

Gastvortrag TU Braunschweig 14.1.2021

Graphemic and Graphetic Methods for Gender-Neutral Writing

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Youtube Link: <https://youtu.be/0I9lVURul34>

Roadmap

- ① A formal model and three graphemic methods
- ② Cases
- ③ General discussion
- ④ Bibliography

Part I

Model and Methods

Some definitions 1/2

- 1 In the title Graphemic and graphetic methods for gender-neutral writing, let us define the underlined terms.
- 2 In an “autonomistic approach,” a *grapheme* is an elementary distinctive unit of the written modality of a given language.
In a “phonographic approach,” a *grapheme* is a written string representing a phoneme in a given language.
(*Graphemic* = related to graphemes.)
(See, e.g., Glück, 1987 or Anis, 1988.)
- 3 A *graph* is a visual form used to represent a grapheme. (*Graphetic* = related to graphs.)
(See, e.g., Meletis, 2020.)
Notation: <...> for graphemes and |...| for graphs.

Some definitions 2/2

- ④ *Gender-neutrality* is a series of methods applied to languages in order to avoid being gender-specific or to avoid privileging a given gender with respect to others. (See, e.g., [Kotthoff and Nübling, 2018.](#)) These methods can be:

- ① *graphemic* (e.g., use a joining grapheme between σ - and φ -suffix as in <mes ami·e·s>),
- ② *morphological* (e.g., use the suffix of the φ form for all genders),
- ③ *lexical* (e.g., use lexeme “person” instead of “man” or “woman”),
- ④ *syntactic* (e.g., replace σ by “ φ and σ ,” or use a passive verbal form),
- ⑤ etc.

- * In this presentation we will examine only graphemic/graphetic gender-neutral methods (and some borderline cases).

Model (definition)

- A *gender-neutral form* is the result of a transformation sending a pair of forms (one male and one female, same number, same case) into a single form (gender-neutral, same number, same case) :

$$\phi: (w_{\sigma}, w_{\varphi}) \mapsto \phi(w_{\sigma}, w_{\varphi}).$$

- Examples:

$$\phi(\langle \text{Arzt} \rangle, \langle \text{Ärztin} \rangle) = \langle \text{ÄrztIn} \rangle,$$

$$\phi(\langle \text{étudiants} \rangle, \langle \text{étudiantes} \rangle) = \langle \text{étudiant} \cdot \text{e} \cdot \text{s} \rangle,$$

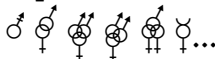
$$\phi(\langle \text{ragazze} \rangle, \langle \text{ragazzi} \rangle) = \langle \text{ragazz@} \rangle,$$

$$\phi(\langle \text{актер} \rangle, \langle \text{актриса} \rangle) = \langle \text{актр_иса} \rangle,$$

$$\phi(\langle \text{μαθητές} \rangle, \langle \text{μαθήτριες} \rangle) = \langle \text{μαθητές/τριες} \rangle,$$

etc.

- Besides σ and φ these forms are often also meant to represent nonbinary genders, such as 



Model (algorithm)

- ϕ can be algorithmically described in two steps:
 - ① choose a (weakly) common prefix of w_σ and w_φ , and keep the feminine version, called C_φ , as well as the two suffixes s_σ and s_φ ;
 - ② define φ as being one of the two cases:

$$\phi(w_\sigma, w_\varphi) := \begin{cases} C_\varphi + \phi_\sigma(s_\sigma) + \phi_\varphi(s_\varphi), \text{ or} \\ C_\varphi + \phi_\varphi(s_\varphi) + \phi_\sigma(s_\sigma). \end{cases}$$

the former case (σ -prepositive) being more frequent than the latter (φ -prepositive).

(Caveat: do not confuse σ -prepositive with σ -privileging.)

- The length of $\phi_\sigma(s_\sigma)$ (resp. $\phi_\varphi(s_\varphi)$ in φ -prepositive methods) is called *backtrack*.

Model (examples), methods

w_σ	w_φ	C_φ	s_σ	$\phi_\sigma(s_\sigma)$	s_φ	$\phi_\varphi(s_\varphi)$	Result
Arztes	Ärztin	Ärzt	es	\emptyset	in	In	ÄrztIn
ami	amie	ami	\emptyset	\emptyset	e	·e	ami·e
ragazzo	raggaza	raggaz	o	\emptyset	a	*	raggaz*
актер	актриса	актр	\emptyset	\emptyset	ица	_ица	актр_ица
φίλος	φίλη	φίλ	ος	ος	η	/η	φίλος/η

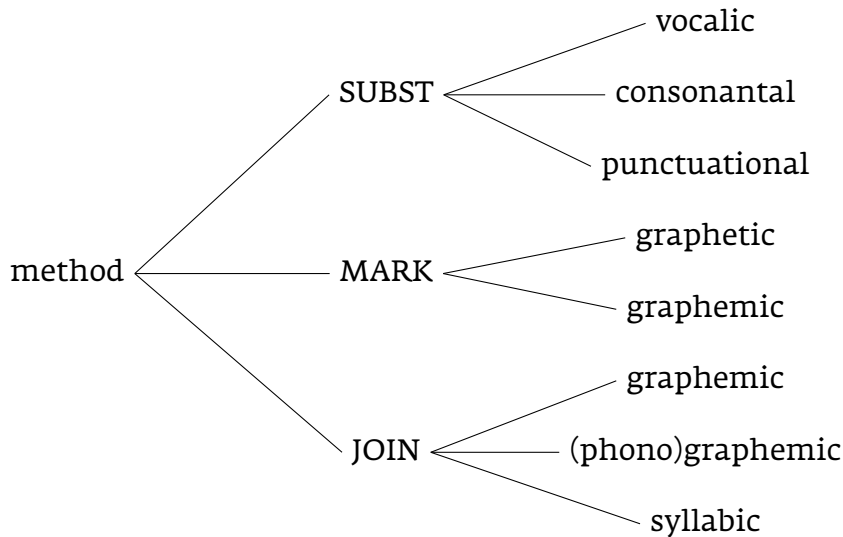
We distinguish three methods:

SUBST When inside s_σ and s_φ a single grapheme is substituted by a generic grapheme, denoted **SG** (Italian, Spanish);

MARK When $\phi(s_\sigma)$ is empty and the left boundary of s_φ is visually marked (German, Russian);

JOIN When s_σ and s_φ (or s_φ and s_σ) are joined using a generic joiner grapheme, denoted **JG** (French, Greek, Portuguese).

Classification of graph. gender-neutral methods



Privilegism

For $\bullet \in \{\sigma, \varphi\}$, a method is called \bullet -*privileging*, when $\phi(w_\sigma, w_\varphi)$ is *perceptually closer* to w_\bullet or when its “ \bullet -part” is *more salient*. Examples:

- The MARK method is φ -privileging (since C_φ is used).

integriert [die Binnenmajuskelschreibung] grafisch die volle männliche Form (StudentInnen), diese wird also nicht marginalisiert (im Unterschied zur weiblichen Form im [generischen Maskulinum]). Wegen der Femininkongruenz wird das Femininum (bewusst) privilegiert. (Kotthoff and Nübling, 2018, p. 217)

This is especially true for narrow sans-serif fonts:

<FriedhofsbesucherInnen> vs. <Friedhofsbesucherinnen>

- Depending on the backtrack, the French JOIN method is sometimes σ -privileging: <acteur·rice·s> and sometimes φ -privileging: <artisan·e·s>.
- The SUBST method is mostly unprivileging: <ragazz*>.

Evaluation methodology

- For SUBST (e.g., <ragazz@>) we evaluate:
 - ① *coverage* relative to a corpus of 2-gender nouns and adjectives,
 - ② *number of graphemes mapped to SG by ϕ* , i.e., how easy is it to reconstruct ϕ^{-1} ?
 - ③ *ambiguity with regard to number* (e.g., is <ragazz@> singular or plural?);
- For MARK (e.g., <ÄrztIn>) we evaluate:
 - ① *coverage* relative to a corpus of 2-gender nouns and adjectives;
- For JOIN (e.g., <étudiant·e>) we evaluate:
 - ① *average backtrack* (compare <acteur·rice> of backtrack 3 with <auteur·e> of backtrack 0).

Evaluation methodology

- For each method and language, we emit a *strong hypothesis* and a *weak hypothesis*:

SUBST (<ragazz*>)

Strong Hyp.: s_{σ} and s_{φ} of a given two-gender word are nonempty and differ by a single grapheme.

Weak Hyp.: C_{σ} and C_{φ} may be slightly different and s_{σ} may be empty.

MARK (<StudentIn>)

Strong Hyp.: s_{σ} is empty and s_{φ} is language-level unique.

Weak Hyp.: s_{σ} is nonempty, C_{σ} and C_{φ} may differ slightly.

JOIN (< $\phi\acute{\iota}\lambda\omicron\varsigma/\eta$ >)

Strong Hyp.: $C_{\sigma} = C_{\varphi}$.

Weak Hyp.: C_{σ} and C_{φ} differ slightly.

and verify whether they are satisfied.

Part II

Cases

Binnen-I

- A graphetic MARK method, where uppercasing of the first s_{ϕ} letter is used as marking method.
- First attested in a 1981 self-published book (Busch, 1981), then in *Schweize Wochenzeitung* and in *taz* (1983).
- Oestreich (2009) criticizes (*taz*, 26 years later):

Das Durchschnittsgehirn kennt nämlich keine Binnenmajuskel, also keinen Großbuchstaben inmitten eines Wortes und liest das I als kleinen Buchstaben. Bei PolitikerInnen liest es Politikerinnen, – und fragt sich wo da die Männer bleiben. (“Die Erektion im Text,” *taz* 7.3.2009)



A peculiar coincidence (or maybe not?)

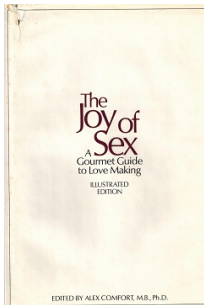
- Binnen-I was introduced in *Was Sie schon immer über Freie Radios wissen wollten aber nie zu fragen wagten* (1981) mimicking Reuben's *Was Sie schon immer über Sex wissen wollten aber bisher nicht zu fragen wagten* (1970).
- English gender-neutral pronouns *e/em/eir/eirs/emself* were introduced in Spivak's *The Joy of T_EX. A Gourmet Guide to Typesetting* (1982), mimicking Comfort's *The Joy of Sex. A Gourmet Guide to Love Making* (1972).



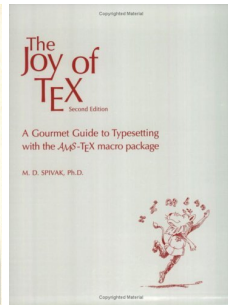
(1970)



(1981: binnen-I)



(1972)



(1982: e/em/eir/eirs/emself)

Binnen-I - Rules and limits

- According to [Kotthoff and Nübling \(2018\)](#), adjectives, articles and pronoun dependencies of a gender-neutral noun should use the feminine form: <jede neue KollegIn> (→ even more ♀-privileging).
- [Damm et al. \(2014, p. 16\)](#) propose an alternative scheme, where the final graphemes of noun dependencies are also marked: <jedE neuE KollegIn>.
- Alternative (graphem^{ic}) marking methods: <Student*in>, <Student_in>, <Student:in>, <Studentin> “generisches Femininum,” but also ...
- ... experimental uses: <Stud_entin> “Wortstamm-unterstrich”, <Stu_dentin> “dynamischer Unterstrich”:

Das Wandern des Unterstrichs durch ein Wort macht deutlich, dass es nicht einen festen Ort gibt, an dem ein Bruch in ZweiGenderung – also zwischen der konventionalisiert männlichen und der konventionalisiert weiblichen Form – stattfindet [...] (*ibid.*, p. 23)

Binnen-I - Evaluation

- We extracted 4,561 bi-gender nouns from German Wiktionary.

- Strong Hyp.:

89.4%

Class	#	Typical examples
$ s_{\sigma} = 0$	3,672	<Student> → <StudentIn>
$ s_{\sigma} = 1$	368	<Kollege> → <KollegIn>
$ s_{\sigma} = 2$	39	<Beamter> → <BeamtIn>

- Weak Hyp.:

92.4%

Class	#	Typical examples
$ s_{\sigma} = 0$	117	<Arzt> → <ÄrztIn>
$ s_{\sigma} = 1$	18	<Jude> → <JüdIn>
$ s_{\sigma} = 2$	1	<Tauber> → <TäubIn>



Ein Tauber (links) umwirbt eine Täubin = 2 TäubInnen.

- Remaining cases: 193 cases with stem change (<Vater>/<Mutter>, <Mann>/<Frau>, etc.) (4.2%), around 100 foreign words (<Coiffeur>/<Coiffeuse>, <Cowboy>/<Cowgirl>, etc.) (2.2%).
- Conclusion: MARK has very good (92.4%) coverage for German.

An extended Binnen-I relying on derivation 1/2

Discussions with Prof. Dr.s Martin Neef, Isabelle Thormann and Thomas Kronschräger during the lecture on January 14th have resulted into the following:

- 1 If we consider the standard Binnen-I as based on derivational precedence (the ♀ form is based on the ♂ form), then there is a group of words where the opposite occurs:

Bräutigam (< Braut), Hexer (< Hexe), Witwer (< Witwe), Zicker (< Zicke), Hebammer (< Hebamme).

- 2 It has been suggested that the Binnen-I principle be applied to these words in a ♀-prepositive manner. This results into the following gender-neutral forms:

<BräutIgam>, <HexeR>, <WitweR>, <ZickeR>, <HebammeR>.

- 1 This generalization of Binnen-I requires a small adjustment of our model since, not $C_{\text{♀}}$ but $C_{\text{♂}}$ is used in the gender-neutral forms of these cases (<Bräut> and not <Braut>).
- 2 This adjustment contributes to the symmetry of the model: in σ -prepositive cases, $C_{\text{♀}}$ is used, while in ♀ -prepositive cases, $C_{\text{♂}}$ is used.

Гендерно-нейтральный язык

- Bielorrussian online paper *Гендерно-нейтральный язык и небинарные идентичности: как реформировать язык?* (Andreevskikh, Peshay, and Sidnikova, 2017).
- The suggestion is to use graphemic MARK.
Examples: <блогер_ка>, <дизайнер_ка>, <студент_ка>, <читатель*ница>, <актр*иса>.
(The last example is a weak case:
 $\phi(<актер>, <актриса>) = <актр*иса>$, where
 $<актер> = C_{\sigma} \neq C_{\varphi} = <актр>$.)
- Russia is still light-years away from adopting gender-neutral language. The corresponding Wikipedia page “Гендерная нейтральность” focuses on critics to French écriture inclusive, and concludes:
В русском языке гендерный штрих используется некоторыми активистами феминистического и квир-движения.

Linguaggio inclusivo - La chiocciola (snail)

- (Non una di meno, 2017)
is a feminist pamphlet,
stating:

In questo Piano abbiamo scelto di svelare la non neutralità del maschile utilizzando non solo il femminile, ma anche la @ per segnalare l'irriducibilità e la molteplicità delle nostre differenze. Consapevoli che le lingue mutano e si evolvono, proviamo a rendere il nostro linguaggio inclusivo per avere nuove parole per raccontarci e per modificare i nostri immaginari.



Linguaggio inclusivo - SUBST or JOIN?

- In ([Non una di meno, 2017](#)) the punctuational SUBST method based on the |@| allograph (e.g., <tutt@>, <ognun@>) is combined with a JOIN method for determinants: <delle/degli altr@>, etc.
- In a more official text (*Linee guida per l'uso del genere nel linguaggio amministrativo*, [Robustelli, 2012](#)), the use of the |*| allograph is discouraged while a syllabic JOIN method with JG = </> is encouraged:

In alternativa è possibile usare solo i corrispondenti suffissi femminili: “Domanda di ammissione ai permessi art. 33 L. 104/92 (per lavoratori/trici portatori/trici di handicap in stato di gravità)” ([ibid.](#), p. 25).

Linguaggio inclusivo - Evaluation

- We extracted 12,204 non-epicene bi-gender nouns, adjectives and participles from Italian Wiktionary.
- Strong Hyp.:

Class	Suffixes	#	Typical example
1	o/a, i/e	9,138	<tutt@> = tutto/a, tutti/e
2	a/a, i/e	419	<ciclist@> = ciclista/a, ciclisti/e
3	o/a, (h)i/(h)e	157	<stucc@> = stucco/ca, <stucch@> = stucchi/che
4	e/a, i/e	132	<cantonier@> = cantoniere/a, cantonieri/e
Total		9,846	(81%)

Linguaggio inclusivo - Evaluation

- Weak Hyp.:

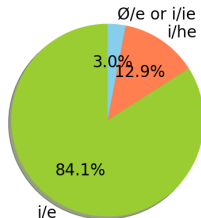
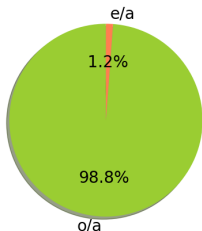
Class	Suffixes	#	Typical example
5	o/a, i/he	1,515	<arcaic@> or <arcaich@> = arcaico/ca/ci/che
6	o/a, ∅/e	353	<figli@> or <figl@> = figlio/glia/gli/glie
Total		1,868	(+ 9,846 = 96%)

Notice that while strong cases are non-privileging, plural <arcaic@> and <figl@> are strongly σ -privileging and the other two strongly φ -privileging.

Ironically, [Non una di meno \(2017, p. 44\)](#) uses plural <figl@>: “dove si agisce violenza su donne e figl@”.

- Remaining (important) cases: 422 cases ore/rice, ori/rici (e.g., traduttore/trice/tori/trici) where only JOIN can be used (3.4%).

Linguaggio inclusivo - Conclusion



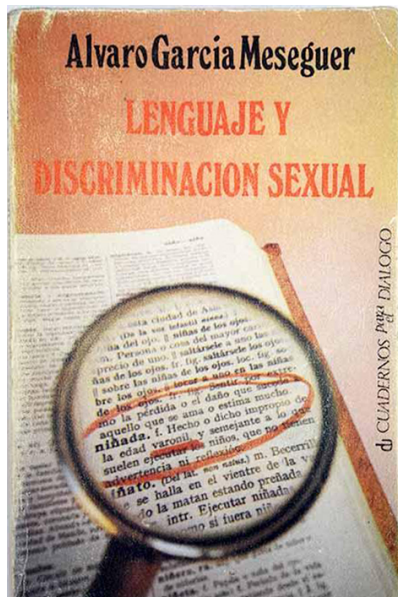
- Graphemes mapped to SG are: in the singular, in **98.8%** of cases, <o>/<a>; in the plural, in **84.1%** of cases, <i>/<e>, and in **12.9%** of cases, <i>/<he>.
- Conclusion: with a extremely high coverage of **96%** and a stable mapping of <o>/<a> to SG in **98.8%** of cases in the singular (and **97%** in the plural, for <i>/<e> or <he>), we can conclude that the SUBST method is well suited for Italian language.

Lenguaje igualitario - <e>

- Garcia Meseguer (1976) proposes a vocalic SUBST method with **<hijos>** instead of **<hijos>/<hijas>**.

- The magnified segment on the cover says: **niñada**. *Hecho o dicho impropio de la edad varonil, y semejante a lo que suelen ejecutar los niños, que no tienen advertencia ni reflexión.*

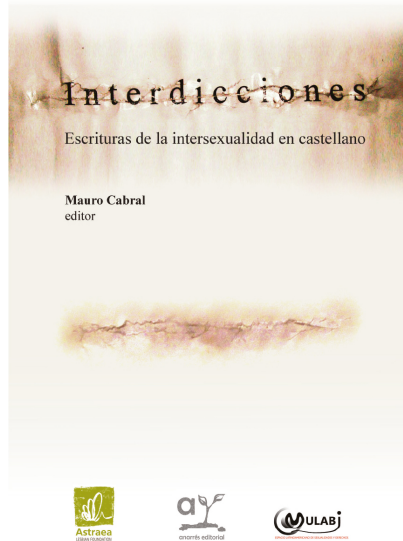
[**niñada**. Inappropriate fact or saying in a man's age, similar to what children often do indadvertedly or without reflection.]



Lenguaje igualitario - <*>

- The collective publication **Cabral (2009)** uses <*> as punctuational SG:

*se trate de médic*s, abogad*s y bioeticistas, periodistas, maestr*s o de l*s propi*s padres y madres ansios*s por tener hij*s “normales” (p. 10).*



Lenguaje igualitario - <@>, <x>

- The Argentinian transvestite activist Lohana Berkins (2013) suggests a punctuational <@> or a consonantal <x> as SGs in the newspaper *Página12*:

Con [el lenguaje cibernético] se empezaron a pensar formas más inclusivas de nombrar, por ejemplo con la x o la @. Creo que es necesario preguntarse qué cosa es el lenguaje y cuáles son sus limitaciones.



- Spanish Wiktionary contains declension tables for all nouns and adjectives, we extracted 43,636 non-epicene bi-gender ones.
- Strong hyp.:

Class	Suffixes	#	Typical example
1	o/a, os/as	37,434	<abogad@> = abogado/a, <abogad@s> = abogados/as
2	e/a, es/as	13	<chilot@> = chilote/a, <chilot@s> = chilotes/as
Total		37,447	85.8%

Lenguaje igualitario - Evaluation

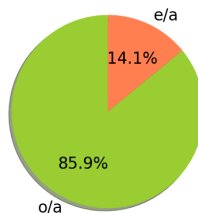
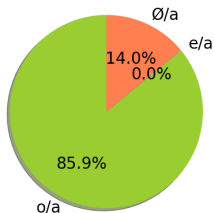
- Weak hyp.:

Class	Suffixes	#	Typical example
3	∅/a, es/as	3,369	<trabajador@> = trabajador/a, <trabajador@s> = trabajadores/as
4	ón/ona, ones/onas	2,616	<moceton@> = mocetón/ona, <moceon@s> = mocetones/as
5	és/esa, eses/esas	95	<montaños@> = montañés/esa, <montaños@s> = montañeses/as
6	án/ana, anes/anas	6	<alazan@> = alazán/ana, <alazan@s> = alazanes/as
7	ín/ina, ines/inas	6	<chapin@> = chapín/ina, <chapin@s> = chapines/as
Total		6,092	+ 37,447 = 99.8%

In all singular number examples in the table above, we did ♀-privileging choices.

- We found 8 nouns incompatible with the SUBST method:
<actor>/<actriz>, <adorador>/<adoratriz>, <director>/<directriz>, <emperador>/<emperatriz>, <formador>/<formatriz>, <generador>/<generatriz>, <tutor>/<tutriz>.

Lenguaje igualitario - Conclusion



- Graphemes mapped to SG are: both in singular and plural, in **85.9%** of cases, <o>/<a>.
- Conclusion: with a quasi-absolute coverage of **99.8%** and a quite steady mapping of <o>/<a> to SG in **85.9%** of cases, both for singular and plural number, we can conclude that the SUBST method is ideally suited for the Spanish language.

Linguagem inclusiva - SUBST or JOIN?

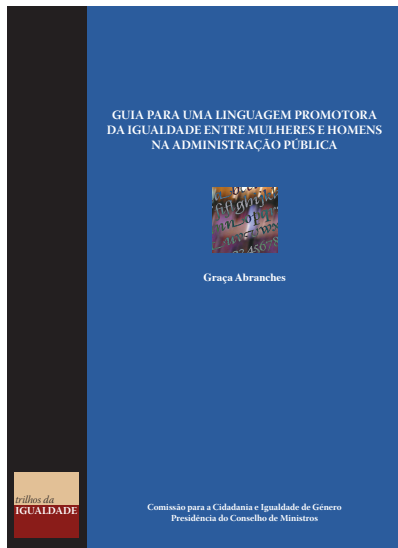
- In an interview, the Brazilian linguist Karla [Avanço \(2006\)](#) stated the following about her PhD thesis (on gender identity construction):

Tentei usar uma linguagem inclusiva na minha tese e usei um pouco de tudo, menos o “x” e o “@”, porque acho que não cabem nesse tipo de texto. Usei com frequência as duas formas “a/o”, separadas por barra ou escrevendo as duas palavras, por exemplo: “as leitoras e os leitores”.

[I tried to use inclusive language in my thesis and used a little of everything except for the “x” and the “@,” because I don’t think they are suitable for this type of text. I often used the two “a/o” forms, separated by slash or by writing them entirely, as in “the readers_♀ and the readers_♂”.]

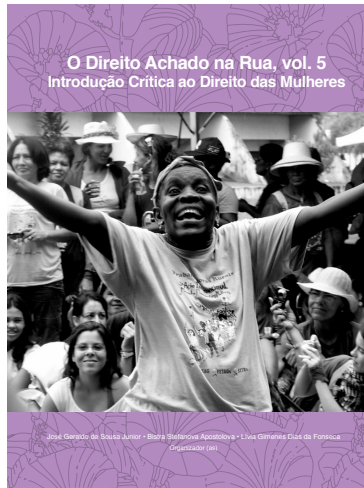
Linguagem inclusiva - JOIN in Portugal

- In 2009, a Portuguese governmental commission publication (Abranches, 2009) suggests a punctuational JOIN method, with SG = `</>`.
- Prepositivity is not mentioned but in the examples it seems that *the version with least backtrack* is chosen: `<a/o cidadã/o>` (BT = 0), `<o/a monitor/a>` (BT = 0), and random choice when backtrack is equal: `<a/o médica/o>` (BT = 0) vs. `<o/a beneficiário/a>` (BT = 0).



Linguagem inclusiva - SUBST in Brazil

- In 2012, a short text contained in a collective work on Women's Law, published in Brasilia, asserts:
Em textos alternativos e informais, é possível utilizar o “x” ou mesmo um símbolo como o arroba (a+o=@) para destacar que a/o autor/a está atenta/o para a linguagem que utiliza
[In alternative and informal texts, it is possible to use an “x” or even a symbol like the at sign (a + o = @) to highlight the fact that the author is aware of the language e uses.]
- The authors advocate SUBST but in fact use JOIN. In the whole text, SUBST is used 5 times, while JOIN is used 12 times.



Linguagem inclusiva - Evaluation

- We have extracted 7,765 non-epicene bi-gender nouns and adjectives from Portuguese Wiktionary.
- 48 word classes emerged out of which we present the 7 most important ones (95.5% coverage).
- To study both SUBST and JOIN, we calculated the average backtrack (BT) for each class, separately for the singular and for the plural.
- Strong hyp.:

Class	Suffixes	#	BT	Typical example
1	o/a, os/as	6,718	1/2	<nov@> = novo/a, <nov@s> = novos/as
2	e/a, es/as	34	1/2	<president@> = presidente/a, <president@s> = presidentes/as
Total		6,752	1/2	87%

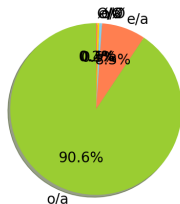
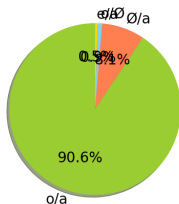
Linguagem inclusiva - Evaluation

- Weak hyp.:

Class	Suffixes	#	BT	Typical example
3	ø/a, es/as	472	0/2	<observador@> = observador/ora, <observador@s> = observadores/as
4	ês/esa, eses/esas	107	2/2	<cantones@> = cantonês/esa, <cantones@s> = cantoneses/as
5	o/ø, os/s	38	1/2	<pagã@> = pagão/pagã, <pagã@s> = pagãos/pagãs
6	o/ø, es/s	26	1/2	<alemã@> = alemão/alemã, <alemã@s> = alemães/alemãs
7	ø/a, s/as	18	0/1	<cru@> = cru/crua, <cru@s> = crus/cruas
Total		661	0.42/1.97	+ 6,752 = 95.5%

We observe that, while Classes 3, 4 and 7 are close to Spanish and hence are ♀-privileging, in Classes 5 and 6 the ♀ form is shorter than the ♂ form, and therefore they are ♂-privileging.

Linguagem inclusiva - Conclusion



- The following graphemes are mapped to SG: both in singular and plural, in **90.6%** of cases, <o>/<a>.
- Conclusion: with a good coverage of **95.5%** and a very steady mapping of <o>/<a> in **90.6%** of cases, both for singular and plural, we can conclude that the SUBST method is quite suitable for Portuguese language.

JOIN can also be used, but the average backtrack (**0.95** for singular and, **2** for plural) is rather high, when compared, for example, with French.

Écriture inclusive - History

- In 2016, a French governmental consulting instance, the *Haut Conseil à l'égalité entre les femmes et les hommes* published a guide for gender-neutral writing, (Abily et al., 2016) recommending a punctuational JOIN method using |.| as JG.

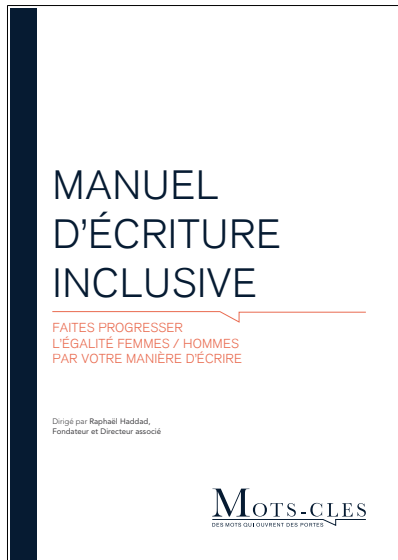


Écriture inclusive - History

- In 2017, a private communication agency published (Haddad and Baric, 2017), a guide with similar rules and examples as Abily et al. (2016), but recommending |·| (called “point milieu”) as JG allograph.

Complete words are also joined:

<femme·homme>,
<du·de la>.



Écriture inclusive - Choice of the allograph

- Parentheses are frequently used (and not only for gender-neutral language) but always with zero backtrack. It would be confusing to write *<acteur(rice)>...
- Hyphens are already used in composed words: <avant-gardiste>.
- |.| is also already used as full-stop and abbreviation mark.
- |·| has the merit of being unused in French:

Le point milieu permet [...] d'affirmer sa fonction singulière d'un point de vue sémiotique et par là d'investir «frontalement» l'enjeu discursif et social de l'égalité femmes/hommes (Haddad and Baric, 2017, p. 8).

[The middle dot semiotically asserts its specific function and allows a “frontal” investiture of the discursive and social wager of gender equality]

Écriture inclusive is phonographemic

- We call a JOIN method graphemic, phonographemic or syllabic, depending on the nature of s_{σ} (resp. s_{φ}) in the σ -prepositive (resp. φ -prepositive) case.
- Écriture inclusive is not graphemic, otherwise we would have *<beau·lle> instead of <beau·elle>.
- It is not syllabic either, otherwise we would have *<banquier·quière> instead of <banquier·ère>.
- In fact, it is *phonographemic*:
‘beau’ is /bo/ and ‘belle’, /bɛl/, hence /bo·ɛl/ (phonemic BT=1) is represented by <beau·elle>,
‘banquier’ is /bâkje/ and ‘banquière’, /bâkjɛʁ/, hence /bâkje·ɛʁ/ (phonemic BT=1) is represented by <banquier·ère>.

Écriture inclusive - Specificities

- Écriture inclusive processes *plural* forms by a second JG for <s>: <ami·e·s>, <acteur·rice·s>, <mis·e·s>, ...
- The rule is to process separately singular and plural number. Ignorance of (or doubt on) this rule leads to uncertainties and errors. The picture below shows such a case:



The singular g.n. form is <tout·e>. Going from sing. ♀ to plur. ♀ one would write *<tout·e·s>. But since the plur. ♂ is <tous>, the correct plur. ♀ version is the *perfectly unnatural* <tou·te·s> (compare stroke weights in the picture...)

Écriture inclusive - Prepositivity

- Thanks to the *Shadoks* (the French equivalent of German Mainzelmännchen), we have the typically French maxime *Pourquoi faire simple quand on peut faire compliqué?*
- According to this principle, [Abily et al. \(2016\)](#) have chosen *alphabetical prepositivity of dependencies* in the case of epicene nouns:

<les agent·e·s territoriaux·ales>

(non epicene noun, BT=3)

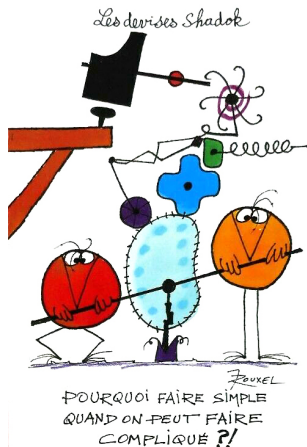
<les fonctionnaires territoriales·aux>

(epicene noun, ♀-prepositive adj., BT=4).

Besides the cognitive load, this solution is ambiguous:

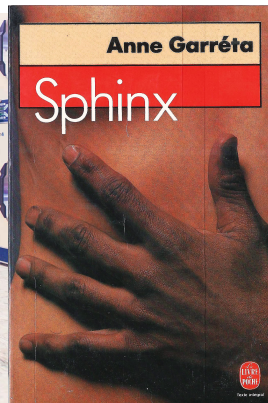
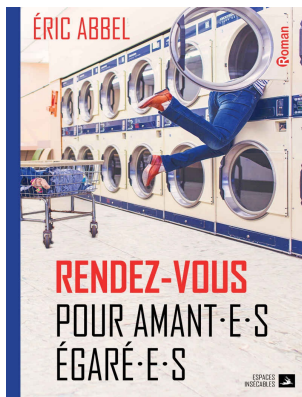
<charmant·e·s fonctionnaires territoriaux·ales> (BT=0, 3), or

<charmante·t·s fonctionnaires territoriales·aux> ? (BT=2, 4)



Écriture inclusive - *Amant·e·s égaré·e·s*

- In the novel *Rendez-vous pour amant·e·s égaré·e·s*, Éric Abbel (2019) uses the JOIN method to hide the gender/sex of the two main characters “O” and “U” to the reader.
- This has already been achieved by Anne Garréta (1986), *Sphinx*, without any graphemic method. Anne Garréta was the first female OULIPO member. The main characters in her novel are “je” and “A***”.



Écriture inclusive - Evaluation

- We extracted data on 52,271 non-epicene two-gender nouns and adjectives from the French Wiktionary.

Class	Suffixes	#	BT	Typical example
1	Ø/e, s/es	27,852	0/1	étudiant·e, étudiant·e·s
2	Ø/ne, s/nés	11,132	0/1	doyen·ne, doyen·ne·s
3	Ø/e, Ø/es	3,521	0/0	acquis·e, acquis·e·s
4	eur/euse, eurs/euses	2,397	3/4	contrôleur·euse, contrôleur·euse·s
5	al/ale, aux/ales	1,583	0/4	principal·e, principales·aux
6	x/se, x/ses	1,367	1/1	peureux·se, peureux·ses
7	eur/rice, eurs/rices	1,278	3/4	directeur·rice, directeur·rice·s
8	er/ère, ers/ères	1,188	2/3	premier·ère, premier·ère·s
9	if/ive, ifs/ives	895	2/3	attentif·ive, attentif·ive·s
10	Ø/le, s/les	621	0/1	actuel·le, actuel·le·s
11	Ø/te, s/tes	327	0/1	marmot·te, marmot·te·s
12	eau/elle, eaux/elles	41	3/4	beau·elle, beaux·elles
13	Ø/que, s/ques	24	0/1	cyprianenc·que, cyprianenc·que·s
14	c/que, s/ques	19	1/2	opoulenc·que, opoulenc·que·s
15	et/ète, ets/êtes	16	2/3	complet·ète, complet·ète·s
16	Ø/se, Ø/ses	10	0/0	bas·se, bas·se·s
Total		52,271	0.32/1.32	

Écriture inclusive - Conclusion

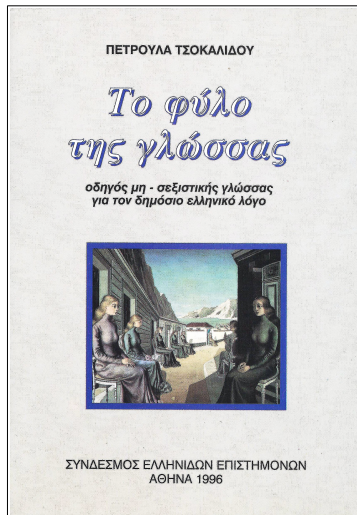
- A backtrack of 0.32/1.32 is quite good, and that shows that JOIN is acceptable for French.
- The fact that it has been introduced by a gouvernemental agency and adopted by mainstream media is also a good point.
- The real problem is inconsistency in definitions: there is a lot of literature on the social phenomenon but none giving a clear and unambiguous list of formation rules.
- Instead of alphabetical prepositivity, it would be wiser to adopt backtrack-reduction strategies (as in Portuguese) or random choices (as in Greek).

Μή-σεξιστική γλώσσα - JOIN based on </>

- Petroula Tsokalidou (1996), Professor of Linguistics at Monash, published a booklet on “non-sexistic language,” advocating and using JOIN with JG=</> (κάθετος).

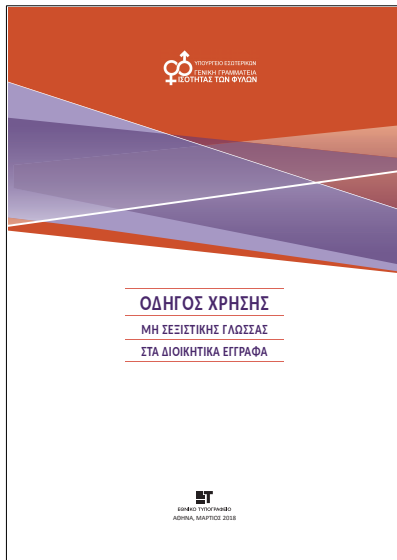
(The painting on the cover is Delvaux’s *Village of the Mermaids* (1942).)

- Use of the slash is common in Greek, although there is no formal indication on where to cut.
- Many examples are given by pairs: ♂- and ♀-prepositive.



Μή σεξιστική γλώσσα - JOIN based on </>

- In 2018, the Ministry of Interior publishes a quite elaborate *User's Guide of Non-Sexistic Language* (113 p.). (Georgallidou et al., 2018)
- The intention is laudable, but it abounds with inconsistencies, e.g., on p. 19 one reads both <ὁμιλήτριες/ές> and <ὁμιλήτριες/τές>, and on p. 18 the paradoxical <ὁμιλητριῶν/ῶν>.
- Inconsistencies are problematic since in the absence of clear rules, one relies on examples to infer them.



Μὴ σεξιστικὴ γλῶσσα - Subversive & awakening...

- A rare case of gouvernemental document calling for subversion and awakening (Georgallidou et al., 2018, p. 42):

Πρόταση: Νὰ χρησιμοποιεῖται συχνὰ ἡ πρόταξη τοῦ θηλυκοῦ γραμματικοῦ γένους. Στόχος εἶναι ἡ ἐπιλογὴ δήλωσης τοῦ γένους/φύλου νὰ εἶναι ἀνατρεπτικὴ ὡς πρὸς τὸν κυρίαρχο γραμματικὸ κανόνα καὶ νὰ λειτουργήσῃ ἀφυπνιστικά, ὑποδεικνύοντας τὴ δυνατότητα μιᾶς ἐναλλακτικῆς συντακτικῆς διευθέτησης ὅχι ἀμιγῶς γλωσσικῶν ζητημάτων στὴν ἐκπροσώπηση τῶν φύλων στὸ λόγο.

[Recommendation: Use often the feminine-masculine order in suffixes. Our goal is the gender/sex declaration to be subversive with respect to the dominant grammatical rule and to contribute in awakening the reader, illustrating the possibility of an alternative syntactic processing of issues—which are not solely linguistic—in the representation of gender in discourse.

Μή σεξιστική γλώσσα - ...but hard to apply

Πέμπτη, 7 Μαΐου 2015

Κανένας συνάδελφος/ισσα μόνος του απέναντι στα αφεντικά



Την Παρασκευή 1η Μάη προχωρήσαμε σε κινητοποίηση έξω από το κατάστημα Everest (της μητρικής εταιρείας) που βρίσκεται στην συμβολή των οδών Αγίου Μελετίου και Πατησίων. Η

should have been:

Κανένας/μία συνάδελφος/ισσα μόνος/η του/της απέναντι στα αφεντικά.

Μή σεξιστική γλώσσα - Evaluation

- We extracted 15,715 adjectives and 1,033 non-epicene bi-gender nouns from the [Mandala \(1999\)](#) dictionary.
- We obtained 5 classes of adjectives and 28 classes of nouns. Here are the classes for adjectives:

Class	Example	#	Nom.	Gen.	Acc.	Voc.	BT
1	φίλος	6,908	ος/η οι/ες	ου/ης ων	ο/η ους/ες	ε/η οι/ες	1.63/1.38
2	καλός	5,774	ός/ή οί/ές	οῦ/ῆς ῶν	ό/ή ούς/ές	έ/ή οί/ές	1.63/1.38
3	νέος	1,175	ος/α οι/ες	ου/ας ων	ο/α ους/ες	ε/α οι/ες	1.63/1.38
4	γκρινιάρης	196	ης/α ηδες/ες	η/ας ηδων/ων	η/α ηδες/ες	η/α ηδες/ες	2.63/1.63
5	δεξιός	25	ός/ά οί/ές	οῦ/ᾶς ῶν	ό/ά ούς/ές	έ/ά οί/ές	1.63/1.38

Μή σεξιστική γλώσσα - Evaluation

- And here are the first five classes for nouns (↑ denotes accent raising):

Class	Example	#	Nom.	Gen.	Acc.	Voc.	BT
10	φοιτητής	363	τής/↑τρια τές/↑τριες	τῆ/↑τριας τῶν/τριῶν	τή/↑τρια τές/↑τριες	τή/↑τρια τές/↑τριες	2.63/4.63
11	ἐπιβάτης	220	ῆς/ισσα ες/ισσες	ῆ/ισσας ῶν/ισσῶν	ῆ/ισσα ες/ισσες	ῆ/ισσα ες/ισσες	1.63/4.63
12	ἐπιστάτης	101	της/τρια τες/τριες	τη/τριας τῶν/τριῶν	τη/τρια τες/τριες	τη/τρια τες/τριες	2.63/4.63
13	γλωσσάς	44	άς/ού άδες/ οὔδες	ᾱ/οῦς ᾶδων/ οὔδων	ά/ού άδες/ οὔδες	ά/ού άδες/ οὔδες	2.63/3.63
14	δουλευτής	41	ῆς/↑ρα	ῆ/↑ρας	ῆ/↑ρα	ῆ/↑ρα	1.63/2.63

- Backtrack is high. [Georgallidou et al. \(2018, p. 29\)](#) recommends: Ἰδανικὰ κανένα ἀπὸ τὰ δύο γένη δὲν θὰ ἔπρεπε [νὰ] δηλώνεται μὲ [πάνω ἀπὸ] 3-4 γράμματα, and here we reach a BT of 5...

Part III

General discussion

Comparison of the three JOIN methods

- None of the recommendations has clear rules on suffix formation. They have to be inferred from examples.
- French uses a peculiar JG $\langle \cdot \rangle$ and σ -prepositive order, except in the case of epicenes, where prepositivity is based on alphabetic order of dependencies.
- Portuguese uses the slash as JG and prepositivity seems to be based on minimal backtrack.
- Greek also uses the slash as JG but prepositivity is random.

Final comments on SUBST, MARK and JOIN

- SUBST relies on a specific feature of some Romance languages, namely that the difference between w_{σ} and w_{ϕ} consists in a single letter (<ragazzo>/<ragazza>). For these languages, SUBST is very efficient.
- The vocalic SG <e> has been proposed for Spanish.
- The consonantal SG <x> has been proposed for Spanish but is seldom.
- Punctuational SG (with allographs |@|, |*|, etc.) is the most frequent.

Final comments on SUBST, MARK and JOIN

- MARK is a kind of JOIN where s_{σ} is omitted and the boundary between stem and s_{φ} is marked.

It works very well for German because in 92.4% of cases s_{σ} is void (or very short), and in 93.6% of cases $s_{\varphi} = \langle \text{in} \rangle$ in the singular and $\langle \text{innen} \rangle$ in the plural.

For German a (brave) decision has been taken concerning dependencies, namely to use only the φ form, e.g.,

$\langle \text{die \AA rztlIn bekommt ihre Uniform} \rangle$

instead of a MARK/JOIN mixture:

$\ast \langle \text{der/die \AA rztlIn bekommt seine/ihre Uniform} \rangle$.

Final comments on SUBST, MARK and JOIN

- JOIN works in all languages—its suitability for a given language is based on backtrack. French is well suited for JOIN because gender information is always concentrated in the suffix, and also French has no cases.

Greek has higher backtrack and the omnipresence of gender-information can make JOIN quite cumbersome, e.g.,

“The worker should consider eir colleague as eir friend” would give

<O/ή₁ ἐργάτης/ισσα₂ νὰ θεωρεῖ τήν/τὸν₃
συναδέλφισσά/ό₄ του/της₅ ὡς φίλη/ο₆>

where 1 must agree with 2 and 5, and 3 must agree with 4 and 6. Here backtracks are 1, 2, 3, 4, 3, 1.

Computational complexity

- How hard is ϕ^{-1} for an NLP algorithm?
 - 1 in the case of SUBST the algorithm just replaces the SG by all possible choices and weights them according to their pertinence;
 - 2 in the case of MARK the algorithm recognizes the marked letter and identifies the word as a ♀ noun;
 - 3 in the case of JOIN there is ambiguity since the algorithm does not know where s_σ starts. But there is no information loss since the part before the SG is a complete (♂ or ♀) noun that only needs to be identified as such, and the rest can be omitted.
- Conclusion: There is neither inherent difficulty nor hidden information in either of these forms.
- The only information (in the sense of IT) added is the one of the *intention of being gender-neutral*.

Part IV

Bibliography

References I



Abbel, Éric (2019). *Rendez-vous pour amant·e·s égaré·e·s*. Paris: Espaces insécables.



Abily, Gaëlle et al. (2016). *Pour une communication publique sans stéréotype de sexe. Guide pratique*. Paris: La documentation française.



Abranches, Graça (2009). *Guia para uma Linguagem Promotora da Igualdade entre Mulheres e Homens na Administração Pública [Guide for an Equality-Promoting Language between Women and Men in Public Administration]*. Lisbon: Comissão para a Cidadania e Igualdade de Género [Governmental Commission for Citizenship and Gender Equality].



Andreevskikh, Olga [Андреевских, Ольга], Alexandr Peshay [Александр Першай], and Yana Sidnikova [Яна Ситникова] (2017). “Гендерно-нейтральный язык и небинарные идентичности: как реформировать язык? [Gender-neutral language and nonbinary identities: how to reform language?]” <https://makeout.by/2017/02/27/genderno-neytralnyy-yazyk.html>.



Anis, Jacques (1988). *L'écriture, théories et descriptions*. Bruxelles: De Boeck.

References II



- Garréta, Anne (1986). *Sphinx*. Paris: Grasset.

References III



Georgallidou, Marianthi [Γεωργαλλίδου, Μαριάνθη] et al. (2018). *Ὁδηγὸς Χρήσης μὴ Σεξιστικῆς Γλώσσας στὰ Διοικητικὰ Ἐγγραφα [Guide of Use of Non-sexist Language in Administrative Documents]*. Athens: Γενικὴ Γραμματεία Ἰσότητας τῶν Φύλων [General Secretary of Gender Equality].



Glück, Helmut (1987). *Schrift und Schriftlichkeit*. Stuttgart: Metzler.



Haddad, Raphaël and Carline Baric (2017). *Manuel d'écriture inclusive*. Paris: Mots-Clés.



Kotthoff, Helga and Damaris Nübling (2018). *Genderlinguistik*. Tübingen: Narr Francke Attempto.



Mandala, Maria [Μανδαλαῖ, Μαρία], ed. (1999). *Μεῖζον Ἑλληνικὸ Λεξικό [Major Greek Dictionary]*. Athens: Τεγόπουλος Φυτράκης [Tegoropoulos Futrakēs].



Meletis, Dimitrios (2020). *The Nature of Writing. A Theory of Grapholinguistics*. Vol. 3. Grapholinguistics and Its Applications. Brest: Fluxus Editions.

References IV



Non una di meno (2017). “Abbiamo un piano. Piano Femminista contro la violenza maschile sulle donne e la violenza di genere [We Have a Plan. Feminist Plan against Male Violence upon Women and Gender Violence]”. https://nonunadimeno.files.wordpress.com/2017/11/abbiamo_un_piano.pdf.



Oestreich, Heide (2009). “Die Erektion im Text”. *taz*, March 7, 2009, <https://taz.de/Das-Binnen-I-und-die-taz/!5166721/>.



Robustelli, Cecilia (2012). “Linee guida per l’uso del *genere* nel linguaggio amministrativo [Guidelines for the Use of Gender in Administrative Language]”. https://www.uniss.it/sites/default/files/documentazione/c_robustelli_linee_guida_uso_del_genere_nel_linguaggio_amministrativo.pdf.



Tsokalidou, Petroula [Τσοκαλίδου, Πετρούλα] (1996). *Τὸ φύλο τῆς γλώσσας [The Gender of Language]*. Athens: Σύνδεσμος Ἑλλήνων Ἐπιστημόνων [Society of Greek Scientists].