uit de posities die mannen en vrouwen in de organisatie innemen dan uit genderattitudes of gedrag (Ibarra, 1992; Kanter, 1976; Moore, 1990). Een hoger aandeel vrouwen in de organisatie geeft vrouwen meer mogelijkheden om relaties met andere vrouwen aan te gaan. Bovendien kan een vrouwelijke manager de legitimiteit van vrouwen vergroten, waardoor zij aantrekkelijker worden als vrienden op de werkplek. Dit kan de noodzaak voor vrouwelijke werknemers verminderen om vriendschappen aan te gaan met mannelijke collega's voor instrumentele middelen. Toch bleek in een door vrouwen gedomineerde organisatie dat het rendement van ondersteunende netwerken alleen carrièrevoordelen opleverde voor mannen, niet voor vrouwen. Dit laat zien dat zelfs wanneer structurele kenmerken, zoals een grotere vertegenwoordiging van vrouwen, gunstig lijken voor vrouwen, genderverschillen blijven bestaan. Een puur structurele verklaring is dus niet goed: gendergerelateerde statusverwachtingen, genderrollen en

genderstereotiep gedrag blijven een rol spelen (Eagly & Wood, 2012; Ridgeway, 2014). Structurele veranderingen, zoals meer vrouwen in leidinggevende functies, verminderen genderverschillen niet automatisch als de heersende gendernormen hetzelfde blijven. Daarnaast bleek dat hoe sterker de ondersteunende sfeer binnen een team, hoe gunstiger het helpen was voor de individuele prestaties. Dit suggereert dat een coöperatieve norm het helpen stimuleert en zo de uitwisseling van middelen bevordert die de efficiëntie verhogen. Samenvattend tonen deze bevindingen aan dat de organisatorische context een belangrijke rol speelt bij het vormgeven van ondersteunende relaties en hun effecten op de werkplek.

Al met al laat dit proefschrift zien dat werkgerelateerde steun erg belangrijk is voor werknemers. Mannen en vrouwen verschillen echter in het soort steun dat zij krijgen en van wie, waarbij vrouwen vaak minder profiteren van dezelfde carrièresteun als mannen. Ook de organisatie speelt een rol: kenmerken van de werkplek beïnvloeden zowel hoe ondersteunende netwerken ontstaan als wat ze opleveren voor werkuitkomsten. Het proefschrift helpt ons beter te begrijpen hoe sociale steun op het werk werkt door de focus te verbreden. Het kijkt niet alleen naar het verband tussen steun en carrière uitkomsten, maar ook naar genderpatronen, de netwerken waarin steun plaatsvindt en de organisatorische contexten waarin deze relaties bestaan.

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Paula Hoffmann was born in Heidelberg, Germany, on October 30, 1995. She obtained her bachelor's degree in Sociology from Ruprecht Karls University Heidelberg. She graduated cum laude from the double master's degree program in Sociology at the University of Bamberg and Tilburg University.

In September 2021, she joined the Department of Sociology at Utrecht University, the Interuniversity Center for Social Science Theory and Methodology (ICS), and the research program Sustainable Cooperation: Roadmaps to Resilient Societies (SCOOP) as a PhD candidate. There, she conducted the present study under the supervision of Eva Jaspers, Tanja van der Lippe, and Jojanneke van der Toorn.

As part of her PhD training, she visited Miranda Lubbers at the Autonomous University of Barcelona from September until December 2024. Chapter 4 resulted from this visit. During her PhD, Paula also taught the course Sociology of Organizations, supervised student research projects, and was involved in the data collection for the Sustainable Workforce Survey

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