Persistent Gender Bias Found in Scientific Research and Related Course Materials: A Long-term Linguistic Analysis

Two companion research articles published in the current issue of *Language* point to persistent gender bias in both peer-reviewed journal articles and course materials used in the field of linguistics. The first study examined undergraduate textbooks commonly used for linguistics courses taught in English. The second study examined over 1,000 research articles published in top linguistics journals over the past 20 years. Further details about the findings of each article are presented separately below.

Gender Bias in Linguistics Textbooks

Biases are not always expressed explicitly. Quite often, biases are revealed implicitly in the way that speakers use language—even when these speakers are highly aware of the power of language and the potential dangers of such biases. A recent study appearing in the December issue of *Language* by Paola Cépeda (Stony Brook University), Hadas Kotek (Massachusetts Institute of Technology), Katharina Pabst (University of Toronto), and Kristen Syrett (Rutgers, The State University of New Jersey – New Brunswick), demonstrates precisely this pattern in the field of linguistics. The full article may be read here: https://www.linguisticsociety.org/sites/default/files/03_97.4Cepeda.pdf.

Linguists study the structure and interpretation of example sentences in order to investigate rules of grammar. In this article, the authors systematically studied example sentences from textbooks designed to teach undergraduate students about the structure of language (syntax), asking whether the selection and placement of words in these sentences communicate a gender bias to students of linguistics. The idea itself is not new: over 20 years ago, Macaulay and Brice conducted a similar study in a (1997) article published in the same venue. The current authors asked whether anything has changed since 1997. The answer, the authors say, is unfortunately, no. This pattern has continued to be prevalent in the field of linguistics for decades now, implicitly communicating a deeply ingrained bias against women to undergraduate students who are learning about the study of language as a science.

Specifically, the analysis shows that male-gendered protagonists occur almost twice as often as female-gendered ones and appear in more prominent roles. The trend does not stop there: men are more likely to be portrayed as having stable occupations, handling books, and spreading violence, whereas women are more likely to exhibit emotions (especially negative ones). Based on these results, the authors argue that there is a pressing need to revisit pedagogical materials in order to prevent the perpetuation of implicit gender biases in higher education instruction.

Read on for the findings from the second article…

<u>Gender Bias in Linguistics Journals</u>

A new study appearing in the December issue of *Language* by Hadas Kotek (Massachusetts Institute of Technology), Rikker Dockum (Swarthmore College), Sarah Babinski (Yale University), and Christopher Geissler (Heinrich Heine University Düsseldorf) has uncovered persistent and wide-reaching gender bias in scientific articles about language appearing in leading linguistic journals. The full article may be read here: https://www.linguisticsociety.org/sites/default/files/02_97.4Kotek.pdf.

In this study, the authors analyzed more than 15,000 example sentences published in three top linguistics journals, including *Language,* over the past twenty years. Their findings include that: 1) stereotypes about both men and women are prevalent in the data; 2) non-binary gender identities are all but absent, and 3) male protagonists are chosen to appear in example sentences at more than twice the rate of non-male protagonists. They also found that these patterns are consistent throughout the past twenty years and hold regardless of the gender of the authors and the language being studied, suggesting that this bias is entrenched across the entire field of language science.

The authors offer concrete proposals for language researchers to counteract systemic biases. Among other measures, they recommend increased attention to word choices, to stereotypes being used, and to any unnecessary use of gendered language. They also suggest the use of non-gendered terms and singular 'they'. The authors further provide advice for teachers, field workers, journal editors, and other members of the scientific community on how to avoid the pitfalls of implicit bias.

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