This study attempts to identify what mechanisms might be used to reduce gender bias in two highly inflected languages, Greek and Arabic. Twenty native speakers of Greek and Arabic attending Georgetown University in Washington, D.C., were surveyed for the experiment. The students were: (1) asked to read a standard job announcement in their native language, in which all of the nouns and pronouns referring to people were masculine, as normally would be the case; (2) asked to whom the passage was addressed (men, women, or both); (3) provided with background materials on gender bias in language; and (5) asked to complete a new job announcement using gender-neutral language. Ten students felt the original announcement was addressed to both genders, seven to men only, and three to men only or men and women. The students advocated using both the masculine and feminine form of the word with slash marks, using both endings with slash marks, substituting genderless forms, or making no changes. Five appendixes contain the job announcement, an explanation of gender-biased language, the announcement to be completed with gender-neutral elements, student attitudes concerning the original announcement, and mechanisms for reducing gender bias in Greek and Arabic. (MDM)
THE DIFFICULTY OF AVOIDING GENDER-BIASED LANGUAGE IN HIGHLY INFLECTED LANGUAGES: A COMPARISON OF GREEK AND ARABIC

by
Pavlos Pavlou and Terry Potter
Georgetown University

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1.0 INTRODUCTION

Language is the mirror of society and therefore it is expected that changes in language structure and use have their roots in and are constrained by changes that occur in the speech community which employs that particular language as a means of communication.

In the United States one can detect what the issues of primary concern have been in society over the last thirty years just by looking at language change. The fact that a number of new terms for describing American of African descent has been introduced in the language indicates the importance of racial issues in this country over the last thirty years. The new social awareness that resulted from the turbulent sixties has expressed itself in every cultural aspect of American society to include the English language.

In the seventies the movement for equality moved a step forward to address the neglected rights of a larger portion of the population, namely women. Again this new shift in focus forced language to adapt itself to new social facts. As a result, American English today has developed mechanisms and devices to avoid gender bias. This new way of thinking and the language that reflects it had to be established in people's consciousness, something that has witnessed a certain resistance from the establishment. Fortunately, however, clearly linguistic changes did not have so fierce a fight since they neither constituted radical changes in the linguistic system nor put an enormous burden on the language user. Of course, every innovation meets with resistance from various groups that do not agree with the ideological premises of that innovation. In the case of linguistic innovation one could also expect resistance based on clearly esthetic and practical concerns.

The social changes in question, however, did not require American English to develop new features, like articles or morphemes. Rather, the change took the form of a realignment and redistribution of existing resources. One important aspect of English that enabled this adaptation was the fact that nouns are not marked for gender. While a few exceptions do exist, of course, as in the case of terms for animals (fox - vixen, pig - sow, etc.), these are numerically insignificant. This fact basically makes English gender-neutral from a structural point of view. The necessary adjustments were in the area of pronouns (e.g., his/her) and nouns (along with their derivations), which referred to beings of a specific biological gender or sex (e.g., chairman to chairperson, paperboy to
papercarrier, stewardess to flight attendant, etc.) In the pre-gender awareness period the sentence "Everybody should do his best" was completely acceptable to address both genders, but has come to be replaced by "Everybody should do their best."

2.0 THE STUDY

As we can see English has been flexible in responding to societal needs. Of course, the same cannot be said for all languages and speech communities. It seems clear that languages rich in inflectional morphology such as Greek, Russian, Arabic and German would have difficulty in responding to similar societal demands even though the speech community may be mature and willing to accept such changes.

This study attempts to identify what mechanisms are currently being applied and are potentially available to be applied for the purpose of reducing gender bias in two highly inflected languages, Greek and Arabic. Rather than consult written texts which might contain examples of such mechanisms we base our analysis upon the data provided by native speakers who were presented with this problem.

2.1 The Data Elicitation Instrument

In order to discover the possible mechanisms for creating gender neutral language in Greek and Arabic an elicitation tool incorporating authentic target language samples was developed. First, the native Greek and Arabic speaking subjects were presented with a written job announcement and were asked to identify the audience it was addressed to (see Appendix 1). As you can see from the passage all nouns and pronouns referring to people are masculine, in both singular and plural forms. Second, each informant was provided background information on the subject of gender bias in language using examples from American English (see Appendix 2). Finally, each informant was asked to review the job announcement and to make possible changes in order to make the passage "as gender-neutral as possible". (See Appendix 3.) Preliminarily, all nouns and pronouns referring to people were underlined in order to identify the forms marked for gender and to draw the informants' attention to them. Then, rather than oblige each informant to rewrite the entire passage, which might have introduced stylistic variation and other factors, a final version was provided in each language wherein all overtly gender marked words were deleted. The subjects were then asked to fill in the blanks with lexical items they considered appropriately gender-bias free.
2.2 The Subjects

This survey was administered to ten native speakers of Greek and ten native speakers of Arabic who are currently studying at Georgetown University. These undergraduate and graduate students are from the United States, Greece, Cyprus, Kuwait, Saudi Arabia, Syria, Morocco, Jordan, Egypt and Palestine. Nine were female and 11 were males.

2.3 The Results

In response to the question: "Who is this passage addressed to?" our informants could select from three possible answers: (i) to men only, (ii) to women only, or (iii) to both men and women. The responses are summarized on the chart at Appendix 4. Among the Greek-speaking informants four felt it addressed men only, three felt it addressed both men and women, and three felt it could be construed as addressing men only or both men and women. Among the Arabic-speaking informants three felt the passage addressed men and seven felt it addressed both men and women.

The second task called for completion of the passage where gender specific nouns or noun phrases had been deleted. This was the focus of the study since it asked native speakers to consider the range of possible mechanisms they could apply. (See Appendix 5.) In both the Greek and Arabic versions there was no problem in identifying and deleting gender specific features, however, in the Arabic version there were more instances of marking for gender. This is true since conjugated standard Arabic verbs are inflected for grammatical gender and number. Agreement rules in both Greek and Arabic also dictate that masculine and feminine nouns and modifying adjectives should agree in gender. Analysis of the informant responses indicates four major mechanisms are available with a fifth combining two of these four:

a) REPETITION: Each noun, pronoun or article could be repeated both in its male and corresponding female form. The two words were separated by a slash in Greek, e.g. καθηγήτη 'professor' (gen. sing. masc.) / καθηγήτριας 'professor' (gen. sing. femin.), or with a coordinator in Arabic ustaaTH aw ustaaTHa 'professor' (nom. sing. masc.) 'or professor' (nom. sing. fem.). This technique was applied by two Greek-speaking and three Arabic-speaking students. In the case of Arabic, repetition would be needed for all conjugated verbs as well as nouns and pronouns, rendering the announcement especially awkward and excessively long. One Arabic speaker was in favor of doubling only nouns. Three Arabic-speaking informants suggested that this
repetition occur only once in the first line of the passage for the nouns identifying the positions advertised exclusively. In such a short passage the possibility exists that repetition of all nouns would be acceptable to our informants, while in longer passages such repetition might be viewed as awkward and excessively long.

b) OPTIONAL ENDING: For each noun, pronoun and article the masculine form was given followed by a slash and the optional feminine ending, e.g. ὁποιονδήποτε 'the one who' (masc.) / 'the one who' (fem. ending) in Greek, and تالیب 'applicant' (masc.) / 'applicant' (fem. ending) in Arabic. Four Greek speakers applied this technique of repeating the gender marker. While no Arabic speaker thought this procedure advisable, one Arabic speaker modified all nouns, pronouns, verbs and adjectives in this way to demonstrate the possibility as well as the impracticality of such a technique.

c) SUBSTITUTION: Several techniques involve the substitution of one form for another. One Greek speaker applied the masculine plural form consistently instead of the gender specific singular forms. No Arabic speaker favored this option since plural as well as singular forms in standard Arabic are marked for grammatical gender. Two Arabic-speaking informants secondarily replaced conjugated, gender-marked verb forms with gerunds (verbal nouns or masdar), and one substituted a so-called "neutral" noun, شخص 'person' for gender-marked nouns.

d) NO CHANGE/ELABORATION: While each of the ten Arabic-speaking informants agreed that the practice of using masculine forms to refer to both men and women in standard Arabic is the commonly accepted behavior, only six of these were clearly in favor of simply leaving the passage as it was written. This did not mean, however, that these six informants were unable to conceive of possible changes. While all ten informants maintained that the passage was authentic, was likely to be understood in the specific cultural and institutional context, and should be regarded as advertising a position available to either men or women, four of the six who were in favor of leaving the passage as is suggested adding language to specify either (i) that these positions are open to either men or women, (ii) that both men and women should apply, or (iii) that women are not excluded from applying (similar to the non-exclusionary statement referring to citizenship).

e) COMBINATION: Two Greek-speaking informants combined techniques (a) and (b), thus making technique (b) the preferred one among Greek speakers.
3.0 DISCUSSION

3.1 Greek

As we see because of its rich morphology Greek encounters more difficulties in being neutral in terms of gender than English does. While conducting this survey I discussed the problem with the subjects and quite a few of them indicated that they understood the problem by stating: "The Greek language is like that." The Greek-American students had stronger opinions about gender-biased language probably because of their awareness of the issue in English. As we see there are several acceptable techniques to avoid gender-biased language in Greek. However, many of the subjects agree that these techniques (especially the whole word repetition) cannot be used in longer texts. I believe that this is a judgement based on practicality and esthetics which are factors that should be taken into account when producing written discourse. Impartiality and clarity are more important, of course, but it seems that in terms of trade off, gender impartiality is more likely to be sacrificed for the sake of practicality and esthetics. At the same time, it should be noted that E-mail messages in Greek provide independent confirmation of the various techniques preferred by our Greek-speaking informants.

The fact that three out of four students who chose the answer, "to men only", in the first question were women indicates a serious problem. Did these women feel excluded from the message of the passage? In a real situation would they be prevented from applying for employment when such language is used? This is potentially a problem of discrimination for which a solution should be sought. I would suggest that in important documents such as job announcements we should use language that explicitly addresses both sexes. In long and maybe less important passages such a requirement could be relaxed so long as the rights of both sexes are respected.

3.2 Arabic

Standard Arabic too, due to extensive inflectional morphology, cannot be easily neutralized in terms of gender bias. There are no grammatically or overtly genderless nouns available in the Arabic lexicon, and few are semantically or covertly neutral ones. Repetition is not economical. Moreover, there is likely no social imperative in any Arabic-speaking society, (or in many other language communities for that matter), which calls for attention to this issue either as a problem itself or symptomatic of a larger social
problem. Respect and admiration for the classical or standard form of Arabic due to its overriding religious importance militate against change away from current patterns of gender distinction. In my interviews with native speakers it became apparent that gender bias in language cannot be accounted for in the absence of related social issues. Consciousness raising is unlikely when there is little or no previous recognition of bias at large. As one informant suggested, the basic matters of economic, political and social status for Arab women eclipse those more distant ones connected with language use. At the same time Arab linguists have not ignored the importance and relevance of gender-related issues in language, as reflected in studies in Arabic discourse and the differences in the speech of men and women.

Our well-educated and socially aware informants, when asked to consider this issue, have shown a preference for the elaboration of additional information over the use of structural conventions, when the issues of comprehensibility and fairness are raised. Consequently, the techniques familiar in American English have, at present at least, little relevance to the structurally and culturally distant universe of Arabic and its communities of speakers. The whole notion of gender bias and its avoidance has yet to find fertile ground here.

Suggesting the complexity of the situation, one of my informants described two unrelated situations where the issue of gender bias seems to be in question. First, when asked if she had ever seen the slash-optional feminine ending technique used in written Arabic, she replied no but then remembered that the headmistress of her all-girl school had annotated in pen the feminine marker following masculine nouns in an announcement circulated to the female student body. Clarification and comprehensibility were cited as the reasons for the alteration of this masculine text. This anecdotal evidence suggests that there is an awareness of the need to address the female as well as the male readers of a similar public announcement.

Secondly, my informant described to me a bank in her native country where only unmarried women may make transactions, and only unmarried women may work on its staff. This bank provides needed financial services to women only without interference from or observation by men. Even in this all-female environment where the expression of femininity must be acceptable, it is standard practice to make use of the unmarked, masculine forms of nouns and pronouns in correspondence referring to the bank's customers and its staff.
3.4 Recommendations and Considerations for further Study

Additional relevant information regarding the speaker/writer's subjective reaction to gender biased language and the perceived need for attention to this matter should be collected by means of an interview and/or questionnaire. The resulting accompanying data should be used to provide the researcher needed background information that would make observations and recommendations more appropriate to actual language-in-use situations.

The lack of relevant contextual information can impact upon the ability of the informant to provide reliable feedback to research questions. Context sensitive choices must be based upon information that is as complete as possible, in order to simplify the informant's task and to maintain control over the most pertinent and important parameters of use.

The sample of informants should be expanded to minimally include additional native speakers of differing ages and levels of education. Language attitudes may be further assessed based upon a consideration of additional relevant social factors, of which the native speaker may or may not have conscious awareness. Perspective develops from such basic beliefs as the native language is God-given and should not be tampered with.

Consideration should be given to the evaluation of oral discourse, especially Arabic dialects, where grammatical or covert gender may be expressed differently than in standard Arabic. An examination that includes one or more dialects should reveal additional relevant factors and permit the researcher to access native speaker intuitions.

4.0 CONCLUSION

This study provides a brief overview of the linguistic issues involved in an investigation of the treatment of gender bias in highly inflected languages. It reveals some of the relevant issues and the complexity of dealing with gender bias in two widely used standard languages. Further study should be conducted wherein an examination of other context sensitive written texts that set out to accomplish similar objectives are examined for existence of gender bias. This might include applications, public announcements and commercial advertising. Since speakers are not fully aware of sexist or gender-biased language in general, a separate study identifying subjects' impressions of
degree in bias might contribute to a more principled survey and to an extension of gender bias awareness.

As we have seen highly inflected languages such as Greek and Arabic present difficulties when we try to identify ways to create gender neutral language. The degree of difficulty relates to the complexity of the inflectional system. Because Arabic marks gender in the verb inflection and Greek does not, it appears to be more difficult to create a gender-neutral text in Arabic than in Greek. We have seen how native speakers react to this issue and have identified at least four possible strategies: repetition, substitution, optional ending and no change/elaboration. The availability of examples from Greek attests to greater viability for such strategies in that language. It does not seem likely, however, that Arabic can readily adopt any of the first three strategies. Consequently, recourse to text-external rather than text-internal changes appears to be the best way to address concerns for fairness and comprehensibility in Arabic discourse. Should the writer of Arabic make the decision to avoid the perception of gender bias in language, additional elaboration will be necessary, while the writer of Greek may generally make use of the mechanisms already available and in use in American English.
Appendix 1

Job Announcement in English, Greek and Arabic

(English translation)

The University of _______ (university name) announces openings for two positions: Professor and Assistant Professor Economics. Each applicant is allowed to apply for one position only. It is not necessary for the applicants to be citizens of _______ (country name). The one selected for the position of Professor should submit a detailed description of his future research plan.

(Greek version)

Το πανεπιστήμιο Κρήτης ανακοινώνει την προκυρήξη θέσεων καθηγητή και βοηθού καθηγητή για τον Κλάδο Οικονομικών. Ο καθε αιτητής δικαιούται να υποβάλει αιτήση μόνο για μία βαθμίδα. Οι αιτητές δεν είναι απαραίτητο να είναι πολίτες της Ελληνικής Δημοκρατίας. Οποιος εκλεγει στη θέση του καθηγητή θα πρέπει να προσκομίσει λεπτομερή περιγραφή του μελλοντικού ερευνητικού του εργα.

(Arabic version)

تعلن جامعة الأزهر عن وظائفين شاغرتين لأستاذ و أستاذ مساعد في الاقتصاد. و يحق لكل منDBC ان يقدم لوظيفة واحدة فقط. ولا يشترط في طلب الوظيفة أن يكون مواطناً مصرياً و على الشخص المختار لوظيفة الأستاذ أن يقدم وصفاً مفصلاً لخطة بحثه المستقبلي.
Appendix 2

Brief Explanation about Gender-Biased Language

The Arabic language reflects differences in gender (sex, gender) through the words which we use when we refer to men and women.

- **Arabic:**
  - *SaHbi* "my friend (m.)"
  - *SaHbati* "my friend (f.)"

- **English:**
  - *my friend* (m. and f.)

However, in Arabic we often use nouns of masculine gender, e.g. *student*, and pronouns of masculine gender, e.g. *he*, when we refer to (a) persons whose sex is unknown, or to (b) both men and women in general.

(a) Usually we say in Arabic:

"Someone is in the next room," where "someone" is masculine.

We do not generally say:

"Someone is in the next room," where "someone" is feminine.

(We don’t generally know the gender of the person who is in the next room.)

(b) We also say:

"The elected president (masculine) of the school will be the one who has the majority of the votes of the students (masculine)."

The English language has parallel phenomena.

- **e.g.:** "Everybody should do his best."
  - "Every student should give the letter to his parents."

However, since Americans are more sensitized to gender matters they have developed ways to avoid this problem.

- **e.g.:** "Everyone should do their best."
  - "Everyone should do his/her best."
(Greek version)

Το πανεπιστήμιο Κρήτης ανακοινώνει την προκήρυξη θέσεων
και για τον κλάδο Οικονομικών.

dικαιούται να υποβάλει αίτηση μόνο για μία βαθμιά.

δεν είναι αναγκαίο να είναι πολίτες της Ελληνικής Δημοκρατίας.

εκλέγει στη θέση

θα πρέπει να προσκομίσει λεπτομερή περιγραφή του μελλοντικού ερευνητικού εργα.

(Arabic version)

تعلن جامعة الأزهر عن وظائف أشاغرتين ل_______ و _______ في الاقتصاد. و يحق لكل ______ أن ______ لوظيفة واحدة فقط. و لا يشترط في ______ الوظيفة أن ______ و على ______ لوظيفة ______ أن ______ وصفًا مفصلا لخطة ______ المستقبلي.
## Summary of Responses

*To whom is this passage addressed?*

<table>
<thead>
<tr>
<th></th>
<th>Men Only</th>
<th>Women Only</th>
<th>Men and Women</th>
<th>Men, or Men and Women</th>
</tr>
</thead>
<tbody>
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<td>Greek speakers:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Subtotal:</strong></td>
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<td><strong>0</strong></td>
<td><strong>3</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>Arabic speakers:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotal:</strong></td>
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<td><strong>0</strong></td>
<td><strong>7</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
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<td><strong>0</strong></td>
<td><strong>10</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>
Appendix 5

Gender Marking in Arabic and Greek; Mechanisms for Reducing Gender Bias

GENDER MARKING IN ARABIC:
Third person singular and plural pronouns, nouns, adjectives and conjugated verbs are inflected for gender.

Examples:
- ustaaTHuhu 'professor his' his professor
- ustaaTHu- = professor (m.)
- -hu = possessive suffix (m.)
- ustaaTHahuha 'professor her' her professor
- ustaaTHatu- = professor (f.)
- -haa = possessive suffix (f.)

waSala ustaaTHuhu l-djadiidu ilaa l-kuliya.
'arrived (m.) professor (m.) his (m.) new (m.) at the faculty.'
His new professor arrived at the faculty.

waSalat ustaaTHatuhaa l-djadiidatu ilaa l-kuliya.
'arrived (f.) professor (f.) her (f.) new (f.) at the faculty.'
Her new professor arrived at the faculty.

GENDER MARKING IN GREEK:
Third person singular and plural pronouns, nouns, adjectives and articles are inflected for gender.

Examples:
- o fibos tu 'the friend his' his friend
- i fili tis 'the friend her' her friend
- o = definite article (m.)
- i = definite article (f.)
- filos = friend (m.)
- fili = friend (f.)
- tu = possessive pronoun (m.)
- tis = possessive pronoun (f.)

- o kenuryios tu filos mila ispanika.
  'the (m.) new (m.) his (m.) friend (m.) speaks Spanish.'
  His new friend speaks Spanish.

- i kenuryia tis fili mila ispanika.
  'the (f.) new (f.) her (f.) friend (f.) speaks Spanish.'
  Her new friend speaks Spanish.

MECHANISMS FOR REDUCING GENDER BIAS

1. Repetition
   - Greek: kathiyiti / kathiyitrias 'professor (m.) / professor (f.)'
   - Arabic: ustaaTHu aw ustaaTHatu 'professor (m.) or professor (f.)'

2. Optional ending
   - Greek: opyos/a 'the one who (m.) / fem. inflection
   - Arabic: Taalibu (atu) 'applicant (fem. inflection)

3. Substitution
   - Greek: masculine plural for masculine singular
   - Arabic: genderless or neutral forms

4. No change/elaboration
   - Greek: none
   - Arabic: rephrase, specify, text external changes