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Neutralising linguistic sexism: Promising, but cumbersome?

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Neutralising linguistic sexism: Promising, but cumbersome?

Since the first wave of feminism in the 19th century, some central aspects of gender equality have been achieved in European countries, such as the right to vote and equal treatment legislation. Other aspects, such as reproductive rights of women, violence against women or disparities in female and male pay, remain of concern. A further challenge, which has sparked debate among both scientists and non-scientists, is that of an equal linguistic treatment of women and men. Specifically, there has been contention about the choice of word form when referring to groups in which all sexes are represented, or in situations in which the biological sex of referents is either unknown or irrelevant (e.g. a statement about "fire fighters in general" in contrast to specific fire fighters). The extent of this challenge varies considerably from one language to another (Stahlberg, Braun, Irmen, & Sczesny, 2007). In grammatically genderless languages such as Finnish, nouns and pronouns generally do not indicate the referent's gender. However, lexically-gendered nouns, that is nouns that carry a semantic property of gender (e.g. Finnish: palo*mies* [fire*man*]), might still be present. In comparison, in fully grammatically-gendered languages, such as French or German, most human referent nouns, pronouns or adjectives change form in agreement with the gender of the referent (e.g. in French: un*e* musicien*ne* courageu*se* [a_feminine courageous_feminine musician_feminine] vs. un musicien courageux [a_masculine courageous_masculine musician_masculine]). In such languages, the form used to indicate the male gender is also often used when no specific gender is intended; this is referred to as the *generic use of masculine forms* (GM). This practice has been increasingly criticised since the 1970s; there is mounting evidence for it being associated with male biases in information processing (for reviews see Gabriel & Gygax, 2016; Sato, Öttl, Gabriel, & Gygax, 2017; Stahlberg et al., 2007).

Whereas a lexical gender marking of nouns (e.g. spokes*woman*, police*men*, fresh*men*) can be overcome by alternatives for the specific nouns (i.e. spokes*person*, police *officers*, *first year students*), modifying language use when gender is grammaticalised is more challenging as it impacts not only word production but also sentence production processes. Two main solutions can be distinguished (Hellinger & Pauwels, 2007): maintaining grammatical gender marks, yet assuring that they are used in a gender-balanced way (e.g. in Swedish the use of "hon och han" [she and he] instead of a generic use of "han" [he]), and avoiding the use of gendered terms by linguistic creativity (e.g. use of a third personal pronoun in Swedish, "hen", as a gender-neutral alternative to the gender-specific "hon" [she] and "han" [he]). The former refers to *feminisation* strategies, whereas the latter to *neutralising* strategies. These suggestions, however, have been constrained not only by the properties of languages, but also by societal debates associated with gender equality. Consequently, there has been no clear consensus on appropriate ways to refer to people of different genders, in any language.

This paper is based on the assumption that language and linguistic practices shape and reflect people's worldview. We start by addressing social and cognitive correlates of the extent to which *language systems* encode referent gender and of the *linguistic practice* of asymmetric uses of gendered terms. We then argue that an asymmetric use of gendered terms contributes to asymmetric processing efforts. Typically, processing costs – in terms of cognitive effort – are higher for generically intended though gender-marked terms; further, this asymmetry of cognitive effort constitutes the very basis for engaging in language policies or language initiatives to prevent it. We further argue that some initiatives targeting language usage – whether following, or not, language policies – seek to socially and cognitively modify hierarchical relationships between the sexes. Others seek to overcome the emphasis of

a simple (and hence inaccurate) gender/sex dichotomy. We review empirical evidence on the intended and non-intended (positive *and* negative) side effects of these initiatives, focusing on *feminisation* and *neutralisation* strategies. With German as an example, we illustrate the implementation of these strategies and discuss them in terms of *cognitive effort* and *personal attitudes* towards language reforms. We argue that both have an impact on the rather unsystematic use of feminisation and neutralisation. We conclude that—although there is relatively undisputed evidence that linguistic choices affect gender-related representations—the social and cognitive mechanisms underlying the use of alternative (so called *non-sexist*, or *gender-fair*) linguistic practices are not straightforward, yet deserve full attention. We end the paper by considering the complex interaction between language and societal changes, suggesting that it would be a mistake to consider them separately.

Structural differences in languages

The extent to which information about the gender of referents is grammatically encoded varies across languages (Corbett, 1991; Gender across languages project: Hellinger & Bussmann 2001-2003; Hellinger & Motschenbacher, 2015). Generally, spoken, sex-based grammatical gender systems are widespread in Indo-European languages (but also in Semitic or other Afro-Asiatic languages), yet with substantial variety. To the best of our knowledge, there is not yet a coherent theory to explain the emergence of structural differences between language groups of gender systems (Corbett, 1991; Foundalis, 2002).

The way a language grammatically encodes the gender of referents may have important social and cognitive consequences for comprehension and production. This is in line with Slobin's (e.g. 2003) *thinking for speaking* and *listening for thinking* approach. In a nutshell, this approach assumes that a language provides a set of

options to grammatically encode certain characteristics of objects and events that speakers of this language are obliged to attend to. As different languages provide different sets of options, they might oblige their speakers to attend to different characteristics. As such, when speaking or hearing a language that grammatically encodes referent gender, a person's thinking for speaking (and their listening for thinking) is overly "tuned to gender and its communicative significance" (p. 2). Evidence for such a language-dependent tuning of the perceptive-cognitive system to gender comes from cross-language studies. For example, Chen and Su (2011) compared the performance in listening and reading tasks of speakers of a language that *does not* mark gender in third-person pronouns (Chinese, *ta*) with speakers of a language that *does* mark gender (English, *she/he*). In line with the assumption that Chinese speakers would be less "tuned to gender", participants responded less accurately to gender-related questions than to non-gender related questions, whereas English speakers were faster to respond to gender-related questions than to gender-unrelated ones. Similarly, Fukumura, Hyönä, and Scholfield (2013) found that speakers of a gender-marked language (English, *she/he*) tend to produce more explicit gender-referring expressions—hence use fewer pronouns—when a referential competitor was of the same gender as the referent than speakers of a non-gender-marked language (Finnish, *hän*).

Research investigating the relationships between language structures and the salience of gender categories more broadly, however, is very limited (Liu, Shair-Rosenfield, Vance, & Csata, 2017; Prewitt-Freilino, Caswell, & Laakso, 2012), and does not yet allow for firm conclusions on whether the social category of gender perceptually and/or cognitively surfaces more easily for speakers of gender-based languages than for speakers of other languages. Still, in line with self-categorisation

theory (e.g. Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), one could assume that such saliency might compel language users to self-stereotype, leading to an intensification of gender differences. In the same line of thinking, social correlates of the grammaticalisation of gender are difficult to establish, as separating linguistic from other cultural variables may be impossible (see Gabriel & Gygax, 2016 for a discussion). However, we know that language structures do change over time, and that some historical language changes were explicitly driven by sexism. For example, in English, the singular and non-gendered *they*, used for several centuries in English litterature, met with fierce criticism by 19th century androcentric prescriptive grammarians, who – following earlier drive to impose the sex-indefinite *he* – saw the masculine form as the *worthier* one (Bodine, 1975). In French, in the 17th century, grammarians deemed it important to establish the masculine form as the dominant one: They stated that men were simply more noble than women (Viennot, 2014). Similarly, Irmen and Steiger (2006) argue the development of GM in German across the centuries has been an expression of zeitgeist and contemporary social and cultural conditions.

Even though there are clear structural differences across languages and changes within languages, there has been little empirical research on the correlates of grammaticalisation of gender from a *cross-linguistic* perspective. As such, as it stands, whether language systems reflect and/or shape their speakers' gender attitudes cannot be truly addressed beyond conjecture. However, what can be addressed with more assurance are social and cognitive correlates of the linguistic practice of asymmetric uses of gendered terms.

Asymmetric use of terms

The generic use of masculine forms in grammatical gender languages and the

generic use of male pronouns, or lexically male-marked nouns, describes the practice of using masculine (pro)nouns both in a specific way to mark male referents, and also in a generic way to refer to persons in general or groups composed of female and male referents. In contrast, feminine nouns and female pronouns, or lexically female-marked nouns, are used in a specific way only. This has two related yet different consequences. First, masculine forms are more frequent than feminine ones (except in a few professions and roles for which feminine generics are used; e.g. in French: *une sentinelle* [a sentinel] or in German *die Krankenschwester* [a nurse]). Second, the association of masculine nouns and pronouns with male exemplars are continuously strengthened. Namely, as the masculine-male link is always true, linking the masculine form to a female exemplar is context-dependent, and requires language users to search for specific contextual cues. This second asymmetry is well supported by empirical research, revealing that grammatical masculine nouns that refer to persons are more easily linked to male than to female referents (e.g. Gygax & Gabriel, 2008), even when participants are explicitly reminded of the generic interpretation of the masculine form (Gygax, Gabriel, Lévy, Pool, Grivel & Pedrazzini, 2012). This latter finding is reminiscent of the Association-Proposition-Evaluation model (APE; Gawronski & Bodenhausen, 2011). The APE model states that we evaluate our environment through two distinct mental processes: one based on spontaneously activated associations in memory, and one based on *logical consistency*. The latter is particularly important, as it represents the explicit evaluation of the information implied by the former, based on a more elaborative reasoning. In languages with grammatical gender, when language users encounter a noun in the masculine form, the specific meaning of the latter is activated spontaneously, with no control (Lévy, Gygax, & Gabriel, 2014). The generic meaning of the masculine form requires more

explicit reasoning. As both meanings may clash, to reduce the dissonance created by such a clash, one meaning may be dropped to the advantage of the other. However, as stipulated by the APE model, and as shown by Gygax et al. (2012), rejecting the spontaneous meaning does not necessarily deactivate its mental associations. Put differently, one could argue that overriding the specific interpretation of the masculine form—interpretation based on implicit associations—may require more than explicit evaluations (i.e. explicitly activating its generic interpretation). Based on the notion of humans as cognitive misers (Fiske & Taylor, 1984), we would argue that the asymmetry of processing effort required to activate the different interpretations of the masculine form constitutes the very basis for engaging in language policies to prevent such an asymmetry. Next, we present feminisation and neutralisation strategies, along with associated social and cognitive mechanisms, that could ground those language policies.

Intended and side effects of feminisation and neutralisation strategies

Feminisation

Given that the masculine form, when used alone, generates mental representations that are mostly composed of men, one way to remedy this bias is by also referring explicitly to women (feminisation). For example, instead of saying, in French, *les étudiants*masculine [students], one would use the dual-form (also referred to as *pair-form*), *les étudiants*masculine *et étudiantes*feminine [the male and female students].

Intended effects. In most studies testing the use of pair-forms (or split-forms such as in *Vegetarier/innen* in German or *végétarien/ne* in French [vegetarian masculine/feminine]) against the masculine form only, female associations—to varying degrees—were strengthened (e.g. Braun, Gottburgsen, Sczesny & Stahlberg, 1998, in German; Chatard, Guimond, Lorenzi-Ciolldi, & Désert, 2005, in French; Gabriel, 2008, in Norwegian). In terms of more equal mental representations of women and men (and of course in terms of women's visibility), this is a positive outcome, at least for those

that had been criticising the use of masculine form only.

An initial issue with this particular form, of course, is the order of mention. As extensively discussed by Hegarty and colleagues (e.g., Hegarty, Mollin, & Foels, 2016), semantic factors have been shown to predominate over others (such as alphabetical order, for example) in determining binomial order, at least in terms of human referent. Crucially, first-mentioned elements in binomials are considered more important or of higher status (e.g. *the queen and her servants*).[1] One could even argue that first-mentioned elements are likely to receive more attention, simply because they are read first. The order effect reported in Gabriel, Gygax, Sarrasin, Garnham, and Oakhill (2008) illustrates this attention issue. In this study, participants were presented with 126 role nouns (e.g. neighbours, nurses, or pilots) and were instructed to "estimate to what extend the role nouns were *actually* made up of women or men" (Gabriel et al., 2008, p. 208). The authors found that when *100% women* was presented on the left side of the scale (i.e. first when reading from left to right), participants on average assumed that women represented a higher proportion in the role nouns than when *100% women* was presented on the right side. More directly, Kesebir (2017) showed that when a woman was mentioned first in a *business woman and a business man* context, she was considered as more central and received more attention then when she was mentioned second.

Possible positive side effects. This reliable effect has been further qualified in studies showing the importance of an additional source of gender information, namely gender stereotypical expectations associated with different roles or occupations. In Vervecken et al. (2015), for example, 12-17 years old ($M = 14$) French-speaking pupils were orally presented with job descriptions either in GM or in pair-form (i.e. the feminine and masculine form), and asked a series of questions, mainly pertaining to *warmth*, *competence*, and *success of either gender* in these occupations. Most interesting were the results of the latter measure. First, when presented in the masculine form only, participants' representations were stereotyped when the

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[1] See Hegarty et al. (2016) for a discussion of counter examples, such as "ladies and gentlemen".
[2] Studies 1 & 2 were on fictional jobs, and essentially showed the same results.

occupations were gender-stereotypical (i.e. women are expected to be more successful in stereotypical female occupations, and men in stereotypical male occupations), and male-biased for non-stereotypical occupations (i.e. men are expected to be more successful than women). Second, when presented in pair-form, all gender-stereotypical occupations were considered as less stereotyped, and non-stereotypical occupations as less male. Vervecken et al. (2015) were the first to show that a language-based change – in a fully-gendered language such as French – could have an impact on the stereotypical representations of the occupations described.

Possible negative side effects. Still several questions remain, one of which pertains to a possible loss of prestige associated with the use of the feminine form. As pointed out by Chatard et al. (2005), in a patriarchal society, the idea that more women can be part of certain occupations (as signalled by the pair-form), may well lower the social status of the occupations. These researchers argued that this was unlikely; however, they did not test their assumptions empirically. Others did, and their results were not unequivocal. For example, Vervecken et al. (2015)—studying a group of 12–17 year old French-speaking pupils—found that *perceived competence* (indirectly signalling social status) was unaffected by the form in which the occupations were presented (i.e. masculine only vs. pair-form). In contrast, Vervecken and Hannover (2015)—on a sample of 10-year old Dutch- and German-speaking pupils (Experiment 2)—found that male stereotypical occupations presented in pair-forms were ascribed a lower social status than when presented in the masculine form only. Interestingly, both girls and boys showed a greater vocational self-efficacy (i.e. they felt more confident to pass the qualification test required to do the job) for these male stereotyped occupations when presented in pair-form.

In a similar vein (yet not directly testing pair-forms), Formanowicz, Bedynska, Cislak, Braun and Sczesny (2013) examined whether Polish female job applicants

would be evaluated differently depending on whether the job was described in the feminine or masculine form. These authors based their work on the notion that female suffixes often generate associations that are derogatory (e.g. Marcato & Thüne, 2002, in Italian) or of lower status (e.g. Merkel, Maass, & Frommelt, 2012, in Italian; Koniuszaniec & Blaszkowska, 2003, in Polish). Their results (Study 3)[2] revealed two interesting findings. First, presenting a female applicant with a feminine form evoked lower status ratings than when presenting her with a masculine form (or presenting a male applicant with a masculine form). Second (and illustrating the impact of the socio-political context), these effects were only present for conservative (as opposed to liberal) participants.

More recently, however, Horvath, Merkel, Maass and Sczesny (2015), testing German- and Italian-speaking participants, found that when presenting a list of professions either in pair form (i.e. feminine and masculine form) or GM, although participants would evaluate all professions in pair-form as earning less, the social status of professions in pair-form was only lower for stereotypically female professions. Importantly, visibility (e.g. *How many women and men pursue the profession [profession group]*?) increased for women if professions were presented in pair-forms. These manifold results are also reminiscent of the APE model described earlier, by which both implicit associations as well as explicit evaluations (i.e. more elaborative reasoning) interact to form mental representations. In other terms, presenting feminine and masculine forms together may trigger elaborative reasoning, consequently increasing the visibility of women, whilst at the same time, the feminine form may trigger implicit and spontaneous derogative associations.

Any backlash may hence be linked to a lack of exposition to symmetrical

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[2] Studies 1 & 2 were on fictional jobs, and essentially showed the same results.

linguistic gender forms. Formanowicz, Cislak, Horvath, and Sczesny (2015), for example, showed that in Poland, where symmetrical linguistic gender forms are rare, a gender-related initiative (e.g. quotas for women), presented using feminine forms, was evaluated less favourably than when presented in the masculine form only (while controlling for political views). This was not the case for non-gender initiatives (e.g. development of the higher education system), nor was it found in Austria, where gender-fair language is a common practice (and has been so for at least three decades). Mere exposure to symmetrical linguistic forms may therefore contribute to overcoming potential prestige loss of, or negative associations with, feminine forms.

A further argument against the use of pair-forms is that they might create additional cognitive processing costs. However, a reading study in French (Gygax & Gesto, 2007) showed that although reading speed was slower on the first encounter of role nouns written in the pair-form, readers became used to these forms quickly. The reason for the initial processing slowdown is unclear. It could illustrate a surprise effect, as much as an additional processing effort, to include both genders in one's mental representations.

Finally, although feminisation strategies seek to heighten the visibility of women in discourse by unmistakably pointing to gender, they contribute to making gender categories salient and consequently to maintaining a dichotomous view of sex and gender. In contrast, neutralisation strategies (discussed next) seek to escape an unnecessary activation of gender association brought forth by grammaticalised or lexicalised gender terms. Neutralisation strategies might consequently constitute a more inclusive option, at least for the gender continuum.

Summary. Studies on the impact of feminisation document several important issues. First, it is fairly undeniable that feminisation improves women's visibility

when referring to jobs, professions or occupations. Second, even though feminisation contributes to the (over) salience of the gender category, it also (at least partially) levels out gender-stereotypical expectations associated with certain job labels. Third, although language can change representations—at least in terms of visibility—we argue that feminine forms must be used consistently to avoid any side-effect or backfire (e.g. lower perceived status).

Neutralisation

Despite the largely promising findings generated by studies on feminisation (especially in terms of women's visibility), by using both feminine and masculine forms in grammatical gender languages, or simply by *having* both forms, language users are required to always activate the category *gender* (Gabriel & Gygax, 2016). In a sense, it makes users think of gender, even when not needed; it also forces users to think of gender in a binary way, thus contributing to the overestimation (accentuation) of intergroup differences and the underestimation of intragroup variation. Therefore, instead of feminisation, which carries this issue, one might want to turn to more neutral linguistic forms, illustrated by the concept of *neutralisation*.

Intended effects. The term neutralisation refers to several different concepts, depending on the languages at stake and their linguistic constraints. Broadly though, it refers to the idea of abandoning the explicit mention of female or male gender. In grammatical gender languages, neutralising forms can be seen in personal nouns with neuter gender (e.g. in German: *das Kind* [the child]). It can also be represented by *epicenes*, which indifferently refer to both women and men (e.g. in French: *un humain*masculin [a human being], *une personne*feminine [a person]), even when they are grammatically gender-marked. Some epicenes have been shown to be more likely associated with men (see Irmen & Roßberg, 2004, for an example of the effects of

neutralising nouns in German; Wyrobková, Gygax, & Macek, 2015, for the example of *human* in Czech), and therefore may not always carry the neutral gender meaning intended. Why *epicenes* tend to be associated with men remains unclear, yet it is reasonable to assume that an androcentric perspective leads women to be excluded from any superior-level category such as *human* (Wyrobková et al., 2015).

Another neutralising form can be seen in use of the group instead of its constituents. So, for example, instead of mentioning *the migrants were moving across Europe*, which would in grammatical gender languages inevitably raise the notion of gender (e.g. in French *les migrantes*feminine *et les migrants*masculine *se déplaçaient à travers l'Europe*), one could say *the migrating population was moving across Europe* (e.g. In French *la population migrante se déplaçait à travers l'Europe*). Of course, the meaning of the two possibilities to phrase this situation may well differ, in that specifying the members of the group is not the same as using the group itself as referent. To the best of our knowledge, such neutralising strategy has received very little attention. Neutralisation in general has received much less attention in research than feminisation. Three recent investigations, though, targeted language alterations associated with neutralisation: a study on *nominalisation* in German (Sato, Gygax, & Gabriel, 2016), one on the gradual disappearance of feminine suffixes in Norwegian (Gabriel & Gygax, 2008; conceptually replicated by Gabriel, Behne, & Gygax, 2017) and one on the third person pronoun *hen* in Swedish (Gustafsson-Sendén, Bäck, & Lindqvist, 2015).

Sato and colleagues (2016) investigated the relatively new German nominalised form (plural form), which directly derives from adjectives and participles (e.g. *die Konsumierenden* [those that consume]), and is gender-neutral. In this study, participants had to decide as fast as possible whether sentences containing the

mention of either women or men would constitute a sensible continuation of preceding contexts that mention role nouns either in the masculine form only (e.g., *die Käufer*masculine [the buyers]) or nominalised form (e.g., *die Konsumierenden*neutral [those that consume]). They found that, as in previous studies, participants struggled to respond positively when the role noun was in the masculine form and the target sentence mentioned women; this was not the case when the role noun was in the nominalised form. The authors concluded that relatively new language forms (at least new in Switzerland where the research took place) could well generate the desired gender-neutral representations (at least for stereotypically neutral role nouns used in the study).

Norwegian, much like other grammatically-marked languages, has a grammatical gender system, yet it is gradually losing the feminine gender-mark in general (e.g. Beller, Brattebø, Lavik, Reigstad, & Bender, 2015), and gender-marking suffixes in role nouns in particular, following a strategy of neutralisation (e.g. Norsk Språkråd, 1997). Gabriel and Gygax (2008; Gabriel et al., 2017) tested whether such a strategy would indeed make the masculine form more generic (i.e. by lacking a gender contrast). Across both studies, they found that Norwegian participants displayed a male bias when presented with neutral role nouns or stereotypically male role nouns, but a female bias when presented with female-stereotypically role nouns. Even though the results for female-stereotyped role nouns indicate a more generic interpretation of masculine role nouns, they signal at the same time a heightened influence of gender-stereotypical information.

Possible negative side effects. Another issue with new language forms aimed at gender-neutrality is that they are not easily accepted by users, as they may threaten the institutionalised binary concept of gender (and a system favouring men). This is

the case of the new pronoun *hen* in Swedish, introduced around 2012 in children's

books first, as a complement to the pronouns *hon* [she] and *han* [he] (Gustafsson-

Sendén et al., 2015). Although it was introduced to avoid gender biases, critics argued

that children would be disoriented by not knowing the gender. In their paper,

Gustafsson-Sendén and colleagues documented the evolution of acceptance of *hen* by

formal authorities, as well as the evolution of general attitudes towards this pronoun,

from 2012 to 2015 (at six points in time). Most importantly, attitudes towards the

pronoun *hen* (on a 7-point Likert scale, from *1 = very negative* to *7 = very positive*)

shifted from negative in 2012 ($M = 2.9$) to positive in 2015 ($M = 5.7$). The use of *hen*

also increased, yet to a lesser extent.

When it comes to processing costs one could also argue that neutral forms,

being new, may require more effort to process. However, one could as easily argue

that removing the mention of specific genders may require less effort, as no particular

gender needs to be activated. Consequently, even if the initial processing of new (or

modified) neutral forms may require extra processing effort, they should gradually

shift to being less effortful (cf. also Foertsch & Gernsbacher 1997, for singular *They*

as a cognitively-efficient substitute for generic *He*).

Summary. Few studies are available on the impact of neutralisation strategies

on gender representations. Yet, results thus far seem to indicate that—in the absence

of other gender cues (e.g., stereotypes)—gender-neutral word forms do contribute to

generating less biased representations, consequently dismissing gender intergroup

boundaries. In the presence of other gender cues, however, such as stereotypical

expectations, neutralisation may give room for other types of biases, hence

counteracting the original idea of being gender neutral. Therefore, neutralisation

efforts might result in contributing to reducing the *visibility* of gender biases but not

in correcting or mitigating them.

Overall, there is substantial research documenting the effects of feminisation strategies as well as some research on the effects of neutralisation strategies on readers' gender representations. There is, however, little research on potential processing costs and gains of the different strategies.

The unsystematic use of feminisation and neutralisation

Establishing feminisation or neutralisation as part of individual and societal language systems has proved to be a challenge, as we will exemplify by the case of German, and the rather unsystematic presence of alternative forms to the masculine as generic in both formal and less formal language uses. Such an unsystematic presence will be discussed in association with both cognitive effort and language users' attitudes towards language reforms.

Use of alternative forms in formal and less formal contexts: German as example

Efforts to promote gender-fair language seem to have had fluctuating effectiveness in legislation and public administration in German-speaking countries. While Doleschal (1998), with respect to official communication and law texts in Austria, stated that changes came slowly and not consistently, fourteen years later Lamb and Nereo (2012) found that both the Basic Law for the Federal Republic of Germany and the Federal Constitution of the Swiss Confederation were largely written in gender-fair language. Further, analysing the Swiss Corpus of the Federal Chancellery (in German), which includes different forms of official communication such as law, resolutions or ministry information, Elmiger, Tunger and Schaeffer-Lacroix (2017) reported that the frequency with which masculine forms were being used as generics decreased over time, whereas the frequency of various forms of feminisation as well as the use of the neutral denomination *a person* increased.

Likewise, analysing homepages and mission statements of twelve German universities, Merkel (2011) found that masculine forms were rarely used as generics. Similar signals were found in German schoolbooks (Moser & Hannover, 2014), yet gender-neutral or gender-balanced language was used more in German language books than in mathematics books, and not systematically. Such an unsystematic practice is also seen in online job advertisements. For example, Hodel, Formanowicz, Sczesny, Valdrová, and Stockhausen (2017) found that—despite Switzerland's (in German at least) and Austria's equal treatment act allowing the government to fine companies using gender-specific word forms in job advertisements—31% of German ads in Switzerland and 10% in Austria still announced positions using gender-specific job titles.

While the use of alternative forms seems to be widespread in official documents and formal texts, feminisation and neutralisation strategies appear to a lower degree in less formal, yet still public, texts. For example, Elmiger (2009) contrasted a reference corpus on German language in Switzerland (*Schweizer Textkorpus*) to one in Germany (COSMAS II). Both corpora consisted of different types of texts such as newspaper articles, advertisements, instructions, guidebooks and populist literature. The author found that feminine forms of human referent nouns that traditionally had only been used in the masculine form were rare in both corpora, with some feminine forms, such as *die Maurerin*_{feminine} (the female mason), not being present at all in the *Schweizer Textkorpus*. Similarly, Movahedi (2009), investigating a popular TV show in Austria ("Konkret – das ServiceMagazin") found that women were mostly addressed with feminine markers, but the masculine form was used when groups or a person of unknown gender were referenced. In Switzerland, Honegger (2000) also observed that on early evening Swiss-German TV shows (on private

channels), masculine forms were mostly used to refer to groups of people; feminine

forms were only used when more private or intimate topics were discussed.

Not surprisingly then, alternative forms to refer to groups of people are still

infrequently used in everyday language, as studies assessing participants' spontaneous

use of gender-fair language show. For example, Sczesny, Moser, and Wood (2015)

found in a fill-in-the-gap task that gender-balanced forms were used in only 40% of

the gaps (Study 1 and Study 2). Kuhn and Gabriel (2014) reported similar numbers,

also using fill-in-the-gap tasks; in 66% (university students) or 60% (trainees) of their

responses, participants used the masculine form only (GM) to refer to persons or

groups with unknown gender.

The descriptive results summarised for German indicate a decrease in the use

of alternative forms as the *formality* of the context decreases; we can readily assume

similar patterns to be found for other language communities.

Explaining the unsystematic use of feminisation and neutralisation

Language competencies may serve as a good initial candidate in explaining the

unsystematic use of feminisation and neutralisation, as overcoming traditional lexical

forms may require both lexical and syntactic flexibility. Kuhn and Gabriel (2014), for

example, showed that when explicitly asked to avoid GM terms, participants'

compliance depended on their level of production competence, as measured by the

DaF (Einstufungstest, 1998), a standardised language test for German.

However, other explanations for the unsystematic use of feminisation and

neutralisation have received more research attention: a) the potential extra effort

associated with use of these processes, which may be considered overwhelming, and

b) language users' attitudes towards language reforms (collective change) and

modifying one's language use (individual changes).

The overwhelming cognitive effort issue. Given that the generic use of grammatically (or lexically) masculine forms is still a common practice (at least in less formal contexts, as discussed earlier), it could be argued that masculine forms—due to their prevalence—are highly accessible compared to gender-balanced or neutralised forms. As such, producing gender-fair language might include *actively* inhibiting use of the masculine form only, requiring speakers to reflect upon or monitor their language use, thus detecting when a linguistic device (e.g. the masculine form) may be inappropriate in the semantic context.[3] Accordingly, one can expect that successful overcoming of the habitual use of masculine forms as generics demands ample attention from language users. From such a perspective, selecting alternative forms to overcome the generic use of masculine forms would certainly be eased if alternatives were as simple to process as (or even simpler than) the habitual routine.

Although we are not aware of any research that systematically tested the cognitive ease with which language users could embrace different linguistic forms, some authors (e.g. Koeser, Kuhn, & Sczesny, 2015) have shown that social influence, in the form of *conformity*, could simplify the use of gender-fair forms. These authors, for example, found that when presented with texts with pair-forms, female participants used more gender-fair forms. For male participants, this was also the case, however, only when they were explicitly made aware that the texts comprised gender pair-forms (Study 2). Kuhn, Koeser, Torsdottir, and Gabriel (2014) reported a similar result in Norwegian. Participants were more likely to use linguistic forms they had previously encountered (e.g. using unmarked forms after having read role nouns in unmarked forms). Together, these results suggest that changing one's use of language does not require overwhelming cognitive effort. In fact, specific descriptive norms may suffice to change language production.

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[3] See Douglas, Sutton, and Wilkin (2008) for a similar argument concerning the linguistic expectancy bias.

Attitudes towards language reforms. To evaluate whether enforcing habituation to alternative forms could be sufficient for language users to spontaneously produce them, Prentice (1994) investigated the impact of repeated corrections; for one semester, the laboratory reports of a group of students (experimental group) were repeatedly and specifically corrected for their gender-fairness, while this was not the case for another group (control group). Although the experimental group gradually and spontaneously used more gender-fair language, this change did not affect their attitudes towards language reforms. At the collective level, this could well constitute a serious issue preventing more global language changes. In a similar vein, grounding their work on the idea that these attitudes may be the very source of the slow adoption of gender-fair language, Sarrasin, Gabriel, and Gygax (2012) showed that, in English, French and German, there was a high correlation between attitudes towards language reforms and the ability to recognise sexist language. This is particularly relevant when considering collective changes in language use.

Others have tried to implement attitude-focused interventions to promote gender-fair language. Koeser and Sczesny (2014), for example, presented participants with different arguments in favour of gender-fair language. Although these arguments positively impacted participants' spontaneous use of gender-fair language, no change was seen in their attitudes towards language reforms. In all, even though gender-fair language use can be reinforced, it seems attitudes towards language reforms are quite impermeable to any reinforcement strategies. Some authors have argued that these attitudes are grounded on more global—and hard to change—attitudes towards women, such as different forms of sexism (e.g. Sarrasin et al. 2012; Sczesny et al., 2015) and system-justifying ideologies (Douglas & Sutton, 2014).

Summary. Although needed for more inclusive representations, changes in language use may require additional individual resources. Empirical evidence that clearly targets those resources is still scarce, yet it does highlight that attitudes towards language reforms as well as social conformity may serve as a basis for accepting language changes. However, whereas individual linguistic behaviours appear malleable, this may not be sufficient to overwrite traditional language forms, as these as well reflect the value placed on different social groups.

Conclusion

The extent to which languages grammatically encode gender varies between languages, and we have discussed the social and cognitive correlates of these variations. Given the empirical research at hand and the methodological challenges of differentiating the impact of language structure from the impact of other cultural variables on the members of a speech community, one way to control for these dimensions would be to focus on multilinguals within the same cultural framework or to focus on speakers of the same language in different cultural frameworks.

The biasing effects of an asymmetric use of male terms and masculine forms are well documented, and we highlighted the role of processing effort in disentangling the semantic duality of the masculine form (i.e. *generic* vs. *specific* meanings). While it is empirically well documented that feminisation strategies contribute to women's visibility (and other positive implications), neutralisation strategies have received less attention from social and cognitive psychological research. So far, though, one can argue that although neutralisation strategies may well reduce gender category salience, they may be prone to the influence of gender stereotypical expectations. This is not the case for feminisation strategies. If this proves to be a reliable finding, it suggests that feminisation strategies should be used in contexts that are already

gendered, whereas neutralisation strategies should be used in non-gendered ones (hence keeping the context neutral).

The processing efforts of *producing* gender-fair forms, such as those discussed in this paper, may well constitute barriers to their systematic use, yet we argue that they may not be much bigger than those needed to process the semantic duality of male terms and masculine forms. As such, it is still yet difficult to say whether reluctance to language changes is a matter of processing difficulty, simple convenience or androcentric perspective.

We suggest that one possible course of action to tackle both language changes, as well as negative attitudes towards language reforms, would be to provide institutionalised and clear language guidelines. The result may be twofold. First, stimulating gender-fair language through an institutionalised framework may motivate *some* individuals to use more gender-fair language. Second, these individuals may increase others' exposure to gender-fair language, which might be sufficient for the latter to follow suit. However, in these endeavours, one should never undersestimate those that hold very strong and negative attitudes towards any forms of gender-fair or gender-inclusive language. Tackling ways to change those might be as central as the possible courses of action mentionned before.

As a final note, and inherent to these language guidelines, we would like to join Sczesny, Formanowicz, and Moser (2016) in their comment stressing the need for a *deliberate* effort before gender-fair language can become habitual. By *deliberate*, we mean that, as suggested by these authors, policy-makers must take responsibility in initiating the grounding base of a long-lasting use of gender-fair language.

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