# Indicators of a Successful Gender-Fair Language Reform—Gender-Fair Language Use in and Its Consequences for Job Recruitment

Inaugural Dissertation Submitted to the Faculty of Human Sciences of the University of Bern for the Attainment of the Doctoral Degree

by

Lea Hodel

MSc Psychology

aus Triengen, LU

Author's Edition

Bern, 2023

Dean: Prof. Dr. Michael Anhalt

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Bern, den 23.05.2023

#### Acknowledgments

"I was taught that the way of progress was neither swift nor easy."

Maria Slodowska -Curie

This citation is equally true as the author has been inspiring for many young researchers including me. Throughout my dissertation I met many people who inspired and supported me likewise and helped me to progress personally and increase my scientific understanding.

I am very grateful to my supervisor, Sabine Sczesny, for inspiring me to start a thesis, supporting and challenging me throughout so that I could get a more substantial understanding of the literature and formulate my points as precisely as possible, which advanced my scientific understanding and helped me to grow personally and professionally. I am also grateful to Lisa von Stockhausen, my supervisor in Heidelberg and Essen, for welcoming me so warmly to her team. My time in Essen, which included a new work environment and team working on psycholinguistics, stimulated my thinking and broadened my perspectives.

Many thanks go to the teams in Bern and Essen for their many discussions and for supporting each other. Thank you all for being my home for the time that I was working with you. I would also like to thank the supervisors and fellows of the Marie Curie Initial Training Network, "Language, Cognition, and Gender" for their inspiring workshops, valuable scientific input, and much fun. Finally, I am immensely grateful to all my friends and family who helped me to hold on and who supported me when I needed it.

The research leading to these results has received funding from the European Community's Seventh Framework Program (FP7/2007–2013) under grant agreement number 237907 (Marie Curie Initial Training Network, "Language, Cognition, and Gender").

The present dissertation includes the following three manuscripts:

#### Manuscript 1

Hodel, L., Formanowicz, M., Sczesny, S., Valdrová, J., & von Stockhausen, L. (2017). Gender-fair language in job advertisements: A cross-linguistic and cross-cultural analysis. *Journal of Cross-Cultural Psychology*, 48(3), 384–401. https://doi.org/10.1177/0022022116688085

#### Manuscript 2

Hodel, L., Formanowicz, M., Pietraszkiewicz, A., & Sczesny, S. (2025). The Role of Social Class in the Use of Gender-Inclusive Language: An Analysis of Polish and German Job Titles. *Social Psychological Bulletin*, 20, 1-21. https://doi.org/10.32872/spb.13535

#### Manuscript 3

Formanowicz, M., Hodel, L., & Sczesny, S. (2024). Why Using Feminine Job Titles in German Is Profitable for Women: Ascribed Linguistic Competence Enhances Prospects of Being Hired. *Journal of Language and Social Psychology*, 43(3), 388-398. https://doi.org/10.1177/0261927X231222881

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### **Summary**

Gender-fair language has been promoted since the 1970s to confront the androcentric use of masculine forms to refer to people in general (i.e., the masculine generic). The research presented in this dissertation was aimed at evaluating the success of gender-fair language reforms in various languages and speech communities. We conducted three studies, two investigating language use in job advertisements in different countries (Study 1) and speech communities (Study 2), and one investigating evaluations of speakers' use of gender-fair language in an application letter (Study 3).

In Study 1, we analyzed gender-fair language use in two German-speaking countries with egalitarian values (Austria and Switzerland) and two Slavic-speaking countries with hierarchical values (Czech Republic and Poland), as well as in male-dominated, female-dominated, and gender-balanced branches. The results showed that gender-fair language is used more frequently in the two egalitarian countries and in branches with a higher proportion of female employees. These results give novel evidence showing that gender-fair language reforms have been more successful in egalitarian than hierarchical speech communities.

In Study 2, we investigated the use of gender-fair language in middle-class professions (egalitarian speech communities) compared to working-class professions (hierarchical speech communities) in the Polish national corpus (Study 2a) and in Swiss job advertisements (Study 2b). The results for both countries showed that gender-fair language is used in more middle- than working-class professions. Hence, this study provides additional evidence for the more successful language reforms in egalitarian than hierarchical speech communities.

In Study 3, a hiring simulation study, we analyzed how Swiss-German participants evaluated women applying for a job who presented themselves with either feminine or masculine job titles. The results showed that women are evaluated as more (linguistically) competent and more hirable when presenting themselves with a feminine rather than masculine job title and that linguistic competence and general competence fully mediate the effect of the job title on hireability.

Overall, the results presented here suggest that gender-fair language reforms have been successful in egalitarian speech communities, while resistance thereto is greater in more hierarchical speech communities.

#### Introduction

Promoting gender equality has been the goal of many social initiatives. Since the second wave of feminism in the 1970s, the success of such initiatives has led to an increase in the proportion of women in the workplace, an increased participation of women in higher education, and an increase in women entering male-dominated work fields (England et al., 2020). Many companies have also recognized the work-force potential of women, which has increased their commitment to attracting female employees (Jansen et al., 2021). Despite these efforts, gender equality has not yet been entirely achieved. The reasons for persisting gender inequalities are numerous and based on various aspects, such as gender segregation (Adamovic & Leibrandt, 2022; England et al., 2020), gender stereotypes based on traditional divisions of labor (Bosak et al., 2012; Eagly, 1987), and status differences between women and men (Ridgeway & Correl, 2004). One important theory to explain persisting gender inequality is androcentrism, the perception of men as the norm and women as the "other gender" (Hegarty et al., 2014). Based on enduring differences in social power and categorization processes, men are also more often exemplars for people in general, whereas women are seen as exemplars of their own (other) gender (Bailey et al., 2019). Such beliefs remain deeply embedded in and transmitted throughout modern societies through, for example, subtle linguistic cues, such as setting the man as the standard in a comparison (e.g., women are shorter than men) or mentioning the man first (e.g., male and female researchers worked on an important project) (Formanowicz & Hansen, 2022).

### Masculine generics as a sign of androcentrism

Another type of subtle linguistic gender cues, referred to as masculine generics, include masculine language forms to denote not only men but also a group of people (e.g., in German, *die Besucher* masc. pl., for a group of male and female visitors), a person of unknown gender (e.g., in English, *the person...he*), or professions (e.g., in Polish, *bankowc6w* masc. sing, "banker"). Such forms have been documented in many languages (for an overview, see

Hellinger & Bußmann, 2001, 2002, 2003). Although generically intended, these forms are often perceived as male-specific, so these forms rarely retain their generic intention (Gabriel & Gygax, 2016; Stahlberg et al., 2007). The use of masculine generics contributes to the preservation of androcentric thinking (Bailey et al., 2019) and thus the social discrimination of women (Sczesny et al., 2016).

#### Reforms Toward Gender-Fair Language

Gender-fair language aims at confronting and reducing gender inequalities and other male biases in language to achieve a more equal representation of women and men in language (Gabriel et al., 2018; Sczesny et al., 2016). Feminist linguists from English-speaking countries were first to promote gender-fair language in the 1970s (Pauwels, 2003; England, 2010). Since then, gender-fair language initiatives have been launched in many countries. At the beginning of the 21st century Hellinger and Bußmann (2001, 2002, 2003) published an overview of gender in a total of 30 languages (including the languages under investigation in this dissertation, namely Czech, German, and Polish) Two major strategies have been introduced to make language more gender-fair: neutralization and feminization. While neutralization aims at avoiding gender references where possible, feminization involves explicitly using feminine (instead of only masculine) language forms and thus making women more visible.

#### The Implementation of Gender-Fair Language Use

The implementation of gender-fair language depends on various linguistic and cultural factors. For languages with different structures (grammatically gendered languages, naturally gendered languages, genderless languages), different strategies are used to achieve more gender-fair language (Gabriel et al, 2018). Moreover, due to variations in the specific linguistic features of different grammatically gendered languages, as well as cultural differences among speech communities, the implementation of gender-fair language varies

considerably. Finally, gender-fair language use also varies according to the situational context in which gender-fair language is used. We focus here on the context of recruitment.

# Differences in the Visibility of Gender Based on Language Structure

Gender is much more prominent in grammatically gendered languages, such as German, Czech, or Polish, where every noun has a grammatical gender, and personal nouns tend to correspond to the gender of the referent (e.g., in German, *der Forscher/die Forscherin*, "male/female researcher;" in Polish, *lekarz/lekarka*, "male/female doctor;" in Czech, *učitel/učitelka*, "male/female teacher"). In naturally gendered languages, such as English or Swedish, gender is expressed only with pronouns (e.g., *he/she* in English, *han/hon* in Swedish), while in genderless languages, such as Finnish or Turkish, gender is expressed lexically (e.g., by adding the attribute "male/female" to a job title; for an overview, see Gabriel et al., 2018).

# Strategies to Implement Gender-Fair Language Based on Language Structure

Strategies to implement more gender-fair language differ among the above-mentioned three types of languages. In genderless languages, for instance, gender references can be omitted easily to address all genders equally, while in naturally gendered languages, neutralization strategies are easy to implement. The few gender-specific role nouns in English have mostly been abandoned, and the gender-neutral *they* is frequently used today not only to denote groups but also to denote one person whose gender is irrelevant or unknown (Bradley, 2020). In Swedish, the new gender-neutral pronoun *hen* has been introduced (Gustafsson Senden et al., 2015). This form is already well accepted for referring to a group of people (Renström et al., 2021). For grammatically gendered languages, however, abandoning gender references is almost impossible. Therefore, feminization strategies are used most frequently for these languages. Importantly, grammatically gendered languages are associated with lower levels of socioeconomic gender equality (Prewitt-Freilino et al., 2012) and higher levels of expressed sexism (Wasserman & Wesley, 2009). The implementation of gender-fair language

in these languages is, therefore, not only particularly difficult but also vital to achieve greater gender equality.

# Linguistic Differences Among Grammatically Gendered Languages

When comparing different grammatically gendered languages, significant differences in the ease with which gender-fair language can be implemented are observable. In Polish, for example, feminine job titles only exist for some professions. The reasons why other professions have no official feminine form are diverse: some feminine job titles have a different meaning (e.g., professor, "university professor," vs. profesorka, "teacher," vs. profesorowa, "professor's wife"), and some forms converge with objects (e.g., dyplomatka, "a type of briefcase"; Koniuszaniec & Blaszkowa, 2003). In Czech, another Slavic language, some masculine terms have a broader meaning than their female counterparts (e.g., mistr masc.) "master, specialist, artist, head of a workshop," compared to the two female forms, mistryně <sub>fem</sub>, "outstanding female athlete," and *mistrová* <sub>fem</sub>, "female head of a workshop"). However, feminine forms can be built for almost every profession (Čmejrková, 2003), and some initial guidelines promoting gender-fair language were published in the beginning of the 21st century (Valdrova, 2001; Valdrova, Knotkova-Čapkova, & Paclikova, 2010). In German, on the other hand, feminine forms can be built easily for most professions by simply adding the suffix -in (e.g., Pilot/Pilotin, "male/female pilot"), and today, feminine job titles are well established and widely used in German communities (Bußmann & Hellinger, 2003). Moreover, the implementation of gender-fair language has been supported by guidelines for gender-fair language since the 1980s (Guentherodt et al., 1980), which represent the standard in today's language (Duden, 2020).

#### Cultural Differences Among Speech Communities

In addition to linguistic features, cultural aspects in speech communities are equally important for the successful implementation of gender-fair language. As part of broader gender equality measures, guidelines or legal regulations supporting gender-fair language

have also been effective (Sczesny et al., 2016). However, such measures are not equally implemented or supported in all countries. In fact, countries vary considerably regarding their gender egalitarian values (GLOBE; House et al., 2004) and achieved gender equality (Prewitt-Freilino et al., 2012; Hausmann et al., 2012); they also differ in their acceptance of unequal power distribution as measured by power distance (Value System Module; Hofstede, 1980; Hofstede et al., 2010). German-speaking countries, for example, have higher levels of achieved gender equality and gender egalitarian values, as well as lower acceptance of unequal power distribution, than the two Slavic countries, Czech Republic and Poland. Similarly, variations in egalitarian values are found among speech communities within one country, such as between middle- and working-class communities. Specifically, middle-class communities tend to be more egalitarian than working-class communities, as reflected in their lower levels of right-wing authoritarianism, social dominance orientation (Carvacho et al., 2013), and support for traditional gender roles (Kalmijn & Kraaykamp, 2007). Nevertheless, a high level of (gender) egalitarian values in a community facilitates the implementation of gender-fair language, as people with less sexist and more egalitarian values also have more favorable attitudes toward gender-fair language (Douglas & Sutton, 2014; Sczesny et al., 2015).

#### Differences Among Situational Settings

Successful implementation of gender-fair language use depends on the specific setting or context in which gender-fair language is used. Specifically, it is more commonly used in formal than informal situations (Adokarley Lomotey, 2018). Many governments have introduced binding gender-fair language use guidelines for legislation and official communication (European Parliament, 2008; Schweizerische Bundeskanzlei, 1996/2009; United Nations Educational, Scientific, and Cultural Organization [UNESCO], 1999). Other contexts in which gender-fair language guidelines have been introduced are universities (e.g.,

the University of Bern, latest version in 2017) and professional associations (e.g., the American Psychological Association, 2009).

# Gender-Fair Language Use in Recruitment

One situation in which gender-fair language is frequently discussed and its impact is well researched is the recruitment process. In Austria, for example, there is a specific regulation that requires job advertisements to be phrased in a gender-fair manner (Bundesministerium für Frauen und Öffentlichen Dienst, 2009; GIBG, 2004). The first phase of the recruitment process is also of particular importance, as both the potential employer and the potential employee must attract each other (Acikgoz, 2019). Gender-fair language use by employers and employees are crucial for successful employment of women, which is vital for increasing the proportion of women in male-dominated professions and reducing gender segregation.

#### The Positive and Negative Consequences of Gender-Fair Language Use in Recruitment

Gender-fair language use has been shown to lead to a more balanced representation of women and men in language (Stahlberg et al., 2007). Its use, however, can have positive and negative consequences. Concerning gender-fair language in recruitment, different aspects have been investigated: women's reactions to jobs advertised with gender-fair versus gender-specific attributes, evaluations of women applying for a job advertised as gender-specific or gender-fair, and evaluations of applicants using gender-fair or gender-specific language.

Already in the 1970s, it was shown that American women were more likely to apply for a typically male job that was advertised in a gender-fair rather than gender-specific manner (Bem & Bem, 1973). These early results were later extended, showing that American women felt ostracized by gender-specific (male) job advertisements and were more likely to apply for a job advertised in a gender-fair way (Stout & Dasgupta, 2011). Similar effects have also been found in German, where women were more attracted to an entrepreneurship program advertised with a gender-fair job title (Hentschel et al., 2018). Hiring simulation studies in

German found that women are perceived as more suitable for executive leadership positions when these positions are described with a gender-fair rather than a masculine job title (Horvath & Sczesny, 2015), and male and female applicants using gender-fair language during the application process are evaluated more favorably than applicants using masculine forms (Vervecken & Hannover, 2013). In other countries, results have been different. In Poland, for example, women described with a feminine job title are evaluated less favorably and as less hirable than men or women described with a masculine job title, particularly by conservative participants (Formanowicz et al., 2013). Similar effects have also been found for gender-stereotypical job advertisements.

#### Present Research: Evaluating the Success of Gender-Fair Language Reforms

The present research was aimed at evaluating the success of gender-fair language reforms based on two indicators: the use of gender-fair job titles in job advertisements and the perception of people using gender-fair language when applying for a job.

# Gender-Fair Language Use as a Sign of a Successful Language Reform

As outlined above, gender-fair language use depends on various factors, such as the linguistic features of the language (Sczesny et al., 2016) and cultural differences among speech communities (Spolsky, 2017). All these factors play a role in the successful implementation of gender-fair language in a community. Even when gender-fair language forms exist, they must be actively promoted and disseminated through collective action. Two important prerequisites of collective action are the collective perception of a situation as unfair (e.g., masculine generics do not represent women appropriately) and the collective belief that (language) change is possible (Van Zomeren et al., 2004). Both these aspects are more often present in egalitarian cultures than in more hierarchical cultures, where status differences are more readily accepted and societal changes appear to be more difficult to achieve. Therefore, we investigated gender-fair language use i) in two German-speaking egalitarian countries, namely Austria and Switzerland, and compared them with two Slavic-speaking, more hierarchical countries,

namely Czech Republic and Poland. We also investigated ii) professions requiring an academic degree (a middle-class, egalitarian speech community) and compared them with professions requiring no academic degree (a working-class, hierarchical speech community).

#### Study 1: Differences in Gender-Fair Language Use Among Countries

The first paper focused on the successful implementation of gender-fair language use based on linguistic and cultural differences in different countries. Specifically, we investigated gender-fair language use in job advertisements from four European countries (Austria, Czech Republic, Poland, and Switzerland) with differences in achieved gender equality and egalitarian versus hierarchical cultural values. Thereto, we analyzed the job titles used to advertise jobs in three branches with different proportions of female employees: health care (female-dominated), food services (gender-balanced), and constructional steel and metal work (male-dominated). For each branch, we randomly selected 120 job advertisements from each country. An independent coder then coded the job titles as either gender-specific or gender-fair. For the gender-specific forms, we also coded whether they were masculine or feminine; for the gender-fair forms, we distinguished between combination forms (masculine + m/f) and other gender-fair forms (gender-neutral and masculine-feminine word pairs).

The results showed that gender-fair language has been more successfully implemented in the two German-speaking countries with egalitarian cultural values (Austria and Switzerland) than in the two Slavic-speaking countries with more hierarchical cultural values (Czech Republic and Poland). Furthermore, the results showed that gender-fair job titles are more prevalent than gender-specific job titles in both the female-dominated and gender-balanced branches, while in the male-dominated branch, gender-specific forms prevail. This shows that gender-fair language reforms have been more successful in branches with a higher proportion of female employees, suggesting an effect of androcentrism rather than one of symmetric gender stereotypes. This effect, however, is more pronounced in the Slavic-speaking countries than in the German-speaking countries. In the two German-speaking

countries, a similar effect was found for the two types of gender-fair forms: The combination form is used more often in the male-dominated branch, while in the other two branches, other gender-fair forms are more prevalent. Overall, the results of the first study showed that gender-fair language has been more successfully implemented in egalitarian cultures and in branches with a certain proportion of female employees, while in countries with more hierarchical values (as in the two Slavic-speaking countries) or in male-dominated branches (as in steel and metal work), the successful implementation of a gender-fair language reform has been hindered.

# Study 2: Differences in Gender-Fair Language Use Between Middle- and Working-Class Professions

The second paper targeted gender-fair language use in different speech communities within the same country. In two studies, we investigated gender-fair language use in workingand middle-class professions. Since people in middle-class communities have been found to endorse more egalitarian values and have stronger beliefs that social change is possible than people in working-class communities, we assumed that gender-fair language is used more often in middle-class professions than in working-class professions. We tested this hypothesis on two grammatically gendered languages at different stages of the implementation of gender-fair language. In Study 2a, we investigated the use of feminine job titles for middle- and workingclass professions in Polish national corpus texts encompassing press articles, books, spoken language, online texts, and other written materials from 1999 to 2009. In Polish, feminine job titles are officially listed in the dictionary only for some professions, while for many professions, only masculine job titles exist. Therefore, we controlled for the availability of job titles. The results showed that feminine job titles are more often used in middle-class professions than working-class professions, regardless of whether they are officially available. In Study 2b, we tested the use of gender-fair language to advertise middle- or working-class professions in Swiss-German job advertisements. For this study, we reanalyzed the Swiss data from the first paper. Every profession was coded as either working- or middle-class. The results of Study 2a were replicated, showing that gender-fair job titles are used more often to advertise middle-class professions than working-class professions.

# Evaluations of People Using Fender-Fair Language as a Sign of a Successful Language Reform

Another way to determine whether a language reform has been successful is to analyze the evaluation of people using gender-fair language. If a language reform has been successful, the evaluation of people using gender-fair language should be positive, while a negative evaluation of people using gender-fair language is a sign of a failed or incomplete language reform. As outlined above, the effects of gender-fair language use vary among countries. This was exemplified by a comparison of gender-fair language use for promoting social initiatives between Austria and Poland, where social initiatives targeting gender were evaluated more positively (Austria) or negatively (Poland) when using gender-fair language (Formanowicz et al., 2015). Similar tendencies have also been shown in hiring simulation studies. While women using gender-fair language (i.e., feminine job titles) were evaluated more negatively and were perceived as less hirable than women using a masculine form in a Polish study (Formanowicz et al., 2013), women using gender-fair language (i.e., masculine-feminine word pairs) in a German study were evaluated more positively and were perceived as more hirable when using gender-fair language rather than masculine generics (Vervecken & Hannover, 2013). Notably, these two studies are not directly comparable since in the Polish study, feminine job titles were used to refer to feminine applicants, while in the German study, masculine–feminine word pairs were used to refer to groups of people.

# Study 3: The Hireability of Women Using Feminine Job Titles With Which to Present Themselves

The third study aimed at examining evaluations of women presenting themselves with feminine or masculine job titles when applying for a job. We analyzed this issue using an online hiring simulation study with students from different disciplines, some of whom had experience with hiring people. Participants read an application letter for a female carpenter, chemical engineer, draftsperson, or physicist applying for a job and subsequentially evaluated the applicant in terms of her linguistic competence, general competence, and employability. As expected, the results showed that women are perceived as more hirable when they present themselves with feminine job titles instead of masculine job titles. This effect is fully mediated by the combination of linguistic and general competence. This effect also holds when controlling for potential confounding variables (i.e., the type of profession; participants' gender, age, political attitude, and hiring experience; the type of study). The present results, therefore, provided further evidence for the success of the language reform in German.

#### Discussion

Previous research has proven the importance of successful social change toward gender-fair language use to confront the androcentric use of masculine job titles. The research presented in this dissertation aimed at evaluating the success of such language reforms toward gender-fair language in three studies. The first study found that gender-fair language is well implemented in the two German-speaking countries of Austria and Switzerland, where egalitarian values are strongly endorsed and the level of achieved gender equality is high, whereas in the two Slavic-speaking countries of Czech Republic and Poland, where hierarchical rather than egalitarian values prevail and the level of achieved gender equality is much lower, gender-fair language has not yet been implemented successfully. Moreover, gender-specific (masculine) forms are more present in male-dominated branches in all countries. However, this androcentric effect is stronger in the two Slavic-speaking countries than in the two German-speaking countries.

The second study showed that gender-fair language has been implemented more successfully in middle-class professions than working-class professions. This result provided further evidence showing that gender-fair language reforms in egalitarian speech communities have been more successful than in hierarchical speech communities. The results from the third

study also showed that German-speaking women presenting themselves with feminine rather than masculine job titles are perceived as more hirable and that this effect is fully mediated by (linguistic and general) competence. This result suggests that feminine forms today represent the standard for women's self-designation. Women using masculine job titles, on the other hand, are perceived as less competent, suggesting that, in line with changes in the German dictionary (Duden, 2020), masculine forms are no longer perceived as appropriate.

Overall, the present research leads to two important conclusions: i) Gender-fair language reforms have been more successful in the German-speaking countries of Austria and Switzerland than in the two Slavic-speaking countries of Czech Republic and Poland. This evidence is supported by differences in gender-fair language use between these countries (Study 1), as well by differences in the hireability of women using feminine forms with which to present themselves in German (Study 3) compared to Polish (Formanowicz et al., 2013); ii) gender-fair language reforms have been more successful in egalitarian than in more hierarchical speech communities. This evidence is supported by differences on a country level (Study 1), as well as among social classes (Study 2).

#### **Theoretical and Practical Implications**

The successful implementation of gender-fair language use in the two German-speaking countries is a sign of successful collective action, particularly by middle-class women. These women successfully stood up for gender-fair language, presumably since they valued gender-fair language as an important measure of gender equality and believed that successful language change is possible (Van Zomeren et al., 2004). Since gender-fair language has been implemented in these countries, women's visibility in a variety of professions has increased (Gabriel & Gygax, 2016; Stahlberg et al., 2007) and discrimination has decreased (Sczesny et al., 2016), so less pronounced gender segregation (Adamovic & Leibrandt, 2022; England et al., 2020) and androcentric thinking (Bailey et al., 2019; Hegarty et al., 2014) may follow. Gender-fair language use in these countries today even seems to be beneficial for recruitment,

as it is associated with the linguistic competence of the speaker and more general competence ascriptions (Vervecken & Hannover, 2013). The use of gender-fair language is also beneficial for companies, as they can use gender-fair language to attract more female employees (Hentschel et al., 2018; Jansen et al., 2021).

A gender-fair language reform has been less successfully implemented in maledominated branches (Study 1) and working-class professions. This is a sign of the enduring influence of androcentric thinking and might be related to a lack of belief that change is possible in these areas, as well as a preference for the security and stability of androcentrism in the current system (see also typical arguments against gender-fair language, Formanowicz & Sczesny, 2016; Vergoossen et al., 2020). This is in line with prominent system-justifying arguments against gender-fair language use and might even lead to system-maintaining collective action (Jost et al., 2017). To successfully overcome androcentrism or the use of masculine generics in male-dominated branches (Bailey et al., 2019) and reduce gender segregation in working-class professions (Adamovic & Leibrandt, 2022; England et al., 2020), further effort, research, and collective action are needed. This is even truer for Slavic-speaking countries, where status differences are more readily accepted (Hofstede, 1980; Hofstede et al., 2010) and women may abstain from using feminine job titles, as their use is associated with status loss (Formanowicz et al., 2013). This may, in turn, lead to system-maintaining collective action among Slavic-speaking women, which will perpetuate instead of challenge the current androcentric system.

### **Limitations and Recommendations for Future Research**

Notably, in Studies 1 and 2, we used a correlational approach with archival data, which did not allow for causal inferences. The confounding impact of the linguistic features of the languages in Study 1 could be ruled out in Study 2, where we compared speech communities within the same language. Although Study 3 was based on an experimental design, the study focused on German-speaking participants, and cross-cultural comparisons were only made by

referring to previous results found in Poland. In future studies, the causal relationship between (gender) egalitarian values and gender-fair language use should be investigated more directly, for example, with longitudinal studies or by investigating individual language use. Future research should also address the specific role of collective action in this relationship.

Our three studies were all conducted in European countries with grammatically gendered languages. While the results may be transferable to other grammatically gendered languages, their specific cultural environments and linguistic features must be carefully considered. To analyze whether the results found can also be transferred to naturally gendered languages or genderless languages, our studies should be replicated with other subtle gender cues. (For an overview of other gender cues in language, see Formanowicz & Hansen, 2022.)

Additionally, recruitment is a professional, rather formal situation. In fact, there are even official regulations for job advertisements in some countries (e.g., Austria, Bundesministerium für Frauen und Öffentlichen Dienst, 2009; GIBG, 2004), and when published online (as analyzed in Studies 1 and 2), job advertisements are published based on templates or even in a standardized way. It is, therefore, important to investigate whether gender-fair language has also been implemented in less formal situations in egalitarian cultures.

Finally, the present studies focused on gender-fair language as language forms for addressing women and men equally. In German, as in some other languages, definitions of gender-fair language have changed to include non-binary persons, which raises new questions about gender-fair language (e.g., Motschenbacher, 2014). While some gender equality activists have proposed masculine generics as a way to include everyone, there are many other creative and novel ways to make language more gender-fair, such as the introduction of new pronouns (e.g., *hen* in Swedish or *ze* in English; Lindqvist et al., 2019) or the use of typographical symbols (e.g., the German *Genderstern*, "gender asterisk," as in *Lehrer\*in*, "teacher;" Friedrich et al., 2021; Kolek, 2019). Future research should, therefore, investigate how the present findings can be extended to include such novel forms.

#### Conclusion

Overall, the results of our three studies suggest that gender-fair language has been successfully implemented in the two German-speaking but not the two Slavic-speaking countries under study. Apart from differences in linguistic features, legal factors, and the proportion of female employees, this difference shows that gender-fair language reforms have been more successful in egalitarian than hierarchical speech communities. This assumption has been validated by the more successful implementation of gender-fair language in middle- than working-class professions, considering the stronger endorsement of egalitarian values in middle-class communities compared to working-class communities. When successfully implemented, gender-fair language use can even be beneficial to people using these once-novel language forms.

Our results show that gender-fair language reforms have been at least partially successful and highlight paths to successful language reforms in areas in which the implementation of gender-fair language is more challenging.

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# Manuscripts

# Manuscript 1 | Gender-Fair Language in Job Advertisements – A Cross-Linguistic and Cross-Cultural Analysis

Lea Hodel<sup>a</sup>, Magdalena Formanowicz<sup>a</sup>, Sabine Sczesny<sup>a</sup>, Jana Valdrová<sup>b</sup>, &

Lisa von Stockhausen<sup>c</sup>

a University of Bern
b University of South Bohemia
c University of Duisburg-Essen

#### **Author Note**

Correspondence concerning this article should be addressed to Sabine Sczesny, University of Bern, Department of Psychology, Fabrikstrasse 8, 3012 Bern, Switzerland. +41 31 6313394, E-mail: sabine.sczesny@psy.unibe.ch.

The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 237907 (Marie Curie ITN, Language, Cognition, and Gender).

Special thanks go to Friederike Braun for her valuable comments on our investigation and findings.

#### **Abstract**

The present study investigates whether and how the use of gender-fair language is related to linguistic, cultural and socio-economic differences between countries with grammatical gender languages. To answer this question, we analyzed job titles in online job ads from four European countries differing in achieved gender equality and egalitarian vs. hierarchical cultural values (Switzerland, Austria, Poland, Czech Republic). Results show that gender-fair job titles were more frequent in more egalitarian countries with higher levels of socio-economic gender equality (Switzerland, Austria) than in countries with a higher acceptance of hierarchies and inequalities (Poland, Czech Republic). In the latter countries gender-specific (masculine or feminine) job titles predominated. Moreover, gender-fair job titles were more prevalent in a female-dominated (healthcare) and a gender-balanced economic branch (food services) than in a male-dominated branch (constructional steel and metal work). Thus, our findings suggest that the language use in job advertisements indeed corresponds with linguistic, cultural, and socio-economic aspects and may contribute to the transmission of gender (in)equalities and gender stereotypes.

*Keywords:* gender equality, cross-cultural comparison, gender-fair language, job advertisements, job titles

#### Gender-Fair Language in Job Advertisements -

# A Cross-Linguistic and Cross-Cultural Analysis

Gender stereotypes are based on the traditional division of labor (Eagly, 1987;

Bosak, Sczesny, & Eagly, 2012): Women tend to work in occupations that require caring and cooperation and thus are perceived as more communal (e.g., warm, helpful), whereas men tend to work in jobs requiring decision-making or strength and are perceived as more agentic (e.g., ambitious, independent). Furthermore, traditionally male occupations are often associated with greater power and higher social status than typically female occupations (Ridgeway & Correll, 2004). Although gender hierarchies and gender stereotyping have decreased over the last decades, men continue to have more power than women do and gender stereotypes persist, even if they take subtle forms and manifestations (Ridgeway and Correll, 2004). Language can be considered one of the subtle means of maintaining traditional gender arrangements, as language is an important vehicle for the transmission and maintenance of stereotypes (Maass & Arcuri, 1996). How situations are perceived and interpreted is influenced not only by what we say, but also by how we say it, so that language contributes to the construction of reality (Semin, 2000).

Earlier research has identified numerous gender asymmetries in language, which both reflect and support the traditional gender hierarchy (Hellinger & Bußman, 2001, 2002, 2003). But exactly how is actual language use related to linguistic, cultural, and socioeconomic aspects of gender hierarchies and gender stereotypes? The present research aims to determine how gender-fair language - a symmetric treatment of women and men in language - corresponds to egalitarian cultural values (i.e., the rejection of unequal power distribution in organizations and countries; Hofstede, Hofstede, & Minkov, 2010) and to achieved gender equality (e.g., Gender Gap Index, GGI; Hausmann, Tyson, & Zahidi, 2012) in a country. We examined these questions by analyzing job ads from four European countries: Czech Republic and Poland, two Eastern European countries with Slavic languages

and non-egalitarian values, and Austria and Switzerland, two egalitarian Western European countries where German is spoken. In addition, we investigated to what extent the occurrence of gender-fair language was associated with the gender-typicality of economic branches as indicated by proportions of male and female employees (Eurostat, 2012; Bundesamt für Statistik, 2012).

#### Gender Asymmetries in Language Use and Language Structure

In many languages there are asymmetries in the linguistic forms referring to women and men. The contributions in Hellinger and Bußmann (2001, 2002, 2003) analyze gender in 30 languages from diverse language families (e.g., Arabic, Chinese, English, Finnish, Hindi, Turkish, Swahili). They show that masculine-male forms usually designate not only men but also groups of women and men, or referents whose gender is unknown or unspecified (see also Stahlberg, Braun, Irmen, & Sczesny, 2007). This usage is known as masculine generics. In contrast, feminine-female forms are almost never used in a generic sense but refer to women only (Hellinger & Bußmann, 2001). In English, for example, the personal pronoun he is often used when gender is irrelevant (e.g., the user ... he). In German, masculine role nouns serve as labels for mixed groups consisting of women and men (e.g., einige Lehrer<sub>masc.pl</sub>, 'several teachers', for a group of male and female teachers). Past research has shown that masculine generics evoke a male bias in cognitive representations (Stahlberg et al., 2007) so that readers or listeners, in line with the grammatical form, mostly think of male exemplars. This effect has been observed in several languages, such as English (e.g., Crawford & English, 1984; Gastil, 1990; Gabriel, Gygax, Sarrasin, Garnham & Oakhill, 2008; Hamilton, 1988; Ng, 1990), French (e.g., Chatard, Guimond, & Martinot, 2005; Gabriel et al., 2008), German (e.g., Braun, Sczesny, & Stahlberg, 2005; Gabriel et al., 2008; Heise, 2000; Irmen, 2007), and Polish (e.g., Bojarska, 2011).

Although this type of asymmetry exists in many languages, it is more visible in some languages than in others. In general, languages can be divided into three categories:

grammatical gender languages, natural gender languages, and genderless languages (for an overview see Stahlberg et al., 2007). In *grammatical gender languages* such as Czech, German, Italian, or Polish, every personal noun has a grammatical gender, which usually corresponds to the gender of a human referent. In *natural gender languages* such as English or Danish most personal nouns are gender-neutral and referential gender is mainly expressed in personal pronouns (he/she). In *genderless languages* such as Finnish or Turkish referential gender is marked neither on personal nouns nor on pronouns. Here, gender is expressed lexically (e.g., through attributes such as 'male/female [teacher]' or lexical gender words such as 'woman' or 'father'). Therefore, gender – both referential gender and the asymmetry inherent in masculine generics – is much more visible in grammatical gender languages than in natural gender languages or genderless languages (Hellinger & Bußmann, 2001).

### Gender-Fair and Gender-Biased Language Use

Gender-biased language has been found to have detrimental effects for women, for example, in decision-making during the hiring process: Early work by Bem and Bem (1973) showed that explicit gender references in job advertisements discouraged female U.S. university students from applying for typically male positions. Recent studies obtained similar results with more subtle gender references: An agentic compared to communal wording of job advertisements led to a lower level of anticipated belongingness and to a lower level of job appeal in female Canadian psychology students (Gaucher, Friesen, & Kay, 2011). Job advertisements in the masculine (*he* instead of *he and she*) decreased female U.S. students' identification with the job and their motivation to pursue the respective career (Stout & Dasgupta, 2011). Belgian and German children associated occupations less with female jobholders when the jobs were described in the masculine rather than a gender-fair form (e.g., Dutch *automonteerders*<sub>masc.</sub>, 'car mechanics'; German *Sportler* <sub>masc.</sub>, 'athletes' versus Dutch *automonteerders*<sub>masc.</sub>, 'car mechanics'; German *Sportler* masc., 'athletes' versus Dutch *automonteerders*<sub>masc.</sub>, 'athletes'). Moreover, girls perceived women as less successful and were

less interested in a typically male occupation when it was described in the masculine compared to a gender-fair form (Vervecken, Hannover, & Wolter, 2013). In another study, women were perceived as less suitable for a high-status leadership position than men when the job was advertised with a masculine job title, whereas no such difference arose when a gender-fair job title was used (Horvath & Sczesny, 2015).

In line with these findings, use of gender-fair language has been promoted, especially for official and administrative texts, to represent women and men equally and to establish equal chances. Various guidelines exist which explain and suggest gender-fair expressions. Gender-fair language includes the avoidance of gender-specific (either masculine or feminine) forms in statements that refer to both genders as well as the avoidance of words and phrases with stereotypical connotations (Unesco, 1999, Schweizerische Bundeskanzlei, 1996, revised in 2009). But whether and to what extent language regulations have been introduced differs widely between countries and speech communities. The first guidelines for gender-fair German, for example, were issued in the 1980s (e.g., Guentherodt, Hellinger, Pusch, & Trömel-Plötz, 1980); since then many more guidelines and recommendations, especially for public institutions, have followed (Hellinger & Bierbach, 1993; Kargl, Wetschanow, Wodak, & Perle, 1997; Schweizerische Bundeskanzlei, 1996; revised in 2009). Czech guidelines, however, were only published in 2001 (Valdrová, 2001; Valdrová, Knotková-Čapková, & Paclíková, 2010), and to our knowledge, there are no guidelines at all for Polish. In general, guidelines offer only recommendations and are not legally binding. In Austria, however, the equal opportunity law stipulates that job advertisements be phrased in a gender-fair way (Bundesministerium für Frauen und Öffentlichen Dienst, 2009; GIBG § 9, 2004) and companies can be fined if they do not comply.

Thus, languages can be used in ways that promote or impede gender equality (Sczesny, Formanowicz, & Moser, 2016). But the very structure of languages also seems to be related to societal gender equality: In a study by Prewitt-Freilino, Caswell, and Laakso,

countries with grammatical gender languages reached lower levels of general gender equality than countries with natural gender languages and genderless languages (Prewitt-Freilino, Caswell, & Laakso, 2012, who analyzed 134 countries with different language systems, controlled for geographic, religious, political, and developmental differences). In their study gender equality was assessed with the help of the World Economic Forum's Global Gender Gap Index (GGI; Hausmann, Tyson, & Zahidi, 2009). Although the level of gender equality in European countries on average is fairly high, there are pronounced differences between individual countries, such as Iceland (first rank) and Italy (rank 80). The study by Prewitt-Freilino and colleagues provides information on the correlation between language structure and achieved gender equality in different countries, but it tackles this issue on the level of the language system. However, countries with grammatical gender language vary considerably regarding their achieved gender equality. Therefore, it remains an open question, to what extent the level of gender equality in a country is related, for example, to the way its language is being used, i.e., to whether language use is more gender-fair or less so, and which factors might affect language use, such as language policies and/or specific features of language structure. Observing actual language use in a country can provide information about efforts to promote gender equality within the framework of a given language structure. The present study therefore investigates relations between achieved gender equality and actual language use in countries where the same type of language is spoken, namely grammatical gender languages. We opted for languages with grammatical gender as gender is particularly visible in these languages (Hellinger & Bußmann, 2001) and achieved gender equality tends to be comparatively low in the respective countries (Prewitt-Freilino et al. 2012).

Socio-Economic and Cultural Variations of Gender Equality in the Countries under Study

To investigate correspondences of gender equality and language use, we selected countries with different *levels of achieved gender equality*. As in past research (see Prewitt-

Freilino et al., 2012), we used the GGI as an indicator of gender equality (GGI; Hausmann et al., 2012). The GGI is based on statistical data on gender equality in different domains of life, including educational attainment, political empowerment, and economic participation. We selected two German-speaking countries with comparatively higher levels of gender equality, Switzerland (rank 10 on the GGI, Hausmann et al., 2012) and Austria (rank 20), as well as two Slavic-speaking countries, Poland (rank 53) and the Czech Republic (rank 73) with comparatively lower levels. Since the gender regimes in these Western and Eastern European countries have different histories and trajectories (Pascall & Lewis, 2004), we also had a closer look on egalitarian values in these countries:

First, we examined the *power-distance* dimension of cultural differences as defined in the Value System Module (Hofstede, 1980; Hofstede et al., 2010). The power-distance index measures egalitarian values using the acceptance of unequal power distribution in organizations and countries. Based on this criterion, rankings are available for 76 countries, among them the four countries included in the present study. The rankings of the four countries matched the levels of achieved gender equality specified in the GGI: While in Switzerland and Austria public acceptance of power differences and inequality was low (ranks 72 and 76, respectively, Hofstede et al., 2010, pp. 58), power differences and inequalities were found to be more readily accepted in the two Slavic-speaking countries (Czech Republic ranks 45/46 and Poland ranks 27-29).

Second, we found correspondences between *gender egalitarian values* as measured in the GLOBE study (comparison of the Eastern European cluster to the Germanic European cluster; House, Hanges, Javidan, Dorfman, & Gupta, 2004) with the GGI rankings of the countries under investigation. In contrast to these *gender egalitarian values*, *gender egalitarian practices*, that is, the perception of actual gender differences, showed a different pattern: managers from the Eastern European cluster perceived the practices in their countries to be more gender egalitarian than Germanic European managers. One reason may be that in

Eastern European countries inequalities are more taken for granted (reflected in higher values on the power-distance dimension), with the result that inequalities are perceived as smaller than in the Germanic European countries, although they are not (as shown by the GGI).

Finally, we consulted the World Values Survey (WVS, World Values Survey Association, 2016) and the European Value Survey (last wave 2008; EVS, 2016) which also address aspects of gender equality. The WVS measured the following attitudes: the right to work for women and men when jobs are scarce, the importance of university education for boys and girls, and the suitability of women and men as business executives or political leaders. For the countries under investigation data only exist for certain periods of time, and there is no data at all for Austria. In general, however, available data for the Czech Republic, Poland, and Switzerland indicate that support for male privileges has decreased over time. As for differences between countries, if any, male privileges received less support in Switzerland compared to Poland and the Czech Republic, which is in line with the GGI ranking. In the EVS, respondents were asked whether men have more right to a job than women when jobs are scarce. Interestingly, the expressed support of male privileges in times when jobs are scarce was quite similar in the four countries, less than 30% of respondents agreed (data from 2008; EVS, 2016).

Taken together, the differences in achieved gender equality—as indicated by the GGI, which guided our selection of countries—were generally matched by the presence of egalitarian values in these countries: The two German-speaking countries show higher levels of socio-economic gender equality (as measured by the GGI) than the two Slavic-speaking countries, they were also found to possess more (gender) egalitarian values. In other words, in both Eastern European countries "capitalist transition has eroded the Communist gender equality legacy" (Pollert, 2003, p. 332). However, equality values seem to increase and to converge in all four countries (World Values Survey Association, 2016). Nevertheless, it has to be emphasized that gender equality (e.g., equality in income) is far from accomplished

across Europe (Pascall & Lewis, 2004), a fact that indicates how deeply entrenched male power is and remains in European societies (Pollert, 2003). This makes the research on every aspect of factors related to gender equality – including linguistic factors – an important ongoing challenge.

## Linguistic Gender-Fairness in the Languages under Study

Different strategies can be pursued to reduce gender asymmetries in language: neutralization, feminization (Bußmann & Hellinger, 2003) and a context-dependent combination of the two (Schweizerische Bundeskanzlei, 2009). Neutralization means that gender-marked terms are replaced with gender-indefinite nouns, such as epicenes (i.e., forms with invariant grammatical gender which refer to female as well as male persons, e.g., osoba<sub>fem.</sub>, 'person' in Polish or Czech, jedinec<sub>masc.</sub>, 'individual' in Czech, or Fachkraft<sub>fem.</sub>, 'expert' in German) or the plural form of nominalized participles or adjectives (e.g., Studierende 'students [studying ones]' in German or vedouci 'leaders' in Czech), where there is no grammatical gender distinction. Feminization on the other hand consists of an explicit reference to women. Thus, feminine and masculine forms are used in combination whenever both genders could be concerned, e.g., German Elektrikerinnen und Elektriker '[female and male] electricians'; Polish nauczycielki i nauczyciele '[female and male] teachers'; Czech žadatelky a žadatelé '[female and male] applicant', or abbreviated forms (e.g., German Elektriker/in; Polish nauczyciel/ka; Czech žadatel/ka). For many grammatical gender languages, including German, Polish, and Czech, feminization has been suggested (Hellinger & Bußmann, 2003), and nowadays more often a combination of feminization and neutralization (Schweizerische Bundeskanzlei, 2009).

In addition to neutralization and feminization, a novel linguistic form occurs especially in job advertisements, namely the combination of a masculine job title with m/f for male/female, e.g., German *Geschäftsführer*<sub>masc.</sub> m/w, 'CEO m/f'. This pattern is used in several languages such as Dutch (Pauwels, 1998), Spanish (European Parliament, 2008), and

German (Bundesministerium für Frauen und Öffentlichen Dienst, 2009, Greve, Iding, & Schmusch, 2002, and Lujansky-Lammer, 2006).

Languages differ in the ease with which gender-fair language can be implemented. There are, for example, remarkable differences between German (Germanic language) and Polish or Czech (Slavic languages): It is fairly easy to derive feminine role nouns from masculine ones in German by adding the feminine suffix -in (e.g., Boxerin '[female] boxer' derived from Boxer<sub>masc</sub>. 'boxer') or by substituting the element -mann or -herr 'man' with its counterpart -frau 'woman' (e.g., Ratsfrau 'female member of the city council' as counterpart of Ratsherr 'male member of the city council'). That feminine and masculine personal nouns can be created relatively symmetrically may reflect the egalitarian culture in Germanspeaking countries (Hofstede, 1980; Hofstede et al., 2010). The efforts of promoting genderfair language over the past decades (Unesco, 1999, Schweizerische Bundeskanzlei, 1996, revised in 2009) are an additional sign of the importance of egalitarian cultural values in Switzerland and Austria. In Slavic languages it is more difficult to refer to women and men symmetrically (Koniuszaniec & Błaszkowa, 2003). In Polish, for example, feminine forms of certain role nouns refer to a lower status (e.g., profesor<sub>masc</sub>. designates a university professor, whereas profesorka, fem. is a high school teacher), coincide with diminutives (e.g., fizyczka, fem. 'female physicist' and 'little physics') or even denote objects (e.g., Polish drukarka, fem. derived from *drukarz*, masc. 'printer' can refer to a 'female printer' and a 'printing machine'). The difficulty in creating feminine equivalents of masculine role nouns is one reason why many Polish role nouns are available in the masculine only. Unlike Polish, both masculine and feminine forms are available for most Czech job titles, but some feminine forms are used infrequently (Čmejrková, 2003). These are indications that hierarchical cultural values are deep-rooted in Poland and the Czech Republic. Here, status differences are more accepted and can be expressed more openly (Hofstede, 1980; Hofstede et al., 2010).

To sum up, language use as a subtle mechanism can contribute to the maintenance of gender hierarchies (Ridgeway & Correll, 2012; Sczesny et al., 2016) and can thus support hierarchical structures in general (Hofstede, 1980; Hofstede et al., 2010). Guidelines for gender-fair language, on the other hand, aim at counteracting inequalities and can be seen as expressing lesser acceptance of (gender) inequalities. Apart from linguistic features and language policies, cultural values of egalitarianism and gender equality as well may influence the use of gender-fair language, as outlined above.

# Aims of the Study and Hypotheses

The present research aims to determine whether the use of gender-fair language is related to the language policies, levels of achieved gender equality and egalitarian cultural values in different countries as assessed in previous studies (e.g., Hausmann et al., 2012, Hofstede et al., 2010, Prewitt-Freilino et al., 2012). This question is examined on the basis of job advertisements in the four European countries whose linguistic and cultural characteristics have been outlined above: Czech Republic, Poland, Austria, and Switzerland. We focused on job advertisements because gender-fair language is of particular importance for girls' and boys' interest in a career as well as in personnel recruitment (Bem & Bem, 1973; Stout & Dasgupta, 2011; Vervecken et al., 2013; Horvath & Sczesny, 2015). Furthermore, job advertisements are cross-linguistically highly comparable in form and content. Since economic sectors tend to be gender-segregated, we analyzed advertisements from typically male, typically female and gender-neutral branches. With this investigation we aim to contribute to a deeper understanding of the interplay of gender-fair language and egalitarian values in general as well as gender equality in particular.

We expected gender-fair job titles to be more frequent than gender-specific ones in the two German-speaking countries, where an unequal distribution of power in general is less accepted and gender inequalities are smaller (egalitarian values, high level of socio-economic gender equality). For the Slavic-speaking countries we expected gender-specific job titles to

be more prevalent than gender-fair forms, in line with the openly expressed gender hierarchy in those countries (non-egalitarian values, low level of socio-economic gender equality) (Hypothesis 1).

In addition, we expected different frequencies of gender-fair job titles in different economic branches according to the respective gender proportions. In western societies, professions and economic branches still show considerable gender segregation (e.g., Eurostat, 2012; Bundesamt für Statistik, 2012): Across Europe constructional steel and metal work and transportation/logistics are male-dominated branches (over 70% male employees), for instance, while social care and healthcare are female-dominated (less than 30% male employees) and food services and insurance are gender-balanced (Eurostat, 2012). Language use may reflect these differences: Lujansky-Lammer (2006) observed that gender-specific forms (i.e., either masculine or feminine forms) were most frequent in Austrian job ads for gender-typical branches. This effect was markedly stronger for male-dominated than for female-dominated fields, which is not surprising as men have long outnumbered women in the paid workforce and as there is the tradition of using masculine forms as generics (Irmen & Steiger, 2005). We therefore assumed the frequency of linguistic forms to vary with the gender-typicality of the branches: Gender-fair job titles were expected to be more frequent in gender-balanced than in gender-typical branches, whereas gender-specific job titles were expected to be more frequent in the gender-typical branches than in the balanced one (Hypothesis 2).

The effect of gender-typicality of the branches should be weaker in the two Germanspeaking countries with their more egalitarian cultural values than in the two countries with Slavic languages (Hypothesis 3).

As described above, a range of different forms is considered gender-fair. One special case is the combination form, which sticks to the traditional use of masculine job title, but indicates that both men and women are included by adding m/f for male/female, e.g., German

Geschäftsführer masc. m/w, 'general manager m/f'. Linguistically, this form is a minimum solution and it is doubtful to what extent it can be considered gender-fair. To gain insights into the current use of the new combination form masculine + m/f in job advertisements, we explored its occurrence in comparison to other gender-fair forms. In line with Hypothesis 2 we expected the combination form to be more frequent in gender-typical branches (especially in the male-dominated branch) than in the gender-balanced branch (Hypothesis 4).

## Method

We analyzed online job advertisements from Switzerland, Austria, Poland, and the Czech Republic regarding the linguistic form of the job title. We included the three branches constructional steel and metal work (male-dominated, e.g., locksmith, construction engineer), restaurants & food services (gender-balanced, e.g., waiter, sous-chef), and healthcare (female-dominated, e.g., doctor, care worker). Available census data for these sectors documented the gender distribution within each branch (European Union: Eurostat, 2012; Switzerland: Bundesamt für Statistik, 2012) and showed that the gender proportions were comparable in the countries under investigation. Furthermore, the selected branches were equally representative in the four countries, in that they comprised 2-7% of all employees in each country (Eurostat, 2012; Bundesamt für Statistik, 2012); all branches included low-status jobs as well as high-status jobs. Information on gender equality and gender distributions in the four countries is presented in Table 1.

For the sampling of job advertisements we used the job search engine *Careerjet*, which is available in all four countries (i.e., careerjet.ch, careerjet.at, careerjet.pl, careerjet.cz). This search engine provides a list of all job advertisements advertised online and thus covers a large variety of job offers (43,240 job ads in Switzerland; 32,389 in Austria; 70,547 in Poland; and 51,216 in the Czech Republic at the time of our study). The use of the same webpage allowed for maximum comparability between countries. In each branch the total number of job advertisements available was over 1,000 (ranging between 1,142 for

constructional steel and metal work in Austria and 8,049 for restaurants & food services in Austria). In June 2012 we randomly selected and downloaded 120 job advertisements from each of the three branches for each of the four countries, which yielded a total of 1,440 job advertisements. In the Swiss sample only German-language job advertisements were analyzed. We developed a coding form which provided linguistic categories for classifying the job titles based on grammatical form and gender-fairness. The two gender-specific categories were: masculine form and feminine form; the two gender-fair categories were: combination form (masculine + m/f) and other gender-fair forms (gender-neutral and masculine-feminine word pairs; Table 2 provides examples of these categories in the different languages). Two independent raters coded the linguistic form of the job titles. Inter-rater reliability was found to be high for all four countries: Kappa = 0.874 (p < 0.001), 95% CI (0.823, 0.925) for Czech job titles, Kappa = 0.861 (p < 0.001), 95% CI (0.798, 0.923) for Polish job titles, Kappa = 0.994 (p < 0.001), 95% CI (0.988, 1.000) for Austrian job titles, and Kappa = 1.000 (p < 0.001), i.e. complete agreement between the two raters, for Swiss job titles. Five job advertisements contained no clearly defined job title. Therefore, only 1,435 job ads were included in the analyses.

#### Results

All frequencies and percentages of the linguistic forms occurring in job advertisements from the four countries are presented in Table 3, Figure 1 and Figure 2, differentiated for branches. To answer our research questions, we calculated analyses comparing genderspecific (i.e., masculine or feminine) job titles to gender-fair forms (combination form masculine m/f or other gender-fair forms).

# The Use of Gender-Specific and Gender-Fair Forms across Cultures and Economic Branches

We calculated a log-linear analysis with the factors culture (German-speaking, Slavic-speaking), branch (female-dominated, gender-balanced, male-dominated), and language form

(gender-specific, gender-fair) to investigate differences in the use of gender-specific versus gender-fair forms between countries and branches. The log-linear analysis revealed a significant interaction (country x branch x language form),  $X^2$  (6) = 82.944, p < .001.

To test Hypothesis 1, we calculated a Chi-square test comparing the German-speaking countries (Switzerland and Austria combined) to the Slavic-speaking countries (Poland and Czech Republic combined). In line with the hypothesis, gender-fair job titles were more frequent than gender-specific job titles in the German-speaking countries (gender-fair: 79%, gender-specific: 21%), but less frequent than gender-specific job titles in the Slavic-speaking countries (gender-fair: 13%, gender-specific: 87%),  $X^2$  (1) = 385.64, p < .001. The odds ratio  $(OR)^1$  showed that gender-fair in relation to gender-specific job titles were 17 times more likely to occur in German-speaking countries compared to Slavic-speaking countries.

To test Hypothesis 2, we first calculated a Chi-square test, comparing the use of gender-fair and gender-specific job titles between branches over all countries. This revealed a reliable association between linguistic form of the job title and branch,  $X^2$  (2) = 30.63, p < .001. In line with Hypothesis 2, gender-fair forms were more frequent than gender-specific forms in the gender-balanced branch (i.e., foodservices: 43% gender-specific forms, 57% gender-fair forms). Again in line with Hypothesis 2, gender-specific forms prevailed in the male-dominated branch (i.e., constructional steel and metal work: 62% gender-specific forms, 38% gender-fair forms).

Surprisingly, gender-fair forms were more frequently used than gender-specific forms in the female-dominated branch (i.e., healthcare: 48% gender-specific forms, 52% gender-fair forms). Odds ratios showed that gender-fair in relation to gender-specific job titles were more than 1.5 times more likely to be used in the gender-balanced (*OR* 2.2) and also in the female-

<sup>&</sup>lt;sup>1</sup> That is, German-speaking countries [gender-fair forms / gender-specific forms] / Slavic-speaking countries [gender-fair forms / gender-specific forms]

dominated (*OR* 1.83) branch than in the male-dominated branch while the female-dominated and the gender-balanced branch did not significantly differ from each other (*OR* 1.2).

To address Hypothesis 3 we analyzed the specific patterns within each country. Chisquare tests revealed significant interactions between branches and language use in all countries, for Poland  $X^2$  (2) = 11.54, p = .003, for the Czech Republic  $X^2$  (2) = 90.32, p < .001, Switzerland  $X^2$  (2) = 33.97, p < .001, and Austria  $X^2$  (2) = 6.58, p = .037. We analyzed frequencies and calculated odds ratios, as shown in Tables 3 and 4 as well as Figure 2. For the two Slavic-speaking countries frequencies showed that gender-specific job titles were highly frequent in all branches, but much more so in Polish than in Czech. Gender-fair job titles, which were much more frequent in Czech than in Polish, occurred more often in the female-dominated and the gender-balanced branch than in the male-dominated branch in both countries. In the two German-speaking countries, gender-fair job titles were more frequent in the female-dominated and the gender-balanced branch than in the male-dominated one. However, a striking difference occurred with respect to gender-specific forms: while in Switzerland gender-specific forms were more frequent in the male-dominated branch than in the female-dominated and the gender-balanced branch, gender-specific job titles generally were quite rare in Austrian job ads.

#### Use of the Combination Form Masculine + m/f

To test Hypothesis 4, we compared the frequency of combination forms to that of other gender-fair forms by country and branch. As combination forms were not used in the two Slavic-speaking countries, we conducted a log-linear analysis with the factors country (Switzerland, Austria), branch (female-dominated, gender-balanced, male-dominated), and language form (masculine + m/f, gender-fair). The analysis revealed significant main effects for country  $X^2$  (1) = 10.45, p = .001, branch  $X^2$  (2) = 6.34, p = .042 and language form  $X^2$  (1) = 142.89, p < .001, as well as a significant interaction (branch x language form),  $X^2$  (2) = 47.94, p < .001, whereas the 3-way interaction was not significant. We analyzed patterns of

usage in the different branches for each country. Chi-square tests for Switzerland,  $X^2$  (2) = 13.26 p = .001, and for Austria,  $X^2$  (2) = 35.88, p < .001, revealed significant differences between the branches. To examine the specific patterns within each country we analyzed frequencies and calculated odds ratios, as shown in Tables 3 and 4 as well as Figure 2. In line with Hypothesis 4, it was more than twice as likely that the combination form rather than some other gender-fair form was used in the male-dominated branch (but not in the female-dominated branch) compared to the gender-balanced branch in both German-speaking countries.

#### **Discussion**

Our study is the first to compare the use of gender-fair language in job advertisements in countries with egalitarian cultural values and high levels of gender equality, namely Switzerland and Austria (both German-speaking), to its use in countries with hierarchical cultural values and lower levels of gender equality, Poland and Czech Republic (both with Slavic languages).

As predicted in Hypothesis 1, our results suggest that gender-fair language is more frequently used in countries with a high level of gender equality (i.e., Switzerland and Austria) than in countries with lower levels of gender equality (i.e., Poland and Czech Republic; GGI; Hausmann et al., 2012). These differences in the socio-economic status of women and men correspond mostly to cultural differences in egalitarian values (*power distance*, Value System Module; Hofstede et al., 2010; *gender egalitarian values, GLOBE*; House, Hanges, Javidan, Dorfman, & Gupta, 2004; World Values Survey Association, 2016; EVS, 2016) and differences in the advancement of gender-fair language (Hellinger & Bußmann, 2003). As for the linguistic forms of job titles used in each country, we observed the following patterns: In Switzerland gender-fair forms were most prevalent but gender-specific forms as well were frequently used (about one third of the cases). The predominance of gender-fair forms in Switzerland can be explained with the fact that language guidelines

have been promoting gender-fair language for about 20 years (e.g., Schweizerische Bundeskanzlei, 1996, 2009), a fact, which in turn reflects the egalitarian values held in this country. In Austria we found mostly gender-fair job titles whereas gender-specific forms were very rare. The high frequency of gender-fair job titles in Austrian job advertisements can plausibly be linked to the equal opportunity law, which demands the gender-fair phrasing of job advertisements (Bundesministerium für Frauen und Öffentlichen Dienst, 2009; GIBG § 9, 2004). As Austrian companies can be fined for advertising jobs in gender-specific wording (i.e., with a masculine or a feminine form only), there is considerable pressure to use gender-fair language. Thus, the equal opportunity law seems to be an influential means of implementing gender-fairness in language.

In Poland we found mostly gender-specific (above all masculine) job titles and very few gender-fair forms. Cultural features such as power hierarchies (Hofstede, 1980; Hofstede, et al., 2010) and language features (Koniuszaniec & Blaszkowa, 2003) such as the difficulty of creating feminine counterparts of masculine job titles in Polish result in a language use that strongly reflects traditional gender roles. As we do not know of any guidelines for gender-fair language in Poland, the small number of gender-fair job titles in Polish job ads does not come as a surprise. In the Czech Republic gender-specific forms predominated, but there was also a fair share of gender-fair forms (about one third). This may be due to the fact that feminine counterparts of masculine forms are at least available in Czech (Valdrová, 2001; Valdrová et al., 2010). But although gender-fair forms exist or can be created in Czech, they do not seem to be widely used. Again this may be explained with the higher acceptance of hierarchies and inequalities in this country (Hofstede, 1980; Hofstede, et al., 2010).

In line with Hypothesis 2 and with earlier research (Lujansky-Lammer, 2006) we found that jobs from gender-balanced branches were more often advertised in gender-fair than in gender-specific forms, whereas in the male-dominated branch more gender-specific (mostly masculine) than gender-fair forms were used. Contrary to our hypothesis gender-fair and

gender-specific forms were almost equally frequent in the female-dominated branch.

However, feminine forms, although generally infrequent, were most prevalent in the female-dominated branch. Thus, language use in the investigated branches indeed followed base rates of women and men working in the respective branches and their gender-typicality.

As predicted in Hypothesis 3, this pattern was more pronounced in the Slavic-speaking countries than in the German-speaking ones, due to differences in language policies and gender equality. In the Slavic-speaking countries gender-fair forms were most frequently used in the gender-balanced branch and less in the gender-typical branches, where more gender-specific forms were used compared to the gender-balanced branch. This linguistic usage mirrors gender distributions in the different branches (Eurostat, 2012). In the German-speaking countries, gender-fair forms were frequent in the female-dominated as well as in the gender-balanced branch, but not in the male-dominated branch, where gender-specific forms predominated. This is notably different from the Slavic-speaking countries. Instead of gender-specific forms, gender-fair forms were most frequent in the female-dominated branch.

Finally, we analyzed the use of the combination form masculine + m/f. This form may be considered the weakest variant of gender-fair language, but it offers an easy and effortless way of indicating that a job title refers to both men and women. The combination form occurred only in the two German-speaking countries and was completely absent in job ads from the two Slavic-speaking countries. In line with Hypothesis 4, the combination form was particularly frequent in the male-dominated branch in both German-speaking countries, whereas other gender-fair forms were more frequent in the female-dominated and the gender-balanced branch. The differences between branches were larger in Austria than in Switzerland, as can be seen in Table 4. One reason may be that in Austria the combination form is a simple possibility of complying with the gender equality law in male-dominated fields (Bundesministerium für Frauen und Öffentlichen Dienst, 2009). In a way, these results

mirror the pattern in the Slavic-speaking countries: Masculine forms still prevail in the maledominated branch, even if combined with a hint that both, women and men, are addressed.

The systematic differences in frequencies of linguistic forms, between countries on the one hand and occupational branches on the other hand, suggest that language use reflects cultural values regarding stratification and gender equality as well as ideas about typical gender roles. The existence of guidelines and legal regulations may promote the use of gender-fair language, but legal regulations in particular may also foster the invention of easy solutions such as the combination form. Nevertheless, this strategy may be a first step towards gender-fair forms in languages where the derivation of feminine job titles is difficult (such as Polish).

## **Theoretical and Practical Implications**

The findings reported here are highly relevant for future research on gender and language. They show that not only language structure (i.e., the existence or absence of grammatical gender; Prewitt-Freilino et al., 2012) is associated with levels of achieved socio-economic gender equality but language use as well. The high proportion of gender-fair forms in the two German-speaking countries suggests that the efforts to promote gender-fair language in the past decades (e.g., Schweizerische Bundeskanzlei, 1996; revised in 2009) have been successful. The high prevalence of gender-fair forms in Austrian job advertisements in particular shows that legal regulations are effective (Bundesministerium für Frauen und Öffentlichen Dienst, 2009; GIBG § 9, 2004). Gender-fair language as found in the female-dominated and the gender-balanced branch in the two German-speaking countries may help to counteract the gender-typicality of professions and lead to a more balanced visibility of women and men (Stahlberg et al., 2007) and may enhance equal opportunities in hiring situations (e.g., Stout & Dasgupta, 2011). If gender-fair forms also gain ground in male-dominated branches in the future these effects may be even more pronounced. But our results also show how difficult it is to challenge the existing gender hierarchy: It is exactly in the

male-dominated branch that gender-specific forms are still common and equal visibility is not achieved. Previous research has revealed that gender-fair language is of particular importance in male-dominated fields (Vervecken et al., 2013); the current linguistic usage may thus contribute to perpetuating gender stereotypes (Eagly, 1987; Bosak et al., 2012) and gender hierarchies (Ridgeway & Correll, 2004).

That the vast majority of jobs are still advertised with gender-specific job titles in the two Slavic-speaking countries, on the other hand, indicates that there is still a long way to go in these countries. As mentioned before, this seems to be linked to a higher acceptance of inequalities (Hofstede, 1980; Hofstede, et al., 2010). Moreover, gender-fair language may not be immediately beneficiary in these speech communities: Speakers of Polish, for example, were found to devalue female applicants who introduced themselves with feminine rather than masculine job titles, and were less likely to hire them (Formanowicz, Bedynska, Cisłak, Braun, & Sczesny, 2013). Hence (female) speakers' wish to belong to the high-status group may outweigh their wish to achieve more (gender) equality. Gender-neutral forms and the combination form may therefore be interesting variants of gender-fair wording for Slavic languages. In all, it seems to depend on the cultural and linguistic background whether an increased visibility of women and a higher linguistic salience of gender have favorable or unfavorable consequences for women. On the other hand, language use is malleable and feminine forms may lose negative connotations with increasing use. Therefore, raising attention for gender-fairness in language and developing guidelines could be of great importance.

To sum up, language use reflects gender (in)equality and also contributes to its maintenance or reduction (Semin, 2000). The wording of job advertisements in particular may serve as an institutional-level factor which promotes gender (in)equality (Ridgeway & Correll, 2004). Linguistic inequalities seem to be more pronounced in countries with

hierarchical cultural values than in countries with egalitarian cultural values and also more pronounced in typically male compared to typically female and gender-neutral branches.

#### Limitations and future directions

Obviously, our method does not allow for causal inferences about the relation between language use, egalitarian cultural values and gender equality or about the way linguistic, cultural and legal influences interact. Also, our research did not directly measure levels of egalitarian cultural values and gender equality, but relied on differences between the four countries that were documented in prior research. Therefore, our findings concerning the use of gender-fair and gender-biased language may not be directly related to these societal differences. To gain more insight into the interplay between language, social structure and values, future research should investigate causal relationships between gender-fair language and gender equality or cultural values in different societies, for instance, with the help of longitudinal studies. Furthermore, the relation between gender-fair language use and egalitarian values should not only be investigated on a national level using archival data, but also on the level of individual language behavior, in order to complement our findings with behavioral data.

It should also be kept in mind that the present findings are limited to two Slavic-speaking and two German-speaking European countries (grammatical gender languages).

Thus, research on other languages and countries is needed to broaden the scope of our findings. Especially countries with substantially different levels of human development (i.e., many African and Asian countries; Human Development Index, United Nations Development Programme, 2014) differ markedly from the current sample.

The branches selected for our study represent gender-typical and neutral areas of the job market. But again, our results should be validated by examining further branches. And it has to be kept in mind that while we considered gender distributions within the branches, we did not control for other features of the jobs advertised such as job status, private/public

sector, or wages. We thus analyzed the association of language form and gender-typicality on a macro-level and discovered general trends pertaining to entire economic sectors using general indicators published in previous research. Future studies could analyze the influence of specific job features and could also include further features of job advertisements (such as depictions and job descriptions) in the analysis.

Due to the lack of earlier findings on the combination form masculine + m/f, we could only offer exploratory analyses. More research is needed to fully understand when and why these forms are employed and how they are interpreted. This is of particular importance, as combination forms have been recommended for job advertisements in several countries (e.g., Dutch, Pauwels, 1998, Spanish, European Parliament, 2008, and German, Bundesministerium für Frauen und Öffentlichen Dienst, 2009, Greve et al., 2002; Lujansky-Lammer, 2006).

#### Conclusion

The present study has revealed differences in the use of gender-fair language in job advertisements between countries with egalitarian and hierarchical cultural values as well as between branches with different proportions of female employees. Cultural factors (such as egalitarian values, levels of achieved gender equality, a tradition of feminist language critique or the lack of such a tradition, Bußmann & Hellinger, 2003) apparently interact with linguistic features (e.g., the difficulty of creating feminine counterparts to masculine personal nouns in Poland, Koniuszaniec & Blaszkowa, 2003), legal factors (such as the Austrian equal opportunity law), or the proportion of female employees (more gender-fair forms in branches with numerous female employees). Our results suggest that political movements and legal regulations may indeed contribute to promoting gender-fair language in job advertisements, an effect which, in turn, may help to achieve gender equality in recruitment processes.

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Table 1

Country information on achieved gender equality and percentage of male employees, in total and according to branches.

				% male employees			
		Power distance	GGI 2012		Female-dominated	Gender-balanced	Male-dominated
Country	Language	(Rank)	(Rank)	Total	branch	branch	branch
Switzerland	German <sup>a</sup>	26 <sup>b</sup> (72)	.77 (10)	55%	22%	45%	81%
Austria	German	11 (76)	.74 (20)	53%	23%	41%	84%
Poland	Polish	68 (27-29)	.70 (53)	54%	19%	32%	85%
Czech Republic	Czech	57 (45-46)	.68 (73)	57%	22%	45%	79%

*Note*. Power distance is a dimension of national culture as described by Hofstede et al. (2010). Scores range from 0 to 100. 76 countries are ranked according to the acceptance of unequal power distribution.

GGI is the Global Gender Gap Index annually published by the World Economic Forum (Hausmann et al., 2012). Equality scores range from 0 to 1. 135 countries are ranked according to the extent of gender equality achieved.

<sup>a</sup>German is the most widely spoken language in Switzerland; the statistics include employees with other native languages (i.e., French, Italian, Rhaeto-Romanic).

<sup>b</sup>German-speaking sample. The French-speaking sample showed a higher acceptance of power distance (70, rank 22-25).

Table 2

Coding categories and examples for each language.

Code	English examples	German examples	Polish examples	Czech examples
Masculine	waiter	Kellner	kelner	číšník
Masculine + m/f	waiter m/f	Kellner m/w	kelner m/k	číšník m/z
Gender-fair	waiter/waitress	Kellner/Kellnerin	kelner/kelnerka	číšník/číšnice
Feminine	waitress	Kellnerin	kelnerka	číšnice

*Note*. Gender-fair are all forms that address women and men equally, either by not differentiating for gender or by combining a masculine and a feminine form.

Table 3

Frequencies (and percentages) of the different forms of job titles by country and branch

	Gender-specific		Gender-fair		
Countries	Masculine	Feminine	Masculine + m/f	Other gender- fair	
Branch	n (%)	n (%)	n (%)	n (%)	
Switzerland					
Female-dominated	3 (3)	13 (11)	14 (12)	90 (75)	
Gender-balanced	34 (28)	5 (4)	17 (14)	64 (53)	
Male-dominated	57 (48)	0 (0)	23 (19)	38 (32)	
Total	94 (26)	18 (5)	54 (15)	192 (54)	
Austria					
Female-dominated	4 (3)	2 (2)	14 (12)	99 (83)	
Gender-balanced	17 (14)	1 (1)	25 (21)	77 (64)	
Male-dominated	12 (10)	0 (0)	52 (43)	56 (47)	
Total	33 (9)	3 (1)	91 (25)	232 (65)	
Poland					
Female-dominated	96 (80)	18 (15)	0 (0)	6 (5)	
Gender-balanced	84 (70)	23 (19)	0 (0)	13 (11)	
Male-dominated	119 (99)	0 (0)	0 (0)	1 (1)	
Total	299 (83)	41 (11)	0 (0)	20 (6)	
Czech Republic					
Female-dominated	76 (64)	17 (14)	0 (0)	25 (21)	
Gender-balanced	40 (33)	3 (3)	0 (0)	77 (64)	
Male-dominated	108 (90)	0 (0)	0 (0)	12 (10)	
Total	224 (63)	20 (6)	0 (0)	114 (32)	
Overall					
Female-dominated	179 (38)	50 (11)	28 (6)	220 (46)	
Gender-balanced	175 (36)	32 ()	42 (9)	231 (48)	
Male-dominated	296 (62)	0 (0)	75 (16)	107 (22)	
Total	650 (45)	61 ()	145 (10)	558 (39)	

*Note.* n=number of job ads in the specific category

Table 4

Odds ratios

	Female-dominated by gender-balanced branch	Gender-balanced by male-dominated branch	Female-dominated by male-dominated branch
Ratio of the odds (gender-fair forms / masculine forms) <sup>a</sup>			
Switzerland	3.1	1.9	6.1
Austria	3.3	0.6	2.1
Poland	0.4	14.5	6.3
Czech Republic	0.2	16.1	2.4
Ratio of the odds (gender-fair forms / combination forms) <sup>b</sup>			
Switzerland	1.7	2.3	3.9
Austria	2.3	2.9	6.6

*Note*. This table presents odds ratios comparing language use between branches by country.

<sup>&</sup>lt;sup>a</sup>Odds ratios comparing gender-fair and masculine forms between branches by country.

<sup>&</sup>lt;sup>b</sup>Odds ratios comparing gender-fair and combination forms between branches by country.

<sup>&</sup>lt;sup>c</sup>Odds ratios comparing combination and masculine forms between branches by country.

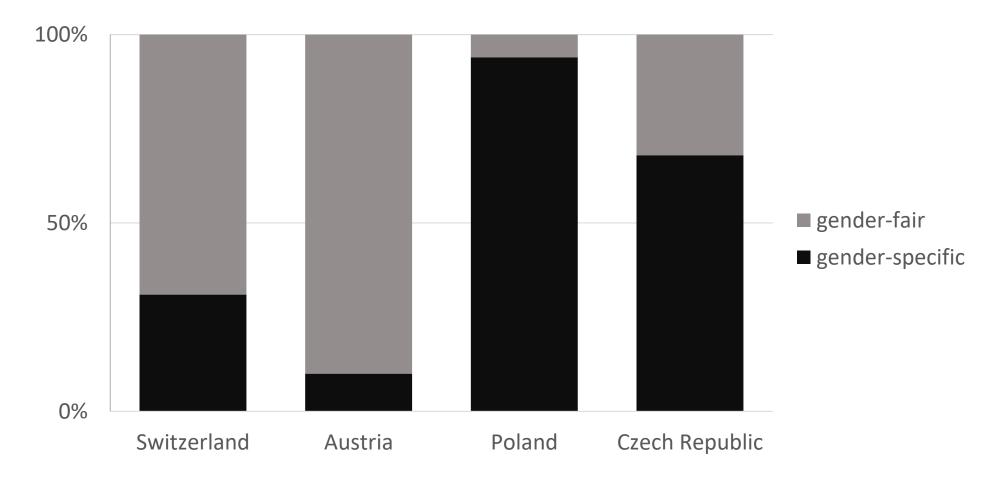
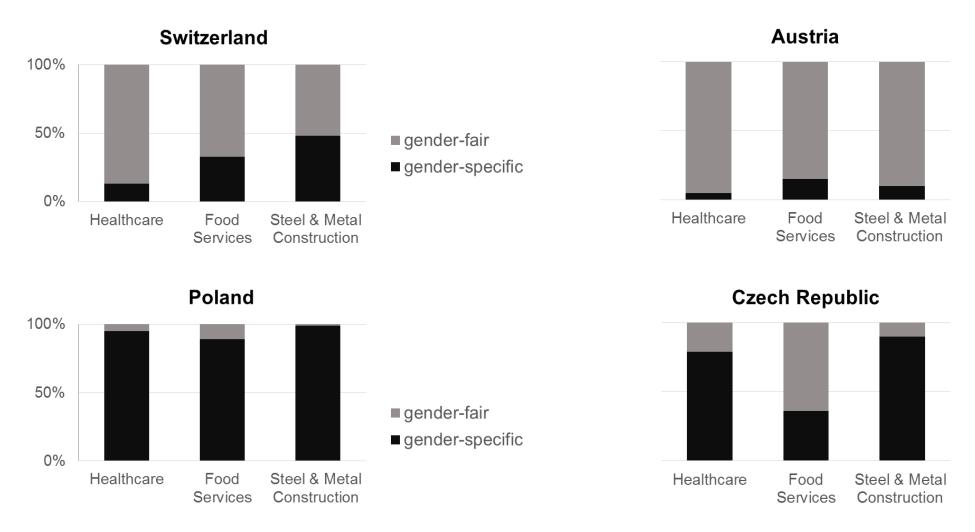


Fig. 1 Forms of Job Titles by Country. Forms of gender-fair and gender-specific job titles used in job ads, adding up to 100% for each country.



**Fig. 2** Forms of Job Titles by Country and Branch. Forms of gender-fair and gender-specific job titles used in the three branches in each country, adding up to 100%.

**Manuscript 2** | The role of social class in the use of gender-fair language - An analysis of Polish and German job titles

Lea Hodel <sup>1</sup>, Magdalena Formanowicz <sup>2</sup>, Agnieszka Piatraszkiewicz <sup>1</sup>, & Sabine Sczesny <sup>1</sup>

<sup>1</sup> University of Bern, Department of Psychology, Fabrikstrasse 8, 3012 Bern, Switzerland
 <sup>2</sup> SWPS University of Social Sciences and Humanities, Department of Psychology, Chodakowska
 19/31, 03-815 Warszawa, Poland

#### Authors' Note

Correspondence concerning this article should be addressed to Lea Hodel, University of Bern, Department of Psychology, Fabrikstrasse 8, 3012 Bern, Switzerland. E-mail: <a href="mailto:sabine.sczesny@unibe.ch">sabine.sczesny@unibe.ch</a>.

#### **Declarations**

Part of the research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 237907 (Marie Curie ITN, Language, Cognition, and Gender) and by the SCIEX fellowship granted to the second author by the Rectors' Conference of Swiss Universities.

The authors have no competing interests to declare that are relevant to the content of this article.

The data that support the findings of this study are available from the corresponding author upon request.

#### **Abstract**

Past research has found that gender-fair language is more commonly used in egalitarian cultures. People in middle-class communities endorse not only more egalitarian values but also have stronger beliefs that social change is possible than people in working-class communities. As such, gender-fair language may be demanded more actively and therefore also used more often for middle-class professions than working class professions. Two studies therefore investigated the use of feminine and gender-fair job titles for working vs. middle class professions in two grammatical gender languages, namely feminine job titles in Polish corpus texts (Study 1) and gender-fair job titles in Swiss German job advertisements (Study 2). Results showed that feminine and gender-fair job titles were indeed more often used for middle- than for working-class professions in both countries. These findings document the need for taking social class into account in future language research as well as in the implementation of language reforms.

Keywords: grammatical gender, gender-fair language, social class, egalitarian values

# The role of social class in the use of gender-fair language -

## An analysis of Polish and German job titles

The common use of masculine language forms (nouns and pronouns) to refer to women and men and to persons with unknown gender—so called masculine generics—fails to represent both genders equally (Stahlberg et al., 2007). Instead, speakers may visualize and recall mostly male exemplars, thereby perpetuating an androcentric bias (Bailey & LaFrance, 2017) and contributing to the discrimination of women (Sczesny et al., 2016). As language plays an important role in perpetuating cultural values and practices and thus also cultural inequalities (Hollander & Abelson, 2014), language reforms have been initiated by feminist linguists to counteract effects of gender discrimination imposed through masculine generics (Bußmann & Hellinger, 2003). The promotion of gender-fair language (GFL; also called "non-sexist language", UNESCO, 1999) aims at reforming language in a way that it represents both genders symmetrically (see Hellinger & Bußmann, 2001, 2002, 2003).

Past research has documented that the success of such language reforms promoting GFL depend on the structure of the respective language (Sczesny et al., 2016) as well as on cultural differences between speech communities (Spolsky, 2007). One factor that might influence the successful promotion of GFL are social values, as in more egalitarian countries GFL is better implemented than in less egalitarian countries (Hodel et al., 2017). Accordingly, higher levels of egalitarian values in middle-class communities (Carvacho et al., 2013; Kalmijn & Kraaykamp, 2007) accompanied by stronger beliefs that social change is possible (Fernandez-Ballesteros et al., 2002) might result in a more successful implementation of GFL in middle- than in working-class communities. Social class differences in the promotion of GFL, together with other factors, may perpetuate gender discrimination in working-class jobs. Indeed, the contribution of male biases in job advertisements for working-class professions to women's discrimination in these jobs is supported by the seminal study by Bem and Bem (1973). This study revealed that when a typically male profession of low status was advertised in the masculine form, only 5% of women were interested in applying, but when

the same profession was framed in a gender-neutral way, 25% of women were interested in applying, despite the strong male typicality of the job ('telephone lineman'). Building on these findings, a recent study showed that gender discrimination is particularly pronounced for working-class professions dominated by one gender and advertised in a stereotypical way (Yavorsky, 2019). The use of masculine forms in male-typed jobs advertisements are particularly problematic, as gender segregation is more pronounced for working-class than for middle-class professions (England, 2020; Hegewisch & Hartman, 2014) and gender discrimination is more pronounced in highly segregated fields (Adamovic & Leibrandt, 2022).

The present research therefore investigated whether feminine and gender-fair job titles are used more often for middle- than working-class professions. This question was examined in two grammatical gender languages, namely in Polish and German, by analyzing the use of feminine job titles in Polish corpus texts (1999-2009) and the use of gender-fair job titles (such as pair-forms explicitly addressing women and men) in Swiss German job advertisements (listed on an online job search engine). The following subsections describe how GFL can contribute to the reduction of social discrimination, how the promotion of GFL can be successful, and why the promotion of GFL may differ for middle- and working-class professions.

## Gender-Fair Language and Social Discrimination

GFL can contribute to the reduction of discrimination (Sczesny et al., 2016) by correcting for the fact that language is asymmetrical in the way it represents and addresses women and men. Although generically intended, masculine generics represent a male bias and evoke associations of predominantly male exemplars (Stahlberg et al., 2007). 'False masculine generics' are prevalent in many languages and have similar effects of male bias in many countries (Formanowicz & Hansen, 2022). This leads to a higher usage of masculine forms which substantiates the association of masculine forms with male exemplars (Gabriel et al., 2018) the androcentric bias of men as the typical human (Bailey & LaFrance, 2017). When masculine forms are used in job advertisements or in other phases of recruitment, women are less likely to apply or to be considered for a position (Bem & Bem,

1973; Horvath, & Sczesny, 2015). For that reason, the use of GFL is now widely recommended for both official and scientific texts (e.g., American Psychological Association, 2009; European Commission, 2008; UNESCO, 1999).

Two principal strategies—neutralization and feminization—can be deployed to make a language gender-fair (Formanowicz & Hansen, 2022; Hellinger, 1990). In natural gender languages with few gender-differentiating forms like English, there is a tendency towards neutralization. Here, gender-unmarked forms such as *police officer* or *chairperson* are used to substitute the male-biased *policeman* or *chairman*. In grammatical gender languages with more systematic gender differentiations like German and Polish, feminization is suggested. Here, feminine forms are used to make female referents visible (Gabriel et al., 2018). To designate female job holders, feminine job titles such as German *Ingenieurin* (fem.) 'female engineer' or Polish *lekarka* (*fem.*) 'female doctor' have been introduced; these feminine forms are also be used in gender-fair pair-forms such as German *Schneiderinnen* (fem.pl) *und Schneider* (masc.pl) or Polish *krawcowe* (*fem.pl*) *i krawcy* (*masc. pl*) 'female and male tailors' (for feminization in German: Bußmann & Hellinger, 2003; and in Polish: Koniuszaniec & Blaszkowska, 2003).

The use of GFL has been found to increase the cognitive availability of feminine exemplars of person categories (Gygax et al., 2008). When women were explicitly mentioned, in a pair form for instance (like German *Musikerinnen* (fem.pl) *und Musiker* (masc.pl) 'female and male musicians), female exemplars of the category became more readily available (Stahlberg et al., 2001). Accordingly, GFL can increase women's chances in the context of hiring and employment. When gender-fair job titles were used in a job advertisement, recruiters' male-biases diminished (Horvath & Sczesny, 2015). When job advertisements were framed in a stereotypically masculine way, women were found to be less interested in applying (Bem & Bem, 1973); however, when the wording of the advertisement was unbiased (i.e., gender-fair), women were more interested in applying. Similarly, when confronted with the generic pronoun *he* in a mock job interview, women felt significantly more negative emotions and less intention to aim for, apply for, and pursue the job than women presented

with gender-fair forms (i.e., word-pairs such as *he or she* or gender-neutral expressions such as *one* or *employee*, Stout & Dasgupta, 2011). Taken together, past research underlines the importance of GFL use to reduce social discrimination of women in professional contexts.

## The Promotion of Gender-Fair Language

The promotion of GFL depends on the structure of the respective language. Grammatical gender languages like Polish and German are strongly gender marked making the introduction of GFL complex in these languages (Sczesny et al., 2016). For instance, in Polish feminine job titles are difficult to build and thus do not exist for all professions due to gender asymmetries in language structure (Koniuszaniec & Blaszkowska, 2003). More specifically, some feminine forms are associated with diminutive forms, such as matematyczka (fem) 'female mathematician' (or 'little mathematics'), others with an asymmetry in meaning, such as sekretarka (fem) 'female secretary' (in the sense of 'personal assistant', whereas the masculine form sekretarz refers to a high governmental function). Yet, other forms in Polish carry the meaning 'wife of' rather than 'female job holder' such as krawcowa (fem) 'female tailor' or 'wife of a tailor'. In addition, the Polish suffix -ka is not only used for feminine job titles (such as nauczyciel-ka 'female teacher' from masculine nauczyciel 'teacher'), but also for inanimate objects, deriving marynar-ka 'jacket' from masculine marynarz 'sailor'. These aspects restrict the creation and use of feminine job titles in Polish. Further, the use of feminine job titles can have detrimental effects by resulting in negative evaluations of women applying for a job when using a feminine job title (Formanowicz et al., 2013; Formanowicz & Sczesny, 2016). In contrast to the Polish language, in German feminine forms can be built easily by adding the suffix -in to the masculine form, such as Ingenieur-in (fem) 'female engineer' or by neutralizing a masculine term, such as *Lehrpersonen* 'teachers' instead of *Lehrer* 'male teachers'. In the latest version of the official German Dictionary masculine as well as feminine forms for all professional job titles are listed (Dudenredaktion, 2020).

Until 2019, no GFL guidelines existed for Polish, despite feminine forms already being used in practice. In German-speaking countries the implementation of GFL had already been discussed by

the late 1970's (Trömel-Plötz, 1978) and GFL guidelines have been introduced in many domains of German-speaking countries in recent decades (e.g., Hellinger & Bierbach,1993; Schweizerische Bundeskanzlei,1996; revised in 2009). For instance, in Switzerland, almost all universities and governmental institutions have guidelines and specific regulations for the use of GFL (e.g., University of Bern, latest version 2017; City of Zurich, specific regulations on formulation already 1996, latest revision 2022). In Austria, organizations are fined when they do not advertise jobs in a gender-fair way (Gleichbehandlungsgesetz, 2004) and consequently, Austrian job advertisements have been mostly written in GFL and the use of GFL in job advertisements has been significantly higher than in Switzerland (90% vs. 69%; Hodel et al., 2017). In Germany, guidelines were transferred into a binding law including equal treatment in job advertisements in 1998, resulting in almost 80% of job advertisements using GFL by 2003 (Hellinger, 2004). Taken together, the promotion of GFL has been more successful in countries in which formal regulations exist and non-compliance has negative consequences (for an overview on the effectiveness of interventions and policies see Sczesny et al., 2016).

#### The Promotion of Gender-Fair Language for Middle- and Working-Class Professions

Occupational status is a prominent indicator of people's social class (Kraus et al., 2011). According to international classification systems like ISCO (International Standard Classification of Occupations, International Labour Organization, 2012) or ESeC (European Socio-economic Classification Scheme, Wirth & Fischer, 2008) professions can be grouped together based on socio-economic status. Working-class professions such as routine workers and lower technicians, do not require higher education and are related to lower social status and lower salaries, whereas middle-class professions such as managers and professionals require higher education and are related to higher social status and higher salaries.

The different economic and social contexts middle- and working-class people are exposed to contribute to the considerably different cultures of these communities (Kraus & Stephens, 2012). Working-class people face many constraints, they therefore are more likely to value the security of

external control and are more motivated to adjust, fit-in, and defer to authority; middle-class people, on the other hand, experience many possibilities and chances, they therefore are more likely to value self-direction and are motivated to make choices, pursue their goals and influence their environment (Kohn, 1963; Markus, 2017). Moreover, middle-class communities compared to working-class communities endorse less anti-egalitarian, system-justifying ideologies such as right-wing authoritarianism (RWA) and social-dominance orientation (Carvacho et al., 2013), and, most importantly, less support traditional gender roles (Kalmijn & Kraaykamp, 2007). Importantly, higher egalitarian values as expressed in lower levels of sexism, gender-specific system justification, and social-dominance orientation (Douglas & Sutton, 2014) were found to be associated with more positive attitudes towards GFL - leading to an assumption that working class can be less invested in adopting the GFL. Another important aspect is that middle-class compared to working-class communities have stronger beliefs that social change is possible and that they can influence social change (Fernandez-Ballesteros, 2002).

Thus, it is reasonable to assume that middle-class women are more likely to perceive masculine generics as unfair, may actively demand GFL for their professions, and more likely think that language can be changed by their group than working-class women. They, on the other hand, may be less interested in gender-fair job titles for their professions, because they may not perceive masculine generics as unfair and may perceive language change as too difficult, both prominent arguments against GFL (Formanowicz & Sczesny, 2016; Vergoossen et al., 2020). Moreover, middle-class feminists have been especially influential in the public discourse on gender equality (Freeman, 1995) promoting egalitarian values through collective action and gender equality on behalf of their group's interest (Scarborough & Risman, 2020). Given that people from middle-class communities endorse more egalitarian values (Carvacho et al., 2013; Kalmijn & Kraaykamp, 2007) and have stronger beliefs that social change is possible (Fernandez-Ballesteros et al., 2002) than people from working-class communities, it is reasonable to assume that the promotion of GFL is more advanced for middle-class professions than for working-class professions. Moreover, the higher popularity of GFL in

middle-class communities has stimulated discussion of this topic in contemporary discourses in these communities (Freed, 2020; Krome, 2020) and may have thereby facilitated the dissemination of gender-fair job titles for middle-class profession (e.g., in job advertisements).

## The Present Research and Hypothesis

The present research examined differences in the implementation of GFL for middle-class and working-class professions. More specifically, two studies tested the hypothesis that feminine and gender-fair job titles are more commonly used for middle- than for working-class professions. Study 1 examined the use of feminine job titles in Polish text corpora (published between 1999 and 2009), and Study 2 the use of gender-fair job titles (including feminine forms, pair forms, and neutral forms) in German job advertisements (in Switzerland).

## Study 1

## Method

Study 1 employed the Polish National Corpus (Pezik, 2012;

http://nkjp.pl/index.php?page=0&lang=1) as a representative sample of language data for the years 1999-2009 (see in Formanowicz & Sczesny, 2016). In total the national corpus includes over fifteen hundred million words. The sample consisted of linguistic data from the following sources: press (50%), books (29%), spoken language (10%), internet (7%), and other written materials (4%). To search for feminine forms of job titles, we first obtained the official list of professions from the Polish Statistical Office, containing 2.592 professions (based on the most detailed specification of the Polish Ministry of Labor). We used the Polish dictionary contemporary to the corpus data (Dubisz, 2008) to classify all professions as having either only a masculine job title available, both a masculine and a feminine form, or only a feminine form. From the initial list we excluded those professions that were listed as "other" (235 listings = 9.07% of the entire list) and 121 professions that were not included in the dictionary (4.67% of the total). We also excluded 318 professions for which no person was listed (12.27% of the total). Thus, the list consisted of 1.918 professions that were specific and currently used.

The search for job titles in the corpus was limited to single words, therefore several professions were collapsed into more comprehensive categories (e.g., 30 types of 'mechanics' and 89 types of 'teachers' were collapsed into the general categories of 'mechanic' and 'teacher', respectively). Moreover, we excluded professions that had a different meaning when shortened to a one-word term (e.g., 'insurance agent' - 'agent', 'master of production' - 'master'). Most importantly, we excluded professions whose feminine form could have a different meaning that would interfere with the corpus search (e.g., cukierniczka 'confectioner' (fem), which also means 'sugar bowl'). Interestingly, of 68 professions excluded due to such semantic asymmetries 61 were working-class (45 with only a masculine job title and 16 with a feminine form available) and only 7 middle-class (6 with only a masculine job title and 1 with a feminine form available). This list comprised 354 professions, of which 131 (37%) had only the masculine form of the job title and 223 (63%) had both forms.

Each profession was categorized according to social class based on the distinction available at the website of the Polish Ministry of Labor, and specifically the classification of the professions based on the International Standard Classification of Occupations (ISCO) and the Polish indicator of the professional social standing in Poland (Domanski, Sawinski & Slomczynski, 2007). Specifically, the two first groups (Managers and Professionals) were classified as middle-class and the remaining groups as working-class (Technicians and Associate Professionals; Clerical Support Workers; Services and Sales Workers; Agricultural, Forestry and Fishery Workers; Craft and Related Trades Workers; Plant and Machine Operators and Assemblers and Elementary Occupations). In order to arrive at a clear distinction, we used only those professions that could be unequivocally categorized as either middle- or working-class. In those cases where multiple professions were collapsed into one, an educational level was assigned only when all professions shared the same status. Therefore, 20 professions were assigned no value, as they could belong to different categories: *malarz* 'painter', for instance, was categorized as both a high-status and a low-status profession in the original list, because the term can refer to both construction painters and artists. Thus, the final list consisted of 334 professions: 59% working-class professions (of which 47% had only the masculine form and 53%

had both forms) and 41% middle-class professions (of which 62% had only the masculine form and 38% had both forms). The search in the Polish National Corpus included both singular and plural forms as well as different case forms of the feminine job titles. Feminine forms for the professions that do not have official feminine forms were coined according to the rules of the Polish language and based on similar existing professions (for instance, existing *socjolożka* 'sociologist' (fem) served as a model for non-existent but similar words such as *geolożka* 'geologist' (fem)). These feminine forms were then validated by means of an internet search to determine whether any Polish speakers use them. The use of feminine job titles was coded as follows: When no feminine title was used in the analyzed period, we assigned the value 0 (134 professions), and when at least one feminine form occurred, we assigned the value 1 (220 professions).

## **Results**

For professions with official feminine job titles available, feminine titles were widely used in the text corpus; even for professions for which no official feminine titles exist, unofficial feminine titles were used (see Table 1). A logistic regression with social class as focal predictor and use of feminine job titles as criterion, while controlling for the availability feminine job titles, tested whether the log odds of occurrences of feminine titles were related to social class of profession. The regression was significant,  $\chi^2(2) = 168.33$ , p < .001, Nagelkerke  $R^2 = .54$ . As predicted, social class of profession predicted the use of feminine job titles, B = 1.04, Wald(1) = 10.79, p = .001, while controlling for the availability of feminine forms, B = 3.86, Wald(1) = 91.40, p < .001 (odds ratio of 2.82). The results showed that feminine job titles were used about three times more often for middle-class professions than for working-class professions in the Polish National Corpus.

## Study 2

#### Method

Study 2 re-analyzed an available dataset of German job titles in Swiss job advertisements used in a cross-cultural study published by Hodel et al. (2017). The dataset for German contained a considerable amount of masculine and gender-fair job titles; the dataset for Polish could not be re-

analyzed as it only contained 20 (6%) gender-fair job titles. The dataset included job advertisements taken from the online job search engine careerjet.ch (downloaded in June 2012). This engine provided a categorization of branches of which three branches had been selected, namely health care, restaurants and food services, and constructional steel and method work. All three branches comprised working- and middle-class professions. For each of the three branches more than 1000 job advertisements were listed (ranging between 1440 for constructional steel and metal work and 7056 for health care). The dataset included 120 randomly selected job advertisements per branch. Two independent raters coded the linguistic form of the job titles as either masculine (e.g., Koch '[male] cook') or gender-fair (e.g., Koch/ Köchin '[male] cook/ [female] cook'; more information on the coding of the linguistic form see Hodel et al., 2016).

Social class was coded by two new independent coders, based on the European Socio-economic Classification scheme (ESeC, Wirth & Fischer, 2008) which allows to classify each profession regarding its socio-economic status into nine categories (see Table 2). The ESeC categories correspond with the ISCO classification applied in Study 1. In line with Study 1, categories 1 and 2 were coded as middle-class (e.g., managers, higher technicians) and categories 3 to 9 were coded as working-class professions (e.g., lower technicals, routine workers).

We excluded 20 job titles as they could not be clearly classified as masculine or gender-fair and 11 job titles as they could not be clearly classified regarding social class (e.g., internship in the area of healthcare, security and environment). The final dataset consisted of 329 job titles of which 66% were working-class professions (for which 39% used a masculine form and 61% a GFL form) and 34% were middle-class professions (for which 6% used a masculine form and 94% a GFL form).

## Results

The logistic regression that tested whether the log odds of occurrences of gender-fair job titles are related to social class of the profession was significant,  $\chi^2(1) = 47.41 \ p < .001$ , Nagelkerke  $R^2 = .19$ . As expected, a significant effect was found for social class of profession, B = 2.27,

Wald(1) = 30.02, p < .001 (odds ratio of 9.68), indicating that gender-fair compared to masculine job titles were used ten times more often for middle-class professions than for working-class professions.

#### **Discussion**

This research provided first evidence that GFL is used more often for middle than for working-class professions. Study 1 found this effect of social class for feminine job titles in a text corpus in Poland, where GFL has only recently been promoted and masculine generics represent the norm (Koniuszaniec & Blaszkowa, 2003). This effect was evident regardless of whether the forms concerned are novel (no official feminine form existing) or well established (official feminine form existing) in the Polish language. This difference found may contribute to a higher visibility of middle-class women in a variety of professions compared to working-class women. Study 2 documented the effect of social class for gender-fair job titles in the context of job advertisements in Switzerland, where the use of feminine forms is well established (Bußmann & Hellinger, 2003) and official GFL regulations have been adopted in many contexts, for example, in job advertisements (Hellinger, 2004). The fact that GFL is used less often for working-class professions in job advertisements may deter women from applying for certain working-class professions as these professions are more likely advertised with a masculine form. Both studies together confirmed that GFL reforms have been more effective for middle-class professions compared to working-class professions, independent of language and broader cultural context.

The present results suggest that middle-class compared to working-class women engaged more in collective action (van Zomeren, 2004), contributing to a more prevalent use of GFL for their professions. In line with prominent arguments usually listed against GFL (Formanowicz & Sczesny, 2016; Vergoossen et al., 2020), working-class women may not be willing to challenge current language use as for them masculine generics might stand for stability and security. Although working-class women may prefer status quo, they would nevertheless profit from a successful

implementation of GFL in various ways, for instance, by becoming more visible (Stahlberg et al., 2001) and by increasing their job opportunities (Bem & Bem, 1973; Yavorsky, 2019).

## Strength, Limitations and Future Research

Using a correlational approach, this research documented differences between GFL use for middle-and working-class professions. This research assumes that social class difference in GFL use is an outcome of collective action, differently taken by working- and middle-class women; however, this research did not test whether social class differences in egalitarian values (Carvacho et al., 2013; Kalmijn & Kraaykamp, 2007) and in beliefs that social change is possible (Fernandez-Ballesteros et al., 2002) contributed to the difference between GFL use for middle-and working-class professions. Future research therefore needs to directly test these and other explanations for collective action that might contribute to this difference, for example, system-based anger (Jost et al., 2017) or identification with women as a group (Radke et al., 2016).

The present results are based on grammatical-gender languages in European countries in two specific types of word corpora, documenting that the effect is stable over different languages and contexts and thus most likely can be generalized to other grammatical-gender languages. The generalization to natural gender or genderless languages however may be limited, as the introduction of gender-fair terms can be easily made through neutralizations (for natural gender languages) or by simply avoiding gender references at all (for genderless languages; Sczesny et al., 2016). Future research should therefore investigate whether social-class differences in other language cues such as grammatical prominence (e.g., male role nouns more often perceived as agents than female one) or word order (e.g., male role nouns first; for an overview on linguistic gender cues see Formanowicz & Hansen, 2022) can also be found for natural gender and genderless languages.

## **Practical implications**

The successful implementation of GFL plays an important role for the achievement of gender equality as this reform reduces a masculine default (Cheryan & Markus, 2020), the use of

masculine generics. That the implementation of GFL was successful for middle-class professions is promising, indicating that middle-class women have been successful in achieving their goals (Freeman, 1995; Scarborough & Risman, 2020). However, that GFL is not well implemented for working-class professions revealed that this reform is not universal across all speech-communities, potentially limiting working-class women's professional opportunities (see above). This observation is mirrored by the fact that gender segregation remained pronounced for working-class professions while it diminished for middle-class professions over the past decades (England, 2020; Hegewisch & Hartman, 2014). The persisting gender segregation among working-class professions allows for greater gender discrimination (Adamovic & Leibrandt, 2022); whereas gender diversity has multiple positive outcomes such as improved team performance company performance, and occupational wellbeing (for an overview, see Fine et al., 2020), and increased recruitment pools for employers (Jansen, 2021).

#### Conclusion

The present research highlighted the importance of taking a closer look on the success of the promotion of GFL as its implementation has proven to be more successful for middle- than for working-class professions. In order to achieve a more comprehensive implementation of GFL, gender equality must be perceived as important and achievable also in working-class communities. Fostering egalitarian values and beliefs in successful social change in working-class communities might thus provide a better ground for implementing GFL and other gender equality initiatives. This way working-class women would also profit from GFL language reforms.

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Table 1

	Minimum one feminine job title in the corpora			
_	no	yes	total	
	n (%)	n (%)	n (%)	
Feminine job title not available				
working-class	73 (78%)	20 (22%)	93 (100%)	
middle-class	49 (58%)	36 (42%)	85 (100%)	
total	122 (69%)	56 (31%)	178 (100%)	
Feminine job title available				
working-class	8 (8%)	95 (92%)	103 (100%)	
middle-class	1 (2%)	52 (98%)	53 (100%)	
Total	9 (6%)	147 (94%)	156 (100%)	
Total				
working-class	81 (41%)	115 (59%)	196 (100%)	
middle class	50 (36%)	88 (64%)	138 (100%)	
total	131 (39%)	203 (61%)	334 (100%)	

Table 2
Study 2: European Socio-economic Classification (ESeC) - categories and frequencies in Switzerland

Code	English examples	Frequencies	Social Class
1	Large employers, higher managers and professionals	38	Middle Class
2	Lower managers and professionals,		124
	higher supervisory and technicians	86	
3	Intermediate occupations		Working Class
4	Small employers and self-employed	8	223
5	Small employers and self-employed (agriculture)		-
6	Lower supervisors and technicians		-
7	Lower sales and service	5	-
8	Lower technical	89	-
9	Routine	121	-

**Manuscript 3** | Why Using Feminine Job Titles in German is Profitable for Women:

Ascribed Linguistic Competence Enhance Prospects of Being Hired

Magdalena Formanowicz<sup>1</sup>

Lea Hodel<sup>2</sup>

Sabine Sczesny (ORCID: 0000-0002-1666-1263)<sup>2</sup>

<sup>1</sup> Center for Research on Social Relations, SWPS University, Warsaw

<sup>2</sup> Department of Psychology, University of Bern

Authors' Note

Correspondence concerning this article should be addressed to Magdalena Formanowicz, Center for Research on Social Relations, Department of Psychology, SWPS University, ul. Chodakowska 19/31, 03-815 Warszawa, Poland, E-mail: <a href="mailto:mformanowicz@swps.edu.pl">mformanowicz@swps.edu.pl</a>. The involvement of Magdalena Formanowicz was financed by the OPUS 19 grant of the Polish National Science Center (2020/37/B/HS6/02587).

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Abstract

In German, gender-fair language is well established and the use of feminine forms is evaluated

positively. In the present experiment (N = 331) we examined the mechanisms behind this

positive evaluation. Female job applicants who used a feminine (vs. a masculine) job title were

evaluated as more linguistically competent and as more competent in general, which translated

into more favorable hiring decisions. These results illuminate the underlying mechanisms

behind successful language reform.

Keywords: grammatical gender, gender-fair language, linguistic competence, recruitment

# Why using Feminine Job Titles in German is Profitable for Women: Ascribed Linguistic Competence Enhance Prospects of Being Hired

Language reforms towards gender-fair language (GFL) aim to treat women and men symmetrically in communication (cf. the contributions in Hellinger & Bußmann, 2001, 2002, 2003). Measures to achieve this aim include making women and men equally linguistically visible by abstaining from the use of the so-called masculine generics, i.e., the use of grammatically masculine forms for all genders or for professional titles designating people with an unknown gender. Since the 1970s, new forms have been introduced into many languages in order to increase gender fair language use. This is relatively easy in languages with natural gender which have relatively few gender distinctions such as English, where the few gender-marked role nouns of the type of chairman or stewardess are replaced with gender-unmarked forms such as chairperson or flight attendant. In languages with grammatical gender, where almost all human nouns are grammatically marked for gender, gender-fairness is achieved, for example, by introducing feminine forms for professional roles where they have been lacking (e.g., German Ärztin 'female doctor' or Ingenieurin 'female engineer'). The introduction of gender fair forms in grammatical gender languages have had varied results. For some languages, such as Polish or Italian, previous studies documented difficulties in introducing language change, as traditional feminine forms were associated with status loss (e., in Italian, Merkel et al., 2012) and people using novel feminine job titles for women were evaluated negatively (e.g., in Polish; Formanowicz et al., 2013; Formanowicz et al., 2015). For languages like German results were more promising (e.g., Formanowicz et al., 2015; Hodel et al., 2017; Vervecken & Hannover, 2012) indicating that in German, the use of feminine forms to designate women is a generally accepted linguistic behavior that is favored over the use of masculine generics. Positive effects of gender-fair language use in German are a sign of successful language reform and thus show that achieving gender-fair linguistic change is possible. In the present research, we extended on

these positive effects of gender fair language from previous research by examining why the use of gender-fair language, namely feminine forms used by women to designate themselves, may be evaluated positively focusing on competence as proposed mediator. We examined this in the applied context of a hiring simulation to best document how language use may influence real-life outcomes (Sczesny et al., 2016).

## Gender-Fair Language Across Languages and its Effects

Recommendations for gender-fair language (also called "non-sexist language", UNESCO, 1999, or "gender-inclusive language", Stout & Dasgupta, 2011) are based on empirical evidence that masculine generics fail to represent women and men equally. Over the past decades, many studies have shown that when utterances contain masculine generics, speakers lean towards the grammatical cue and visualize or recall mostly male exemplars of the respective person category (cf., for English Hamilton, 1988; Moulton et al., 1978; Wilson, & Ng, 1988; Gygax et al., 2008; for French Gygax et al. 2008; for German Stahlberg et al., 2001; for Polish Bojarska, 2011). Gender-fair forms, on the other hand, reduce this male bias. When women were explicitly mentioned, female exemplars of the category became more readily available (Stahlberg et al., 2001; Horvath, & Sczesny, 2015). The introduction of feminine forms, however, varies in different languages.

In the present study, we focus on the German language, a grammatical gender language where the generic use of masculine job titles was well established in the 20<sup>th</sup> century, but has been challenged and begun to change since the 1970s. Since then, the process of introducing feminine forms has advanced. This is not surprising, as feminine forms can easily be derived from masculine forms with the highly productive feminine suffix -in. It was therefore no problem to create terms such as Bundeskanzlerin '(female) chancellor', Soldatin '(female) soldier' or Managerin '(female) manager'. Nowadays materials and job lists published by the German federal employment agency Arbeitsagentur, for example, provide all job titles in the

feminine as well as the masculine form (cf., BERUFENET<sup>2</sup>) and masculine forms are no longer listed as generic (Dudenredaktion, 2020). In comparison to Polish and Czech, for example, Austrian and Swiss German job advertisements utilized more gender-fair job titles (such as for example masculine-feminine word pairs) rather than gender-specific, mostly masculine job titles (Hodel et al., 2017).

Even though not all speakers of German refer to women with feminine job titles in all contexts, such terms are available and so common that they do not strike listeners or readers as odd. That is, gender-fair language use in German like the use of feminine forms to refer to women is nowadays a common practice. Accordingly, recent research has found gender-fair language use is positively evaluated by German speakers (Formanowicz et al., 2015; Vervecken & Hannover, 2012). A social initiative that addressed its female proponents in a feminine form was more supported among German-speaking participants than the very same initiative utilizing masculine forms (Formanowicz et al., 2015). Further, when evaluating applicants based on the language they used in a speech—containing either masculine generics (e.g., Ärzte 'medical doctors, masc') or word-pairs (e.g., Ärzte und Ärztinnen 'medical doctors, masc and fem') results clearly indicated that the speakers who used gender-fair language were evaluated more positively than speakers who employed traditional language (Vervecken & Hannover, 2012). The positivity of evaluation, pertained to both dimensions of social perception, that is agency related to goal-orientation—and communion—related to the focus on social relations (Abele & Wojciszke, 2014). Moreover, speakers using gender-fair forms were more likely to be hired (Vervecken & Hannover, 2012). These results suggest that language reform towards genderfair language has been successful in German. The first aim of the present study is to extend this research by examining whether women who use feminine forms to designate themselves will also be evaluated more positively than women who use masculine forms of their professional

<sup>2</sup>https://berufenet.arbeitsagentur.de/berufenet/faces/index;BERUFENETJSESSIONID=r8yP8WvbAJTWgP5xFjn3Aln6I1bKfYTPEsQ3iGQvEs-iyGEZq-9X!312017375?path=null/sucheAZ&let=A

title. This positive effect would provide additional evidence of a successful language reform of the German language.

H1. In German, female applicants using feminine forms of their job title are evaluated as more hireable than female applicants using masculine forms.

The second aim of this research is to examine why the use of the feminine forms may be evaluated more positively in comparison to the use of masculine forms. In German, feminine forms of job titles are well-established and, as can be inferred from the studies documenting the positive effects of their usage, constitute a language standard. People followed GFL rules especially when their linguistic competence in German was high (Kuhn & Gabriel; 2014), suggesting that the use of GFL forms signals linguistic competence; on the contrary, violating language standards signals linguistic incompetence (Giles & Coupland, 1991; Ng, 2007). A person not competent in linguistic standards may be negatively perceived due to the negative valence of incompetence in general. Accordingly, a woman using a masculine form of her professional title may be evaluated less positively because of linguistic competence but also because of perceived incompetence in general. The use of masculine generics was in fact associated to decreased competence ascriptions as well as hireability in hiring simulations (Vervecken & Hannover, 2012). Accordingly, we predict that:

H2. In German, female applicants using feminine job titles are attributed more linguistic competence and more competence in general than women using masculine job titles, which in turn results in their increased hireability.

#### Method

## **Participants**

The online survey was started by 673 and finished by 437 participants. We excluded 10 participants who failed to indicate their first language and another 24 who declared that German was not their native language. Moreover, we excluded participants who failed the manipulation check, requiring that the participant remembered the gender of the applicant.

Specifically, six people failed to remember the applicant's gender and 66 participants misremembered the applicant as male<sup>3</sup>. The final sample consisted of 331 participants (230 women and 101 men;  $M_{age} = 25.51$ ,  $SD_{age} = 4.49$  years). This sample size was adequate to detect a medium effect size of f = 0.25 (Cumming, 2014; Mayr et al., 2007) with a power of 80%. The cut-off value for significance was set to p = .05.

#### **Materials and Procedure**

We invited participants through the mailing system of a Swiss University and asked them to take part in a hiring simulation study in which they evaluate one application for an open position. Participants were instructed to assume the role of an HR manager making a final decision based on a motivation letter. We chose four male-dominated professions based on Swiss graduation rates (Bundesamt für Statistik, 2010a, 2010b) that vary in their social status: Schreinerin / Schreiner 'Carpenter' (89% men), Bauzeichnerin / Bauzeichner 'Draftsperson' (77% men), Physikerin / Physiker 'Physics' (80% men), and Chemieingenieurin / Chemieingenieur 'Chemical Engineer' (78% men). We decided to use male-dominated professions, because for these professions the use of the masculine language form would be most probable, providing us with a conservative test for our hypotheses. We collapsed the results for the four male-dominated professions.

We provided participants with the motivation letter of the applicant; see Supplemental Online Material for original descriptions). The motivation letter was identical in all conditions except for the professional title and the organization where the applicant applied. The job title occurred four times throughout the letter. The professional title of the applicant was presented either in the masculine form (e.g., *Physiker* or *Schreiner*) or the feminine form (e.g., *Physikerin* or *Schreinerin*).

#### Measures

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<sup>&</sup>lt;sup>3</sup> This suggests that the masculine title was misremembered as referring to a male person (for similar effects of masculine generics on memory see Ng, 1990).

Dependent variable. The dependent variable hireability was measured with two items: "Would you invite this person for a job interview?", "Would you hire the person?" (adapted from Hoyt, 2012; Dipboye et al., 1984; Formanowicz et al., 2013). Both items were rated on 7-point scales (1 = not at all; 7 = very much) and combined to create the scale "Hireability" ( $\alpha$  = .78), with higher overall values indicating a more positive evaluation of the applicant.

*Mediator variables.* We assessed linguistic competence with the following item: "How proficient is this person in German?" This item was rated on a 7-point scale (1 = not at all; 7 = very much). Following past research (Vervecken & Hannover, 2012), we also measured a more general form of competence. This measure of competence was embedded in scales validated for German (Abele et al., 2016) to assess the subfacets of agency (AA: assertiveness and AC: competence) and communion (CW: warmth and CM: morality). These scales were rated on 5-point scales (1 = low; 5 = high intensity) For each subfacet, we created a scale (AA: 4 items, e.g., self-confident,  $\alpha$  = .68; AC: 4 items, e.g., competent,  $\alpha$  = .82; CW: 4 items, e.g., caring,  $\alpha$  = .84; CM: 4 items, e.g., considerate,  $\alpha$  = .71).

As manipulation checks, we asked about participants' native language and whether they correctly remembered the applicant's gender. Moreover, to test whether using feminine job titles for women is indeed common practice in German we asked participants how likely it is that a woman would designate herself with the job title provided in the respective experimental condition (1 = very unlikely; 7 = very likely). Participants also estimated the status of the profession on a 7-point scale (1 = low status; 7 = high status) to test whether status ascriptions depend on language form<sup>4</sup>. Finally, we asked participants about their gender, age, education, political views, and their experiences with job recruitment. Table 1 displays the means, standard deviations, and correlations of the examined variables.

<sup>4</sup> We conducted two t-tests to assess the probability of language use and ascription of job status. Results showed that feminine job titles were evaluated as more probable for women than mascul

Results showed that feminine job titles were evaluated as more probable for women than masculine job titles, t(329) = 9.81, p < .001, Cohen's d = 1.10, and status ascriptions for the professions didn't differ between the two language forms, t(329) = 0.83, p = .41, Cohen's d = 0.09.

#### **Results**

## **Dependent Variable - Hireability**

We conducted a t-test to assess the effect of the language form (feminine vs. masculine job title) on hireability. As displayed in Table 2, the hypothesized effect of language form was significant t (3,299) = 2.06, p = 0.04, Cohen's d = .23, indicating that female applicants using feminine forms were perceived as more hireable than female applicants using masculine forms (see Hypothesis 1).

#### **Mediator Variables**

In Table 2 we present the effects of language form on the mediator variables, as well as the other agency and communion scales (Abele et al., 2016). The only significant effects were observed for linguistic competence and competence in general, so that a woman using a feminine form of the professional title was evaluated as more (linguistically) competent than a woman using a masculine title.

## **Mediation Analysis**

To examine the mechanisms underlying the effects of language form of job title on hiring decisions (see Hypothesis 2), we conducted a mediation analysis. As mediators we have used the measurement of linguistic competence, general measurement of competence, as well as measures of agency, morality, and warmth. The three latter variables were used to see, whether the indirect effect is limited to the hypothesized variables. We applied Hayes macro (2012) with bootstrapping (with 5,000 resamples) to compute 95% bias-corrected confidence intervals.

The model explained 40% of the variation in hireability,  $R^2$  = .40; F (6,324) = 35.54; p < .001. Linguistic competence and general competence both significantly mediated the effect of language form on hireability (point estimator linguistic competence = 0.14; bootstrapped LCI = 0.06; UCI = 0.24; point estimator general competence = 0.10; bootstrapped LCI = 0.01; UCI = 0.22) - for the full model see Figure 1.

#### **Discussion**

Our study examined whether in the grammatical language German, where feminine job titles are common and well established, a woman introducing herself with a feminine job title is evaluated more positively than a woman introducing herself with a masculine title. The pattern of results indicated that female applicants using feminine forms were indeed more likely to be hired than those using masculine forms. We found that the effect of language form on hireability was mediated by ascriptions of linguistic competence as well as general competence. A woman adhering to the linguistic standard (in German: feminine job titles for female applicants) was more likely to be hired than a speaker using the outdated masculine language form. These results expand on past research highlighting positive effects of gender-fair language use (Vervecken & Hannover, 2012) in two important directions: a) it is the first study to provide evidence relating to the effects of women using feminine job titles to designate themselves in a recruiting process, b) it indicates that linguistic competence as well as a more general competence is a mechanism to explain why women using feminine job titles are perceived to be more hirable than those who use masculine job titles.

The effect of feminine forms on hiring decisions might indicate that once feminine forms become a linguistic standard, its violation transfers to lower competence judgment also outside the linguistic domain, with competence being a crucial aspect of hiring decisions. A person violating linguistic standards in general may be seen as equally incompetent in other areas, and therefore rejected from applicant pools. It is important to note, that deviating from a linguistic standard can also be perceived as indicative of a more general propensity to violate norms and could therefore be punished with negative evaluations (Bettencourt et al., 1997). However, the results observed in this study indicate that deviation from the linguistic standard is limited to competence ascriptions only, and did not affect ratings of persons' warmth or morality. This indicates that women designating themselves with masculine job titles are not perceived as less hirable because of a general devaluation, but specifically due to lower ascribed competence, which is an important criterion for employability.

The present findings suggest that negative effects of women's self-designation with feminine job titles (as found in Polish, Formanowicz et al., 2013) are reversed when feminine forms becomes the norm in a language community. The present study thus provides additional evidence for successful language reform and stands in line with other studies showing that new language forms, when well established, are accepted, translate into the norm, and have positive consequences for women (Formanowicz et. al., 2015; Vervecken & Hannover, 2012).

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 Table 1

 Means, Standard Deviations, and Correlations of the Examined Variables

	M	SD	LC	AC	AA	CW	CM
Hireability (H)	5.09	1.22	.37***	.53***	.24***	.23***	.48***
Linguistic Competence (LC)	5.80	1.19		.29***	.20***	.02	.18**
AC: Competence	3.96	0.67			.60***	.13*	.51***
AA: Assertiveness	3.83	0.67				14**	.16**
CW: Warmth	3.08	0.74					.68***
CM: Morality	3.52	0.60					

*Note*. \*\*\* p < .001. \*\* p < .01. \* p < .05.

**Table 2**Means and Standard Deviations of the Examined Variables Separated by Language Form, and T-Tests

	Masculine Forms		Feminine Forms		t-test ( <i>df</i> =329)	
	M	SD	M	SD	t	Cohens d
Hireability	4.92	1.19	5.20	1.23	2.06*	.23
Linguistic Competence	5.45	1.33	6.05	1.03	4.61***	.52
AC: Competence	3.87	0.66	4.02	0.67	1.98*	.22
AA: Assertiveness	3.81	0.71	3.85	0.65	.42	.05
CW: Warmth	3.03	0.77	3.11	0.72	1.04	.12
CM: Morality	3.50	0.58	3.54	0.61	0.69	.08

*Note*. \*\*\* p < .001. \*\* p < .01. \* p < .05.

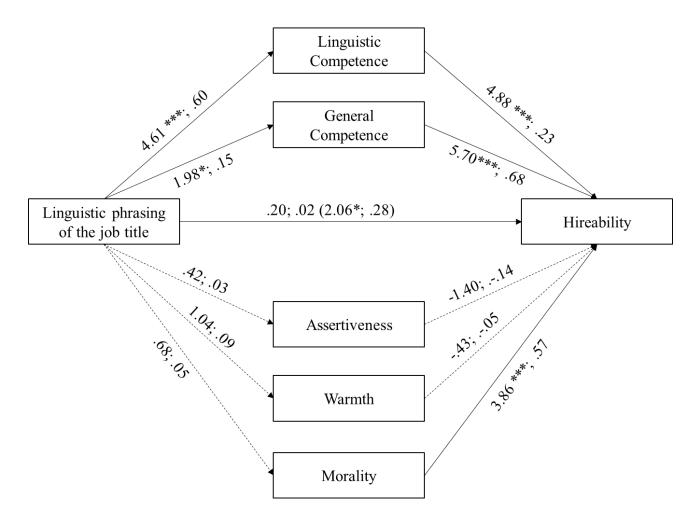


Fig. 1. Mediational model showing the effect of language form on applicant's hireability as mediated by linguistic competence and general competence. The mediation over assertiveness, warmth, and morality is not significant. The language form was coded 0 for masculine job title and 1 for feminine job title. Coefficients are followed by the standard errors, coefficients in parentheses represent parameter estimates for the regression model containing only language form as predictor variable. Asterisks indicate significant paths (\*p < .05; \*\*\*p < .001).

#### **Appendix**

#### **Materials Manuscript 3**

#### welcomeBlock

#### welcome.

### Herzlich willkommen!

Die folgende Umfrage findet im Rahmen einer Studie am Institut für Psychologie der Universität Bern statt und untersucht, wie Personalverantwortliche in Bewerbungsverfahren aufgrund von wenigen Informationen eine Entscheidung treffen.

Stellen Sie sich vor, Sie sind Personalverantwortliche und Sie haben eine freie Stelle zu besetzen. Es haben sich mehrere Personen beworben. Aus allen Bewerbungen liegt Ihnen eine vor - aber Sie sehen nur einen Teil der Informationen über die Person. Ihre Aufgabe ist es nun zu entscheiden, ob Sie diese Person zu einem Gespräch einladen.

Ihre Anonymität bleibt selbstverständlich zu jedem Zeitpunkt gewährleistet, denn Rückschlüsse auf einzelne Teilnehmende sind nicht möglich. Ebenso werden Ihre Angaben streng vertraulich behandelt und ausschliesslich für die Analyse dieser Studie verwendet.

Weitere Informationen zur Studie oder zur Teilnahme erhalten sie bei Anja Ghetta (anja.ghetta@psy.unibe.ch).

Wenn Sie auf "weiter" klicken, gelangen Sie zur Umfrage, welche zwischen 8 und 10 Minuten dauert.

#### Job1 female

# job1\_female. Aus den Bewerbungsunterlagen von Anna Müller:

Mit Freude bewerbe ich mich auf die freie Stelle als Kernphysikerin. Als ausgebildete Physikerin weiss ich, dass dieser Beruf nicht nur sehr bereichernd ist, sondern auch neue Herausforderungen zu bieten vermag. Nach erfolgreichem Abschluss meines Studiums an der Universität Zürich arbeite ich nun seit über sechs Jahren für die RGO-AG in Zürich. Jetzt suche ich eine Möglichkeit, mich fachlich weiter zu entwickeln.

Entschlossenheit und Einsatzwille sind nur einige meiner Stärken. Bei der Arbeit schätze ich den Austausch mit Mitarbeitenden. In meiner bisherigen Tätigkeit als Physikerin arbeitete ich stets erfolgreich in verschiedensten Konstellationen und bin es gewohnt, selbst heikle Gespräche sozial kompetent zu führen. Es fällt mir leicht, in Teams zu arbeiten und meine Motivation auch über längere Zeit hoch zu halten. Konflikte versuche ich möglichst früh anzugehen; bestenfalls bevor sie entstehen. Vor hohen Anforderungen schrecke ich nicht zurück - ich sehe diese als Herausforderung und Quelle stetiger Verbesserung an.

Ich bin überzeugt, alle Anforderungen als Kernphysikerin zu Ihrer vollsten Zufriedenheit zu erfüllen und würde mich freuen, für Ihre Abteilung zu arbeiten. Für Rückfragen stehe ich Ihnen jederzeit gerne zur Verfügung.



Job1\_male

### job1\_male. Aus den Bewerbungsunterlagen von Anna Müller:



Mit Freude bewerbe ich mich auf die freie Stelle als Kernphysiker. Als ausgebildeter Physiker weiss ich, dass dieser Beruf nicht nur sehr bereichernd ist, sondern auch neue Herausforderungen zu bieten vermag. Nach erfolgreichem Abschluss meines Studiums an der Universität Zürich arbeite ich nun seit über sechs Jahren für die RGO-AG in Zürich. Jetzt suche ich eine Möglichkeit, mich fachlich weiter zu entwickeln.

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Ich bin überzeugt, alle Anforderungen als Kernphysiker zu Ihrer vollsten Zufriedenheit zu erfüllen und würde mich freuen, für Ihre Abteilung zu arbeiten. Für Rückfragen stehe ich Ihnen jederzeit gerne zur Verfügung.



#### Job2 female

### job2\_female. Aus den Bewerbungsunterlagen von Anna Müller:



Mit Freude bewerbe ich mich auf die freie Stelle als Lebensmittelchemikerin. Als ausgebildete Chemikerin weiss ich, dass dieser Beruf nicht nur sehr bereichernd ist, sondern auch neue Herausforderungen zu bieten vermag. Nach erfolgreichem Abschluss meines Studiums an der Universität Zürich arbeite ich nun seit über sechs Jahren für die RGO-AG in Zürich. Jetzt suche ich eine Möglichkeit, mich fachlich weiter zu entwickeln.

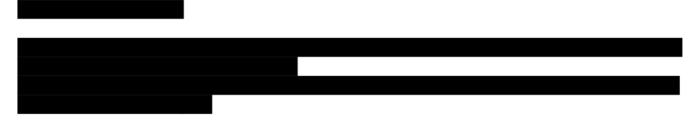
Entschlossenheit und Einsatzwille sind nur einige meiner Stärken. Bei der Arbeit schätze ich den Austausch mit Mitarbeitenden. In meiner bisherigen Tätigkeit als Chemikerin arbeitete ich stets erfolgreich in verschiedensten Konstellationen und bin es gewohnt, selbst heikle Gespräche sozial kompetent zu führen. Es fällt mir leicht, in Teams zu arbeiten und meine Motivation auch über längere Zeit hoch zu halten. Konflikte versuche ich möglichst früh anzugehen; bestenfalls bevor sie entstehen. Vor hohen Anforderungen schrecke ich nicht zurück - ich sehe diese als Herausforderung und Quelle stetiger Verbesserung an.

Ich bin überzeugt, alle Anforderungen als Lebensmittelchemikerin zu Ihrer vollsten Zufriedenheit zu erfüllen und würde mich freuen, für Ihre Abteilung zu arbeiten. Für Rückfragen stehe ich Ihnen jederzeit gerne zur Verfügung.



Job2\_male

	job2_male. Aus	den	Bewerbung	sunterlagen	von Anna	Müller:
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Mit Freude bewerbe ich mich auf die freie Stelle als Lebensmittelchemiker. Als ausgebildeter Chemiker weiss ich, dass dieser Beruf nicht nur sehr bereichernd ist, sondern auch neue Herausforderungen zu bieten vermag. Nach erfolgreichem Abschluss meines Studiums an der Universität Zürich arbeite ich nun seit über sechs Jahren für die RGO-AG in Zürich. Jetzt suche ich eine Möglichkeit, mich fachlich weiter zu entwickeln.

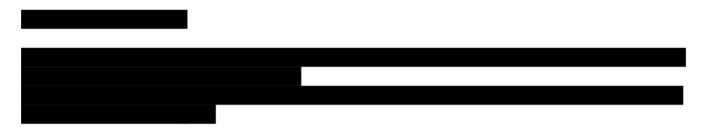
Entschlossenheit und Einsatzwille sind nur einige meiner Stärken. Bei der Arbeit schätze ich den Austausch mit Mitarbeitenden. In meiner bisherigen Tätigkeit als Chemiker arbeitete ich stets erfolgreich in verschiedensten Konstellationen und bin es gewohnt, selbst heikle Gespräche sozial kompetent zu führen. Es fällt mir leicht, in Teams zu arbeiten und meine Motivation auch über längere Zeit hoch zu halten. Konflikte versuche ich möglichst früh anzugehen; bestenfalls bevor sie entstehen. Vor hohen Anforderungen schrecke ich nicht zurück - ich sehe diese als Herausforderung und Quelle stetiger Verbesserung an.

Ich bin überzeugt, alle Anforderungen als Lebensmittelchemiker zu Ihrer vollsten Zufriedenheit zu erfüllen und würde mich freuen, für Ihre Abteilung zu arbeiten. Für Rückfragen stehe ich Ihnen jederzeit gerne zur Verfügung.



### Job3 female

# job3\_female. Aus den Bewerbungsunterlagen von Anna Müller:



Mit Freude bewerbe ich mich auf die freie Stelle als Bauschreinerin. Als ausgebildete Schreinerin weiss ich, dass dieser Beruf nicht nur sehr bereichernd ist, sondern auch neue Herausforderungen zu bieten vermag. Nach erfolgreichem Sekundarschulabschluss und anschliessender Berufsausbildung arbeite ich nun seit über sechs Jahren für die RGO-AG in Zürich. Jetzt suche ich eine Möglichkeit, mich fachlich weiter zu entwickeln.

Entschlossenheit und Einsatzwille sind nur einige meiner Stärken. Bei der Arbeit schätze ich den Austausch mit Mitarbeitenden. In meiner bisherigen Tätigkeit als Schreinerin arbeitete ich stets erfolgreich in verschiedensten Konstellationen und bin es gewohnt, selbst heikle Gespräche sozial kompetent zu führen. Es fällt mir leicht, in Teams zu arbeiten und meine Motivation auch über längere Zeit hoch zu halten. Konflikte versuche ich möglichst früh anzugehen; bestenfalls bevor sie entstehen. Vor hohen Anforderungen schrecke ich nicht zurück - ich sehe diese als Herausforderung und Quelle stetiger Verbesserung an.

Ich bin überzeugt, alle Anforderungen als Bauschreinerin zu Ihrer vollsten Zufriedenheit zu erfüllen und würde mich freuen, für Ihre Abteilung zu arbeiten. Für Rückfragen stehe ich Ihnen jederzeit gerne zur Verfügung.



# job3\_male. Aus den Bewerbungsunterlagen von Anna Müller:



Mit Freude bewerbe ich mich auf die freie Stelle als Bauschreiner. Als ausgebildeter Schreiner weiss ich, dass dieser Beruf nicht nur sehr bereichernd ist, sondern auch neue Herausforderungen zu bieten vermag. Nach erfolgreichem Sekundarschulabschluss und anschliessender Berufsausbildung arbeite ich nun seit über sechs Jahren für die RGO-AG in Zürich. Jetzt suche ich eine Möglichkeit, mich fachlich weiter zu entwickeln.

Entschlossenheit und Einsatzwille sind nur einige meiner Stärken. Bei der Arbeit schätze ich den Austausch mit Mitarbeitenden. In meiner bisherigen Tätigkeit als Schreiner arbeitete ich stets erfolgreich in verschiedensten Konstellationen und bin es gewohnt, selbst heikle Gespräche sozial kompetent zu führen. Es fällt mir leicht, in Teams zu arbeiten und meine Motivation auch über längere Zeit hoch zu halten. Konflikte versuche ich möglichst früh anzugehen; bestenfalls bevor sie entstehen. Vor hohen Anforderungen schrecke ich nicht zurück - ich sehe diese als Herausforderung und Quelle stetiger Verbesserung an.

Ich bin überzeugt, alle Anforderungen als Bauschreiner zu Ihrer vollsten Zufriedenheit zu erfüllen und würde mich freuen, für Ihre Abteilung zu arbeiten. Für Rückfragen stehe ich Ihnen jederzeit gerne zur Verfügung.



#### Job4 female

## job4\_female. Aus den Bewerbungsunterlagen von Anna Müller:



Mit Freude bewerbe ich mich auf die freie Stelle als Tiefbauzeichnerin. Als ausgebildete Bauzeichnerin weiss ich, dass dieser Beruf nicht nur sehr bereichernd ist, sondern auch neue Herausforderungen zu bieten vermag. Nach erfolgreichem Sekundarschulabschluss und anschliessender Berufsausbildung arbeite ich nun seit über sechs Jahren für die RGO-AG in Zürich. Jetzt suche ich eine Möglichkeit, mich fachlich weiter zu entwickeln.

Entschlossenheit und Einsatzwille sind nur einige meiner Stärken. Bei der Arbeit schätze ich den Austausch mit Mitarbeitenden. In meiner bisherigen Tätigkeit als Bauzeichnerin arbeitete ich stets erfolgreich in verschiedensten Konstellationen und bin es gewohnt, selbst heikle Gespräche sozial kompetent zu führen. Es fällt mir leicht, in Teams zu arbeiten und meine Motivation auch über längere Zeit hoch zu halten. Konflikte versuche ich möglichst früh anzugehen; bestenfalls bevor sie entstehen. Vor hohen Anforderungen schrecke ich nicht zurück - ich sehe diese als Herausforderung und Quelle stetiger Verbesserung an.

Ich bin überzeugt, alle Anforderungen als Tiefbauzeichnerin zu Ihrer vollsten Zufriedenheit zu erfüllen und würde mich freuen, für Ihre Abteilung zu arbeiten. Für Rückfragen stehe ich Ihnen jederzeit gerne zur Verfügung.



### Job4\_male

### job4\_male. Aus den Bewerbungsunterlagen von Anna Müller:

Mit Freude bewerbe ich mich auf die freie Stelle als Tiefbauzeichner. Als ausgebildeter Bauzeichner weiss ich, dass dieser Beruf nicht nur sehr bereichernd ist, sondern auch neue Herausforderungen zu bieten vermag. Nach erfolgreichem Sekundarschulabschluss und anschliessender Berufsausbildung arbeite ich nun seit über sechs Jahren für die RGO-AG in Zürich. Jetzt suche ich eine Möglichkeit, mich fachlich weiter zu entwickeln.

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Ich bin überzeugt, alle Anforderungen als Tiefbauzeichner zu Ihrer vollsten Zufriedenheit zu erfüllen und würde mich freuen, für Ihre Abteilung zu arbeiten. Für Rückfragen stehe ich Ihnen jederzeit gerne zur Verfügung.



# applicantRating

*traits.*In welchem Ausmass schreiben Sie der Bewerberin folgende Eigenschaften zu?

trifft	wenigzu				trifft sehr zu
liebevoll	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$
effizient	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
rücksichtsvoll	$\bigcirc$	$\circ$	$\circ$	$\bigcirc$	$\circ$
intelligent	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\circ$	$\circ$
selbstsicher	$\bigcirc$	$\circ$	0	$\bigcirc$	$\circ$
fühlt sich überlegen	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$
zuverlässig	$\bigcirc$	$\circ$	$\circ$	$\bigcirc$	$\circ$
fühlt sich überlegen	$\bigcirc$	$\circ$	$\circ$	$\bigcirc$	$\circ$
zuverlässig	$\bigcirc$	$\circ$	0	$\bigcirc$	$\circ$
fürsorglich	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$
kann Druck gut standhalten	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\circ$
einfühlsam	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$
leistungsfähig	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$
gibt nie leicht auf	$\bigcirc$	$\circ$	0	$\bigcirc$	$\circ$
vertrauenswürdig	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$
kompetent	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$
freundlich	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$
gerecht	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$

invite. Würden Sie diese Person zu einem Bewerbungsgespräch einladen?

sehr unwahrscheinlich	0	0	0	0	0	sehr wahrscheinlich	
<i>hire.</i> Würden	Sie diese F	Person einste	ellen?				
sehr unwahrscheinlich						sehr wahrscheinlich	
0	0	0	0	0	0	0	
language1. V	Vie gut beh	errscht diese	e Person die	deutsche Sp	rache?		
sehr schlecht	0	0	0	0	0	sehr gut	
<pre>language2_1_a. Wie wahrscheinlich ist es, dass eine Frau den Begriff "Physikerin" benutzt, um sich selber zu beschreiben ?</pre>							
sehr unwahrscheinlich						sehr wahrscheinlich	
0	0	0	0	$\circ$	$\circ$	0	
<pre>language2_1_b. Wie wahrscheinlich ist es, dass eine Frau den Begriff "Physiker" benutzt, um sich selber zu beschreiben ?</pre>							
sehr unwahrscheinlich						sehr wahrscheinlich	
$\bigcirc$	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\circ$	

Ich erkläre hiermit, dass ich diese Arbeit selbständig verfasst und keine anderen als die angegebenen Quellen benutzt habe. Alle Stellen, die wörtlich oder sinngemäss aus Quellen entnommen wurden, habe ich als solche gekennzeichnet. Mir ist bekannt, dass andernfalls der Senat gemäss Artikel 36 Absatz 1 Buchstabe r des Gesetzes über die Universität vom 5.

September 1996 und Artikel 69 des Universitätsstatuts vom 7. Juni 2011 zum Entzug des Doktortitels berechtigt ist. Für die Zwecke der Begutachtung und der Überprüfung der Einhaltung der Selbständigkeitserklärung bzw. der Reglemente betreffend Plagiate erteile ich der Universität Bern das Recht, die dazu erforderlichen Personendaten zu bearbeiten und Nutzungshandlungen vorzunehmen, insbesondere die Dissertation zu vervielfältigen und dauerhaft in einer Datenbank zu speichern sowie diese zur Überprüfung von Arbeiten Dritter zu verwenden oder hierzu zur Verfügung zu stellen.

"Don't be limited by other people's limited imaginations."

Mae Jemison