# Gender Bias & Stereotypes in Linguistics Research and Teaching

Paola Cépeda (she/her)

Hadas Kotek (she/her)

**Katharina Pabst (she/her)** 

Kristen Syrett (she/her)

Rikker Dockum (he/him)

Sarah Babinski (she/her)

**Christopher Geissler (he/him)** 

Meet the Authors Webinar - January 28, 2022

### Meet the authors of two recent papers in Language

 Gender bias in linguistics textbooks

> (Paola Cépeda, Hadas Kotek, Katharina Pabst, Kristen Syrett)



 Gender bias and stereotypes in linguistic example sentences (Hadas Kotek, Rikker Dockum,



Sarah Babinski, Christopher Geissler)

Both papers find **significant gender bias and stereotypes in example sentences in** *syntax* **textbooks and** *journal articles* published in leading journals over the past 20 years.

### Roadmap

- 1. Brief background and motivation for the studies
- 2. Main shared findings
- 3. Broader implications
- 4. Author reflections

All seven authors will participate and take questions.

We focus on major findings, which are shared across both papers.

Feel free to post questions throughout the presentation. We will address clarification questions right away and answer more elaborate questions during the Q&A.

# Background: Macaulay & Brice (1997)

"Gender bias in linguistics textbooks" was inspired by Macaulay & Brice (1997, Language), which found widespread gender bias and stereotypes in example sentences in syntax textbooks published in 1969–1994.

- Male-gendered arguments are overrepresented in example sentences
  - o more likely to appear as subjects and agents, be referred to using pronouns and names
- Stereotypes of both men and women are perpetuated
  - o violence, romance, occupations, cars, intellectual activities, kinship terms, appearance, ...
- Suggestive and explicit language
  - "Harry watches the fights and his wife the soap operas" (p. 807)
  - "Every painting of Maja and photograph of Debbie pleased Ben" (p. 803)
  - "She's fond of John naked" (p. 813)
  - "After Rambo as a lover, she was exhausted" (p. 813)
  - "He never glonked any of his classmates" (p. 813)

# Background: Why example sentences?

#### Their central role in linguistic pedagogy as well as linguistic research:

- Constructed example sentences are one of the main sources of data in linguistics.
- These examples are cited again and again, often divorced from their original source and treated as a paradigmatic examples from the literature of a particular phenomenon.
- Examples convey perspectives on relations and content, which are handed down to new generations of linguists. If this content conveys implicit (or explicit) bias, a cycle of bias may be perpetuated in our field.

# Background: Why example sentences

#### Ease in identifying methodological approaches

- They are low-hanging fruit: they are an easily accessible and identifiable data source.
- It is easy to develop methods and train team members and undergraduate assistants to code factors of interest about arguments in example sentences (syntactic position, lexical choices, etc.) — our dependent measures.

#### Note:

- We only represent "male" and "female" genders.
- We were forced into this decision by the existing data, but recognize that it's an imperfect categorization as a false binary and itself perpetuates a perspective.

# Background: Cépeda, Kotek, Pabst, & Syrett (2021)

At the 20-year anniversary of Macaulay & Brice (1997), a group of members of LSA's COSWL (now <u>COGEL: Committee on Gender Equity in Linguistics</u>), including then-Chair (Syrett) and current-chair (Kotek), set out to replicate the study.

Part of a broad effort to address and evaluate gender distribution in the field, along with:

- the creation of the <u>Guidelines on Inclusive Language</u>,
- data collection from 50+ linguistics programs in North America to fill significant gaps in the LSA annual survey of departments,
- efforts to increase visibility of women linguists across multiple avenues (award nominations, Wikipedia, etc.).

In "Gender bias in linguistics textbooks", we examine 200 examples from 6 textbooks published in 2005–2017, following the same methodology as M&B.

# Background: Kotek, Dockum, Babinski, & Geissler (2021)

"Gender bias and stereotypes in linguistic example sentences" was inspired by "Gender bias in linguistics textbooks".

The authors represent a group of Yale (then-)students and faculty.

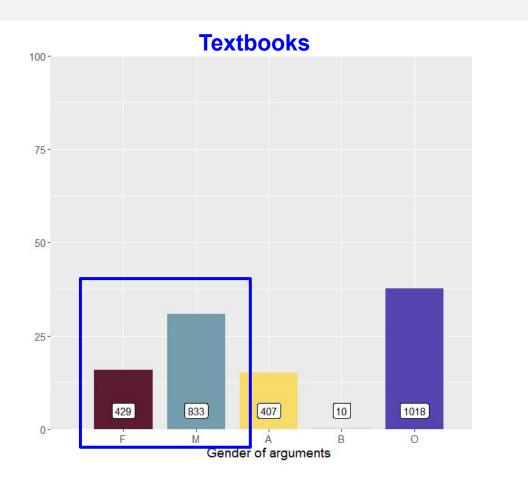
We examined all numbered example sentences in three major linguistics journals (*Language, Natural Language & Linguistic Theory, Linguistic Inquiry*) published between 1997–2018, for a total of ~23K examples in ~900 papers.

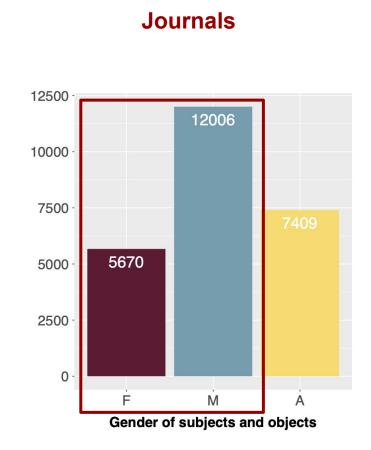
# Shared findings

Most problems present example sentences in syntax textbooks in M&B (1997) are still present today:

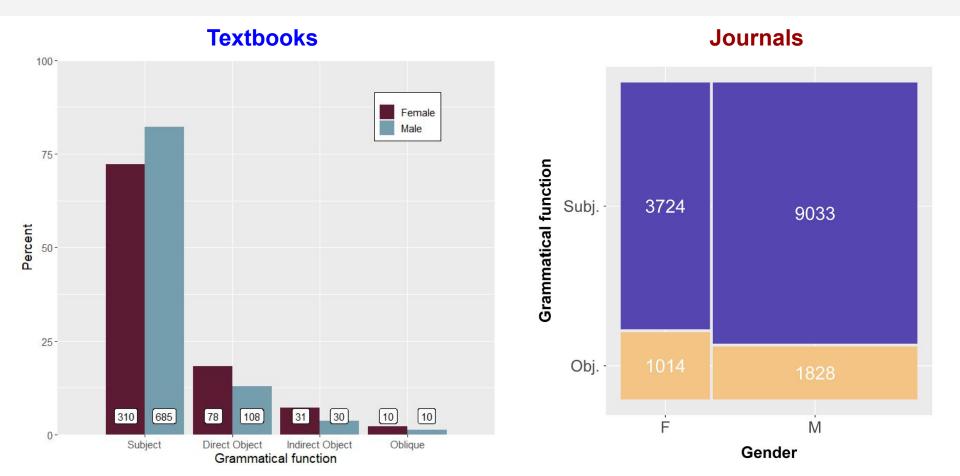
- Male-gendered arguments overrepresented in our samples.
- Male-gendered arguments appear in prominent grammatical positions.
- Stereotypes of both men and women are perpetuated.

Finding # 1: More male-gendered arguments than female-gendered ones

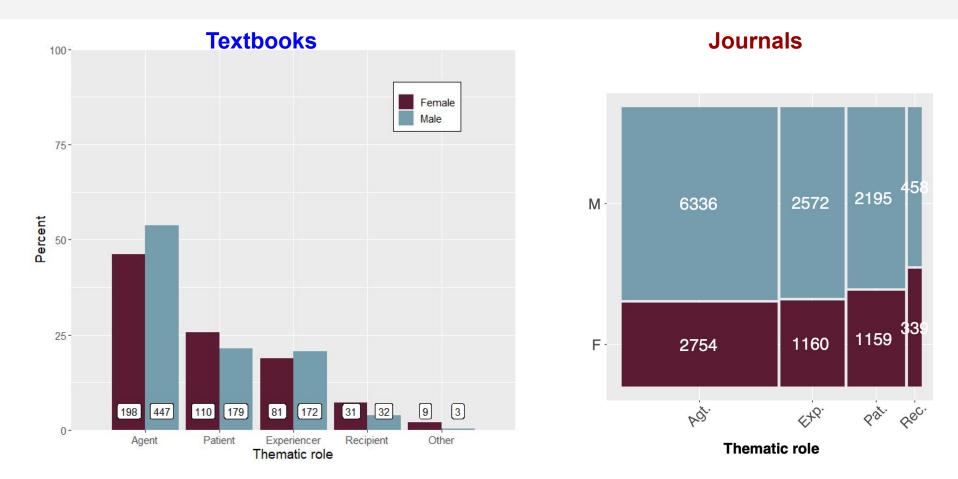




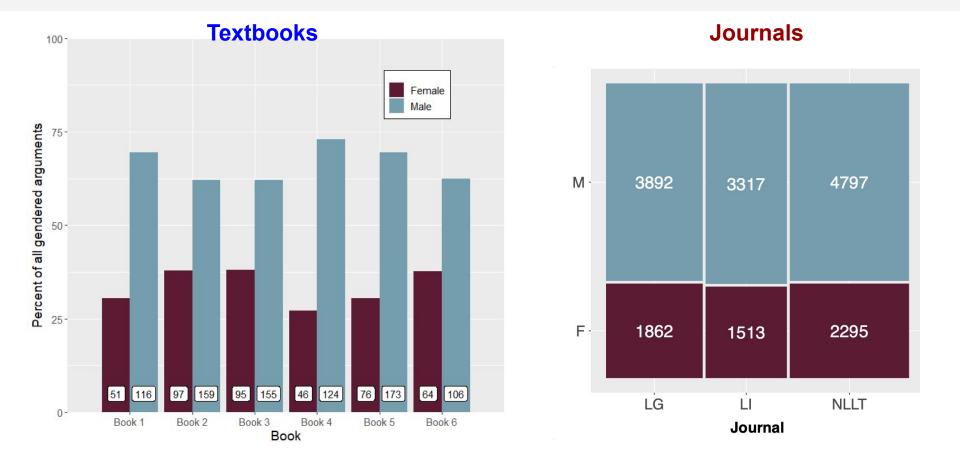
Finding # 2: Male-gendered arguments are more likely to be subjects



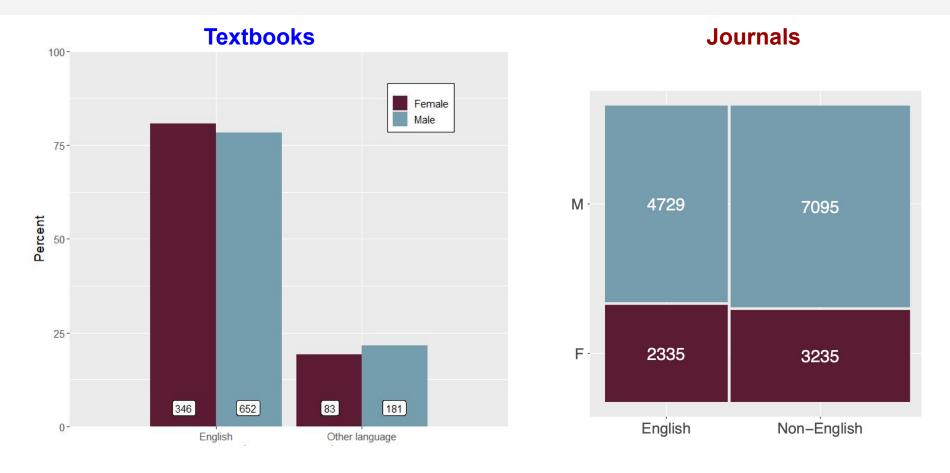
#### Finding # 3: Male-gendered arguments are more likely agents and experiencers



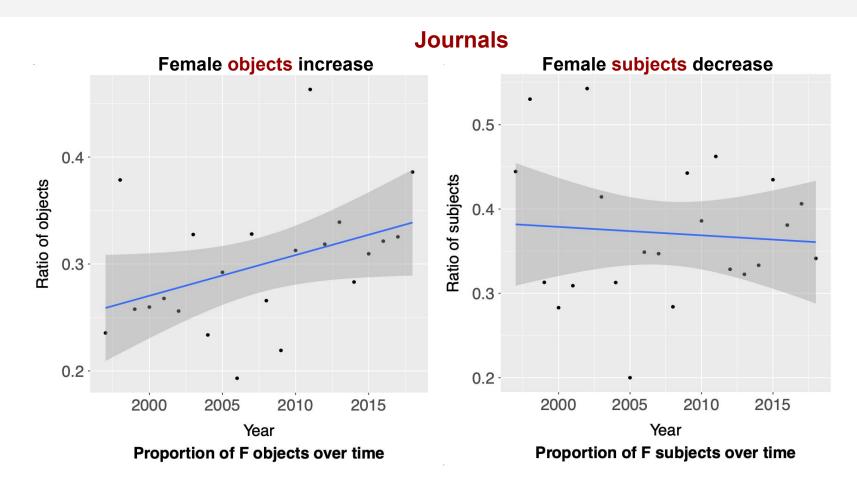
Finding # 4: Data sources are consistent in the distribution of gendered arguments



#### Finding # 5: Consistency across Language of the Example Sentence



#### Finding # 6: Consistency over Time

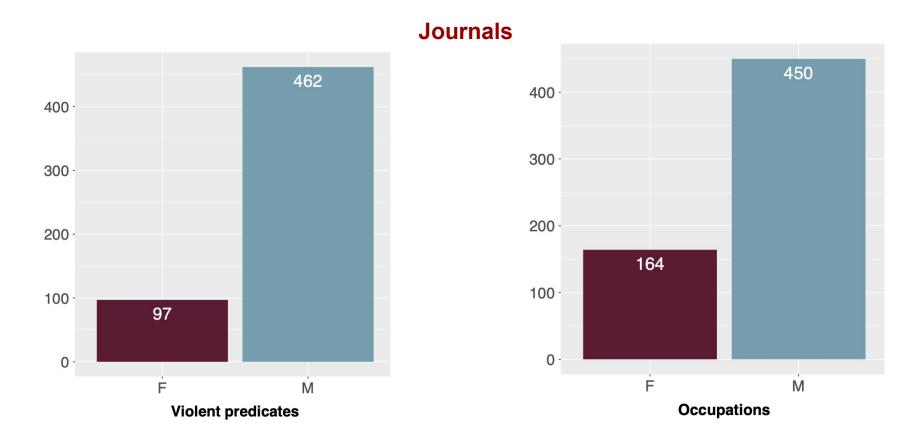


#### Finding # 7: Predicate Selection Involving Books (for textbooks)

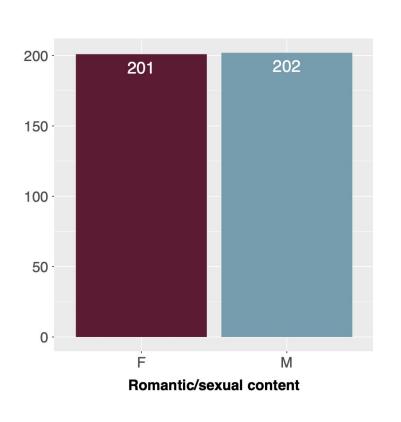
# **Textbooks** BOOK READING TOTAL Female subject Male subject TOTAL N DOOK

	BOOK						
BOOK HANDLING	1	2	3	4	5	6	TOTAL
Female subject	1	3	1	1	1	4	11
Male subject	4	5	5	6	6	4	30
TOTAL $N$	5	8	6	7	7	8	41

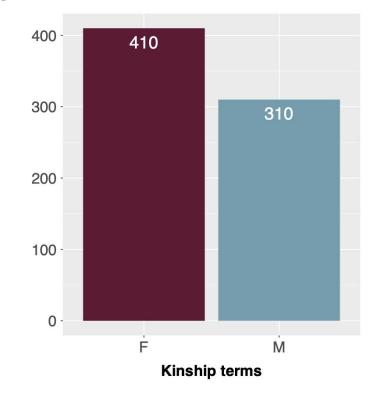
#### Finding #8: Predicate Selection Regarding Violence & Occupations



Finding # 9: Predicate Selection Regarding Romance & Kinship Terms



#### **Journals**

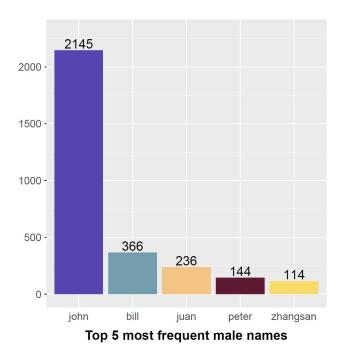


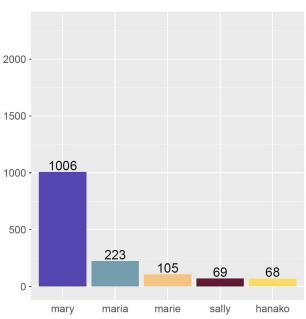
#### Finding # 10: Diversity of Proper Names

#### **Textbooks**

MALE NAMES	N
John	173
Bill	42
Peter	18
Harry	10
Adrian	7
FEMALE NAMES	N
Mary	93
Jill	10
Heidi	8
Susan	7
Edith, Kim,	4
Salma, Stacy, S	Sue

#### **Journals**





Top 5 most frequent female names

### Interim summary

- Suggestive language and blatantly sexual examples are mostly gone from the samples.
- Therefore, any individual example might seem acceptable to the reader.
- Overall, a clear pattern emerges.
  - An overall robust skew toward male arguments
  - Stereotypical choices of argument distribution
  - Consistent over venue, language of example, time, authors

#### Personal perspectives: Rikker

- Project design: constructed vs. corpus/naturalistic
  - Example sentences are easy to study
    - typeset in a recognizable way, can be extracted with scripts
  - But these findings are broadly applicable, beyond just syntax
    - just because other data types are trickier to aggregate doesn't mean that this only an issue for syntacticians
- Fieldwork and documentation: how do I apply these findings?
  - Elicitation tasks also involve sentence construction
  - You have some control in guiding elicitation away from inappropriate topics
  - Between naturally produced sentences of equal theoretical value, be mindful selecting which to highlight/publish
    - you can't predict what enters the 'canon' of oft-cited example sentences
    - it only takes a little more effort to be mindful in selecting

### Personal perspectives: Katharina

- As a sociolinguist...
  - I have noticed similar issues in my subfield. However, there tend to be fewer example sentences, making it more difficult to detect these issues
  - My goal is to show that these issues are systemic and affect all of us, regardless of subfield
- As someone who has been a course instructor from their very first day in graduate school...
  - I know that time to critically reflect on traditional tools and materials is often limited
  - This is why it's important that we draw attention to these issues, model best practices in our own teaching and research, and build resources
    - Encourage instructors to re-think their materials
    - Advocate for more training on inclusive teaching practices (esp. discipline-specific ones)

### Personal perspectives: Sarah

- In introductory linguistics classes we teach that language matters & interacts with identity
  - Coupling that with highly stereotypical example sentences sends mixed signals
  - Establishing gender equity in example sentences early on in coursework can help to create field-wide standards
- Syntacticians can lead the way for those outside of the subfield who are teaching syntax
  - Likewise for sociolinguistics, anywhere else examples are used
- Linguists are not objective outside observers of language
  - Everyone brings their own biases to their work
  - It is important to recognize & override them when we can

### Personal perspectives: Chris

- As a man...
  - It's our responsibility (too) to take an active role in addressing gender equity.
- As a phonetician and a phonologist...
  - We don't use so many example sentences—but what can we find in our own fields?
    - In diagrams of the vocal tract—whose silhouette is that?
    - Acoustic measurements—whose voice is that?
    - Interactive IPA charts—whose voice is that?
    - Speech technology—who's in the training data?
  - Encourage reflection for all of us in our own fields

# Personal perspectives: Paola

- Intersectionality
- Representation and gatekeeping effect
- Trends in linguistics publications in languages other than English

### Personal perspectives: Hadas

- As a woman syntactician, this work resonates with me on many levels
  - the only women in my cohort
  - one of few women in syntax/semantics reading groups
  - the only woman on short lists
- As a woman in tech, gender bias is evident and widespread in that sector, too
- Biases are entrenched, even for someone who is very aware of them
  - "John, Mary, Bill, and Sue"
  - but there are also many things we can do to fight them
- As chair of the Committee on Gender Equity (COGEL) for 2022
  - o data initiative
  - first generation linguists
  - effects of COVID on linguists
  - Resources in Equity and Inclusivity in Linguistics (REIL) guidebook
  - Pop-Up Mentoring (2019 LSA Service Award winner)
  - Wiki edit-athons, award nominations

### Personal perspectives: Kristen

- As a woman academic and researcher
  - I encounter gender bias and marginalization across various aspects of my experience.
  - I feel a tension between the fields of psycholinguistics and language acquisition and the fields of semantics, pragmatics (and philosophy),
  - Mentor undergraduates, graduates, and junior faculty
- As a TT faculty member at Rutgers, Lab PI, and Undergraduate Director
  - Chaired or served on the search committees for 5 of my junior colleagues and 1 senior colleague;
    in doing so, have consistently worked towards establishing best practices in interviewing and
    hiring, confronting implicit bias, and have brought diversity and inclusivity into a regular part of our department dialogue
  - Co-direct the Language and Social Justice Initiative and am a member of the Inclusive Pedagogy task force as part of the Academic Master Plan
- As an Associate Editor and reviewer in major journals and grant proposals
  - Have addressed implicit and explicit bias in the review process (e.g., double blind review process, example sentences, references cited, etc.)

#### Where do we go next?

- Be considerate and conscious/conscientious of your choices
  - Names, predicates, roles
  - Cultures, races, other characteristics
  - Make your classes and your scholarship inclusive

#### To be clear

- Stereotypical language, sexually explicit and demeaning language, and language reflecting biases are easily avoidable, and should be avoided.
- The use of gendered lexical items (-man, he, etc.) where unnecessary should be avoided.
- The biased and elevated frequency of particular gendered NPs in particular syntactic positions or semantic roles should be diminished

### Where do we go next?

- Embrace inclusive language, including singular they
  - We are often told that the pronoun he should be used for (singular) nouns whose gender is unknown.
  - Despite this official designation, however, this pronoun feel exclusionary of non-male individuals.
  - Singular *they* has been used for decades precisely for this purpose.
    #WOTY15 #WordOfTheDecade

### Where do we go next?

#### Instructors:

- Choose your examples wisely.
- Be sensitive to how you portray all individuals in your examples.
- Keep in mind that you are in a position of authority and can have a positive influence on young minds entering the field.
- Consider gender ratios and representation in your syllabi.

#### Authors

- Be thorough, inclusive, and balanced in your citations.
- Do not perpetuate bias in the examples you cite.
- Keep the <u>Guidelines for Inclusive Language</u> in mind.

#### TA Supervisors/Mentors

Raise awareness of these issues among your mentees.

#### Editors/Reviewers

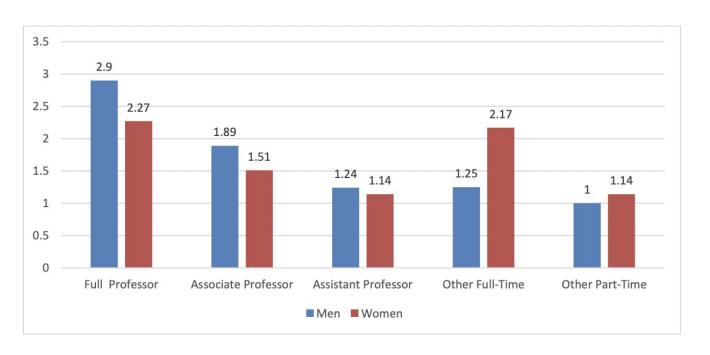
Pay attention to the examples and language authors use.

### Broader perspectives: inclusivity in the field

- Issues of representation clearly go beyond example sentences
- Just a few additional examples:
  - Who do you cite in your papers?
  - Who do you teach in your classes?
  - Who do you invite to give talks?
  - Who do you invite to contribute to handbook articles?
- Are your conferences inclusive?
  - The <u>REIL guidebook</u> (Resources on Equity and Inclusion in Linguistics) gives advice on things such as
    - accessibility
    - name tags
    - breastfeeding stations
    - running inclusive Q&A
    - ...and more

# Broader perspectives: inclusivity in the field

 Averages for Types of Positions per Department by Gender, 2019 (data from Linguistic Society of America 2020:15)



### Broader perspectives: inclusivity in the field

 Distribution of earned doctorates in Linguistics by year (data from Linguistic Society of America 2020:24)

	2013		2015		2017		2018		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Women	172	60.4	160	55.6	119	57.2	148	59.4	599	58.2
Men	113	39.6	128	44.4	89	42.8	101	40.6	431	41.8
TOTAL $N$	285		288		208		249		1,030	

Gender bias (and other biases!) in teaching, research, and hiring is systematic, but **we** are the system. We must **admit, train, and hire** individuals reflecting the diversity of students and society as a whole!

#### Q&A

Thank you for attending this event!

We'll be happy to answer your questions!

Scan the QR codes to read the full papers:



