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1 Introduction and literature review

Chinese is categorised as a grammatically genderless language because most nouns in Chinese are grammatically, semantically, and referentially gender neutral (Stahlberg et al. 2007). This includes the system of pronouns, where in spoken Mandarin pronouns are not differentiated by gender, although a gender distinction in the third person does exist in written simplified Chinese. It has been pointed out that despite the lack of gender marking in Chinese, this does not necessarily indicate that Chinese is a gender-inclusive language without gender biases and linguistic sexism (Ettner 2002; Moser 1997; Farris 1988). While attitudes toward linguistic sexism and the use of gender inclusive language have been investigated in English for more than two decades (cf. Sczesny, Moser & Wood 2015; Douglas & Sutton 2014; Parks & Robertson 2000, 2004, 2008), the authors are not aware of any studies addressing this issue in Chinese. The current study adapts Parks and Robertson's (2000) *Inventory of Attitudes Toward Sexist/Nonsexist Language* to explore attitudes toward sexist and inclusive language in speakers of Mandarin simplified Chinese (henceforth Chinese) born between 1980 and 2004. The study is based upon a binary gender concept due to insufficient number of non-binary participants.

1.1 Sexist language in Chinese

Gender bias and sexist language is found in a number of areas in Chinese, particularly related to terms of reference and personal nouns, as well as in descriptive adjectives semantically tied to women. An example of the latter is the inclusion of the semantic radical 女 'woman/female' in other characters with negative connotations not specifically related to women, including 婪 'greedy', 妒 'jealous', or 奸 'treacherous' (Sun 2010; Moser 1997; Farris 1988). This visually apparent connection between the representation of women and the pejorative meanings in Chinese writing system indicates attitudes toward women derived from ancient Chinese society (Ettner 2002). Proposals for replacing this radical with other gender neutral radicals such as 歹 'evil' or 人 'person' have been put forth but have not been adopted (Ettner 2002). In terms of pronouns, 她 'she' was created as a specific feminine third person singular pronoun in 1920s including the semantic radical 女 'woman' and the same phonological radical 也 /tā/ as is found with 他 'he' (Ling, 1989). However, prior to the differentiation between genders in the third person written forms, 他 'he' was believed to be a gender neutral pronoun, structured with the semantic radical 人 'person' (Huang 2015) and therefore not specifically male. The pronoun 他 'he' currently enjoys status as a male/generic pronoun, similar to the (now dispreferred) use of English generic 'he' (Sluchinski 2021; Zhong 2015; Moser 1997).

In terms of reference, men are generally addressed as 先生 'sir/gentleman' (archaically meaning 'master' or 'teacher'), while women are addressed according to their age, marital status, or even social contributions. There are exceptions to this, such as women in academia who may be respectfully addressed as 先生 'master/teacher' when they have made extraordinary contributions to their field. However, it is noted that this particular usage is not found in the Dictionary of Modern Chinese (Zhang 2007; Zhou 2003). More commonly, lexical gender markers are unnecessarily added to gender neutral nouns to emphasise the sex of the referent when there is an inconsistency between the gender stereotype of a noun and the referent's sex. While this is more typically observed for terms referring to women (e.g. 女博士 [female PhD] in Peng et al. 2021: 4); 女司机 [female driver] in Li & Luo 2020: 781), it is also occasionally used for terms referring to men (e.g. 男护士 [male nurse] in Chan & Lin 2019: 166).

Finally, in some common phrases we also find terms used exclusively for women with no male counterpart. An example of this is 女强人 'female strong person', used to describe a woman with a successful career, whereas there is no equivalent term available which emphasises the male identity with the same status (the United Nations; Moser 1997). In other cases, femininity is degraded through the use of demeaning phrases such as 娘炮 'feminine cannon' (meaning 'sissy'; Li 2020) or 事儿妈 'issues mother' (meaning 'fastidious person'; Wu, 1991). Meanwhile generic masculine terms such as 哥们儿 'bros' (meaning 'true loyal friend') are used to convey respect for masculinity (Wu 1991). This same privileging of male status is also seen in dyads which include gender pairs, where the female element is always listed last (e.g. 夫妻 [husband and wife, meaning married couple] and 男女平等 [men and women are equal, meaning gender equality] in Ettner 2002: 38).

1.2 Inclusive language in Chinese

It has been suggested that language inclusivity can be improved by processes of feminisation (i.e. symmetric use of feminine and masculine words pairs), neutralisation (i.e. use of gender indefinite nouns and pronouns), or a combination of the two (Sczesny, Formanowicz & Moser 2016). As we review below, in the Chinese context, inclusiveness practices show a trend from increasing visibility of women to not making gender visible, thus from feminisation to neutralisation.

1.2.1 Feminisation practices

Symmetrical address terms are considered to be an indication of fundamental changes in women and men's social relationships (Hellinger & Bußmann, 2001). Indeed, with the improvement in equality of status for women in China, it is also increasingly more common to refer to women as 女士 'lady/madam', a symmetrical term to 先生 'gentleman/sir' (Hao 2005). In more casual settings and computer mediated communication, individuals between 18 and 45 tend to use pairs such as 美女/帅哥 'beautiful woman/handsome brother' or 小姐姐/小哥哥 'little older sister/brother' when addressing strangers of a similar age (Wang 2022). In relationships, we also find a change towards neutral pairs such as 妻子/丈夫 'wife/husband', or 女朋友/男朋友 'girlfriend/boyfriend' (Chen 2019), where previously derogatory terms such as 贱内 'cheap inside' or 粗妇 'rough woman' (both meaning 'wife') were once in more common usage.

On the other hand, with women increasingly participating in traditionally male-dominated social roles, expressions such as 女强人 'female strong person' (meaning 'woman with a successful career') and other unnecessarily female marked nouns have also emerged. These terms are misleadingly suggested to highlight the increasing status of women, while actually perpetuating gender stereotypes (Moser 1997; Farris 1988). For reasons such as these, the guidelines for gender inclusive language in Chinese developed by the United Nations suggest using gender differentiated word pairs only when popular prejudice may neglect the inclusion of either gender. For example, highlighting 无论女童或男童 'whether girls or boys' is suggested to be more inclusive than merely mentioning 每个儿童 'every child' in terms of educational opportunities in China. Research in grammatically gendered languages such as German and Dutch also shows that occupational terms in paired forms reduce gender stereotypical perceptions of occupations and promote children's interests in counter-stereotypical fields (Vervecken, Hannover & Wolter 2013; Vervecken & Hannover 2015).

An area where feminisation has resulted in considerable controversy is in the introduction of the female specific third person singular pronoun 她 'she'. The original intention of introducing 她 'she' was to increase visibility of women in written works during a period of educational reforms undertaken in response to women's suffrage in 1920s (Huang 2015). As a part of this reform, a male specific pronoun *男也, structured with the semantic radical 男 'man/male' and the same phonological radical 也 /tā/ had been

proposed and used in a few published articles in the 1920s (Ling 1989). Had this proposal been implemented successfully, a symmetric pair of gender-specific pronouns could have been achieved without sacrificing the gender unspecific nature of 他 'he'. However, *男也 never gained popularity and was later abandoned (Moser 1997), leaving 他 'he' to act both as a gender unspecific and as a male specific pronoun. In modern Chinese, the practice of using 他 'he' and 她 'she' together is not uncommon for increasing women's visibility (Wang 2010), although this practice is also criticised as superfluous because 他 'he' is considered to be sufficient to refer to both women and men (Jiang 1996).

1.2.2 Neutralisation practices

The lack of grammatical gender in Chinese leads to a natural ability to avoid gendered language when gender is not relevant for communication (Sczesny, Formanowicz & Moser 2016). Occupational terms such as 老师 'teacher' and 医生 'doctor' or positions such as 局长 'director' can be used as polite forms of address for people of any gender (Zhang, 2007). In particular, 老师 'teacher' is appropriate when the addressee's role or position is unknown or when a specific address term is absent as a way of showing respect (Zhang 2007; Zhou 2003). Gender neutral kinship terms such as 家人 'family member' or 宝宝 'babe', initially used in computer mediated communication, may now also be used to address acquaintances and strangers in everyday conversation (Wang 2022). In relationships, inclusivity is promoted by using gender neutral terms such as 爱人 'beloved person', 伴侣 'partner', or 另一半 'the other half' (Chen 2019; Chan & Lin 2019). In fact, since these terms do not designate the gender of the referent or the speaker, they are especially appreciated by homosexual couples (Chen 2019).

In relation to the issues mentioned below surrounding the system of third person pronouns, in formal documents the gender neutral pronoun 其 'singular and plural they/them/their' is suggested because of the character's conciseness and inclusiveness (the United Nations). However, in mass media, especially computer mediated communication, it is increasingly popular to use TA, a romanised form of the pronunciation of the third person pronouns, which is not gender differentiated (Zhong 2015; Zhan 2013). The form is considered to be an efficient way of including all potential genders compared to the feminisation practice of the pronoun pair 他/她 'generic he/she' (Zhan 2013). Despite its popularity, relatively little research has been undertaken on the usage of TA, with the exception of a few corpus-based critical discourse analysis studies revealing that TA is also emerging as a covert reference to LGBTQIA+ groups (Sluchinski 2021).

1.3 The current study

Little is known about the degree to which Chinese speakers recognise sexist language usage, and whether they might be more willing to use more inclusive language if there were practical alternatives. To the best of our knowledge, there is no published measure of attitudes toward sexist/nonsexist language in China. Therefore, this study introduces a simplified Chinese Mandarin adaptation of *the Inventory of Attitudes toward Sexist/Nonsexist Language - General (IASNL-G, Parks & Robertson 2000)* with the goal of investigating Chinese speaker's general attitudes toward sexist and inclusive language, including the recognition of subtle sexist language, their willingness to use inclusive language, and their opinions on the necessity of reforming Chinese. We also specifically explore whether differences are found in attitudes relating to the gender of the speakers themselves, and whether younger speakers are more accepting of inclusive language than older speakers.

1.3.1 Sex, gender beliefs, and attitudes toward sexist/nonsexist language

Early studies in inclusive language use generally found that women not only had more favourable attitudes toward inclusive language but also used more inclusive language than men (Cronin & Jreisat 1995;

Rubin, Greene & Schneider 1994; Rubin & Greene 1991; Jacobson & Insko 1985). These studies together with others examining opinions about sexist/nonsexist language (e.g. Blaubergs 1980), recognition of sexist language (e.g. McMinn et al. 1994), and use and willingness to use sexist language (e.g. Nilsen 1984) were later adapted to create the IASNL-G (Parks & Robertson, 2000) to measure individuals' language attitudes in a more comprehensive way. Individuals' total scores of this inventory were used as a quantitative indicator of general attitudes toward language reform, sexist language, and inclusive language.

However, more recent studies have added nuance to these findings. Measured by Parks and Robertson's IASNL-G (2000), women were found to score highly, holding more favourable general attitudes toward inclusive language than men (Douglas & Sutton 2014; Park & Robertson 2004, 2008). On the other hand, no differences were found in women and men's intention and actual use of inclusive language (Sczesny, Moser & Wood 2015). Further examinations of participants' gender beliefs indicated that the potential gender gap in sexist language detection and inclusive language use was likely to be mediated by individuals' level of sexism (Sczesny, Moser & Wood 2015; Sarrasin, Gabriel & Gygas 2012; Parks & Robertson 2004). Well researched measures employed in related studies included *the Modern Sexism Scale (MSS, Swim et al., 1995)*, *the Neosexism Scale (NS, Tougas et al., 1995)*, *the Attitudes toward Women Scale (AWS, Spence & Hahn, 1997)*, and *the Ambivalent Sexism Inventory (ASI, Glick & Fiske, 1996)*. Interestingly, Douglas and Sutton (2014) found that individuals' attitudes toward system justification were more stronger mediators on the gender difference in scores of IASNL-G than AWS and ASI, suggesting that this gender difference in attitudes toward sexist and inclusive language might be essentially driven by more comprehensive ideologies in social gender hierarchy. NeoSexism and Modern Sexism seem to concur with these overarching approvals to keep people "in their place". Neosexism emphasises the conflict between egalitarian values and remnant negative feelings toward women (Tougas et al., 1995). Individuals harbouring Neosexism reckon on the symbolic importance of sexist language to maintain the current balance of male and female 'normal' roles thus disapproves affirmative actions for women because they believe the group they belong to would lose more than they gain if this balance is shifted (Parks & Robertson, 2004; Tougas et al., 1995). Modern sexists believe that it is the biological differences between men and women rather than socialisation and discrimination that lead to job segregation (Swim et al., 1995). Particularly, individuals harbouring higher levels of Neosexism and Modern Sexism were found to predict lower scores on the IASNL-G, indicating less favourable attitudes toward gender-inclusive language (Sczesny Moser & Wood, 2015; Parks & Robertson, 2004, 2008). However, some studies have also highlighted discrepancies between participants' own abilities to recognise sexist behaviour, and their ability and intention to avoid sexist language, even in individuals with low levels of Modern Sexism (Sarrasin, Gabriel & Gygas 2012; Swim, Mallett & Stangor 2004), suggesting individuals are not necessarily sensitive to sexism in the linguistic domain.

Taking this into account, the current study examines the interrelations between individuals' sex, gender beliefs, and both general and specific attitudes toward sexist/nonsexist language based on one comprehensive Chinese version of IASNL-G.

1.3.2 Effects of age and education on attitudes toward sexist/nonsexist language

The other major variables that were found to influence IASNL-G scores were education and age (Parks & Robertson 2008). Specifically, a greater number of years spent in formal education was found to significantly predict higher scores in the IASNL-G, indicating more positive general attitudes toward inclusive language. In terms of age, the youngest group (18-22 year old) was surprisingly found to have significantly less positive attitudes toward inclusive language compared to their older cohorts (30-49, 51-69, and 70-87 years old), challenging the notion that older people are less open to change than younger people. One possible explanation for this discrepancy is that attitudes toward inclusiveness may be formed

during significant social events which shape ongoing political attitudes later in life (Meredith, Schewe & Karlovich 2002), such as coming of age during the civil rights era and second wave feminism.

With this in mind, our study focused on language attitudes across three decade-of-birth groups (i.e. participants born in the 1980s, 1990s, and 2000s). In contemporary China, individuals are commonly labelled based on the decade of their birth such as 80后 ‘post-80s’, 90后 ‘post-90s’, or 00后 ‘post-00s’, because same decade-of-birth cohorts are believed to share salient collective identities (Qian & Li 2020). Accordingly, youth research tends to focus on different birth decades rather than traditional generations because of the rapid development of Chinese society (Feng 2011). In addition, these three cohorts correspond to individuals who were born after China’s reform and opening-up (December 1978). Individuals born after 1980 will have come of age in a relatively stable political and economic environment, which may help shed light on how age itself influences attitudes toward sexist/nonsexist language.

2 Methodology

2.1 Participants

Data was collected from 303 respondents (153 women, 150 men) via wenjuan.com, an online survey platform in China. All participants were born in Mainland China after China’s reform and opening-up, had received education in Mainland China for at least 12 years, and confirmed they spoke and read in Mandarin/Simplified Chinese every day. Participants’ ages reflected those born into the three decades of interest (92 born in 1980s, 108 born in 1990s, and 103 born in 2000s). A majority of the participants came from economically and culturally developed regions across China (25% from Shanghai, 8.6% from Zhejiang, 7.6% from Guangdong, 7.3% from Beijing, and 7.0% from Sichuan). Most participants (87.5%) reported having obtained at least a bachelor’s degree. It is worth mentioning that a choice of ‘non-binary genders’ in addition to choices of female or male was given, however, due to an extremely low number of participants who identified as non-binary (2), it was not feasible to form a non-binary group separate from the female and male groups in the following analysis.

2.2 Design of the IASNL-G Chinese

This study adapted the Inventory of Attitudes toward Sexist/Nonsexist Language - General (IASNL-G, Parks & Robertson 2000) to create a measure of individual attitudes toward sexist/nonsexist language in Chinese (IASNL-G Chinese). The Chinese adaptation followed the definition of sexist language used in the original inventory: “Words, phrases, and expressions that unnecessarily differentiate between females and males or exclude, trivialize, or diminish either gender” (Parks & Robertson 1998a: 455). Alterations were made to the original inventory (see below for details) to better fit the context of Chinese language use, and were piloted in 9 participants (5 female, 4 male) before inclusion in the final version of the scale. IASNL-G Chinese therefore consisted of three sections with 24 items in total (8 items per each section). All items were rated based on a 11-point Likert scale, resulting total scores ranging from 0 to 240. Higher scores reflect a more supportive attitude toward language reform, better sexist language detection, and greater willingness to use inclusive language. According to the cutting points of the original IASNL-G, individuals scoring between 168 and 240 were considered to have supportive attitudes, those scoring between 120 and 167 were neutral or undecided, and those scoring lower than 120 indicated negative attitudes. As shown in Table 1, IASNL-G Chinese showed good reliability across gender and generation, with Cronbach’s alpha being above .86 for all groups

| Section | Sample (n = 303) | Women (n = 153) | Men (n = 150) | 80s (n = 92) | 90s (n = 108) | 00s (n = 103) |
|---------|---------------------|--------------------|------------------|-----------------|------------------|------------------|
|---------|---------------------|--------------------|------------------|-----------------|------------------|------------------|

| | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| Beliefs about sexist language | .79 | .74 | .77 | .74 | .85 | .76 |
| Recognition of sexist language | .86 | .85 | .82 | .85 | .87 | .85 |
| Willingness to use gender inclusive language | .80 | .70 | .80 | .81 | .84 | .76 |
| Total inventory | .90 | .87 | .86 | .87 | .92 | .88 |

Table 1. Cronbach's coefficients alpha based on the scores of 303 participants completing IASNL-G Chinese

In the beliefs about sexist language section, the new inventory selected items 2, 3, 5, 7, 8, 9, 10, and 12 from the original inventory because these items were judged by the researchers to be appropriate to the Chinese context: item 2 asked opinions on changing traditions with language use; items 3, 7, 8, 9, and 12 measured more abstract beliefs on the importance of eliminating sexist language; item 5 asked for opinions on unintentional use of sexist language; and item 10 focused on changing male generic expressions to female inclusive ones (Parks & Robertson 2000: 434). While most items could be translated directly into Chinese, items 5 and 10 were specifically changed into more culturally suitable examples. For item 5, there was no Chinese equivalent to the expression "man and wife", therefore our study substituted the commonly used expression 别这么娘炮 'do not be a sissy', which maintained the original intention of exploring phrases which are unintentionally sexist. In item 10, the English phrase "our forefathers" was changed into 炎黄子孙 'Sons and grandsons of Yan-Huang'. Table 2 shows the eight Chinese adapted items in this section with the average score of every item rated by the participants. Higher scores represented more supportive attitudes toward language reform and sexist language elimination.

| Item number in IASNL-G | The Chinese adaptation | Mean (SD) |
|------------------------|--|-------------|
| 2 | *我们不应该改变汉语传统的读写、表达方式。 [We should not change the way the Chinese language has traditionally been written and spoken.] | 4.46 (3.21) |
| 3 | *我们没必要担心语言性别歧视问题。 [We do not need to worry about the issue of sexist language.] | 7.39 (2.76) |
| 5 | *当有人说 '你怎么这么娘炮' 这种话时, 如果说的人并没有性别歧视的意思, 那这句话就不是性别歧视。 [When people use "don't be a sissy", the expression is not sexist if the users don't mean to be.] | 5.98 (3.48) |
| 7 | 消除性别歧视性语言是社会发展中一个重要的目标。 [The elimination of sexist language is an important goal in social development.] | 7.50 (2.56) |
| 8 | 新闻媒体是不允许使用民族、种族侮辱性语言的, 所以也不应该允许使用性别歧视性语言。 [Most publication guidelines require news media to avoid using ethnic and racial slurs. So, these guidelines should also require writers to avoid sexist language.] | 8.10 (2.24) |

| | | |
|----|--|-------------|
| 9 | 性别歧视性语言和社会中的性别歧视行为是相关的。 [Sexist language is related to sexist treatment of people in society.] | 7.98 (2.25) |
| 10 | 我们应该把用男性作为泛指的表达转变成包括女性的表达。比如把‘炎黄子孙’等变成‘炎黄儿女’。 [We should change expressions using male generics, such as “sons and grandsons of Yan and Huang” to expressions that include women, such as “sons and daughters of Yan and Huang”.] | 5.09 (3.28) |
| 12 | 虽然改变很困难，但我们还是应该努力消除性别歧视性语言。 [Although change is difficult, we still should try to eliminate sexist language.] | 8.03 (2.20) |

Table 2. Items in the beliefs about sexist language section of IASNL-G Chinese with the means and standard deviations of every item (*Scores of items were reversed in the results).

In the recognition of sexist language section, items were selected based on the guidelines for gender-inclusive language in Chinese (United Nations), with consideration given to expressions under current debate in social media and academic research (e.g. Peng et al. 2021; Li & Luo 2020). As illustrated in Table 3, eight items were included representing four aspects of subtle sexist language in Chinese. Higher average ratings on the items reflected a greater recognition of the items as examples of sexist language.

| Aspects of sexist language | Sexist language | Mean (SD) |
|---|---|-------------|
| Male as default | 领导携夫人 [leaders and wives] | 4.75 (3.41) |
| | 我敬你是条汉子 [I respect you being a real man] | 4.29 (3.23) |
| Degradation of women | 妇孺皆知 [even women and children know it] | 4.98 (3.38) |
| | 婆婆妈妈 [old women and mothers, meaning pointlessly or annoyingly talkative] | 5.21 (3.63) |
| Unnecessary emphasis on woman’s identity | 女司机 [female driver] | 6.56 (3.37) |
| | 女科学家 [female scientist] | 4.15 (3.43) |
| Expressions with no equivalents for men | 女强人 [female strong person, meaning woman with a successful career] | 4.72 (3.37) |
| | 寡妇 [widow] | 4.50 (3.52) |

Table 3. Items in the recognition of sexist language section of IASNL-G Chinese with the means and standard deviations of every item.

In the section exploring willingness to use inclusive language, we emphasised inclusiveness of women and men, non-binary genders, and individuals with different sexual orientations. One item specifically related to woman explored willingness to use 女士 ‘lady/madam’ as a polite address term for women instead of expressions indicating age or marital status. Five items were related to inclusive use of occupational terms. Participants were asked to indicate their willingness to use generic nouns rather than ones which include unnecessary gender information (i.e. 女博士 ‘female PhD’). One additional item asked whether participants preferred to use either the pronoun pair (他/她 ‘he/she’) or the gender neutralised third person pronoun (TA) instead of 他 ‘generic he’. Finally, one item explored the use of inclusive expressions for spouses and partners instead of sex differentiated expressions. In this item, several examples of inclusive partnership terms were given as a group, participants were asked to rate their general willingness to use the inclusive expressions. See Table 4 for the details of every item in this section. Higher average scores in the items represented the participants’ greater willingness to use the inclusive language choices rather than the not inclusive ones.

| Types of expressions | Not inclusive language | Inclusive language | Mean (SD) |
|--------------------------------|---|---|--------------------|
| Address terms for women | 小姐 [miss]; 太太 [mrs]; 姑娘 [girl] | 女士 [lady/madam] | 7.83 (2.60) |
| | 女博士 [female PhD] | 博士 [PhD] | 8.91 (1.97) |
| Occupational terms | 男护士 [male nurse] | 护士 [nurse] | 8.30 (2.54) |
| | 快递小哥 [delivery bro] | 快递员 [delivery person] | 7.70 (2.69) |
| | 空姐/空少 [stewardess/steward] | 飞机乘务员 [flight attendant] | 6.79 (3.27) |
| | 鸡 [chicken]; 妓女 [prostitute]; 失足妇女 [fallen woman]; 男妓 [male prostitute] | 性工作者 [sex worker] | 7.73 (2.86) |
| | Pronoun use | 他 [generic he] | 他/她 [he/she] or TA |
| Partnership terms | 丈夫/妻子 [husband/wife]; 男朋友/女朋友 [boyfriend/girlfriend] | 配偶 [spouse]; 爱人 [beloved person]; 伴侣 [partner]; 另一半 [the other half] | 6.20 (3.33) |

Table 4 Items in the willingness to use inclusive language section of IASNL-G Chinese with the means and standard deviations of every item.

2.3 Measures of gender beliefs

Gender belief systems were measured by including items from the Modern Sexism Scale (MSS, Swim et al. 1995) and the Neosexism Scale (NS, Tougas et al. 1995), with all items being translated into Chinese with minor alternations to suit the Chinese context. Both MSS and NS were designed to measure more covert and subtle forms of contemporary sexism without directly asking participants whether women are considered inferior to men. MSS emphasises the denial or acknowledgement of the existence of sexism, while NS is linked to opposition to affirmative action for women and directly focuses on sexism in labour force. We chose to include these scales as our previous research examining redundant gender-makers in Chinese nouns found that individuals with lower levels of MSS and NS were also more likely to disapprove of sexist language targeting both women and men (Fan & Lawyer, in prep).

Participants were asked to rate to what extent they agree with each statement in the MSS and NS on an 11-point Likert scale, to maintain parity with scores from the IASNL-G. The range of total scores was therefore from 0 to 80 for MSS and from 0 to 100 for NS, with higher total scores representing more positive and egalitarian gender attitudes. It is worth mentioning that one statement from the original NS (“Women will make more progress by being patient and not pushing too hard for change”) was omitted after piloting because it was found to be unclear and pilot participants reported confusion about how to rate this statement.

3 Results

3.1 General attitudes toward sexist/nonsexist language in Chinese

According to total scores on the IASNL-G, participants in this study were found to have neutral or undecided attitudes to sexist/nonsexist language with an average score falling into the 120 - 167 scoring range (see Table 5). Looking at the results of female and male participants separately, on average female participants appear to have more supportive attitudes than male participants, with the mean value falling into the supportive (168 - 240) category.

| IASNL-G Chinese (0 - 240) | Mean (SD) of total scores | Supportive (168 - 240) | Neutral/undecided (120 - 167) | Negative (0 - 119) |
|-------------------------------------|--|----------------------------------|---|------------------------------|
| Women (n = 153) | 173.54 (33.29) | 61.4% | 33.3% | 5.2% |
| Men (n = 150) | 135.37 (35.75) | 13.3% | 57.3% | 29.3% |
| Total (n = 303) | 154.65 (39.42) | 37.6% | 45.2% | 17.2% |

Table 5. The means and standard deviations of the total scores in IASNL-G Chinese overall and across gender and the proportions of individuals with different attitudes.

In the three sub-sections of the IASNL-G Chinese, participants scored the highest in willingness to use gender inclusive language and beliefs about sexist language, with the lowest scores being found for recognition of sexist language (see Table 6). This is somewhat surprising, given that participants were asked to judge expressions based on a provided definition of sexist language. As with the total IASNL-G Chinese scores, women scored higher than men in every sub-section as well.

| Instrument (possible range of scores) | Women (n = 153) Mean (SD) | Men (n = 150) Mean (SD) | Total (n = 303) Mean (SD) |
|--|--|--------------------------------------|--|
| Total inventory of IASNL-G Chinese (0 - 240) | 173.54 (33.29) | 135.37 (35.75) | 154.65 (39.42) |
| Beliefs about sexist language (0 - 80) | 60.26 (11.76) | 48.67 (14.30) | 54.52 (14.29) |
| Recognition of sexist language (0 - 80) | 46.66 (18.20) | 31.50 (17.61) | 39.16 (19.42) |
| Willingness to use gender inclusive language (0 - 80) | 66.62 (11.05) | 55.20 (15.42) | 60.97 (14.54) |
| Modern Sexism Scale (0 - 80) | 63.12 (10.94) | 44.00 (13.67) | 53.66 (15.63) |
| Neosexism Scale (0 - 100) | 79.42 (11.65) | 61.13 (15.54) | 70.36 (16.47) |

Table 6. The means and standard deviations of the total scores in IASNL-G Chinese and the subsections and the means and standard deviations of the total scores in Modern Sexism Scale and Neosexism Scale.

3.2 Correlations between gender, gender beliefs and IASNL-G Chinese scores

Participants' gender beliefs were indicated by scores on the Modern Sexism Scale and the Neosexism Scale, with higher scores pointing towards generally more positive attitudes toward women and gender equality. As shown in Table 6, female participants were found to have more positive attitudes than male participants on both the Modern Sexism and Neosexism scales.

Using Pearson's correlation, we find that Modern Sexism and Neosexism were positively correlated with a shared variance of 46%. In addition, these two variables were found to be correlated both with gender and IASNL-G Chinese scores (see Table 7). The amount of variance in IASNL-G Chinese explained by gender alone was around 23%, which is slightly higher than the range of gender gaps (11% - 19%) reported in Park and Robertson's previous studies (1998a, 1998b, 2002, 2004). The Modern Sexism scale and Neosexism scale shared around 32% and 38% of the total variance with IASNL-G Chinese respectively.

| | IASNL-G Chinese | Modern Sexism | Neosexism | Gender |
|-----------------|-----------------|---------------|-----------|---------|
| IASNL-G Chinese | 1.00 | .57*** | .62*** | -.48*** |
| Modern Sexism | | 1.00 | .68*** | -.61*** |
| Neosexism | | | 1.00 | -.56*** |
| Gender | | | | 1.00 |

Table 7. Intercorrelations (*r* value) among gender, Modern Sexism scale, Neosexism scale, and IASNL-G Chinese with women coded as 0 and men coded as 1. (***) $p < .001$

3.3 Principal Component Analysis

We performed two separate Principal Component Analyses (PCA) on the items in the IASNL-G Chinese, and on the Modern Sexism and Neosexism scales. The advantage of using PCA is that it allows us to identify underlying constructs that influence responses across a number of items in each of the scales used here, and to reduce the overall dimensionality of the data. Given especially that the MSS and NS scales are highly correlated, reducing our data to principal components also allows us to include factors that cover items from both scales without introducing problematic collinearity in our statistical analyses.

In IASNL-G Chinese, three factors were retained which explained a combined 49% of the variance (see Table 8). The cluster of items was based on the cutting point of loadings at .298 considering that the sample size of this study was over 300 (Stevens 2002). Factor 1 represented all 8 items in the recognition of sexist language section with 2 items from the section exploring beliefs about sexist language: item 2 and item 5. Factor 2 included all 8 items from the willingness to use inclusive language section, with one more item from the section on beliefs: “We should change expressions using male generics, such as ‘sons and grandsons of Yan-Huang’ to expressions that include women, such as ‘sons and daughters’”. The five remaining items from the beliefs section clustered in factor 3, all representing abstract beliefs on the importance of eliminating sexist language, concurring with Parks and Roberton’s (2000) results.

| | Factor 1 | Factor 2 | Factor 3 |
|--------------------|-------------|-------------|----------|
| Name of variable | Recognition | Willingness | Beliefs |
| SS Loadings | 4.76 | 3.58 | 3.29 |
| Variance explained | 20% | 15% | 14% |
| Cronbach’s alpha | .80 | .84 | .87 |

Table 8. PCA factors of IASNL-G Chinese

Using the same criteria as in the previous analysis, PCA was conducted on the items from the MSS and NS. Three components were retained, accounting for 52% of the variance (see Table 9). Factor 1 represented denial of continuing sexism with 7 items: items 1, 3, 4, 5, and 8 from the Modern Sexism Scale measuring opinions on continuing sexism in society generally, and items 1 and 2 from the Neosexism Scale measuring opinions on continuing sexism in the workplace. The other 8 items from the Neosexism Scale clustered in factor 2, with the remaining 3 items from the Modern Sexism Scale clustering in factor 3, representing empathy with the unequal status of women.

| | Factor 1 | Factor 2 | Factor 3 |
|---------------------------|----------|-----------|----------|
| Name of variable | Denial | Neosexism | Empathy |
| SS Loadings | 4.30 | 2.91 | 2.21 |
| Variance explained | 24% | 16% | 12% |
| Cronbach's alpha | .86 | .76 | .63 |

Table 9. PCA factors of Modern Sexism Scale and Neosexism Scale

3.4 A multiple linear regression model of IASNL-G Chinese

As our goal was to explore the general effect that attitudes toward sexism and gender have on linguistic biases, we conducted a multiple linear regression fitted to total IASNL-G Chinese scores using R (R Core Team 2022) in RStudio (RStudio Team 2022). The predictors were the three factors from the PCA analysis of the MSS and NS above: Denial, Neosexism, and Empathy, along with Age, Gender (Female/Male) and Education (No academic degree/bachelor's/master's/doctorate) and the interaction of Denial and Gender. The overall regression was statistically significant $F(9, 293) = 28.26, p < .0001, R^2 = .45$.

Our results showed higher degrees of Neosexism, indicating more supportive attitudes toward affirmative actions for women, significantly predicted higher total scores on the IASNL-G Chinese ($\beta = 13.24, F(1, 293) = 51.15, p < .0001$). Higher degrees in Empathy were found to predict higher total scores of IASNL-G Chinese ($\beta = 4.88, F(1, 293) = 6.85, p < .01$). The significant interaction between Gender and Denial ($\beta = -14.92, F(1, 293) = 11.64, p < .001$) showed that while generally women's scores were found to be significantly higher than men's ($\beta = -9.40, F(1, 293) = 4.32, p < .05$), women's higher scores in Denial also significantly predicted their scores in IASNL-G Chinese ($\beta = 19.57, F(1, 293) = 31.32, p < .0001$), an effect which was not similarly observed for men ($\beta = 4.66, F(1, 293) = 2.91, p > .05$; see Figure 1).

Denial*Gender effect plot

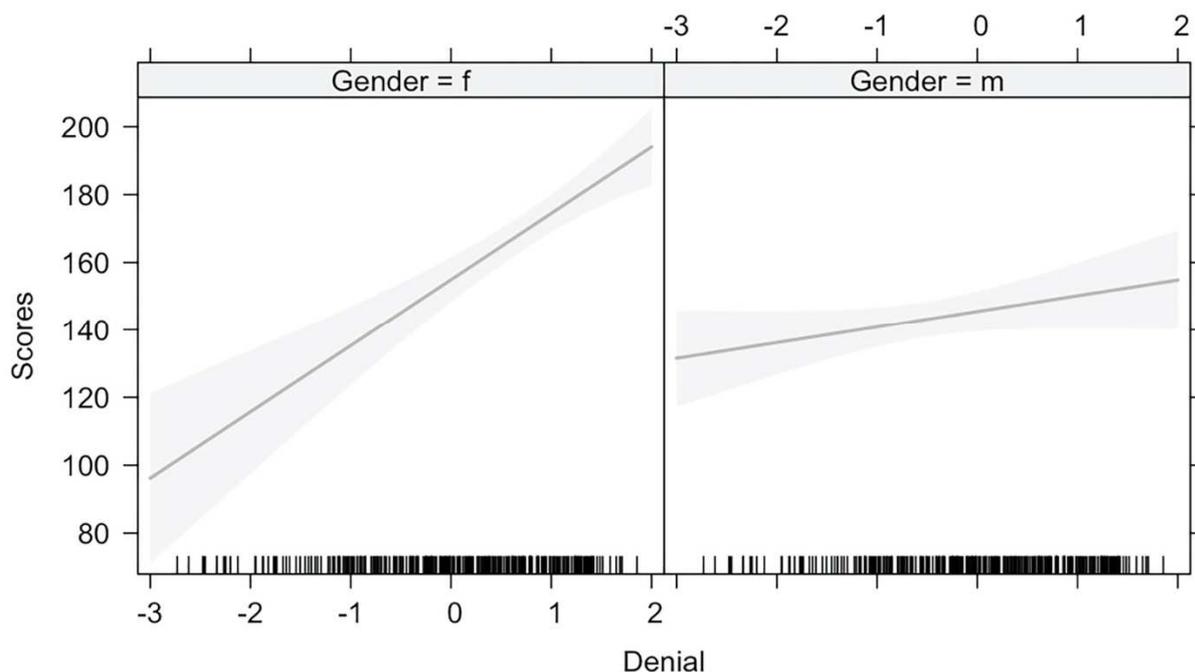


Figure 1. Different effects of Denial on IASNL-G Chinese (Scores) – comparison of results for women (Gender = f) and men (Gender = m)

As for the effect of Age, older participants were found to score lower in IASNL-G Chinese ($\beta = -.66$, $F(1, 293) = 4.66$, $p < .05$), indicating younger participants had a more favourable attitude toward language reform and using inclusive language. On the other hand, levels of Education were not found to significantly predict IASNL-G Chinese scores ($F(3, 293) = 1.29$, $p > .05$).

3.5 Multiple linear regression models of three sections in IASNL-G Chinese

To further examine how these variables influence scores in the three sub-sections of the IASNL-G Chinese, we fit three additional multiple linear regression models on the three factors identified in the PCA analysis of the IASNL-G Chinese described above: Belief, Recognition, and Willingness. Each model contained the same group of predictors as for the omnibus comparison: Age, Gender (Female/Male) and Education (No academic degree/bachelor's/master's/doctorate) and the interaction of Denial and Gender.

3.5.1 Beliefs about sexist language

The overall multiple linear regression reached statistical significance ($F(8, 294) = 28.26$, $p < .0001$, $R^2 = .38$) in the model predicting abstract beliefs about sexist language. Our results show that higher scores in Neosexism ($\beta = 3.89$, $F(1, 293) = 69.12$, $p < .0001$) and Empathy ($\beta = 2.60$, $F(1, 293) = 30.23$, $p < .0001$) significantly predicted higher scores in Beliefs, suggesting that participants with more supportive attitudes toward affirmative action for women also held more supportive attitudes toward eliminating sexist language. Similarly, greater Empathy significantly predicted higher scores in Beliefs. Interestingly, however, Denial was not found to significantly predict Beliefs ($\beta = 2.06$, $F(1, 293) = 3.82$, $p > .05$), and did not interact significantly with Gender ($\beta = -1.89$, $F(1, 293) = 2.93$, $p > .05$). Indeed, women's scores in Beliefs were not found to be significantly different from men's ($\beta = .22$, $F(1, 293) = .04$, $p > .05$).

On the other hand, Age did significant predicted Beliefs ($\beta = -.19$, $F(1, 293) = 6.05$, $p < .05$) again highlighting that older respondents were generally more conservative about language reform compared to their younger counterparts. In this scale we also observe a significant effect of Education ($F(3, 294) = 4.18$, $p < .01$) which was not observed in the omnibus model. Post-hoc analysis using estimated marginal means (Russell 2002) showed only that the group of participants with no academic degree scored significantly higher than the bachelor's degree group ($\beta = -5.24$, $F(1, 293) = 8.89$, $p < .05$). However, these results should be interpreted cautiously, as the sample size of the no academic degree group was far smaller than the other groups.

3.5.2 Recognition of sexist language

The model of Recognition scores was statistically significant ($F(9, 293) = 18.65$, $p < .0001$, $R^2 = .34$), with higher scores on Neosexism again found to contribute significantly to Recognition scores ($\beta = 3.33$, $F(1, 293) = 8.04$, $p < .01$). While Empathy was not found to be a significant factor in this model ($\beta = .22$, $F(1, 293) = .03$, $p > .05$), we did observe a significant interaction between Denial and Gender, echoing what was observed in the omnibus model ($\beta = -7.95$, $F(1, 293) = 8.23$, $p < .01$). In the Recognition model, higher scores for Denial predicted higher ratings for both men ($\beta = 6.54$, $F(1, 293) = 14.27$, $p < .001$) and women ($\beta = 14.49$, $F(1, 293) = 42.70$, $p < .0001$), suggesting that greater acknowledgement of continuing sexism lead to higher ratings in Recognition generally. However, as shown in Figure 2, the significant interaction between Denial and Gender illustrates that this relationship is stronger for women than for men.

Neither Age ($\beta = -.23$, $F(1, 293) = 1.48$, $p > .05$) nor Education ($F(3, 293) = 1.27$, $p > .05$) were found to be significant predictors of Recognition scores.

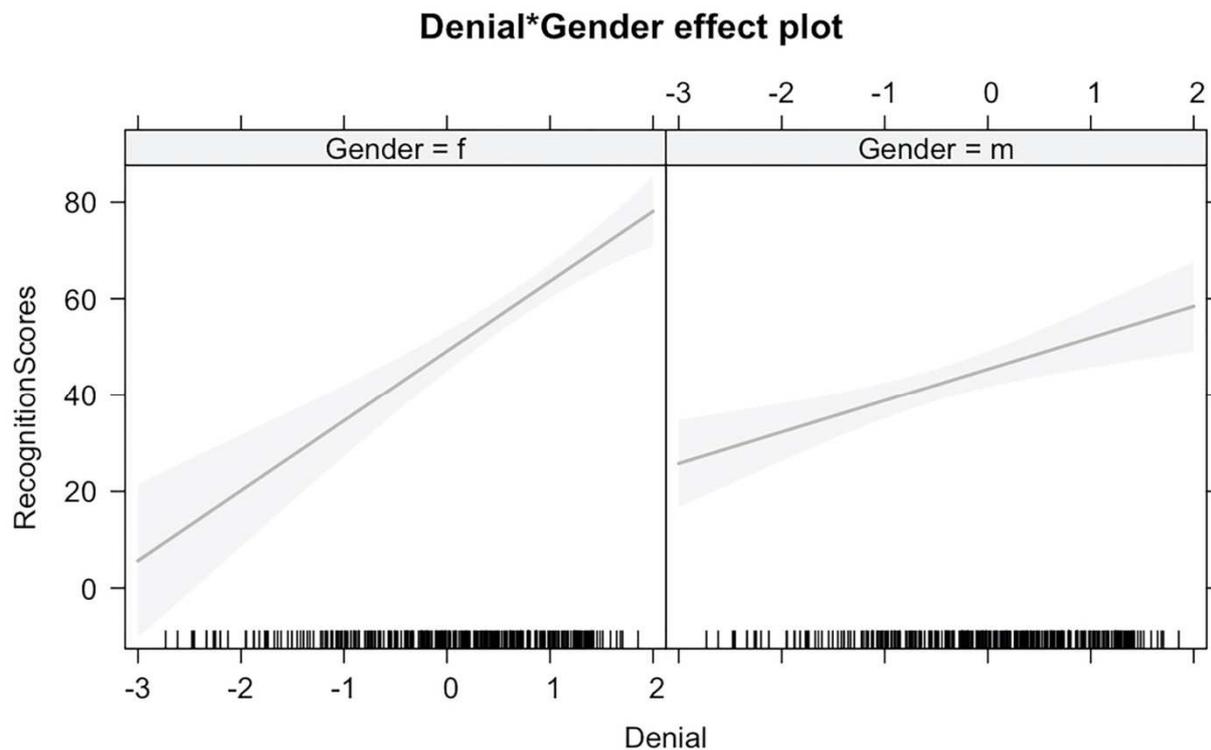


Figure 2. Different effects of Denial on recognition of sexist language (RecognitionScores) – comparison of results for women (Gender = f) and men (Gender = m)

3.5.3 Willingness to use inclusive language

The willingness model reached statistical significance ($F(9, 293) = 16.8, p < .0001, R^2 = .32$). Here again we find a significant effect of Neosexism ($\beta = 6.02, F(1, 293) = 51.27, p < .0001$) and Empathy ($\beta = 2.07, F(1, 293) = 5.96, p < .05$), with both predicting a greater Willingness to use inclusive language. The interaction between Denial and Gender was also significant ($\beta = -5.07, F(1, 293) = 6.52, p < .05$). While there was an overall tendency for larger Willingness scores for women compared to men ($\beta = -5.86, F(1, 293) = 8.16, p < .01$), the interaction shows that higher Denial scores are associated with greater Willingness to use inclusive language in women, but reduced Willingness to use inclusive language in men (see Figure 3).

As in the previous model, Age ($\beta = -.23, F(1, 293) = 2.84, p > .05$) and Education ($F(1, 293) = .97, p > .05$) were not found to be significant predictors of Willingness.

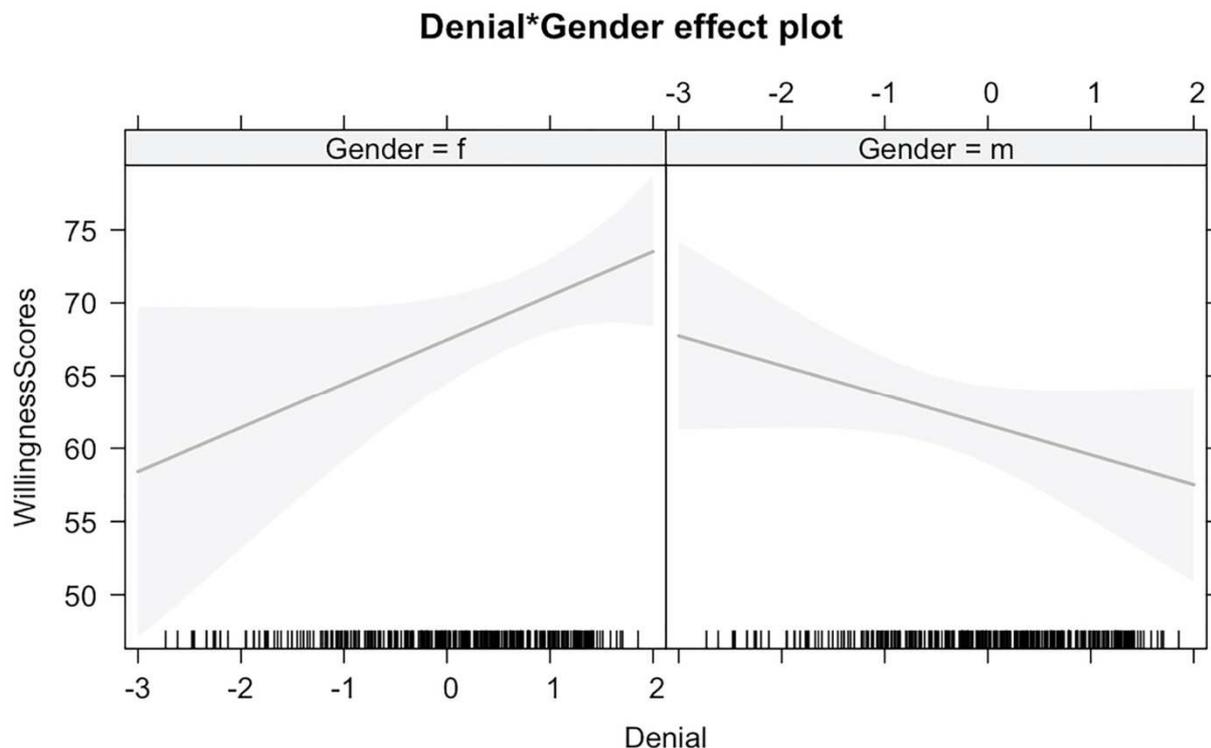


Figure 3. Different effects of Denial on willingness to use inclusive language (WillingnessScores) – comparison of results for women (Gender = f) and men (Gender = m)

4 Discussion

Our study extended previous research on attitudes toward sexist/nonsexist language to examine the attitudes of Chinese speakers born after 1980 in Mainland China. To achieve this, we created a Chinese adaptation of the Inventory of Attitudes Toward Sexist/Nonsexist Language - General (IASNL-G, Parks & Robertson 2000). Our results suggest that the attitudes of Chinese speakers in this age range were generally neutral or undecided, although trending towards supportive of sexist language elimination and inclusive language use. They showed strong inclinations towards using inclusive language and acknowledged the importance of language reform to eliminate sexist language in current use.

Consistent with previous studies showing a gender gap in IASNL-G scores (Douglas & Sutton 2014; Parks & Robertson 2004, 2008), women generally had higher scores in IASNL-G Chinese, indicating more favourable attitudes towards nonsexist and inclusive language use. Particularly, the female group in our study was the first group to be found showing supportive rather than undecided attitudes on the matter of language reform and inclusive language compared to Parks and Robertson's previous studies (2004, 2008). This is in contrast to men's attitudes in this study, which remained undecided across all three decade-of-birth groups, bordering on non-supportive rather than supportive. The findings on men accord with studies conducted more than ten years ago in English speakers (Parks & Robertson 2004, 2008).

4.2 The relationships between gender beliefs and sexist/nonsexist language attitudes

Using Chinese adaptations of the Modern Sexism Scale (Swim et al. 1995) and the Neosexism Scale (Tougas et al. 1995), we explored the relationship between sexist/nonsexist language attitudes and gender beliefs across our generational cohorts. Our data replicates previous findings that lower levels of sexism measured in the MSS and NS predicted more favourable general attitudes toward language reform and inclusive language (Parks & Robertson 2004, 2008). This suggests that these measures of covert sexism,

commonly used in English contexts, are also reliable indicators of attitudes toward sexist/nonsexist language use in contemporary Mainland China.

Our analysis explored three different factors, identified through principal component analysis which compose different aspects of these measured gender beliefs: denial of continuing sexism, neosexism, and empathy with the unequal status of women. Consistent with previous studies (Parks & Robertson 2004, 2008), the strongest predictor of an individual's attitude toward sexist/nonsexist language was their Neosexism score. In analysis of each sub-section of the IASNL-G Chinese, we observed that higher levels of disagreement with Neosexism had a positive effect on IASNL-G Chinese scores, suggesting that a generally more egalitarian gender attitude is also reflected in an individual's attitudes toward nonsexist and inclusive language use. These effects were strongest when considering abstract beliefs about language reform, and willingness to use inclusive language. These findings are not unexpected, given that opposition to affirmative action for women is one of the most salient features of the Neosexism Scale (Parks & Robertson 2004; Tougas et al. 1995).

Greater empathy with the unequal status of women in Chinese society had a similarly positive effect on IASNL-G Chinese scores, including in the sub-sections exploring gender beliefs and willingness to use inclusive language. Somewhat surprisingly, greater Empathy was not found to improve an individual's recognition of sexist language use. Rather, the strongest predictor of sexist language recognition was the Denial of continuing sexism. Previous findings that a greater endorsement of Modern Sexism directly influenced an individual's ability to recognise sexist language (Sarrasin, Gabriel & Gyax 2012) accord with our findings, in particular as a majority of the items which loaded on to our Denial and Empathy factors were from the Modern Sexism scale. In fact, the correlation between Modern Sexism levels and self-definitions of sexist language found by Swim, Mallett, and Stangor (2004) might provide a basis for understanding our participants' unexpectedly low scores in recognition of sexist language, despite the repeated inclusion of explicit definitions of sexist language provided in our test. Looking more closely at our data, individuals with high levels of Modern Sexism tended to rate sexist language as normal or even nonsexist. Even individuals with low levels of Modern Sexism tended to accept some forms of commonly used sexist language as nonsexist.

Our study showed a persistent gender difference in sexist/nonsexist language attitudes tied to the denial of ongoing sexism, even having taken into account differences in gender beliefs, age, and education. Greater acknowledgment of continuing sexism was associated with higher IASNL-G Chinese scores for women, while there were minimal effects on men's attitudes. Further examination of ratings in the sub-sections of the IASNL-G Chinese showed that this increasing acknowledgement of sexism lead to increases in women's recognition of sexist language and willingness to use inclusive language, but actually had the opposite effect on men's willingness to use inclusive language. This difference consequently broadened the gaps between women and men's general attitudes toward sexist/nonsexist language. Further investigations into the mechanism behind these different effects are especially important to the understanding of gender differences in attitudes toward sexist/nonsexist language.

Taking all of this together, our results provide additional support to previous findings that sexist language may be symbolically important to individuals with strong sexism (Parks & Robertson 2004; Tougas et al. 1995). These strong sexists tend to make a conscious decision to avoid using gender-inclusive language as a means of perpetuating gender stereotypes and maintaining the hierarchies of patriarchy (Sczesny, Moser & Wood 2015; Douglas & Sutton 2014). This is evident in our data, which shows men with the highest scores on acknowledging ongoing sexism in the society also are less willing to use gender inclusive language.

4.3 Age effect on IASNL-G Chinese

The influence of age on attitudes toward sexist/nonsexist language was explored by focusing on the younger Chinese generations born after China's reform and opening-up policy. Compared to older generations who lived through significantly different social movements which may have shaped different political attitudes (as suggested in Parks and Robertson (2008)), the three decades of participants in the current study grew up in a similar politically stable and economically developed environment.

In this context, with gender beliefs, gender, and education levels being controlled, it is particularly interesting to find that age still had a significantly negative effect on IASNL-G Chinese scores, with older individuals indicating less supportive attitudes toward inclusive language. Further examination of the sub-sections of the IASNL-G Chinese suggested that the negative effect of age was limited to beliefs about the importance of language reform to eliminate sexist language. At first glance, this trend towards increasing conservatism in older participants appears to contradict Park and Robertson's (2008) results, showing that the youngest group (18 to 22 year olds) had significantly less supportive attitudes toward inclusive language. However, we do believe this agrees with their interpretations of the results that the age effect on attitudes toward inclusive language cannot be explored separately from the historical and social backgrounds of the participants in the study (Parks & Robertson 2008: 281). Our findings suggested that, at least in the three decades of younger individuals of China, the phenomenon that individuals have more favourable attitudes toward language reform and inclusive language seems a consequence of younger ages rather than different backgrounds. To better understand the compound effects of age and social backgrounds on IASNL-G Chinese, it will be worthwhile to extend the inclusion of participants to older generations in future research.

4.4 Limitations and future research

While our study did successfully capture the sexist/nonsexist language attitudes of participants across three decades of younger Chinese speakers born between 1980 and 2004, and explored the relationships between sexist/nonsexist language attitudes and other measures of sexism more generally, there are nevertheless a few limitations which suggest future avenues for further research. Firstly, the structure of IASNL-G limited our measurements to individuals' explicit willingness to use certain inclusive language alternatives, without examining their preferences for choices of inclusive language such as titles of address for women, third person singular pronoun(s), and address terms of spouse and partners. Further studies investigating how and why certain groups of individuals prefer specific choices of inclusive language still need to be conducted in the Chinese context. Secondly, the IASNL-G focused on language related to women, with only a few items related to men and non-binary groups included in the current Chinese adaptation. In future, this should be extended to language directly related to LGBTQIA+ groups, both in Chinese and other languages, and ensure sufficient data from individuals who identify as women, men, and non-binary is included. Finally, although we employed an online data collection platform to ensure a broader variety of ages, education levels, and regional backgrounds, the participants included in this study nevertheless over-represent highly developed regions of China. Further research should seek to address the degree to which social background influences attitudes toward sexist and inclusive language in Chinese by specifically recruiting participants from less developed regions of China.

5 Conclusion

Despite the limitations of the current study, our findings provide the first empirical evidence for attitudes toward sexist and inclusive language in younger speakers born and living in Mainland China. The findings suggest an evolving trend with younger individuals in this study demonstrating a stronger preference for language reform and inclusive language. Notably, even after controlling for other variables, including gender beliefs, our study also shows women generally hold more favourable attitudes toward

language reform and inclusive language than men. This gender gap, potentially caused by the different outcomes of acknowledging continuing sexism in society, highlights the importance of considering women's and men's potentially different motivations for using and avoiding gender inclusive language in China.

References

- Blaubergs, Maija S. 1980. An analysis of classic arguments against changing sexist language. *Women's Studies International Quarterly* 3(2–3). 135–147.
- Chan, Marjorie K. M. & Yuhan Lin. 2019. Chinese language and gender research. In Chu-Ren Huang, Zhuo Jing-Schmidt & Barbara Meisterernst (eds.), *The Routledge handbook of Chinese applied linguistics*, 165–181. Routledge.
- Chen, Chen. 2019. *A Comparative Study of Chinese and English Couple Appellation Terms*. Zhengzhou/Kaifeng: Henan University Master dissertation.
- Cronin, Christopher & Sawsan Jreisat. 1995. Effects of modeling on the use of nonsexist language among high school freshpersons and seniors. *Sex Roles* 33. 819–830. <https://doi.org/10.1007/BF01544781>
- Douglas, Karen M. & Robbie M. Sutton. 2014. “A giant leap for mankind” but what about women? The role of system-justifying ideologies in predicting attitudes toward sexist language. *Journal of Language and Social Psychology* 33(6). 667–680.
- Ettner, Charles. 2002. In Chinese, men and women are equal – or – women and men are equal? In Marlis Hellinger & Hadumod Bußmann (eds.), *Gender across languages: The linguistic representation of women and men* (Volume 2), 29–56. Amsterdam/Philadelphia: John Benjamins.
- Feng, Zhao. (2011). The evolution from generation to Post-XX. *Chinese Education & Society* 44(2–3). 76–79. <https://doi.org/10.2753/CED1061-1932440205>
- Fan, Xiaoduan & Laurel Lawyer. In prep. Asymmetrical gender markedness of Chinese personal nouns: When genderless language becomes gender biased.
- Farris, Catherine S. 1988. Gender and grammar in Chinese: With implications for language universals. *Modern China* 14(3). 277–308.
- Glick, Peter. & Susan T. Fiske. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology* 70. 491–512.
- Hao, Yuanyuan. 2005. On the absence of current Chinese female social appellation. *Journal of Sichuan College of Education* 21(11). 16–17.
- Hellinger, Marlis & Hadumod Bußmann. 2001. Gender across languages: The linguistic representation of women and men. In Marlis Hellinger & Hadumod Bußmann (eds.), *Gender across languages: The linguistic representation of women and men* (Volume 1), 29–56. Amsterdam/Philadelphia: John Benjamins.
- Huang, Xingtao. 2015. *“Ta” Zi de Wen-hua-shi*. [a cultural history of the character “she”]. Beijing: Beijing Normal University Publishing Group.
- Jacobson, Marsha B. & William R Insko Jr. 1985. Use of nonsexist pronouns as a function of one’s feminist orientation. *Sex Roles* 13. 1–7.
- Lenth, Russell. 2022. emmeans: Estimated Marginal Means, aka Least-Squares Means. R package version 1.8.1–1. <https://CRAN.R-project.org/package=emmeans>
- Jiang, Yinnan. 1996. Hua-she-tian-zu de “ta (ta)” ge-shi. [the gilding the lily form of he (she)]. *Yao Wen Jiao Zi* 9. [tasting and digesting words]. 8–9.

- Li, Tianjin. 2020. Qian-xi wang-luo re-ci “niang-pao” de yu-yi zhuan-bian ji qi she-hui cheng-yin. [a brief analysis of the semantic change and its social causes of the internet popular word “woman cannon” (sissy)]. *Sinogram Culture* 14. 22–24.
- Li, Muyang & Zhifan Luo. 2020. The ‘bad women drivers’ myth: the overrepresentation of female drivers and gender bias in China’s media. *Information, Communication & Society* 23(5). 776–793.
- Ling, Yuanzheng. 1989. “Ta” zi de chuang-zao li-shi. [a history of creating the female specific pronoun “ta”]. *Yu-yan Jiao-xue yu Yan-jiu* [language teaching and linguistic studies] 4. 139–151.
- McMinn, Mark R., Paul E. Williams & Lisa C. McMinn. (1994). Assessing recognition of sexist language: Development and use of the Gender-Specific Language Scale. *Sex Roles* 31. 741–755.
- Meredith, Geoffrey E., Charles D. Schewe & Janice Karlovich. (2002). *Defining markets, defining moments: America’s 7 generational cohorts, their shared experiences, and why businesses should care*. John Wiley & Sons.
- Moser, David. 1997. Covert sexism in Mandarin Chinese. *Sino-Platonic Papers* 74.
- Nilsen, Allen Pace. (1984). Greetings and salutations in a new age. *Language and Society* 13. 245–247.
- Parks, Janet B. & Mary Ann Robertson. 1998a. Contemporary arguments against nonsexist language: Blaubergs (1980) revisited. *Sex Roles* 39. 445–461.
- Parks, Janet B. & Mary Ann Robertson. 1998b. Influence of age, gender, and context on attitudes toward sexist/nonsexist language: Is sport a special case? *Sex Roles* 38. 477–494.
- Parks, Janet B. & Mary Ann Robertson. 2000. Development and validation of an instrument to measure attitudes toward sexist/nonsexist language. *Sex Roles* 42. 415–438.
- Parks, Janet B. & Mary Ann Robertson. 2002. The gender gap in student attitudes toward sexist/nonsexist language: Implications for sport management education. *Journal of Sport Management* 16. 190–208.
- Parks, Janet B. & Mary Ann Robertson. 2004. Attitudes toward women mediate the gender effect on attitudes toward sexist language. *Psychology of Women Quarterly* 28. 233–239.
- Parks, Janet B. & Mary Ann Robertson. 2008. Generation gaps in attitudes toward sexist/nonsexist language. *Journal of Language and Social Psychology* 27(3). 276–283.
- Peng, Altman Yuzhu, Hou, Jenny Zhengye, KhosraviNik, Majid & Zhang, Xiaoxiao. 2021. “She uses men to boost her career”: Chinese digital cultures and gender stereotypes of female academics in Zhihu discourses. *Social Semiotics*. <https://doi.org/10.1080/10350330.2021.1940920>
- Qian, Yue & Jiaying Li. (2020). Separating Spheres: Cohort differences in gender attitudes about work and family in China. *The China Review* 20(2). 19–51.
- Rubin, Donald L. & Kathryn L. Greene. 1991. Effects of biological and psychological gender, age cohort, and interviewer gender on attitudes toward gender-inclusive/exclusive language. *Sex Roles* 24. 391–412. <https://doi.org/10.1007/BF00289330>
- Rubin, Donald L., Kathryn L. Greene & Deidra Schneider. 1994. Adopting gender-inclusive language reforms: Diachronic and synchronic variation. *Journal of Language and Social Psychology* 13(2). 91–114. <https://doi.org/10.1177/0261927X94132001>
- R Core Team. 2022. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. <https://www.R-project.org/>

- RStudio Team. 2022. RStudio: Integrated development environment for R. Boston, MA: RStudio.
<http://www.rstudio.com/>
- Sarrasin, Oriane, Ute Gabriel & Pascal Gyga. 2012. Sexism and attitudes toward gender-neutral language: The case of English, French, and German. *Swiss Journal of Psychology* 71(3). 113–124.
<https://doi.org/10.1024/1421-0185/a000078>
- Sczesny, Sabine, Magdalena Formanowicz & Franziska Moser. 2016. Can gender-fair language reduce gender stereotyping and discrimination? *Frontiers in Psychology* 7(25).
<https://doi.org/10.3389/fpsyg.2016.00025>
- Sczesny, Sabine, Franziska Moser & Wendy Wood. 2015. Beyond sexist beliefs: How do people decide to use gender-inclusive language? *Personality and Social Psychology Bulletin*. 1–12.
- Sluchinski, Kerry. 2021. *Animate 'it' and genderless 'comrade': Third person pronoun ta and degrees of belonging in Chinese LGBTQ discourses*. Edmonton: University of Alberta PhD Thesis.
- Spence, Janet T. & Eugene D. Hahn. (1997). The attitudes toward women scale and attitude change in college students. *Psychology of Women Quarterly* 21. 17–34.
- Stahlberg, Dagmar, Friederike Braun, Lisa Irmen & Sabine Sczesny. 2007. Representation of the sexes in language. In Klaus Fiedler (ed.), *Social communication*, 163–187. New York: Routledge.
- Stevens, James P. 2002. *Applied multivariate statistics for the social sciences* (4th edn.). Hillsdale, NJ: Erlbaum.
- Sun, Rujian. 2010. *Han-yu de Xing-bie Qi-shi yu Xing-bie Cha-yi*. [the sexism and gender difference in Chinese]. Wuhan: Huazhong University of Science and Technology Press.
- Swim, Janet K., Kathryn J. Aikin, Wayne S. Hall & Barbara A. Hunter. 1995. Sexism and racism: Old-fashioned and modern prejudices. *Journal of Personality and Social Psychology* 68(2). 199–214.
- Swim, Janet K., Robyn Mallett & Charles Stangor. 2004. Understanding subtle sexism: Detection and use of sexist language. *Sex Roles* 51(3/4). 117–128.
- Tao, Yina. 2019. A study on the phenomenon of the absence of appellation term “Shimu”. *Modern Chinese* 6. 154–159.
- Tougas, Francine, Rupert Brown, Ann M. Beaton & Stéphane Joly. 1995. Neosexism: Plus ça change, plus c’est pareil. *Personality and Social Psychology Bulletin* 21(8). 842–849.
- United Nations. n.d. “Guidelines for gender-inclusive language in Chinese”. <https://www.un.org/zh/gender-inclusive-language/guidelines.shtml> (accessed 3 November 2022)
- Vervecken, Dries & Bettina Hannover. 2015. Yes I can! Effects of gender fair job descriptions on children’s perceptions of job status, job difficulty, and vocational self-efficacy. *Social Psychology* 46(2). 76–92.
[HTTPS://DOI.ORG/ 10.1027/1864-9335/a000229](https://doi.org/10.1027/1864-9335/a000229)
- Vervecken, Dries, Bettina Hannover & Ilka Wolter. (2013). Changing (s)expectations: How gender fair job descriptions impact children’s perceptions and interest regarding traditionally male occupations. *Behavior* 82(3). 208–220. <http://dx.doi.org/10.1016/j.jvb.2013.01.008>
- Wang, Yifan. 2022. *Research on network address terms*. Yinchuan: North Minzu University Master dissertation.

- Wang, Yuanyuan. 2010. Cong “ta” kan “ta” yu “ta”. [to examine ‘he’ and ‘she’ from ‘ta’]. *Da Zhong Wen Yi* [popular literature and art] 6. 78.
- Wu, Tiepin. 1991. Can language not be reformed partially? *Modern Foreign Languages* 3. 1–8, 72.
- Zhan, Xiu-hua. 2013. An analysis of “Ta”. *Journal of Langfang Teachers College (Social Sciences Edition)* 29(6). <https://doi.org/10.16124/j.cnki.cn13-1390/c.2013.06.010>
- Zhang, Liping. 2007. *Cheng-wei-yu Xing-bie Cha-yi de She-hui-yu-yan-xue Yan-jiu*. [a sociolinguistic study of the gender differences in address terms]. Beijing: Minzu University of China PhD thesis.
- Zhong, Zhijing. 2015. Wang-luo xin ci-hui ta de di-san-ren-cheng dai-ci san-fen-fa yi-yi de fen-xi. [an analysis of the three meanings of the new Internet word “Ta” as the third person pronoun]. *Journal of Hubei University of Science and Technology* 35(5). 77–79.
- Zhou, Youguang. 2003. Nv-shi bu-yi cheng “xian-sheng”. [it’s not appropriate to address women as “xian-sheng” (sir)]. In Peicheng Su (ed.), *Zhong-guo Yu-wen Xian-dai-hua Xue-hui 2003-nian Nian-du Hui-yi Lun-wen-ji*. [proceedings of the annual conference of Society on Modernization of Chinese Language in 2003]. 285. Beijing: Society on Modernization of Chinese Language.