

Lexical Recognition of Gender-Fair Contracted Forms in Typical and Dyslexic Readers

Masculine Generics and Gender-Fair Alternatives in French

In French, **masculine role nouns** like *l'étudiant* 'the student_{MASC}', can be interpreted either as:

- **male-specific**, referring only to men;
- **or generic**, referring to individuals of any gender.

However, they tend to induce a **masculine bias** [1].

To reduce this bias, **contractions of double-gender forms** have emerged:

l'étudiant ou étudiante → *l'étudiant-e* 'the student_{MASC-FEM}'

→ **Gender-fair** but possibly harder to read, especially for dyslexic readers.

Design & Stimuli

Inspired by [2], we conducted an online lexical decision task



82 typical and 38 dyslexic French readers

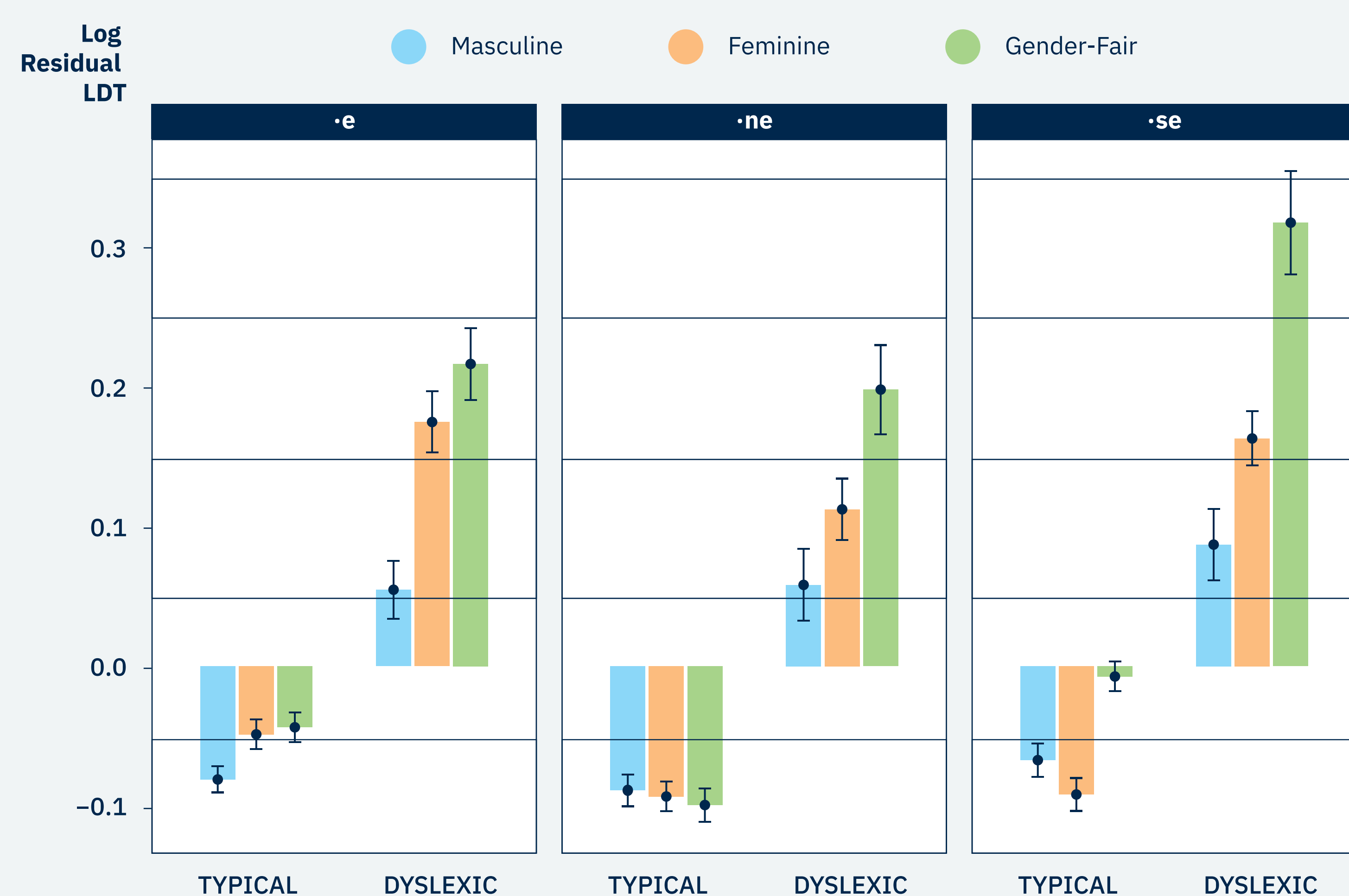
Manipulated factors (within-participants):

- Gender: masculine / feminine / gender-fair
- Gender-fair ending: *-e* / *-ne* / *-se*

| Factors | Words (N=84) | Pseudowords (N=84) |
|--|--------------|--------------------|
| Masculine (N=24) | dirigeant | survionnant |
| | magicien | lortorien |
| | chanteur | mucteur |
| Feminine (N=24) | dirigeante | gintenante |
| | magicienne | munivienne |
| | chanteuse | chondeuse |
| Gender-Fair (N=24) | dirigeant-e | condiorant-e |
| | magicien-ne | trounivien-ne |
| | chanteur-se | chancleur-se |
| Fillers with special characters (N=24) | T-shirt | ZouTuch |

Results

Dependent variable: Log-transformed residual Lexical Decision Time (LDT).



Discussion

Main findings

For both groups, but especially for dyslexic readers:

- **Feminine forms** processed more slowly than **masculine** ($p < .001$, interaction: $p < .001$).
 - **Gender-fair forms** slower than **feminine** ($p < .01$, interaction: $p < .05$).
- Likely due to frequency

For both groups:

- **-se forms** like *chanteur-se* 'singer_{MASC-FEM}' were the most difficult to process ($p < .05$).
- Likely due to morphological complexity

Frequency Effects

Masculine forms were more frequent than **feminine forms** (5.7 vs. 2.4 per million) and **Gender-fair forms** likely even less frequent.

High self-reported exposure to **gender-fair forms**:

- did not reduce the **gender-fair vs. feminine** difference, but
- reduced the **masculine vs. feminine** difference (interaction: $p < .001$).

No habituation effect was observed for **gender-fair forms** over the course of the experiment.

Morphological Complexity Effects

Contrary to *-e* and *-ne* forms, which involve simple addition, **-se forms** are more complex because:

- require substitution of the **masculine suffix**,
- the **feminine suffix -euse** is only partially preserved.

Processing Cost in Dyslexic Readers

According to the dual-route model of reading [3], **gender-fair forms**, as rare (and novel) forms, are processed via **grapheme-to-phoneme route**, less efficient in dyslexic readers.

Future Directions

Investigate how exposure frequency facilitates processing of **gender-fair forms**.

References

- [1] Gygas P., Gabriel U., Lévy A., Pool E., Grivel M., Pedrazzini E. (2012). The masculine form and its competing interpretations in French: when linking grammatically masculine role nouns to female referents is difficult. *Journal of Cognitive Psychology*, 24, 395-408.
- [2] Kruppa, A., Fenn, J., & Ferstl, E. C. (2021). Does the asterisk in gender-fair word forms in German impede readability? Evidence from a lexical decision task. *AMLaP Conference*, Paris, France.
- [3] Coltheart, M., Rastle, K., Perry, C., Langdon, R., & Ziegler, J. (2001). DRC: A dual route cascaded model of visual word recognition and reading aloud. *Psychological Review*, 108(1), 204-256.