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GENDER BIAS IN LINGUISTICS TEXTBOOKS: HAS ANYTHING CHANGED SINCE MACAULAY & BRICE 1997?

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Macaulay and Brice (1997:798) surveyed example sentences in eleven syntax textbooks published from 1969–1994 and found that virtually all of the authors 'favor male-gendered NPs as subjects and agents, and regularly stereotype both genders'. In this article, we address the question of whether constructed example sentences in more recent textbooks show similar gender bias. We present an analysis of six syntax textbooks published from 2005–2017, from which we randomly sampled 200 example sentences each. We find that the gender skew and stereotypes reported in 1997 are still present today. Male-gendered arguments are almost twice as frequent as female-gendered ones, and more likely to occur as subjects and agents. In addition, example sentences often perpetuate gender stereotypes. We discuss some broader implications and potential interventions to prevent the implicit perpetuation of gender biases in linguistic materials.*

Keywords: gender representation, implicit bias, stereotypes, linguistic textbooks, syntax

1. INTRODUCTION. Textbooks are tools for the dissemination of knowledge and, at the same time, for the socialization of learners and new trainees in a field (Brugeilles & Cromer 2008, Mustapha & Mills 2015). As such, they are considered authoritative not only in terms of discipline-specific content, but also with respect to the transmission of dominant values, norms, and social behavior. Trainees use the assigned textbooks repeatedly during a course; therefore, it is natural to assume that they are influenced by them.

In linguistics, constructed example sentences are essential instruments in teaching and in the representation of both the data for linguistic analysis and the source of evidence for the hypothesis and theories. This is particularly true of syntax, which relies more heavily on constructed example sentences than other fields do. Macaulay and Brice (1997; henceforth M&B) tested the hypothesis that the use of gender-neutral names such as *Alex*, *Bobby*, *Chris*, and *Dana* in syntax textbooks' example sentences, as advocated for by the then-recently published 'LSA guidelines for nonsexist usage' (1996), may suggest that such examples do not exhibit gender bias. After analyzing example sentences from eleven then-current syntax textbooks, M&B concluded that 'the majority of constructed example sentences in syntax textbooks are biased toward male-gendered NPs, and … contain highly stereotyped representations of both genders' (p. 822).[1]

* For comments and questions on this work, we would like to thank audiences at the LSA 2018 annual meeting in Salt Lake City, as well as at Brandeis University, MIT, SOAS, the University of Connecticut, the University of Oregon, the University of Toronto, and Yale University. We would additionally like to thank our anonymous *Language* referees and editors Andries Coetzee and Natasha Warner for their careful feedback on the manuscript. We thank and acknowledge our colleagues Katharine Donelson and Miranda McCarvel, who participated in the early data collection and ideation portions of this work. Special thanks go out to Colleen Brice and especially to Monica Macaulay for her continuous support of this project and her invaluable comments on various stages of the manuscript and work. Finally, we thank COSWL/COGEL for its many years of solidarity and advocacy for gender equity in the field of linguistics.

[1] We recognize that gender is not binary, and that equating male-gendered and female-gendered arguments with men and women without reference to other gender identities is an oversimplification. See §§3 and 4 for more discussion on this topic.

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In this article, we study recently published syntax textbooks to test whether the problem of gender bias has been rectified in the twenty-plus years since M&B's groundbreaking work. Our results indicate that the majority of problems identified by M&B in 1997 still plague the field of syntax and, by extension, the field of linguistics today. In short, we find that male-gendered arguments are overrepresented in linguistic examples and are presented in a more positive light compared to female arguments. In this article, our goal is to draw linguists' attention to this widespread problem, which affects everyone who is engaged in teaching or research involving example sentences—a large proportion of the field—and to suggest some preliminary steps toward a solution. In what follows, we begin by first presenting M&B's main results. We then present our current study and its results, and conclude by discussing broader implications for linguists and educators.

2. PRELIMINARIES: M&B. M&B presented two reports: a detailed study of a single textbook, first published in Macaulay & Brice 1994, and a comparative study of ten additional textbooks (Macaulay & Brice 1997), whose goal was to ascertain whether the gender imbalance found in the first study generalized across other textbooks. We concentrate here on the latter study, whose design and results inspired our own study, which we present in §3.

M&B (1997) studied ten syntax textbooks published between 1969 and 1994. Seven textbooks were written by masculine-presenting authors (based on names and gender presentation, assessed by M&B), and three by feminine-presenting authors. Two hundred example sentences were randomly sampled from each textbook and coded for the factors in 1.

(1) M&B's coding
   a. Gender of the argument (male, female, other)
   b. Grammatical function (subject, direct object, indirect object, oblique)
   c. Theta roles (agent, patient, experiencer, recipient, etc.)
   d. Lexical choices (pronouns, proper names, violence, appearance, etc.)

Here we summarize some of the main findings. We refer the reader to M&B 1997 for a more comprehensive discussion, and for example sentences illustrating each of the findings below.

In short, M&B find that example sentences introduce male-gendered protagonists at higher rates than female-gendered ones and that they perpetuate gender biases, as summarized in 2. When women are overrepresented in example sentences, this, too, is done in a way that perpetuates stereotypes, as in 3.

(2) Male-gendered arguments in M&B[2]
   a. Male-gendered arguments appear more often than female-gendered arguments.
   b. Male-gendered arguments are more likely to be subjects and agents than female-gendered arguments.
   c. Male pronouns are mentioned more often than female ones.
   d. Male proper names are mentioned more often than female ones.
   e. Men are described as intelligent or engaged in intellectual activities, such as book reading/handling, more often than women.

[2] When reporting the findings from M&B and from our study, we offer the grammatical function and theta role of the gendered arguments in the samples, as well as the descriptions associated with the men and women characterized in the example sentences.

f. Men are described as having occupations more often than women, and in a wide range of occupations.
g. Men tinker with cars more often than women.
h. Men perpetrate violence more often than women.

(3) Female-gendered arguments in M&B
a. Women often lack proper names, and are referred to with kinship terms (*X's wife*, *mother*) more often than men are.
b. Women have their appearance described more often than men.

These findings are illustrated in 4 with selected examples from M&B.

(4) Selected examples from M&B[3]
a. Every painting of Maja and photograph of Debbie pleased Ben. (p. 803)
b. Harry watches the fights and his wife the soap operas. (p. 807)
c. Bill is proud of his father and tired of his mother. (p. 807)
d. The man is hitting the woman with a stick. (p. 812)
e. The man who shot her believed there was someone else who was seeing Helen. (p. 812)

In addition, the syntax textbooks studied by M&B commonly used example sentences that contained explicit and suggestive language, as in 5.

(5) Explicit and suggestive language in example sentences from M&B
a. After Rambo as a lover, she was exhausted. (p. 813)
b. She's fond of John naked. (p. 813)
c. She'll soon tire of her sexploits. (p. 813)
d. John's turned on by Mary in tight trousers. (p. 813)
e. John doesn't beat his wife because he loves her. (p. 814)
f. John forced Mary to be kissed by Bill. (p. 814)
g. I can't imagine you in kinky boots. (p. 815)
h. What a nice pear Mary's got! (p. 815)

Finally, the gender of the textbook author played an important role: masculine-presenting authors were on average much more likely to use biased examples, whereas feminine-presenting authors tended toward a more balanced sample.[4] M&B conclude that their 'results clearly illustrate the need for such scrutiny: females are simply not significant actors in the world constructed in most corpora of example sentences' (p. 816).

3. Gender bias in current syntax textbooks. The study we present in this article is designed to test what has changed in the twenty-plus years since M&B 1997. We selected six syntax textbooks published between the years 2005 and 2017. Three of the textbooks were written by masculine-presenting authors or author teams, and three by feminine-presenting ones.

To foreshadow, the main findings of our study are presented in 6, which we illustrate in detail in this section.

(6) Main findings of the present study, based on example sentences found
a. Male-gendered arguments are almost twice as frequent as female-gendered ones.

Even accounting for this skew, the following patterns hold.

[3] Page numbers correspond to the example's location in M&B 1997.

[4] We acknowledge that the small sample size makes it difficult to draw generalizable conclusions about the effect of the authors' gender on their choice of example sentences.

b. Male-gendered arguments are more likely to appear as subjects, while female-gendered arguments are more likely to appear as direct and indirect objects.
c. Male-gendered arguments are more likely to appear as agents and experiencers, while female-gendered ones are more likely to appear as patients and recipients.
d. Male subject pronouns are used more frequently than female ones.
e. Men are more likely to have occupations and to handle books.
f. Men are more likely to perpetrate violence, and their violence tends to be more severe.
g. Women are more likely to exhibit negative emotions.

Following Macaulay and Brice (1994, 1997), we decided not to disclose the names of the textbooks or their authors in this study, because our goal is not to single out individuals or textbooks, but to draw attention to a pervasive and systematic problem in linguistics and related fields.[5] For further evidence of the pervasiveness of this issue, please see Bergvall 1996, Lee & Collins 2010, Lee 2014, Lewandowski 2014, Tarrayo 2014, Cépeda 2018, Richy & Burnett 2020, and Kotek et al. 2021, inter alia.

Before introducing our analysis, we would like to make clear two things. First, while our focus is on tracking surface-level arguments as they appear in linguistic examples, and how male and female arguments compare in their appearance and usage, we take the trends we document to be correlated with the individuals and populations to whom these pronouns and proper names refer. Thus, to the extent that we make any statements about male and female arguments, these statements can, in many ways, be taken as a proxy for statements about men and women. These points bring us to the other issue we wish to address head on.

Second, we recognize that gender is not binary, and that equating proper names as well as the pronouns *he* and *she* with specific gender identities is a problematic simplification. Given that most of the examples in M&B's original sample and the data we analyze here are constructed and, therefore, do not refer to actual individuals, and the fact that we believe that this is the assumption made by the authors of the textbooks we study, we follow M&B in interpreting *he* as referring to (cis and trans) men and *she* as referring to (cis and trans) women. However, we acknowledge that these constructed example sentences do not reflect the full spectrum of possible pronouns and gender identities (for a discussion on the conceptual representation of gender, see Ackerman 2019). Similarly, in our own study, we coded proper names as male or female based on our subjective representations of their referents. We acknowledge that this may not necessarily match the identities of those who carry these proper names in real life.

Unfortunately, none of the textbooks we examined nor any others that we are aware of challenge the stereotypical uses of proper names. Likewise, none discuss pronoun use—or language use more generally—in gender-diverse communities. This in itself is a problem that deserves our attention. In §4, we offer suggestions for authors and instructors to integrate some of the existing work in this area into their instructional materials.

3.1. METHODS AND DESIGN. We randomly sampled 200 examples from each textbook, for a total of 1,200 examples. The resulting sample contained a total of 2,697

[5] In general, our choice of books in this study relied on several factors, including: (i) ensuring a diverse representation of gender, (ii) selecting authors from both within and outside North America, and (iii) selecting books whose previous editions were not selected for M&B's 1997 study, to create an independent sample. As M&B also do not divulge the authors of the books they studied, this last step was done in consultation with Monica Macaulay (p.c.) by having her verify that our selections were not represented in that study.

third-person arguments. Each argument was coded for gender, falling into one of the five distinct categories in 7.

(7) Gender categories in the present study
   a. Male (e.g. *John*, *the king*, *he*)
   b. Female (e.g. *Mary*, *the queen*, *she*)
   c. Both (e.g. *John and Mary*)
   d. Ambiguous (e.g. *Alex*, *the janitor*)
   e. Other (e.g. *the building*)

Gender-neutral NPs like *the professor* were coded as ambiguous unless they were coindexed with the pronouns *he* or *she*. Likewise, gender-neutral or ambiguous names were coded as male or female only if they cooccurred with a pronoun that identified their gender in the example.

Names were coded independently by two authors in order to ensure agreement. This was especially important for names that were potentially ambiguous (e.g. *Kim* or *Jan*). Only upon agreement were names gendered as included in this sample. A potentially ambiguous name was coded as male or female if it cooccurred with a pronoun or other gender-specific description (e.g. *wife*), or if it triggered gender agreement (in relevant languages) in the same example or in an immediately surrounding example where it was clear that the same protagonist was being described.

Of the 2,697 third-person argument sample, 833 (30.9%) were coded as male and 429 (15.9%) as female, making male arguments almost twice as common as female arguments. Conjoined NPs like *John and Mary* represent 0.4% of the sample, ambiguous arguments 15.1%, and other arguments 37.7%. See Figure 1. Given that we are particularly interested in gendered arguments, the rest of the discussion focuses on the 1,262 arguments that were coded as male or female.

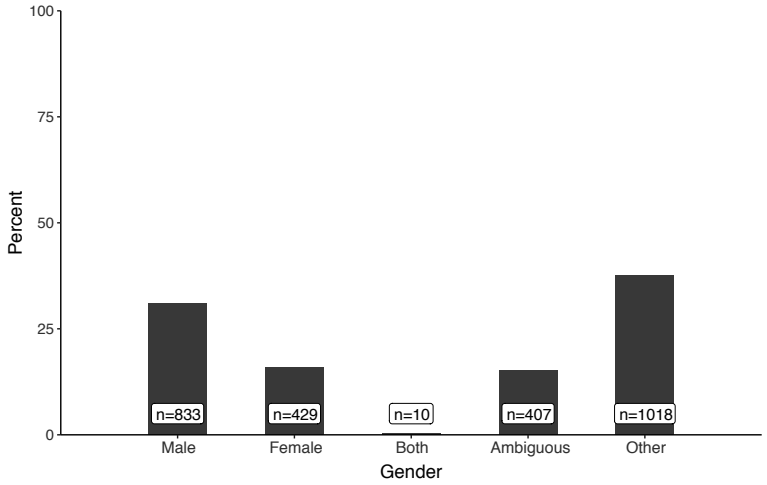

FIGURE 1. Overall distribution of gendered arguments in our sample.

All arguments were coded for the factors listed in 8, inspired by M&B's coding.

(8) Coding in the present study
   a. Gender of the argument (male, female, both, ambiguous, other)
   b. Grammatical function (subject, direct object, indirect object/oblique)
   c. Theta roles (agent, patient, experiencer, recipient, etc.)

d. Type of activity portrayed in the sentence (physical, emotional, intellectual, etc.)
e. Lexical choices (pronouns, proper names, reading and writing, occupations, cars, etc.)

We additionally coded one factor that was not considered by M&B, the language of the example, with results as shown in Table 1.

	FEMALE		MALE	
LANGUAGE	*N*	%	*N*	%
English	346	80.7	652	78.3
non-English	83	19.3	181	21.7
TOTAL *N*	*429*		*833*	

TABLE 1. Overall distribution of gendered arguments by language used.

A chi-square test of independence showed that there is no significant association between language of the example and argument gender: $\chi^2(1, N = 1{,}262) = 0.9707$, $p = 0.32$. Therefore, in the remainder of this section, we present combined results that are not broken down by language.

3.2. RESULTS. We begin by examining the overall distribution of gendered arguments in each individual book. We then discuss the results for the first two factors of interest in 8a–b (grammatical function and theta roles). We then turn to the results relating to lexical choices in the examples. This analysis includes pronouns and proper names, the type of activity portrayed in the sentence, and other lexical choices.

OVERALL DISTRIBUTION OF GENDERED ARGUMENTS. We observe a large overall imbalance between female-gendered arguments ($N = 429$) and male-gendered arguments ($N = 833$) in our sample, such that male-gendered arguments are almost twice as prevalent in example sentences as female-gendered ones. As Figure 2 shows, this imbalance is present in all of the books: male-gendered arguments are more frequent than female-gendered arguments in each and every book we examined.

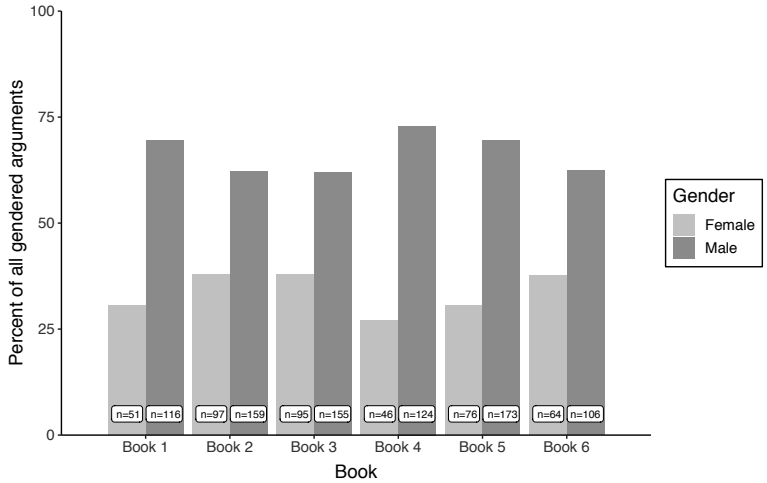

FIGURE 2. Overall distribution of gendered arguments by book.

One finding that stood out is that there was a single feminine-presenting author who, for English examples only, used a higher rate of female-gendered than male-gendered

arguments. We speculate that this author was aware of gender in her deliberate choice of example sentences, but in the case of non-English examples, she was forced to use existing examples from the literature, and those caused the overall skew.

To account for the fact that male-gendered arguments are overrepresented in our sample, in the rest of this section we show the proportions and counts of the factor of interest (grammatical function, theta role, proper names, etc.) by gender. This allows us to observe trends that go beyond this general skew and that could be attributed to these other factors of interest.

Distribution of grammatical function and theta role by gender. We next consider the distribution of the arguments' grammatical function by gender, illustrated in Figure 3. We find that 82.2% of male-gendered arguments occur in subject position, as in 9a, while only 72.3% of all female-gendered arguments occur in subject position. We observe the opposite trend for the nonsubject grammatical functions, as in 9b–d, where female-gendered arguments are proportionally overrepresented in all three categories. Of all female-gendered arguments, direct objects represent 18.2%, indirect objects 7.2%, and obliques 2.3%. This contrasts with the distribution within male-gendered arguments, with direct objects making up 13.0%, indirect objects 3.6%, and obliques 1.2% of all male-gendered arguments.

(9) Coding for grammatical function
   a. subject: **He** heard John.
   b. direct object: I like **her**.
   c. indirect object: Kim passed the ball to **Lee**.
   d. oblique: John loaded the truck with **hay**.

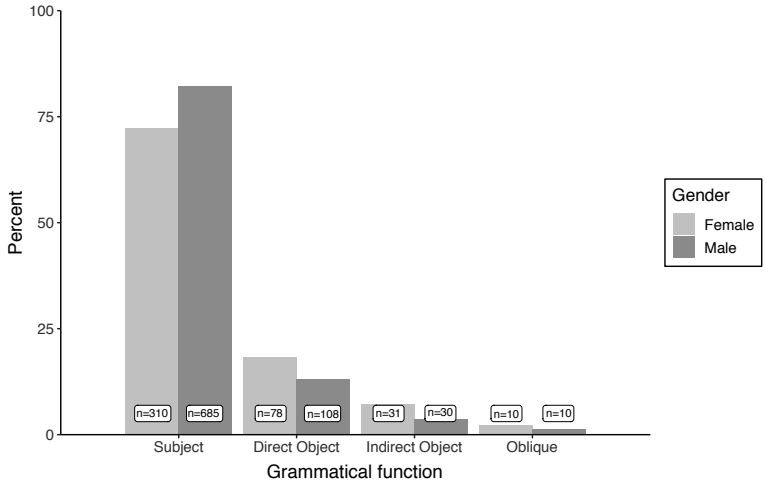

Figure 3. Distribution of grammatical functions by gender.

We ran a logistic mixed-effects model using the lme4 package (Bates et al. 2015) in R (R Core Team 2020), predicting gender (male or female) from grammatical function (subject or nonsubject).[6] Random intercepts were included for each book. Specifically,

[6] We choose to represent direct object, indirect object, and oblique together as 'nonsubjects' both in order to simplify the model and because we believe that the important factor is whether an argument is a subject. We do not see a meaningful difference between these nonsubject roles for the discussion in this article.

we used the following code to run this model: glmer(gender ~ grammatical.function + (1 | book), data, binomial). The results show that the likelihood of a female argument increases in nonsubject position, with a statistical effect of grammatical function. These results are reported in Table 2.

	EST	*SE*	*z*-VALUE	Pr(>|*t*|)	
(intercept)	−0.81	0.09	−8.93	< 2e-16	***
FIXED EFFECT:					
Grammatical function	0.59	0.14	4.13	3.64e-05	***
RANDOM EFFECT:	Variance	*SD*	*N*		
Book	0.02	0.14	6		

TABLE 2. Mixed-effects logistic regression on gender of the argument by grammatical function (subject = 0). A random intercept for book is included. $N = 1{,}262$.

Turning our attention to the distribution of the arguments' theta role by gender (represented in Figure 4), we observe that male-gendered arguments are overrepresented compared to female-gendered ones as agents (53.7% vs. 46.2%; 10a) and as experiencers (20.6% vs. 18.9%; 10b). Female-gendered arguments are comparatively more likely to be patients and recipients (10c–d), with 25.6% and 7.2% of all female-gendered arguments occurring in these roles, respectively, in contrast to 21.5% and 3.8% of all male-gendered arguments. Other theta roles make up 2.1% of all female-gendered arguments and only 0.4% of all male-gendered arguments.

(10) Coding for theta roles
   a. agent: **He** ran.
   b. experiencer: **John** saw Mary.
   c. patient: Ahmed expected **her**.
   d. recipient: They gave **Mary** flowers.

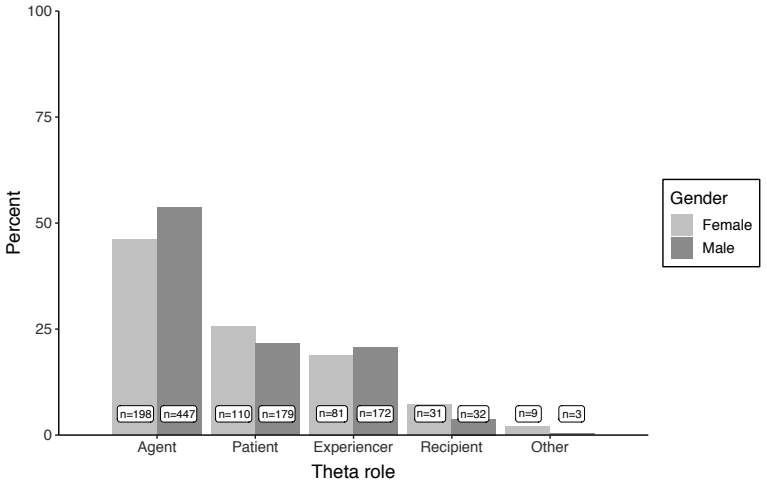

FIGURE 4. Distribution of theta roles by gender.

Given the strong correlation between grammatical function and theta role, such that AGENT and EXPERIENCER are most often subjects, and PATIENT, RECIPIENT, and other theta roles are often nonsubjects, we refrain from reporting a separate statistical model for this data, to avoid collinearity problems. This is not meant as a claim as to causal-

ity—that is, whether grammatical function, theta role, or some combination is the underlying cause for the trends we observe in Figs. 3 and 4.

LEXICAL CHOICES IN EXAMPLE SENTENCES. In the remainder of this section, we delve deeper into our sample by turning our attention to the lexical choices made by authors. As we will see, this allows for a more detailed discussion of trends in our data, but it does prevent us from offering statistical analyses, as we often examine multiple levels of a factor of interest simultaneously, and the resulting numbers are therefore quite small. Nonetheless, we note that the observed trends point in the same direction, namely of men being overrepresented in the sample and stereotypes of both men and women being perpetuated.

First, we consider example sentences that contain proper names. We remind the reader that we coded proper names as male or female based on our subjective representations of their referents; we acknowledge that this does not necessarily match the identities of those who carry these proper names in real life.

We find that of the 1,262 total arguments considered in this study, 714 were proper names. The use of proper names is relatively equal for male-gendered and female-gendered arguments: 241 of 429 (56.2%) female-gendered arguments are proper names, whereas 473 of 833 (56.8%) male-gendered arguments are proper names. See Figure 5.

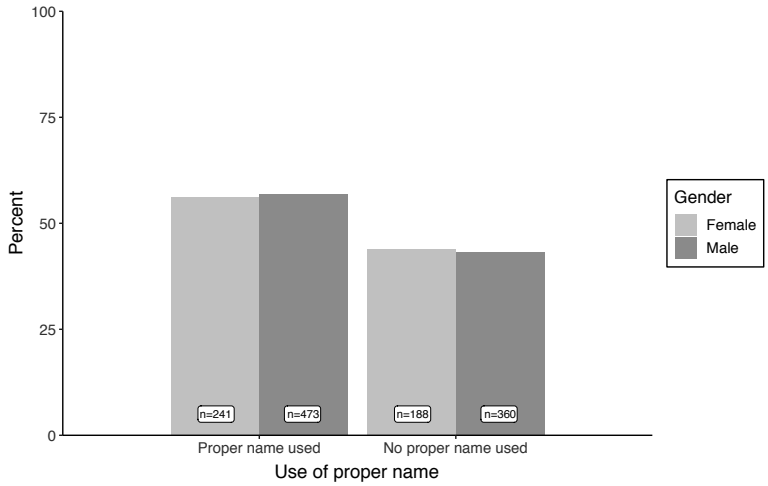

FIGURE 5. Distribution of use of proper name by gender.

Examining the sample more closely, we find that the most frequently used male name in our sample, *John*, occurs almost twice as often as the most frequently used female name, *Mary*, as reported in Table 3. The trend for this particular dyad represents the overall trend we see when comparing male and female names. Note that the top five most frequently used names by gender—and in fact, the majority of names in our sample—exhibit a bias that strongly favors Western, Caucasian-sounding proper names. For example, most have an origin in Old English, Germanic, or Latin languages, and a strong connection to the Bible.

Next, we consider the use of pronouns in our sample. See Figure 6. We find that female-gendered arguments are less likely than male-gendered arguments to be subject pronouns (18.2% compared to 22.8%). The proportions of nonsubject pronouns are similar across female and male pronouns.

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

TABLE 3. Top five most frequently used proper names by gender (with a five-way tie for fifth place for female names).

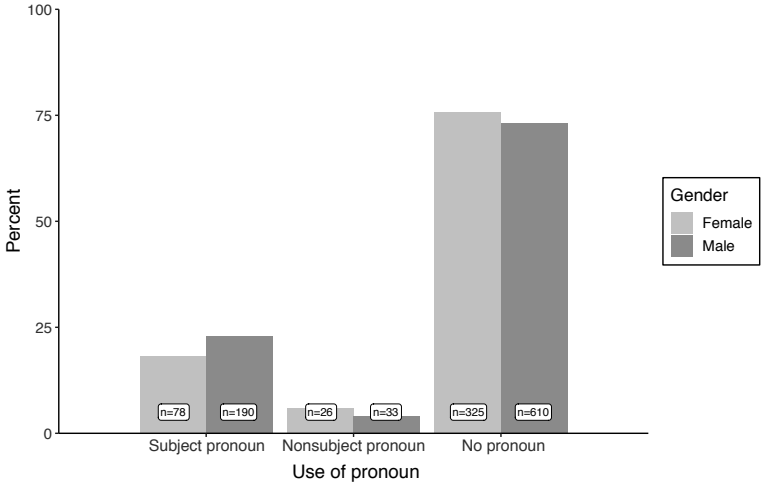

FIGURE 6. Distribution of use of pronouns by gender.

We now consider the overall distribution of gender by the type of activity portrayed in the examples, as shown in Figure 7. PHYSICAL activities are those such as giving someone something or receiving something from someone, buying or selling something, kissing someone, finding things, eating, dancing, snoring, singing, cleaning, stealing, or even saying something. EMOTIONAL activities include liking, loving, hating, enjoying, admiring, wanting, and so on. INTELLECTUAL activities include existing, being a particular way, being someone, or possessing some knowledge. PERCEPTUAL activities most often include seeing or observing something. VIOLENT actions are admittedly a type of physical activity, but one that takes a turn in a violent direction, such as killing, biting, spearing, beating someone or something, hitting, attacking, and so on. OTHER includes being somewhere, or having a property.

We find that that female-gendered arguments are more likely to be associated with physical (59.4% vs. 54.3%) and emotional activities (17.3% vs. 15.9%), while male-gendered arguments are more likely to be associated with intellectual activities (11.9% vs. 7.2%). The distributional analysis shows that men also occur more frequently in perceptual (7.1% vs. 6.5%) and violent activities (5.3% vs. 3.5%).

Finally, we turn our attention to more fine-grained lexical choices in our sample. Here, we show a by-book breakdown of the numbers, to illustrate some differences between the books. As a consequence, the overall numbers we consider are quite small, but several trends are nonetheless clearly observable. The small numbers allow us to examine individual lexical choices at a finer granularity, down to individual lexical items. This is where trends concerning stereotypical choices in the sample become evident.

We begin by considering the distribution of gendered arguments by book, as shown in Table 4. We find a skew toward male-gendered arguments (112 vs. sixty-three fe-

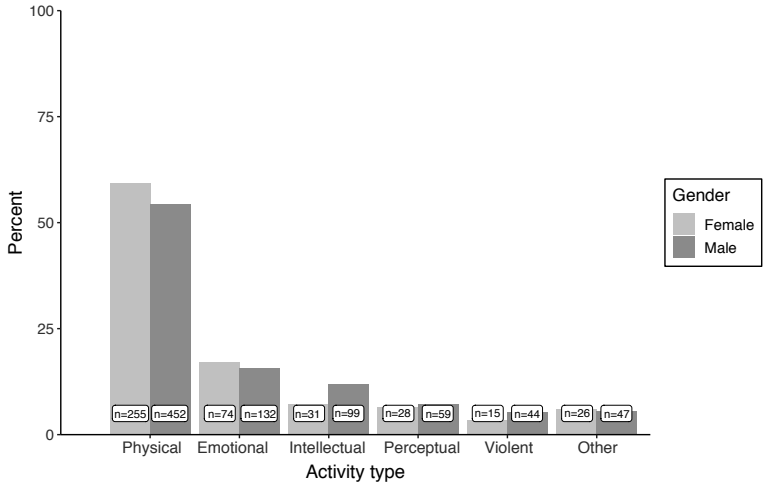

FIGURE 7. Distribution of activity types by gender.

male-gendered arguments), which is consistent with our finding that male-gendered arguments are used more frequently in example sentences in general. (In Table 4, other relatives are *sister*, *mother-in-law*, *brother*, *uncle*.) Concerning the kinship terms represented in Table 4, we find a mild female skew (fourteen female-gendered arguments compared to twenty-one male-gendered ones). In addition, the NP *woman* occurs less often than *girl* (twenty-two vs. twenty-six times), but the NP *man* is almost twice as frequent as *boy* (fifty-six vs. twenty-nine).

	BOOK						
GENDERED NPS	**1**	**2**	**3**	**4**	**5**	**6**	TOTAL
woman/women	1	3	7	3	6	2	*22*
man/men	5	10	9	15	12	5	*56*
girl(s)	6	3	6	0	7	4	*26*
boy(s)	2	4	13	3	7	0	*29*
mother	0	2	0	0	4	0	*6*
father	0	0	2	2	5	0	*9*
wife	1	0	1	1	2	0	*5*
husband	0	0	0	0	0	0	*0*
guy(s)	0	0	0	2	2	0	*4*
girlfriend	0	1	0	0	0	0	*1*
boyfriend	0	0	0	0	0	2	*2*
other female relative	1	0	0	2	0	0	*3*
other male relative	0	0	5	0	5	2	*12*
TOTAL *N*	*16*	*23*	*43*	*28*	*50*	*15*	*175*

TABLE 4. Distribution of gendered arguments by book.

We moreover find twenty-five male-gendered arguments with occupations, compared to ten female-gendered ones, as listed in 11. The lexical choices show that, in general, women do not have any profession, aside from student, since they are defined as aspiring to a profession, not having it, or as royalty. By comparison, men have diverse professions, including in academia, law enforcement, government, and manufacturing, among others.

(11) Occupations associated with women vs. men
   a. Occupations for women: student (four times), (wants to become) a policewoman, (wants to be appointed) president, (John believes she is) the best candidate, (not a) teacher, Queen of Denmark, Queen of the USA
   b. Occupations for men: student (four times), baker, professor, Dean, doctor, prince, gardener, teacher, (not a) teacher, manufacturer of tires, chief, interior minister, captain, runs a restaurant, jeweler, probationary officer, dustman, fishmonger

Turning to gender representation with respect to activities involving books, we first find that men are much more likely to read than women, as shown in Table 5.

	BOOK						
READING	**1**	**2**	**3**	**4**	**5**	**6**	TOTAL
Female subject	0	0	0	0	2	0	*2*
Male subject	3	2	0	5	2	1	*13*
TOTAL *N*	*3*	*2*	*0*	*5*	*4*	*1*	*15*

TABLE 5. Distribution of gendered subjects in examples involving reading by book.

Notice that a single book in the entire sample mentions women as the subject of a reading event, whereas all but one book portrays men in such contexts. Moreover, both example sentences that involve female arguments as the subjects of reading events involve INDIRECT evidence of reading: 12a–b. We additionally find the example sentence shown in 12c, which is the only other example that mentions a woman in any context involving reading.

(12) Women hardly read books
   a. Mary tried to read the book.
   b. Aled said that Elin will read the paper.
   c. She snarled at the students who hadn't read the book.

Considering other activities involving books, we find that male arguments are twice as likely to be subjects of such activities (see Table 6). This is perhaps expected given that male-gendered arguments are overall twice as likely to be subjects in our sample.

	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*

TABLE 6. Distribution of gendered subjects in examples involving book handling by book.

Beyond the numbers shown, however, we find that men are also much more versatile in their handling of books, as shown by the selection of predicates in 13.

(13) Book-related predicates associated with women vs. men
   a. Women handling books: receive, give, buy, buy for (their) children, try to read, keep
   b. Men handling books: give, receive, buy, read, claim to read, hard for X to read, will finish, can/is able to finish, write, sell, put on shelf, find, consult

We turn next to example sentences involving violence. In general, in these sentences, men perpetrate violence more often than women (twenty-two vs. ten examples). They also

occur more frequently as the objects of violence (thirteen vs. eight examples). This is not unexpected given their overall overrepresentation. However, when examining the nature of the predicates chosen, as in 14, we observe that men are more 'creative' in the types of violence that they inflict and that, in general, they cause greater harm than women.

(14) Violence-related predicates associated with women vs. men
   a. Female agents: kill (oneself, a goat, *WH), swat, bop (someone) on the head, slap (someone) upside the head, hit a ball
   b. Male agents: kill (a person, a dog, a bear, a bird), hit (a person, oneself, with a stick), strike oneself, massacre, swat, hurt, spear a kangaroo, attack a bear, blow up a building, crash a longboat, crash a semi-truck, break a window
   c. Female patients are: killed (by someone, by a tiger, deliberately), swatted, bopped on the head, mugged, hit with a stick
   d. Male patients are: killed, swatted, slapped upside the head, hurt, hit, stricken, attacked with a knife, get a noogie

There are only two example sentences in which women hurt women, both involving a woman inflicting self-harm, and both ungrammatical. Notice moreover that the example sentence in 15a has a male subject.

(15) Women don't hurt other women
   a. *John thinks that herself killed Mary.
   b. *Herself bopped Heidi on the head with a zucchini.

Now let us consider example sentences reflecting affection in our study. We find that the overall numbers of male-gendered and female-gendered arguments in the example sentences are similar, although there are always more male than female tokens in every category shown in 16. Given that male-gendered arguments appear as subjects twice as often as female-gendered ones do (see Fig. 1), this can be interpreted as a skew toward women subjects in affection-related examples.

The list in 16 shows the predicates associated with male and female agents in affection-related examples, broken down by the recipient of the affection. Predicates are ordered by the frequency with which they occur in example sentences. Overall, women overwhelmingly *love* men (ten tokens). Men *love*, *kiss*, and *like* women more or less equally (seven, seven, five tokens, respectively).

(16) Affection-related predicates associated with women vs. men
   a. Women's affection toward women (three tokens): love oneself
   b. Men's affection toward men (five tokens): love (oneself, someone else)
   c. Women's affection toward men (fifteen tokens): love (someone, intensely/half-heartedly), be in love, kiss, admire, like
   d. Men's affection toward women (twenty tokens): kiss, love, like, be serious about
   e. Women's affection toward nongendered objects (thirteen tokens): kiss (a leprechaun, a kitten, a clown's nose, someone), like (a violin, cookies, a picture of John, a red apple), *smile the breadbox, love apples
   f. Men's affection toward nongendered objects (nineteen tokens): like (beer, pictures of oneself, portrait of oneself, his students, chocolate, WH), love (phonology readings, phonology class, syntax assignments, his children, WH), kiss (a puppy, a platypus, WH)

Matters change when we consider negative emotions, as in 17. This is the only lexical category considered in this study where we find a clear skew toward female-gendered

subjects: we find a total of eight predicates in fourteen examples where female subjects exhibit negative emotions, compared to seven predicates in eight examples where male subjects exhibit negative emotions. Recall that overall male-gendered arguments are twice as likely to be subjects as female-gendered ones, which makes this skew even more striking. The increased number of female subjects in these examples is perhaps correlated with the fact that all but one of the example sentences containing the verb *hate* in our sample had a female subject.

(17) Negative emotion predicates associated with women vs. men
   a. Women's emotions: hates (no object, NYC, phonology, phonology class, her job, WH), seems angry, is angry, is unhappy, detests sprouts, snarls at someone, considers (man) a fool, wants to know why you stopped loving her
   b. Men's emotions: hates a professor, seems angry, is angry, does not love sausage, thinks he might have insulted (someone), thinks Roosevelt is a fool, afraid (of the dark, of his boss)

Moreover, when we find juxtaposition of positive and negative emotions in the same example sentence, men exhibit the positive emotion and women the negative one, as in 18a, although there are also examples like 18b, where men exhibit both. This recalls a similar finding from M&B, exemplified in 4a–b above.

(18) Men are positive, women are negative
   a. Bruce loved and Kelly hated phonology class.
   b. What does Calvin like but Rory hate?

We note a bit of progress from M&B's study. In 1997, M&B found that men stereotypically drive and handle vehicles in their sample. By comparison, in our study we found very few example sentences containing mention of driving and drivers. There are likewise very few example sentences that mention a person's appearance. We find a total of three predicates describing men: *tall*, *not tall*, and *want to be appealing*, and a single predicate used twice to describe a woman: *fat*.

In addition, there are very few example sentences that describe a person's intelligence. When such a description is given, it is always of a man. Examples 19 and 20 show the positive and negative descriptions of men found in our sample. Women were not the object of either type of description.

(19) Women believe that men are geniuses.[7]
   a. I met the man that Mary believed to be a genius.
   b. Joan believes he is a genius even more fervently than Bob's mother does.

(20) Men are also foolish.
   a. This is the guy who my cat is smarter than __ / him.
   b. John wants to seem stupid.
   c. Stalin thinks that Roosevelt is a fool.
   d. Wilma considers Fred to be foolish.
   e. My idiot of a neighbour wastes stacks of water on his garden.

Furthermore, we no longer find example sentences that assert that pictures and paintings of women are pleasing to men (see 4c above, as well as discussion by M&B). In fact, the predicate *please* was not found in our sample at all (see 21). Of seventeen example sentences about pictures, paintings, or photos, fifteen are of men, one is of a

[7] There are no example sentences with the predicates *brilliant*, *clever*, *intelligent*, and *dumb*, which did occur in M&B's results.

woman (in an ungrammatical sentence), and one does not mention the content of the painting. Only five sentences mention women at all. Along the lines of our findings above, men are more versatile in their actions toward paintings and pictures.

(21) Women vs. men handling paintings and pictures
   a. Female agents: like, (expected to) buy, sell
   b. Male agents: like, buy, see, expect (woman) to buy, know a picture is hanging

We also noted some trends concerning gender stereotypes in our example sentences. We find that, on the one hand, men engage in sports and own property, as in 22 and 23. On the other hand, women do household chores and are more likely to be involved in romantic relationships, as in 24 and 25.

(22) Men are associated with sports.
   a. Art said he played basketball in the dark.
   b. Lasorda sent his starting pitcher to the showers.

(23) Men own property.
   a. My father is looking for the cows.
   b. Mohammed buys a house.

(24) Women do household chores.
   a. The woman bought rice for the children.
   b. Paula baked a pudding for her dolls.
   c. Halima is cooking porridge.
   d. Bouki has already ironed their laundry.

(25) Women are associated with romance.
   a. The hare stole the elephant's wife.
   b. Slavko left his wife.
   c. Mary may wonder if John cheats on her.
   d. *Whose girlfriend did he send flowers to?

Finally, although not nearly as many as in M&B's sample, we find a handful of example sentences that we consider inappropriate due to the explicit or implicit messages they convey.

(26) Inappropriate example sentences
   a. I went to the National Gallery today, but it brought back painful memories of B, so I went back to Soho and paid two pounds to watch a fat girl with spots remove her bra and knickers through a peephole. I watched her through a peephole. She didn't remove her underclothes through a peephole. Query: are there night classes in syntax?
   b. Mary entertained the men during each other's vacation.
   c. He drove her hard, he stole her fame or would have if he could have.
   d. But Vita could not write the last act, because she did not know how to.

4. Discussion.

4.1. Has anything changed since M&B 1997? Unfortunately, not really. Quite a few of M&B's findings concerning example sentences in textbooks published between 1969 and 1994, summarized in 2 and 3, are replicated in our findings for textbooks published between the years 2005 and 2017. We list our findings in 27, previously presented in 6.

(27) Main findings of the present study, based on the example sentences
   a. Male-gendered arguments are almost twice as frequent as female-gendered ones.

Even accounting for this skew, the following patterns hold.

b. Male-gendered arguments are more likely to appear as subjects, while female-gendered arguments are more likely to appear as direct and indirect objects.
c. Male-gendered arguments are more likely to appear as agents and experiencers, while female-gendered ones are more likely to appear as patients and recipients.
d. Male subject pronouns are used more frequently than female ones.
e. Men are more likely to have occupations and to handle books.
f. Men are more likely to perpetrate violence, and their violence tends to be more severe.
g. Women are more likely to exhibit negative emotions.

A finding by M&B that was not apparent in the current study concerned how often men tinker with cars. Similarly, unlike M&B, we no longer find that women have their appearance described more often than men do. Instead, we find a very small number of examples that describe physical appearances in general. By contrast, we find that women exhibit a greater proportion of emotions, especially negative ones, in the example sentences in our sample, a finding not investigated in M&B's original study.

In short, THE VAST MAJORITY OF PROBLEMS THAT AFFLICTED EXAMPLE SENTENCES IN SYNTAX TEXTBOOKS TWENTY-PLUS YEARS AGO ARE STILL PRESENT TODAY. The main improvement from M&B relates to explicitly suggestive and sexual examples, like those shown in 4 and 5. While we still find such example sentences, they are no longer as blatant or numerous. In general, then, the discrepancies are made more difficult to detect, although they remain present: the skew now requires a broader lens to observe. However, we find a great range of ways in which implicit gender biases are present in our sample, such that men are overrepresented and presented more favorably, and women are presented more stereotypically.

The results we present here also reflect the findings of Kotek et al. (2021). These authors examined example sentences in articles published from 1997–2018 in three major journals in theoretical linguistics (*Language*, *Linguistic Inquiry*, and *Natural Language & Linguistic Theory*). They showed that the majority of findings observed by M&B and in the study presented here for syntax textbooks are replicated in journal articles as well. Male-gendered arguments outnumber female-gendered ones at a 2:1 ratio. Male-gendered arguments are more likely to be subjects, and female-gendered arguments nonsubjects. Male-gendered arguments are also more likely to have occupations and to perpetrate violence, while female-gendered arguments are more likely to be represented in examples discussing emotion, especially as nonsubjects, and to be referred to using kinship terms. While example sentences perpetuate many stereotypes, they contain very little sexually explicit or suggestive language. This pattern remains stable, with little change, over the course of the twenty years of that study.

Also in line with our findings, studies on constructed example sentences in linguistics publications written in Spanish and French (both languages with grammatical gender) show a strong bias favoring male-gendered arguments. Cépeda (2018) presents evidence of significant gender bias in introductory Hispanic Linguistics textbooks written in Spanish. Human arguments marked with masculine gender agreement occur twice as often as those marked with feminine agreement, and they are twice as likely to occur as the subject and agent of the example sentence. The most frequently used male name, *Juan*, occurs at more than double the rate of the most frequent female name, *María*. As for stereotypes, violence is mostly perpetrated by men, women are frequently passive, and intellectual activities most often involve men.

Richy and Burnett (2020) found a strong male bias in the use of gendered noun phrases in syntax articles in French linguistics journals. They conducted two lexical studies. The first one is similar to ours. The results show that references to men are four times the number of references to women, and human male-gendered arguments are more likely to appear as subjects, agents, and experiencers. Their second study investigated the syntactic distribution of masculine-marked noun phrases potentially intended as gender-neutral. They found that ambiguous NPs are different from unambiguous masculine NPs in terms of grammatical functions, although they are less likely to be nonsubjects than feminine NPs are. As in the studies mentioned above, many examples relied on stereotypical gender roles.

The outcomes of our study as well as of the others just summarized suggest that IMPLICIT GENDER BIASES ARE PRESENT IN CONSTRUCTED EXAMPLE SENTENCES across the field of linguistics, regardless of the language and type of publication. In sum, then, not much seems to have changed since M&B's publication in 1997.

4.2. IS THIS REALLY A PROBLEM? Yes, it IS. Although we are not aware of any studies on the concrete impact of gender-biased linguistic examples on readers, there is reason to believe that the patterns observed here could perpetuate at least three broader undesirable situations and trends connected to gender-biased attitudes in the field: gatekeeping of students from entering and remaining in the field, the erasure of nonbinary and genderfluid identities, and lack of equal access in faculty hiring and retention.

First, consider the role of textbooks in modeling the shape, values, and priorities of the discipline. If a lack of diversity awareness by educators, scientists, and communicators is reproduced in instructional materials, then this implicit bias could be taken to represent a general lack of diversity in the field in terms of a number of demographic variables. In the case of gender, this deficiency only confirms and reinforces inequities and discriminatory practices between people of different genders (United Nations 1996). What is more, this lack of awareness can affect the growth of a scientific field. In their discussion of gender bias in economy textbooks, Polanyi and Strassmann (1996) argued that the representations of gender in the stories told through examples or case studies act as gatekeepers in the discipline. Textbooks and authors are the face of the profession to young students, and they model the practices and values of a field. Gender-biased examples may inhibit the recruitment of young students and researchers interested in linguistics who embrace values that they find to be in conflict with what they consider to be the prevailing views in the field.

Second, another fact connected to the impact of gender biases and gatekeeping in the discipline is the erasure of gender identities outside of the binary. The gender dichotomy we find in linguistics textbook examples certainly contributes to this erasure. In our sample, for instance, we did not find any representation of nonbinary or genderfluid identities. In a study on gender identity and gendered spaces in universities and colleges, Thorpe (2017) argues that gender identities challenging structural binarism and cissexism are frequently constructed by means of exclusion and relegated to a position of 'other'. This is an undesirable result of the lack of inclusion in the textbooks in our field. Although presumably unintentional, our textbooks are oppressing and erasing identities outside of the binary and outside of heteronormative relationships. As Polanyi and Strassmann (1996) point out, the stories we present in our textbooks must explicitly add language that takes the readers away from stereotypical or default representations of gender and sexuality. To do so, it is crucial to rethink the way we as scientists and instructors create and select our constructed example sentences as a way to open up

spaces in which discussions about awareness and inclusion can be held carefully, respectfully, and comprehensively (Thorpe 2017).

Finally, gender bias also affects faculty hiring and retention. Using information from Silva (1996), Bergvall (1996) reported that women at that time represented 59% of the assistant professors in the field, and 44% of the associate professors, but only 25% of the full professors. In other words, twenty-five years ago, women were a majority in the entry level of the linguistics faculty career, but their presence decreased at each higher rank. Bergvall also pointed out that the results of Hall and Trechter's (1996) survey on women's career paths (supported by the Linguistic Society of America's Committee on the Status of Women in Linguistics, now known as the Committee on Gender Equity in Linguistics) suggest that women leave Linguistics due to causes more complex than simply 'family issues'.

Echoing the message we convey from the findings in this article, we note that the situation reported in Bergvall 1996 has not changed in the last twenty-five years. Data from the 2019 LSA annual report on the state of linguistics in higher education (Linguistic Society of America 2020a) show that men make up a larger percentage than women in tenure-track and tenured positions; in contrast, there are more women in part-time or non-tenure-track jobs (p. 15). From 2013 to 2019, women held more tenured, tenure-track, and non-tenure-track positions than men per department, but in the same period, they never exceeded the average number of positions in the full professor or assistant professor ranks (p. 17).

To put the numbers in perspective, consider the data for 2019. On average, men had a slight advantage over women in the number of assistant professor positions per department: 1.24 vs. 1.14 (pp. 15, 17), which may suggest there is equal representation of men and women at the assistant professor level. However, this apparent equal representation is deceiving (as also observed in Haugen & Margaris 2020). First, women have obtained overall more Ph.D. degrees than men. A sample from the last eight years is shown in Table 7.

	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*	

TABLE 7. Distribution of earned doctorates in Linguistics by year (data from Linguistic Society of America 2020a:24).

On average, women obtained over 58% of all doctorates in that time period. Second, the number of men obtaining Ph.D. degrees has more or less remained constant since 1966, while the number of women obtaining Ph.D. degrees has consistently increased (Linguistic Society of America 2020a:24). We interpret these data as showing that there is a gender skew that favors men in hiring processes into tenure-track positions in linguistics departments, which then leads to skews at the higher ranks with time. This skew most certainly affects the diversity and makeup of our field with regard to gender representation. The cases discussed above would greatly benefit from explicit interventions. With affirmative, equitable opportunities, diversity will naturally occur (Prescod-Weinstein 2018).

The problem is not restricted to the field of linguistics, or even academics itself. By now, ample research across the disciplines of cognitive and social psychology, cogni-

tive science, and language and gender has illustrated that not only does gendered language actively promote and perpetuate stereotypes, but inclusive language results in an increased perception of women and marginalized groups being represented in positions of leadership, being heroes and heroines, being considered for certain positions and opportunities, and having the qualities and characteristics conventionally associated with their male counterparts (Hansen et al. 2016, Leslie et al. 2015, Sczesny et al. 2016). The effects of gendered, sexist language pervasive among educators and media not only are observed in higher education; they are also documented in children as young as preschool and early elementary age (Bian et al. 2017, Cartei et al. 2020, Wolter et al. 2016). Thus, the message we are sending is that a move toward more inclusive language is exigent not just for linguists for the benefit of our field, but more generally in a broader social context.

4.3. So, what can we do to (finally) alleviate the problem? We must begin by recognizing that we cannot accept the status quo and that we must act to change it. Here we discuss some potential interventions to prevent the implicit perpetuation of gender biases in the discipline of linguistics. These pertain not only to the creation and selection of example sentences, but more broadly to adjusting our behavior as scientists and educators in the field.

It is well known that some example sentences are widely used in our field because they have become the canonical illustrations of a linguistic phenomenon. This status, however, does not mean that such data are unbiased and lack representation problems. Textbook authors (especially those with a notable reputation in the field) play a significant role in maintaining and even creating our discipline's culture—as do researchers, faculty, presenters, and all linguists in their various roles.

As scientists and educators, linguists using secondhand examples must be aware of the implicit and explicit bias the literature may convey, and may consciously decide to fairly represent diverse gender identities (beyond binary genders) and other types of identities, which may result in adapting or avoiding these examples altogether. We acknowledge that this takes time and effort. Even though stereotypes are being challenged more and more in our society, they are engrained in everyday interactions as well as in our field's literature. Moreover, as we have shown here, biases are often difficult to detect, requiring a broader lens to observe.

We encourage authors and instructors to revise their publications and teaching materials, both when citing existing example sentences and when creating new ones, so that they represent individuals in a more equal and inclusive way. Increasing the number of examples with female, nonbinary, and genderfluid protagonists, diminishing stereotypical representations of all genders, and controlling for the grammatical function and theta roles of these arguments are necessary changes that will undoubtedly have a positive impact on the field.

We recommend that readers consult the LSA's revised 'Guidelines for inclusive language' (Linguistic Society of America 2016) as a first step to thinking about and using inclusive language. Gender inclusion is not only about participation and representation, but also about the characterization of genders (Graells-Garrido et al. 2008). To diversify the use of proper names, the reader may consult Kirby Conrod's list of nonbinary names,[8] the purpose of which, as described by the author, is 'to provide linguists with

[8] Find Conrod's list here: https://docs.google.com/spreadsheets/d/1GF6c5qFFzTqYGukRYia8WcSam48tBHm_R6MJB5tJPiI/edit#gid=0.

names to use in example sentences, which historically have suffered from significant gender bias'. Similarly, Konnelly et al. (2021) have created a database of names for every letter of the English alphabet drawn from different languages and cultures, categorized by gender (feminine, masculine, nonbinary). As for pronouns, the reader can learn more about how to integrate some of the existing work on singular *they* (e.g. Ackerman 2019, Bradley et al. 2019, Conrod 2019, Konnelly & Cowper 2020) and other gender-neutral pronouns into their publications and teaching materials. Helpful suggestions for promoting gender-inclusive language can also be found in Zimman 2017, 2018. Finally, we discourage attempts at jokes in examples, especially when stereotypes are concerned; the truth of the matter is that what one person considers funny may be offensive to others.

Likewise, we encourage our readers to avoid the use of problematic example sentences, even if they are canonical and often cited. Readers can be more conscious about gender representation when creating their own example sentences simply by assuming that those different identities are their readers and students. To reduce the chances of problematic secondhand example sentences continuing to circulate in the literature, we encourage readers to diversify the literature, sources, and resources used in their linguistics courses. If they choose to use such examples or if their students include them in presentations and papers, readers should nevertheless take the opportunity to discuss with their students why the sentences are problematic and how they could be altered to be more inclusive, so as to create a safe environment for learning. This approach is an excellent way to raise awareness about biased language, especially among linguists or students taking linguistics courses. Readers could also go beyond adding an institutionally mandated statement regarding diversity and equity to their course syllabi for compliance purposes; adding a pledge of their own (and keeping it) will force them to be explicit about their level of commitment. These actions show students and others that people who might have more power relative to them are aware of equality, are willing to combat and/or condemn the misrepresentations of diverse identities, and are working to 'facilitate the inclusion of marginalized groups for whom it can be said: "When they enter, we all enter"' (Crenshaw 1989:167).

The reader must not think that these are the only steps to undertake. Using Stromquist et al.'s (1998) approach to the hidden curriculum, it is not enough that the representations of gender in linguistics textbooks be nonsexist: they must be ANTISEXIST. The advancement of gender equality in linguistics will benefit from these suggestions only if they are accompanied by processes aiming to remove structural barriers and eliminate the gender-biased (and in general unequal) norms and stereotypes that prevent faculty, students, and staff from achieving their full potential. In this context, while we understand that textbooks and other academic works that our discipline is already using cannot be changed instantaneously, they must nonetheless 'be interpreted from a gender perspective and be recast in a light to encourage and develop a critical mind' (Brugeilles & Cromer 2008:89). Recommendations on how to do this can be found in the literature (e.g. Stewart & Valian 2018, Namboodiripad et al. 2019, Sanders et al. 2020), some of which we consider here.

As long as this kind of reflection and work is left to individual instructors, change cannot and will not happen. We support systematic action at the linguistic community level. Specifically, we encourage departments to have open and frank discussions about their pedagogical materials, to engage in regular peer observations of teaching and course materials and course design, to make faculty mentors available to junior researchers and graduate students in order to usher in a new generation of sensitive, informed instructors,

and to form curriculum committees that will, among other duties, regularly evaluate the materials used by regular and adjunct faculty to teach undergraduate courses in linguistics. In addition, we encourage members of the larger linguistics community to form work groups and consortiums to discuss these problems, issue recommendations, and circulate the recommendations widely on social media and through formal avenues.

Another way to prevent the implicit perpetuation of gender biases in linguistics is to seek expert training and education in equality and inclusion issues in general and in gender sensitization in particular. The reader must not expect members of underrepresented groups to be the ones taking on the burden and teaching them how to be more inclusive. There are, at this point, numerous resources for engaging in self-education and participating in institutionalized training centering on diversity and inclusivity issues.

Supporting students and colleagues in the field also means that we must make the effort to learn how our students and colleagues pronounce their names, and must practice these pronunciations, without making people go through the painful experience of repeating their name again and again for us. Whenever possible, the reader might ask their students to record in advance how they pronounce their name, or help to identify an IPA version. Especially in intercultural contexts, misnaming can be felt as disregarding one's identity (McMaster 2020).

It should be noted that gender is deeply connected to other identities, and that the experience of gender is different depending on those other identities. Therefore, we must not forget that gender bias is compounded for people of color, members of the LGBTQIA2S+ community, people with disabilities, and members of other groups that have traditionally been excluded from academia. We firmly believe that linguists are in a privileged position to influence equality and social justice, and in doing so, to contribute to our communities, our discipline, and our society. We invite the reader to familiarize themself with the 'LSA statement on race' (Linguistic Society of America 2019) and the 'LSA statement on racial justice' (Linguistic Society of America 2020b).

We encourage everyone in the field to call out microaggressions and harassment. As we need to improve our field's climate and address the issues of bias, harassment, and violence occurring in our field (for data on this, see Namboodiripad et al. 2019), calling out negative behavior on the spot sends the message that this behavior is considered an aberration, not the norm.

Since we started presenting the findings reported in this article in different conferences, explicit conversations have been had regarding gender representation and diversity in the field of linguistics, and some professional practices have been advanced to avoid gender-biased examples in the linguistic academic literature. Contra what at the beginning of the century was considered 'a step, albeit limited, toward censorship and constraints on freedom of speech or at least the appearance of such' (Postal 2003:182), these conversations in the field show that advocating for inclusive language is promoting inclusion and respect for our fellow linguists and students, rather than censorship. Even more, this attention is a necessary ingredient in encouraging equal opportunity and treatment in our field as well as free expression and interchange of good science.

Despite these conversations over the last few years, there is no evidence to suggest that there has been a significant reduction in gender bias in constructed example sentences in the same time period. Evidently, there is still much left to do. Some might find this surprising, given M&B's call to arms decades ago, which was backed up with the sort of carefully collected and analyzed empirical data that linguists as language scientists appreciate. Moreover, their conversation did not take place in a vacuum; the Com-

mittee on the Status of Women in Linguistics was well established, and their concerns and findings circulated among linguistics circles, well in advance of the publication of M&B's article in what was then and still is the flagship journal of the LSA and a top-tier linguistics journal in the field. What went wrong? Why didn't the linguistics community hit the ground running with a fresh batch of new syntactic examples and a new outlook on introducing young, impressionable minds to the field via carefully crafted linguistic examples that were inclusive, diverse, and more generally unoffensive?

While we cannot say for certain, we hazard a guess. It is the same reason that decades later, each of the coauthors of this article can report instances at conferences and other scholarly venues of the same sorts of examples being presented and cited: it was left to (senior) individuals to make a voluntary change in their own practices, and undesirable practices were allowed to continue. It is clear that we cannot simply hope that researchers and instructors will read articles like this or the ones we cite, reflect on their previous practices, and commit to making a change for the better. We as a linguistics community have to push for such a change, provide alternatives to the status quo, have open and active discussions about this issue in journals, at conferences, and on social media, and endorse and advance inclusivity and diversity at a higher level, among departments, programs, publishers, within the review process, and so on. We cannot simply ask people to change their behavior and hope for the best: we must make it easy for them to make these changes, demand that they be made, and make clear what the consequences are for the field of allowing the patterns to continue—including exclusion of researchers and erasure of identities, as we outline above.

5. CONCLUSION. In this article, we have presented a quantitative and qualitative study of the distribution and content of male-gendered and female-gendered arguments in constructed example sentences in syntax textbooks published from 2005–2017. Our study shows that there is an evident gender bias that favors the representation of men. In our sample, male-gendered arguments occur almost twice as often as female-gendered ones, and they appear as subjects, agents, and experiencers more often than female-gendered ones do. Male subject pronouns are used more than female ones. As for stereotypes, men are more likely to have occupations, handle books, and spread violence, whereas women are more likely to exhibit emotions, especially negative ones. In sum, men are numerically overrepresented and portrayed in a more positive light, whereas women are represented in a more limited way. This pattern has been prevalent in the field of linguistics for decades now, as initially reported by M&B in 1997 for textbooks going back to the mid-1960s. Therefore, there is a pressing and ongoing need to change these representations in linguistics teaching materials.

We have argued here that increased gender and diversity awareness will have a positive impact on our field in at least three areas. First, as textbooks model the discipline, gender-inclusive content may open the doors for a more diverse body of linguists. Second, gender-inclusive practices could prevent the erasure of gender identities. Finally, gender-inclusive practices could contribute to the elimination of the current skew that favors men in hiring processes for assistant professor positions in linguistics. Accordingly, we have presented some suggestions to actively prevent the implicit perpetuation of gender biases in linguistics. We encourage researchers and faculty to consciously and actively decide to fairly represent diverse gender identities (beyond the binary) and other types of identities. A first step is to increase the number of examples with female, nonbinary, and genderfluid protagonists and to eradicate stereotypical representations

of all identities. On top of that, it is crucial to accompany these changes with processes aiming to remove structural barriers supporting gender inequalities and others that go beyond the gender sphere and that prevent linguists from achieving their full potential.

The concrete impact of gender-biased linguistic examples in the field has not been studied. Future research in this area must address the type and extent of impact of example sentences on different groups. More specifically, it would be interesting to compare the impact of sexist vs. inclusive textbooks, and students' attitudes toward them. More generally, studies are needed on how the implicit and explicit content of textbooks and other publications as well as the perceived climate and culture of our field may affect the gender configuration of the discipline in terms of students, faculty, and professionals outside of academia. This should go beyond gender to consider intersectional identities, as well.

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