

Scare quotes and speaker commitment: an fEMG experiment

Harriet Yates (harriet.yates@ru.nl)¹, Bob van Tiel¹, Corien Bary¹

¹Faculty of Philosophy, Theology and Religion, Radboud University Nijmegen

We speakers have a vast array of words at our disposal, and our choices in conversation have real-world consequences. We might, for example, say *freedom fighter* rather than *terrorist* [1], signaling (even inadvertently) that we consider this an appropriate term for that referent, in that context. We call this a *commitment de lingua* [2–5]. However, speakers sometimes explicitly signal distance from their words, for example with quotation marks; ‘scare quotes’ may mark skepticism toward the term and/or its connotations. While this strategy is assumed in handbooks for writers [e.g. 6], its effectiveness at reducing perceived speaker commitment in practice is thus far underexplored.

To address this with empirical evidence, we compare discourses as in Table 1. Where a speaker plainly-presents a word, they undertake a commitment de lingua. The metalinguistic follow-up directly violates this prior commitment (1a). Contrast this with (1b), where the question of speaker commitment to their word choice is less clear. We hypothesize that the follow-up in (1a) will be conceived of as a greater commitment violation than in (1b).

This study uses physiological facial electromyography (fEMG), the recording of facial muscle activity (in muscle unit action potentials), to measure interlocutors’ affective, evaluative responses. Research [7] shows that activation of the *corrugator supercilii* (the inner-eyebrow ‘frowning muscle’) is a reliable indicator of negative affect triggered by commitment violation in communication; stronger activation corresponds to a greater perceived violation. Thus in the current study, we predict higher corrugator activation in (1a) compared to (1b).

The study used 72 Dutch item sets crossing quotation (plain vs. quoted) and follow-up type (metalinguistic vs. generic). Generic follow-ups in (2a) and (2b) evaluate the described situation without addressing lexical choice, isolating the effect of metalinguistic rejection. Twenty-four filler items were included. Participants ($N=62$; 49F, 13M; 18–69 yrs, $M=24$) read vignettes segment-by-segment on-screen. Each trial was preceded by a 3000ms fixation, to obtain baseline corrugator activation.

Figures 1 and 2 illustrate the results. Data were analyzed using a Bayesian hierarchical linear model, modeling mean activation from quotation, follow-up type, their interaction, and centered trial number, with sum-coded predictors. The model included by-participant and by-item-set random intercepts and slopes for quotation, continuation, and interaction, with weakly informative priors and four chains of 4,000 iterations. Post hoc comparisons used emmeans. Results showed a credible quotation $\times$ follow-up interaction ($\beta = -2.91$, 95% CrI [-4.69, -1.14]), driven by a crossover pattern: metalinguistic follow-ups yielded higher activation for plain than quoted items ($\Delta = 6.69$, 95% CrI [1.89, 11.53]). Generic follow-ups indicated the reverse ($\Delta = 4.92$, 95% CrI [0.30, 9.83]).

These results support our hypothesis that metalinguistic rejection of a plainly presented word elicits stronger corrugator activation than rejection of a quoted word. Interpreting corrugator activation as perceived commitment violation, this signals strong initial speaker commitment to the appropriateness of a word when it is unquoted. Metalinguistic rejection of quoted words is apparently less objectionable, indicating that scare quotes indeed reduce perceived commitment de lingua. This study adds to growing evidence that fEMG is a valuable method for investigating empirically underexplored questions in pragmatics.

References

- [1] Robert Brandom. *Making It Explicit: Reasoning, Representing, and Discursive Commitment*. Harvard University Press, 1994.
- [2] Jesse Harris. Commitments by proxy: Perspective management with transparent free relatives. Abstract for talk at the GLOW Workshop on Perspectivization, 2016. URL <https://www.uni-goettingen.de/de/document/download/25b7960a31a7c1fef02b94d6c5c4dccc.pdf/Harris-GLOW2016-TFRs.pdf>.
- [3] Jesse A. Harris. Signaling non-speaker commitment in transparent free relatives: A paired speaker-hearer judgment study. In Verena Rieser and Philippe Muller, editors, *The Proceedings of the 18th Workshop on the Semantics and Pragmatics of Dialogue*, pages 71–79, Edinburgh, Scotland, 2014.
- [4] Leopold Hess. Perspectival expressives. *Journal of Pragmatics*, 129:13–33, 2018.
- [5] Leopold Hess, Corien Bary, and Bob van Tiel. Commitments de lingua & assertoric commitments: The case of expressives. *Proceedings of Semantics and Linguistic Theory*, 33:379–398, 2023.
- [6] Stefano Predelli. Scare quotes and their relation to other semantic issues. *Linguistics and Philosophy*, 26:1–28, 2003.
- [7] Harriet Yates, Corien Bary, Peter de Swart, and Bob van Tiel. fEMG as a window into conversational commitments. *Proceedings of Sinn und Bedeutung*, 29:1765–1783, 2025.

Figures and Tables

Experimental item set:

(1A) PLAIN–METALINGUISTIC	My neighbour is a tradwife. I find that a ridiculous word.
(1B) QUOTED–METALINGUISTIC	My neighbour is a ‘tradwife’. I find that a ridiculous word.
(2A) PLAIN–GENERIC	My neighbour is a tradwife. I find that a tiring lifestyle.
(2B) QUOTED–GENERIC	My neighbour is a ‘tradwife’. I find that a tiring lifestyle.
FILLER ITEM	My neighbour is a teacher. I find that a tiring job.

Table 1: (Translated from Dutch) example items for all conditions.

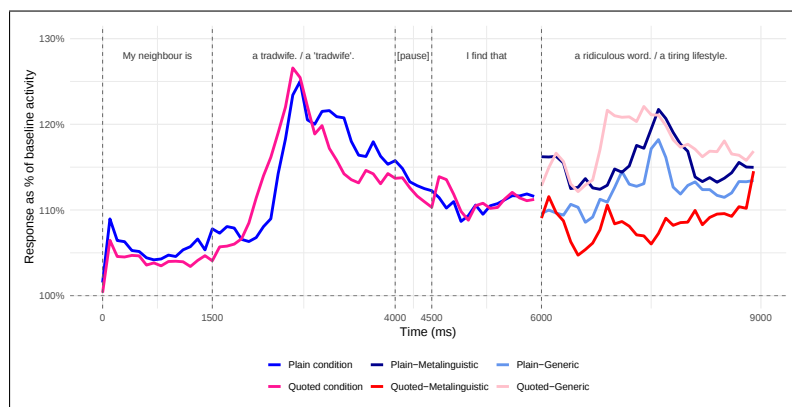


Figure 1: Time course of participants' corrugator response across the full trial. Example item content is shown above the data. Items were presented in either a plain or quoted condition; in the critical final segment, these diverge into four conditions (metalinguistic vs. generic continuations).

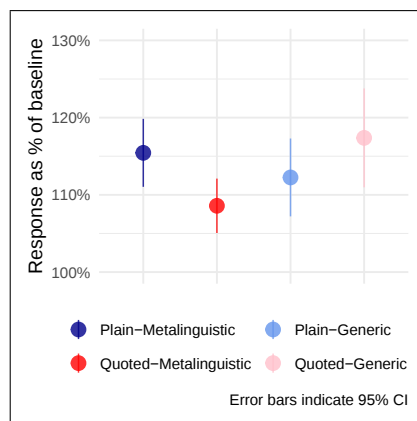


Figure 2: By-part means plot of participants' corrugator response in the critical follow-up segment.