

Linguistic intersections of language and gender

Of gender bias and gender fairness

Edited by
Dominic Schmitz, Simon David Stein and Viktoria Schneider

d|u|p
düссeldorf university press

We acknowledge support by the Open Access Publication Fund of the University and State Library Düsseldorf.

ISBN 978-3-11-138727-7
e-ISBN (PDF) 978-3-11-138869-4
e-ISBN (EPUB) 978-3-11-138877-9
DOI <https://doi.org/10.1515/9783111388694>



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Library of Congress Control Number: 2025934324

Bibliographic information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the internet at <http://dnb.dnb.de>.

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d|u|p düsseldorf university press is an imprint of Walter de Gruyter GmbH.

Cover image: agsandrew / iStock / Getty Images Plus
Printing and binding: CPI books GmbH, Leck

dup.degruyter.com
Questions about General Product Safety Regulation:
productsafety@degruyterbrill.com

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Gender-inclusive language and male bias: Task matters!

Abstract: The use of the generic masculine has been claimed to evoke masculine representations. Specifically, job offers adopting generic masculine to describe the ideal candidate have been defined as discouraging possible female candidates. Most studies, however, base this hypothesis on responses to questions that explicitly mention the gender of the ideal candidate. The present study aims at testing whether the use of the generic masculine in a text that describes a job offer or that advertises leisure activities lead participants ($N = 245$) to perceive the described environment as less inclusive. Job offers and advertisements were presented in Italian in three forms. The first form involved the use of the generic masculine and the other two involved gender-inclusive strategies: the feminization strategy (i.e., adding the feminine counterpart of each gender-marked element of the sentence) and the neutralization strategy (i.e., substituting words' final morpheme with the schwa symbol). Results showed that the use of generic masculine did not make participants feel less motivated, connected, included and satisfied. Moreover, no difference was observed between the two gender-inclusive strategies, raising questions about the idea that the activation of the male bias is directly imputable to the choice of linguistic forms.

Keywords: gender-inclusive language, generic masculine, male bias, perception of inclusion

1 Introduction

Languages differ regarding gender morphological marking. Genderless languages (e.g., Finnish, Turkish, Chinese and Swahili), provide no gender marking on nouns and other linguistic expressions; in natural gender languages, such as English, even if (most) nouns have no grammatical marking of gender, pronouns show a gender distinction (as in *A girl entered the room. **She** was holding a mug of beer*); in grammatical gender languages (e.g., Russian, German and Spanish), all nouns are assigned a feminine or masculine (or sometimes neuter) gender (Prewitt-Freilino et al. 2012). Italian belongs to this last class: The large majority of nouns are marked

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<https://doi.org/10.1515/9783111388694-010>

for gender and there is morphosyntactic agreement between nouns and the words or elements that depend on them (Hockett 1958; Corbett 2014). Thus, for instance, in Italian not only nouns but also pronouns, determiners, adjectives, past participles (in both singular and plural forms) and, partially, numerals and quantifiers are either marked as feminine or masculine, as in Examples (1) and (2).

- (1) (Lei) è la mia candidata preferita.
 (She.FEM) is the.FEM mine.FEM candidate.FEM preferred.FEM
 ‘She is my favorite candidate.’
- (2) Alcuni degli studenti sono partiti.
 Some.MASC of-the.MASC students.MASC are left.MASC
 ‘Some of the students have left.’

In the case of nouns which refer to individuals who can be biologically male or female (such as *candidate* or *student*), the feminine form is considered to be marked, in the sense that it can refer only to female individuals, whereas the masculine form is unmarked because it can be used to refer to female referents as well. This is illustrated by the contrast in Examples (3) versus (4), adapted from Jakobson (1984: 1–2), where the Italian masculine form of donkey, *asino*, in (3) covers also female exemplars, whereas the feminine form *asina* in (4) is restricted to biologically feminine donkeys (see also Bobaljik and Zocca 2011):

- (3) a. È un asino?
 Is a.MASC donkey.MASC?
 ‘Is that a donkey?’
 b. Sì, di fatto è un’ asina.
 Yes, by fact is a.FEM donkey.FEM
 ‘Yes, actually, it is a jenny (female donkey).’
- (4) a. È un asina?
 Is a.FEM donkey.FEM?
 ‘Is that a donkey?’
 b. *Sì, di fatto è un asino.
 Yes, by fact is a.MASC donkey.MASC
 ‘Yes, actually, it is a (male) donkey.’
 c. No, è un asino.
 No, is a.MASC donkey.MASC
 ‘No, it is a (male) donkey.’

When referring to a person whose gender is unknown (or irrelevant) or to a mixed gender plurality of persons, Italian (and other grammatical gender languages) resort to the generic masculine. For instance, in (5) and (6), the noun *candidate* is mor-

phologically marked with masculine gender, but it can refer to female candidates as well, that is, (5) asserts that also a woman can pose a question and (6) that female candidates are invited as well:

- (5) Se un candidato ha una domanda, può farla.
If a.MASC candidate.MASC has a question, can do-it
'If a candidate has a question, he can pose it.'
- (6) I candidati sono invitati a entrare.
The.MASC candidates.MASC are invited.MASC to enter
'The candidates are invited to come in.'

Even if most linguists view masculine gender as unmarked, and thus as being able to refer indistinctly to both male and female referents, many scholars argue that the use of masculine forms evokes male referents and obscures the presence of women (Sczesny et al. 2016). This has also been found to be the case for a natural gender language such as English: As the English translation of (5) illustrates, to refer to a previously introduced referent (*candidate*, which is not marked for gender in English), the masculine pronoun *he* represents the prescriptive choice (Hellinger and Bußmann 2003).

It has been claimed, though, that resorting to the masculine form activates a *male bias*: The mental representations evoked by this form tend to be male, rather than female or neutral (Gastil 1990), and this has been attested since childhood (Hyde 1984). In grammatical gender languages, moreover, the generic masculine in role nouns (especially occupational titles) has been found to strongly associate with male individuals, compared to other gender-inclusive forms, in German (e.g., Gabriel and Mellenberger 2004; Gygax et al. 2008; Körner et al. 2022; Glim et al. 2025), French (e.g., Gygax and Gabriel 2008; Gygax et al. 2008, 2012; Irmen 2007; Kim et al. 2023), and Italian (Horvath et al. 2016).

These considerations prompted the adoption of a gender-neutral language,¹ that is, according to the guidelines issued by the European Parliament in 2018,² a language that avoids “word choices which may be interpreted as biased, discriminatory or demeaning by implying that one sex or social gender is the norm”, with

¹ In the European Parliament’s guidelines, the term *gender-neutral language* is viewed as a “generic term covering the use of non-sexist language, inclusive language or gender-fair language”. We will here use these terms interchangeably, even if it has been claimed that there are differences among them.

² https://www.europarl.europa.eu/cmsdata/151780/GNL_Guidelines_EN.pdf, accessed: 07 February 2025.

the purpose of reducing gender stereotyping.³ Particular attention has been paid to personal pronouns: To avoid male bias, several strategies have been proposed, such as feminization (adding the feminine pronoun, as in *If a candidate has a question, he/she can pose it*), or neutralization strategies, substituting the gendered pronoun with *they* or other forms (see Ludbrook 2022 and others). The concept of inclusiveness in the workplace has been extensively investigated, since it has been found that an inclusive work environment has a positive impact on the perception of a climate of trust, affective and organizational commitment, job satisfaction, and employee well-being (see Wolfgruber et al. 2021 and references therein). In this field, the inclusion/exclusion dichotomy is “conceptualized as a continuum of the degree to which individuals feel a part of critical organizational processes” (Mor Barak 1999: 52).

Several studies investigated the use of gender-fair language in job advertisements, with the purpose of ascertaining whether the use of a gender-fair language has an impact on the perception of inclusiveness in the workplace. In particular, it has been hypothesized that resorting to the generic masculine (an “exclusive language” option, since it would obscure the mental representation of women and non-binary individuals) might lead addressees to experience a sense of ostracism, perceiving the work environment as less inclusive. To address this issue, in some studies, participants were asked to evaluate the suitability of male and female candidates for positions that were advertised with or without the explicit mention of the feminine gender. Horvath and Sczesny (2015) focused on German, a grammatical gender language, and found that when the generic masculine was used, women were perceived to fit less with high-status positions compared to male applicants, even if they were seen as equally competent. On the other hand, if the job description explicitly mentioned women (i.e., *Geschäftsführerin/Geschäftsführer*, ‘CEO.FEM/CEO.MASC’), the perceived suitability of female applicants became analogous to that one of men. Nevertheless, similar results were found also in natural gender languages such as English and Swedish, in which the gender-neutral noun *the applicant* (*den sökande* in Swedish) still perpetrated the male bias (Lindqvist et al. 2019). The fact that women appear to be underrepresented also in languages that do not mark grammatical gender on nouns suggests that this effect is not imputable to the use of the generic masculine per se but to a more general androcentric worldview where men constitute the norm. This is argued for by Renström et al. (2023), who found evidence for male bias even in grammatical genderless languages such as Turkish and Finnish.

³ In the last years, awareness has been raised concerning the importance of adopting gender-inclusive language relatively to not only gender identity, but also race, disability, sexuality, and geography (Hudley et al. 2024).

In a pertinent study, Stout and Dasgupta (2011) asked participants to read a job offer and then to answer questions assessing their perception of the working environment: When the job description was written using the masculine form intended as generic, also referred to as “gender-exclusive language” across their study, both men and women perceived the environment as sexist, but only women demonstrated less belongingness: They felt excluded, they identified less with the job position, and they felt less motivated. Keener and Kotvas (2023) replicated Stout and Dasgupta’s (2011) study, with some modifications: Besides the exclusive-language version of the job offer (with the masculine pronoun *he*), two different inclusive-language versions were presented, one with the feminization strategy (as in Stout and Dasgupta 2011 with the binary pronouns *he* or *she*), and a new one with a neutralization strategy, substituting the gendered pronoun with the gender-neutral pronoun *they*. The rationale behind this choice is that the feminization strategy is viewed as overemphasizing gender binarism, triggering gender stereotypes (Hyde et al. 2019), and excluding people whose gender identity is not binary. The results are comparable to those of Stout and Dasgupta: For both men and women, texts with generic masculine were felt to be sexist; for the indicators of belongingness, only women obtained scores that depended on the language style, with generic masculine texts leading women to anticipate more ostracism, less identification and less motivation. No significant difference emerged for the two gender-fair strategies (binary and non-binary pronouns).

The studies mentioned so far, however, openly reveal their purpose by explicitly asking participants to evaluate the gender dimension, either by indicating the gender of an ideal candidate or by assessing how sexist an environment is. This might not reflect the actual perception of environments in relation to the linguistic form used, considering that participants’ attention is, in some way, guided beforehand. Furthermore, to date, there is no study investigating the effect of using the masculine form as a generic in Italian job advertisements and, more importantly, no research compares the use of the masculine form with more recent strategies of gender-fair and inclusive language.

2 The present study

We carried out a study that tested whether using the generic masculine or gender-fair and gender-inclusive strategies in advertising texts impacts participants’ conceptualization, leading them to perceive the described environment as more or less inclusive. In this study, the notion of inclusiveness in the workplace is operational-

ized as sense of belongingness, personal motivation and general satisfaction in the workplace.

The study was conducted in Italian, a grammatical gender language in which most nouns, together with all the elements agreeing with them, are morphologically marked with respect to gender. Besides the language, other modifications were introduced to the previously mentioned studies of Stout and Dasgupta (2011) and Keener and Kotvas (2023). We prepared four different advertising texts: A job offer from a communication agency, and three other ones that advertise leisure activities, that is, a gym offering courses suitable for everyone, a cultural association organizing film clubs, theater performances, and art events, and an association that proposes leisure and personal development courses. We hypothesized that also in these cases, if language styles influence participants' sense of belongingness, similar results to job offers should be obtained, possibly with a less pronounced sense of exclusion, since ostracism in a workplace is more harmful. Moreover, we decided to eliminate the questions assessing the perceived sexism of the environment. In Stout and Dasgupta (2011) and Keener and Kotvas (2023), there were three questions assessing perceived sexism, with explicit mention of the writing style, and of gender issues (e.g., "Do you think that the writing style in the job description favored one gender over the other?"). These explicit questions might have led participants to answer in a more deliberate way, that does not necessarily reflect the initial conceptualization of the working environment, and that might be the by-product of voluntary reasoning, possibly influenced by a social desirability bias. Finally, we added a question that assessed the participant's interest in the job or activity that was advertised, before reading the text. It has been found that girls' lower interest in enrolling in STEM courses is influenced by stereotypes against women (Master et al. 2016), so we aimed to check whether the level of interest could influence the perception of inclusion.⁴

3 Method

3.1 Participants

Two hundred and forty-five Italian-speaking adults (213 females, 25 males, 7 who do not identify with a specific gender), aged 18 to 52 years, and with a mean age of 26 years ($SD = 6.15$) participated in the study. Some participants were involved through

⁴ All the materials, data and analyses are stored and publicly available in the OSF repository at: <https://osf.io/z8qn4>, accessed: 10 March 2025.

the Sona System of the University of Milan-Bicocca and received credit for their participation, others were reached through social media and personal contacts.

Tab. 1: Example of a trial, in this case: *Gym*.

part	text
introduction	Now imagine that you want to join a gym. Read carefully the ad we present below, try to foreshadow the environment of this gym, and then answer to the questions you find just after the ad.
interest question (1 – <i>no interest</i> , 7 – <i>much interest</i>)	Before you read the ad, however, we ask you what your interest is in gyms, and gym classes, in general.
advertisement text (excerpt)	...If you're looking for an engaging way to reach your health goals, you've come to the right place! At our Energy Fit gym, we offer a wide range of classes suitable for [tutti]_M [tutti/e]_{M/F} [tuttə]_{SCHWA} ('everyone') and for any skill level and physical condition. ... Whether you are [un principiante o un esperto]_M [un/una principiante o un/una esperto/a]_{M/F} [unə principiante o unə es-pertə]_{SCHWA} (=‘a beginner or an expert’), you will receive the attention and support you need to progress...
inclusion questions	I am inspired to attend this environment. I think people in this environment can notice me and include me. This environment can motivate me. I could gain personal satisfaction by attending this environment. I would feel a sense of connection in this environment. I would feel a sense of appreciation in this environment. I would feel a sense of acceptance in this environment. I would feel a sense of welcome in this environment.

3.2 Manipulations and measures

We prepared four advertising texts for a job in a communication agency (*Job*), a gym (*Gym*), a cultural association (*Culture*), and for in-presence and online courses (*Courses*). The texts were presented in three versions: One version was with the generic masculine (*M*), and two other versions were using inclusive-language styles. With the feminization strategy (*M/F*), the feminine version of each noun (and expressions agreeing with it) was added to the masculine one, thus mentioning both genders. In the neutralization strategy (*SCHWA*), the gender morphological markings (typically, *-o.SG* and *-i.PL* for the masculine and *-a.SG* and *-e.PL* for the feminine) were substituted with the schwa symbol (*/ə/* for the singular and */ɜ/* for

the plural). Even if the schwa is not part of the phonemic repertoire of Italian, this option has been recently proposed as a gender-inclusive linguistic strategy in Italian (Boschetto 2015; Gheno 2021; Baiocco et al. 2023). Importantly, this proposal has been strongly opposed both for ideological reasons (it would nullify gender binarism), a criticism made mainly by people with a right-wing political orientation, and for practical reasons (since schwa is not a symbol belonging to the standard Italian inventory, its adoption may cause reading difficulties in people with reading disorders). To exemplify the different writing styles, the noun candidate in the sentence “we are looking for a candidate who...” was presented with the generic masculine (*un.MASC candidato.MASC*)M, or with the feminization strategy (*un.MASC/una.FEM candidato.MASC/a.FEM*)M/F, or with the neutralization strategy (*unə candidatə*)SCHWA.

The main measure was the self-reported sense of belongingness in the described environment. Participants were asked 8 questions assessing the perception of inclusion (i.e., the reverse of being ostracized), how motivated they would be in that place, and how they would identify with it (Table 1). These items used 7-point response scales ranging from 1 – *I do not agree at all* to 7 – *I completely agree*. The Inclusion score was obtained by the sum of the scores recorded in each response for each participant, thus ranging from 8 to 56. Before presenting each of the advertising texts, participants were asked how much they were interested in each of the proposed activities (Interest question), and had to answer indicating a value from 1 – *no interest* to 7 – *much interest*. See Table 1 for one example.

3.3 Procedure

The questionnaire was implemented on Qualtrics, a platform for online surveys. Participants had to consent to participate, and then answered to a series of questions regarding their age, gender, educational level, and political orientation (on a scale ranging from 1 – *extreme left* to 7 – *extreme right*). Participants were then randomly assigned to three different lists, and presented with each of the advertising texts (*Job, Gym, Culture, and Courses*), written in one of the manipulated styles (M, M/F, and SCHWA).

3.4 Hypothesis

We hypothesize that, if the use of the masculine form as generic leads to a male bias, participants, particularly women, would perceive the environments as less inclusive (i.e., with lower inclusion scores) after reading the text with the generic

masculine (M) compared to texts written with gender-fair forms, that is with feminization (M/F) or neutralization (SCHWA) strategies. Since the neutralization strategy is debated, this option might be less favored by participants, especially by those with a more conservative political orientation.

4 Results

We analyzed the results in the R environment (R Core Team 2023) using linear mixed-effects models with the package lme4 (Bates et al. 2015). The p -values reported in the outputs of the models are based on the Satterthwaite approximation to the denominator degrees of freedom, as implemented in the lmerTest package (Kuznetsova et al. 2017). We visually inspected the distribution of participants' responses to ensure that none of them answered randomly, for example, by consistently assigning the same value to every response.

To test whether the use of the generic masculine leads to a perception of the environment as less inclusive, we set contrasts to compare the texts involving generic masculine to the texts that involved the other two gender-inclusive strategies. Moreover, we were interested in comparing the two inclusive language strategies with each other. The contrast schema is reported in Table 2.

Tab. 2: Contrast schema set for the analysis.

linguistic form	contrast 1	contrast 2
generic masculine M	2/3	0
feminization M/F	-1/3	+1/2
neutralization SCHWA	-1/3	-1/2

We were also interested in exploring whether the working environment was overall perceived as less inclusive with respect to leisure activities. In order to answer this question, we set contrasts⁵ to compare the perception of inclusiveness in response to texts containing job advertisements and texts that promoted leisure activities. We also tested whether there are differences in the perception of inclusiveness among texts promoting leisure activities. We then ran a model which contained the inclu-

⁵ Considering that the levels of the variable *Type of advertisement* involved the levels *Courses*, *Culture*, *Gym*, *Job*, the contrast schema adopted was: $c(-1/4, -1/4, -1/4, +3/4)$, $c(-0.5, +0.5, 0, 0)$, $c(0, -0.5, +0.5, 0)$.

sion score as dependent variable, the linguistic strategy together with the type of advertisement, the interest score toward the activities, participants' political orientation, age and self-declared gender as predictors, and participants' IDs as random intercept. The output of the model is reported in Table 3.

Tab. 3: Fixed-effects of the model including the inclusion score as dependent variable, the linguistic strategy together with the type of advertisement, the interest score, participants' political orientation, age and self-declared gender as predictors and participants' IDs as random intercept.

	estimate	standard error	t-value	df	p-value
(Intercept)	3.594	0.061	58.703	287.970	0.001
Strategy (contrast 1)	0.001	0.016	0.063	749.674	0.949
Strategy (contrast 2)	-0.002	0.019	-0.120	748.288	0.904
Adv (Job vs others)	-0.047	0.018	-2.564	738.944	0.011
Adv (Cours. vs Cult.)	0.063	0.026	2.409	740.922	0.016
Adv (Cult. Vs Gym)	-0.129	0.025	-5.184	719.153	0.001
Interest value	0.064	0.005	12.888	906.340	0.001
Political orientation	-0.015	0.011	-1.325	234.123	0.187
Age	-0.008	0.002	-4.537	233.953	0.001
Gender	-0.034	0.036	-0.949	233.836	0.344

Results from the first contrast showed that the use of generic masculines did not result in the environment being perceived as less inclusive compared to the two gender-inclusive language strategies. Results from the second contrast showed no difference in the perception of inclusiveness due to the different inclusive strategies adopted (feminization and neutralization). Results from the comparison of the types of advertisements showed that, indeed, texts that advertise job offers are perceived to be the absolute least inclusive, compared to those that advertise leisure activities. On the other hand, participants felt generally more included when responding to an advertisement from a cultural association with respect to the other leisure activities (Figure 1).

Interestingly, results showed that the interest in the target activity strongly predicted the perception of inclusiveness of such an environment (Figure 2, left panel), independently of the linguistic forms used. Lastly, we observed an effect of participants' age on the perception of the inclusiveness of the environment, showing that the older the participants, the less included they felt (Figure 2, right panel).

No effect of participants' political orientation and self-declared gender was observed.

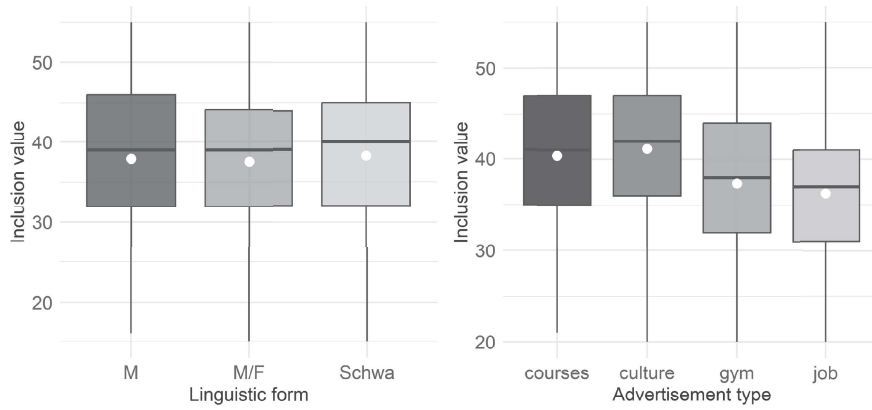


Fig. 1: Mean values of perceived inclusiveness based on the linguistic form adopted (left) and type of advertisement (right). White dots represent the means, while black bars represent the medians.

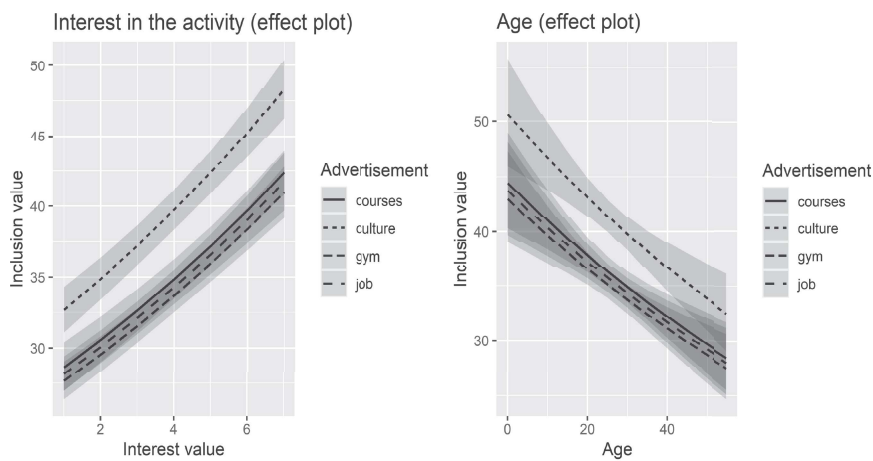


Fig. 2: Effect plots of interest value (left panel) and age (right panel) split per advertisement type.

5 Discussion

The present study aimed at testing whether the use of the masculine generic within advertisements led to a decrease of the perception of inclusiveness (measured asking participants to imagine how they would feel motivated, satisfied, accepted, and

so on), with respect to the use of gender-fair strategies. As gender-inclusive strategies we included the feminization strategy, which involves the iteration of the masculine and feminine forms on each gender-marked element of the sentence, and the neutralization strategy, which involves the use of the schwa symbol as gender neutral morpheme. We were also interested in observing whether there were differences between the environments reported in the different ads, especially we hypothesized that the working environment could have been perceived as less inclusive in general, regardless of language form.

Results show that there is no evidence that the use of the generic masculine impact participants' perception of the inclusiveness of the environment. No difference was observed between the texts that adopted the two gender-inclusive forms as well. Hence, the use of the so-called exclusive-language (generic masculine) or inclusive-language strategies (feminization or neutralization) did not have an effect on how participants felt motivated, connected, included and satisfied. This result is particularly interesting considering that the great majority of our participants was constituted by women (87%) and hence, if the use of masculine tended to exclude women, it should have strongly emerged in women's judgment.

In this study, we used an explicit measure of the perception of inclusion in a given environment, and we acknowledge that this type of measure is very different from the implicit measures used in language processing studies. However, it is interesting to note that, at least at an explicit and potentially superficial level of conceptualization, the use of different linguistic strategies is not perceived as impacting the sense of inclusion. Our results show, at the very least, in contrast to studies that have highlighted that the use of the masculine triggers a male representation (Glim et al. 2025; Kim et al. 2023; Horvath et al. 2016), that this type of effect may depend on the task used.

With respect to the studies conducted by Stout and Dasgupta (2011) and Keener and Kotvas (2023), we believe that the difference in our results compared to the male bias they identified can be attributed to the changes we made to the experimental design. Specifically, as already pointed, those studies included questions that directed participants' attention to the writing styles of the texts (e.g., Keener and Kotvas 2023 asked "To what extent do you think the writing style favored men [favored women] [was gender inclusive]?"). To provide an answer, participants are invited to reflect upon linguistic strategies, and this might have led to less spontaneous and more reflective responses (also for social desirability reasons). On the other hand, those studies found an effect of gender-unfair language styles on the other tested dimensions (anticipated ostracism, identification, and motivation), in which no explicit mention of writing strategies or gender was made. It seems unlikely that the diverging results could be imputed to differences in social or cultural factors, since in Italy there is a lively debate about the need for linguistic strategies

that do not exclude anyone. Probably the key difference between our study and the studies reported is the absence of explicit reference to sexism and language forms. Indeed, when investigating the effect of linguistic forms on inclusion, making explicit reference to gender or sexism might bias the results and not show the actual perception.

With respect to the other variables that influenced participants' perception of inclusion, their (initial) interest in the advertised job or activity strongly predicted the results. Indeed, the more they declared to be interested, the more they perceived a sense of belongingness to the environment. This result may seem trivial, as it is predictable that the more a person is interested in an activity, the more likely they are to feel included by an advertisement promoting it. However, the truly interesting aspect of this finding is that, for someone who is already interested in the activity beforehand, the way the advertisement is presented does not influence the perception of inclusion in any way. Age influenced the perception as well: The older the participants, the less they felt included. This finding may be linked to the type of activities proposed, which were probably more suitable for a younger segment of the population.

The present study shows some limitations that might be considered as starting points for future research. For instance, the gender and age distribution of the participants is unbalanced, with a significant overrepresentation of women and younger participants. More importantly, the proposed activities (job in a communication agency, a gym, and cultural association) can be considered to be truly open to female presence. It would be interesting to see whether different results might be obtained in case of advertising texts for stereotypically masculine environments (e.g., a job as software developer, or a boxing gym): It could be that in these cases the use of gender-fair language, and in particular the feminization strategy, might contribute to make women more visible and even open up new opportunities (Hiller 2023).

6 Conclusion

Our main result is that when participants declare to be highly interested in a specific activity (a job position, a gym, an association organizing cultural activities or courses), they will foresee that environment in positive terms, anticipating a sense of inclusion. Indeed, in the present study we report that the linguistic forms adopted do not impact how participants felt motivated, connected, included and satisfied. Overall, these findings do not support the idea that generic masculine per se obscures the presence of women, who will therefore feel ostracized. In other words,

the male bias that has been attested in other studies that investigated the perception of the workplace after reading a job advertisement has possibly emerged in relation to specific features of society and social relations (i.e., a general androcentric worldview, Renström et al. 2023), rather than in relation to the linguistic forms used. It has to be acknowledged, though, that the existence of a male bias triggered by the use of masculine generic in German has been attested using other techniques (discriminative learning), showing that this form resembles explicit masculine form and differs from explicit feminine forms, independently of societal stereotypes (Schmitz et al. 2023), and thus further research is needed.

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