

Deaccenting under nonidentity: More than simple accommodation
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In the literature on phonetic emphasis, there is agreement that information structure is relevant to determining the felicitousness of deaccenting: a constituent can generally be deaccented if it is identical to a constituent in an antecedent (in an isomorphic position), while a constituent generally must carry accent if it is discourse-new [1-8]. There is less clarity regarding whether constituents that are inferable from the prior linguistic discourse can also be deaccented. Notably, some accounts posit that a constituent can be deaccented when it stands in a possible semantic identity relation – if it is entailed or otherwise readily inferable (accommodable) – with a formally nonidentical antecedent, allowing accommodation of the critical constituent as given [4-6]. We present three experiments on the production and perception of lexically inferable constituents whose results suggest that such formulations are too broad. Deaccenting of such constituents was not observed in production and was also judged as infelicitous in perception, indicating that a more nuanced pragmatic model is necessary to account for the facts of deaccenting under nonidentity.

In **Experiment 1**, 10 native English speakers (5 female, mean age 21.9) read carrier paragraphs containing *SVO* and *SVO* sentences with a constant critical prosodic structure across items. In these sentences, the second subject was discourse-new, the second object was repeated from the first clause, and the second verb's discourse status varied. This verb could be *new* (unrelated to the first-clause verb), *repeated* (identical to the first-clause verb), or "*inferable*" from the first clause verb (Table 1). Here, "inferable" means that the existential F(ocus)-closure of the second clause (with an unfocused verb) can be inferred from the antecedent [4,7]. In items 1-6, this inferability is driven by a lexical entailment relation between the two verbs, while in items 7-12, it is driven by a less formal pragmatic "bridging" relation between the verbs [5]. A separate study normed the strength of the inferencing relations between the verb pairs ("Given that you know **Ron hugged Laura**, how likely do you think it is that **Ron embraced Laura**?"). Mean intensity, mean f_0 , and duration were extracted for the stressed nucleus of each second-clause verb (Figure 1). Linear mixed-effects analysis for both sets of items always revealed a significant effect of the second verb's discourse status in determining the phonetic values (p 's<.001), with paired comparisons indicating that the values for repeated verbs were significantly lower than the values for new and inferable verbs (p 's<.001), while the values for new and inferable verbs were not significantly different (p 's>.1). Thus, the paradigm successfully detected the verbs' accent status, but inferable verbs were not deaccented. A follow-up **Experiment 2** showed that these phonetic measures align with native listeners' phonological judgments of emphasis. Participants ($n=177$) listened to clipped recordings of the second clauses from Experiment 1 and made a forced choice rating of the verb as *emphasized* or *not emphasized*, yielding qualitatively identical results to Experiment 1.

Experiment 3 tested the felicitousness conditions of accented and deaccented verbs in perception. Two subjects (one male, one female) recorded an expanded set of 24 entailment items and 24 implicational bridging items in the same design presented in Table 1. From these naturally produced tokens, we kept all the first-clause recordings, and spliced them together with those second-clause recordings with canonical *accenting* or *deaccenting* patterns, with the *accented* second-clause token taken from the second-clause recordings produced under a new-verb condition, and the *deaccented* second-clause token produced under a repeated-verb condition. This resulted in a design where the verbs between the two clauses stand in a *new*, *inferable*, or *repeated* relation, and the second clause contains a canonical *accented* or *deaccented* verb (3x2 design). Native English-speaking AMT users ($n=143$, 67 female, mean age 36.7) rated the naturalness of the resulting recordings on a Likert scale with 7 representing the most natural. Linear mixed-effects analysis of the results (Figure 2) for both item groups showed a significant interaction of verb status and the induced accent status of the verb (p 's<.001). Sentences with accented verbs were rated significantly lower when the verb was repeated than when it was new or inferable (p 's<.001), but there was no difference in rating between new and inferable sentences (p 's>.3). With a deaccented verb, sentences with a repeated verb were rated higher than either new- or inferable-

verb sentences ($p's < .01$), with no difference between the latter two ($p's > .2$). This suggests that the lexically inferable verbs pattern as though they are discourse-new; deaccenting an inferable verb is judged as infelicitous, while accenting an inferable verb is judged as felicitous.

In three experiments, we found that speakers chose not to deaccent a lexically inferable verb, and that deaccented inferable verbs were not judged as felicitous in perception. These results are challenging for accounts of deaccenting licensing under nonidentity which posit that a deaccented new constituent can readily serve as a trigger for accommodation when it is closely related to a constituent overtly instantiated in the discourse context. However, we also note recent work [9] which did show slight deaccenting of inferable or accommodable constituents in a richer discourse context. Considered together, these results suggest the broad concept of accommodation as it pertains to deaccenting licensing needs to be made more precise and more constrained. We propose that deaccenting under nonidentity may be felicitous only if the deaccented constituent can be construed, under some salient discourse goals, as belonging to the same alternative set as the constituent given in the discourse. Mere lexical relations between constituents, even the very strong ones presented here, are not sufficient to trigger successful pragmatic accommodation of the relevant alternative set that renders a nonidentical constituent pragmatically “identical” enough with the given antecedent constituent. We are currently carrying out follow-up experiments to test this more constrained hypothesis of accommodation.

| | <i>Verb relation</i> | <i>Sentence</i> | <i>Mean verb inferability</i> |
|------------|------------------------|-----------------------------------------------------------------|-------------------------------|
| Items 1-6 | New | Andrea rebuffed Laura, and Ron embraced Laura. | 1.8 / 7 |
| | Entailment | Veronica hugged Laura, and Ron embraced Laura. | 6.7 / 7 |
| | Repeated | Christina embraced Laura, and Ron embraced Laura. | not tested |
| Items 7-12 | New | Madeline offended Noah, and Al seduced Noah. | 2.1 / 7 |
| | Implicational bridging | Angelina charmed Noah, and Al seduced Noah. | 5.5 / 7 |
| | Repeated | Jocelyn seduced Noah, and Al seduced Noah. | not tested |

Table 1: Sample stimuli for Experiment 1

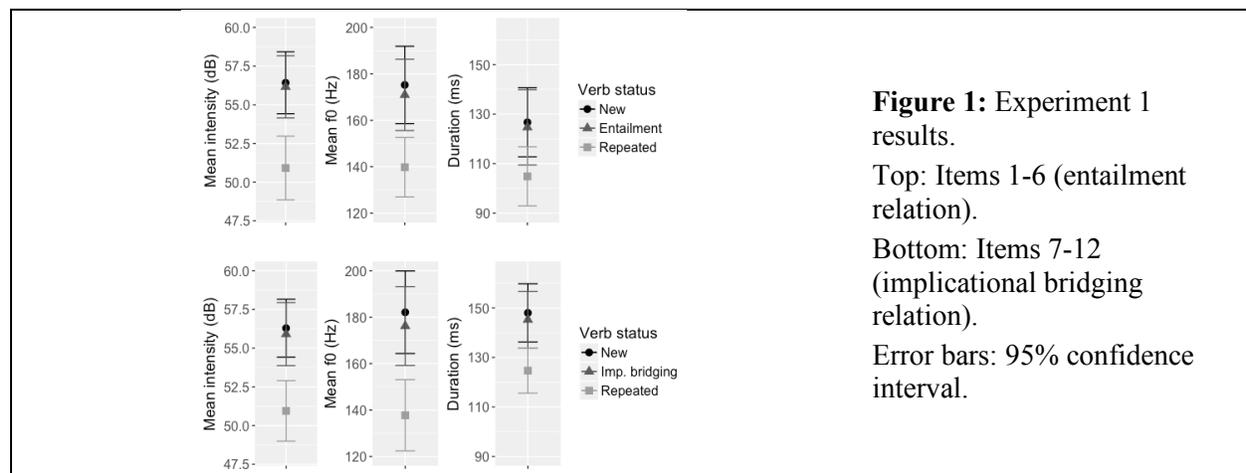


Figure 1: Experiment 1 results.

Top: Items 1-6 (entailment relation).

Bottom: Items 7-12 (implicational bridging relation).

Error bars: 95% confidence interval.

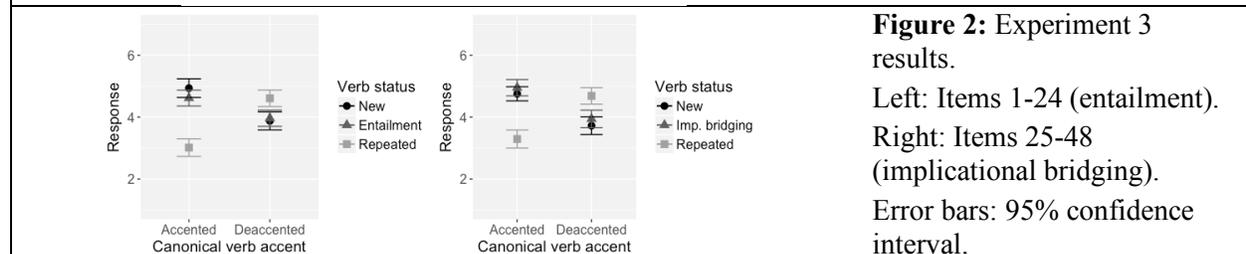


Figure 2: Experiment 3 results.

Left: Items 1-24 (entailment).

Right: Items 25-48 (implicational bridging).

Error bars: 95% confidence interval.

References: [1] Taglicht (1982). [2] Selkirk (1984). [3] Rochemont (1986). [4] Rooth (1992). [5] Tancredi (1992). [6] Fox (1999). [7] Schwarzschild (1999). [8] Wagner (2012). [9] Chodroff et al (2019).