

Scare quotes, speaker commitment and discourse expectancies: an fEMG experiment

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We speakers have a vast array of words at our disposal, and our choices in conversation have real-world consequences. We might, for example, use the term *freedom fighter* rather than *terrorist* [1], signaling that we consider this to be an appropriate word for that referent. Such a commitment to the appropriateness of our terms is called a *commitment de lingua* [3, 4, 5, 6] and it entails that our discourse participants are entitled to expect us to act and speak in accordance with our commitments. However, speakers sometimes explicitly signal distance from their words using quotation marks; ‘scare quotes’ mark skepticism toward the term and/or its connotations. While this strategy is assumed in handbooks for writers [e.g. 8], the effectiveness at reducing perceived speaker commitment in practice is 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 commitment (1a). Contrast this with (1b), where the question of speaker commitment to their word choice is less clear. Accordingly, we hypothesize that the follow-up in (1a) will be conceived of as a greater commitment violation than in (1b).

This study uses facial electromyography (fEMG), the recording of facial muscle activity, to measure interlocutor’s affective, evaluative responses. Earlier research [9] shows that activation of the *corrugator supercilii* (the inner-eyebrow ‘frowning muscle’) is a reliable indicator of negative affect triggered when witnessing commitment violation in communication. This occurs because undertaking a commitment creates expectancies about how the speaker ought to continue; to contradict one’s commitments—defying these expectancies—triggers a negative affective response from interlocutors. Stronger corrugator activation corresponds to a greater perceived violation. We predict higher activation when a plainly presented word is metalinguistically rejected (1a) than when presented in scare quotes (1b).

The study used 72 item sets¹ crossing quotation (plain vs. quoted) and follow-up (metalinguistic distancing vs. generic continuation). Participants saw one version of each item. The generic follow-ups in (2a) and (2b) do not violate the speaker’s prior commitments; the continuation evaluates the described situation without addressing lexical choice, functioning to isolate the effect of metalinguistic rejection. To prevent habituation, 24 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 [2], modeling mean activation from quotation (plain vs. quoted), follow-up type (metalinguistic vs. generic), 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 their interaction, with weakly informative priors and four chains of 4,000 iterations. Post hoc comparisons were made using ‘emmeans’ [7]. 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-up yielded higher activation for plain than quoted items ($\Delta = 6.69$, 95% CrI $[1.89, 11.53]$), while generic follow-up 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 when the word was quoted. As we take activation as a measure of perceived commitment violation, rejection of a plainly-presented word constitutes a strong commitment violation, entailing higher initial speaker commitment to that word. In contrast, rejecting a quoted word is less objectionable to observers (does not elicit a comparable negative response), suggesting that scare quotes indeed lower the speaker’s perceived commitment.

This study makes a twofold contribution by providing empirical support for theoretical accounts in pragmatics and semantics and adding to growing evidence that fEMG can be used as a measure of expectancy violation, valuable for investigating underexplored questions in pragmatics.

¹See Table 1 for example items translated from Dutch.

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.

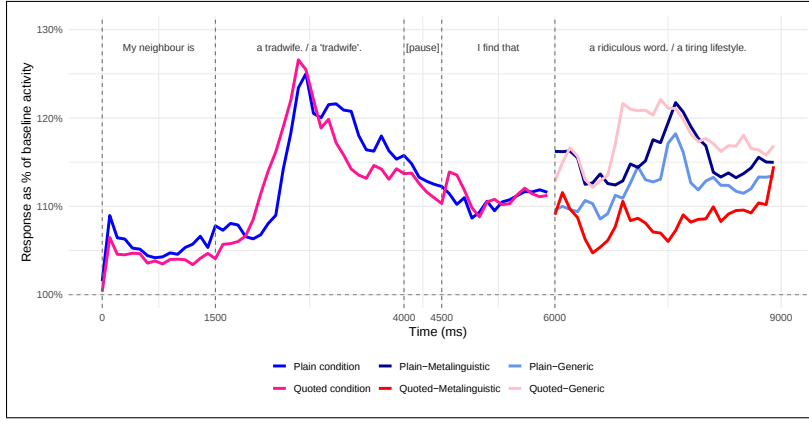


Figure 1: Time course of participants’ corrugator response across the full trial. Example item content is shown above the data. Items were presented in either a plain or quoted condition; in the critical final segment, these diverge into four conditions (metalinguistic vs. generic continuations).

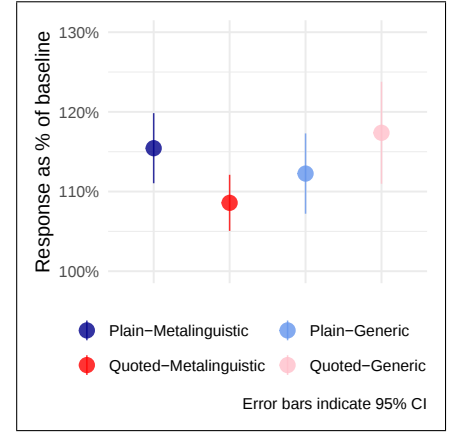


Figure 2: By-part means plot of participants’ corrugator response in the critical follow-up segment.

References

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