Comparing Global and Local Accommodation: Rating and Response Time Data

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Preview. Presuppositions (PSPs) are commonly characterized as backgrounded content that is taken for granted by the speaker (Stalnaker 1974). However, not all presuppositions need to be explicitly satisfied in the prior discourse in order to be felicitous, i.e. they can be accommodated, either at the utterance level (Global Accommodation = GA; Lewis 1979) or in embedded contexts (Local Accommodation = LA; Heim 1983). While GA and LA share a common label, it is an open question whether they also share an underlying mechanism. We present a speeded acceptability rating study that directly compares Global and Local Accommodation for five PSP triggers (*again*, *still*, *even*, *regret*, *discover)* in order to bring behavioral evidence to bear on this issue.

Background. One unified formal treatment of GA and LA is Beaver & Krahmer (2001)'s *A* operator, which turns presupposed content into asserted content, such that GA and LA can be reduced to a difference in the syntactic position of this operator at LF. In contrast, von Fintel (2008) makes a conceptual argument that GA is a pragmatic operation, where the hearer adjusts the context to match the meaning of an utterance, whereas LA is a semantic operation adjusting the meaning of a sentence to avoid a clash with the context (typically seen as a last resort). An intermediate position comes from Klinedinst (2016), who argues that only triggers that entail their PSP allow for a unified treatment of GA and LA, while other triggers require distinct mechanisms.

Design. We crossed ACCOMMODATIONTYPE (*global* vs *local*) and CONTEXT (*PSP met* vs *PSP unmet*) in a 2x2 Latin-square design, using short dialogues as in (1). These consisted of four clauses, with the second context clause either supporting the relevant PSP or expressing Explicit Ignorance with regard to it. The third - target - clause contained the PSP trigger. ACCTYPE was manipulated by making the target clause a root clause (followed by *so*; global) or an *if*-clause (local). Additionally, the context clause was either uttered by speaker A in the global condition or by speaker B in the local condition, in order to ensure accommodation at the appropriate level.

(1a) <u>Global</u>: A: Linda loves traveling,
        ⎰ and last year she went to Vietnam.   (*PSP met*) ⎱
        ⎱ but I don't know whether she's been to Vietnam before.   (*PSP unmet*) ⎰
        B: She went to Vietnam **again** this year,
   so she probably picked up some Vietnamese already.

(1b) <u>Local</u>: A: Linda loves traveling.
        B: ⎰ Yeah - last year she went to Vietnam.   (*PSP met*) ⎱
          ⎱ Yeah - though I don't know whether she's been to Vietnam before. (*PSP unmet*)⎰
          If she went to Vietnam **again** this year,
          then she probably picked up some Vietnamese already.

Method. Each trial began with a button displayed at the center bottom of the screen and large thumbs-up and -down icons at the top left and right respectively. Button click started a character-by-character unfolding of the text (at 60ms/char). 500ms before the end of the target clause, participants were prompted to quickly indicate acceptability of the discourse so far by moving their cursor to one of the icons. The initial choice had to happen within 2 seconds. (Error messages were displayed if the cursor was moved too early or did not reach an icon within the time limit; the setup aimed to also provide insights from mouse tracking data, but these are inconclusive so far.) Upon selection, the final clause unfolded, and participants could adjust their up/down choice.

Results. <u>Ratings</u>. Final acceptance rates by condition are shown below. A mixed effects logistic regression model showed a significant decrease in acceptability for *unmet* conditions (β=-1.86, p<.001), as expected. This effect was more pronounced in the global condition, as reflected in a significant interaction (β=.75, p<.01) (and corresponding simple effect in the unmet condition

(β=.58, p<.01),). Similar patterns were found across individual triggers, with some variation in the extent of the unacceptability rates, e.g., for the cognitive factive *discover*, as shown on the right.

Response Choices

Response Choices by Trigger

Response Times, Unmet Condition
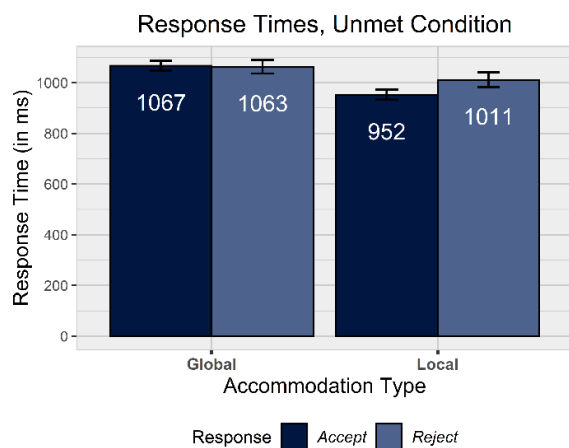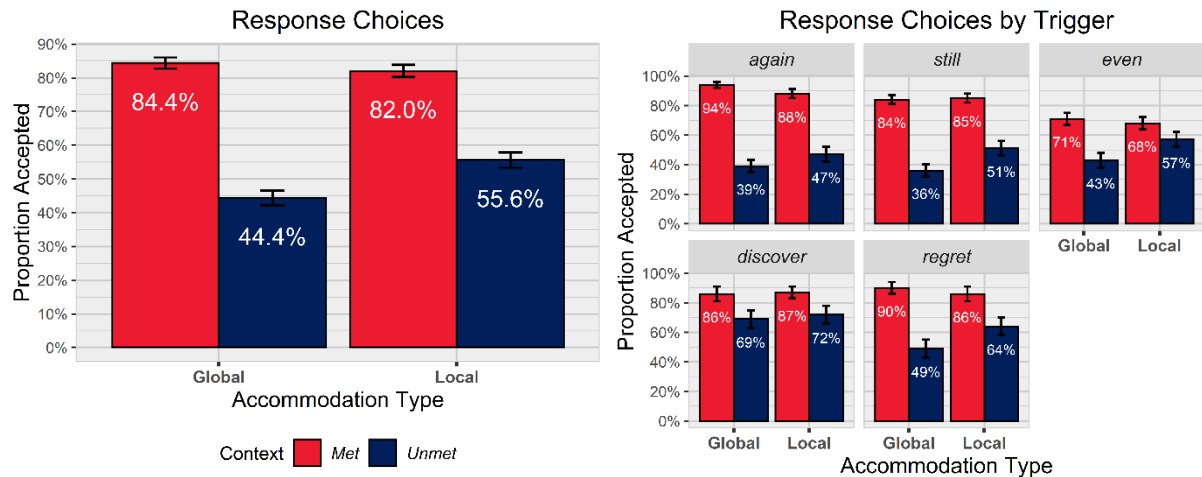
Response Times. RTs were calculated from the prompt to respond during the unfolding of the target sentence to initial mouse selection of up- or down-icon. A 2x2 linear mixed effects model across all conditions found significantly faster RTs for *local* (β=-119, p<.001) but no other effects. Focusing on the *unmet* conditions, where accommodation is at play, we ran a second model predicting RT from the interaction of Global/Local and RESPONSE CHOICE and found a significant interaction (β=.89, p<.05), with faster acceptance choices for *local* than *global* (β=-135, p<.001) (but no simple effects of CONTEXT within responses).

Discussion. Counter to claims that LA is a last resort mechanism that's only marginally available (if at all, for certain triggers), we find it to be readily available, just like GA - in fact, it is more acceptable than GA overall. Whether or not this difference speaks against a unified mechanism remains somewhat open. To the extent that LA and GA generally rise and fall together across triggers (with the exception of *even-lex*), this can be seen as supporting a shared mechanism, as long as the LA advantage can be independently accounted for (e.g., due to particular properties of our task and stimuli). Some of the trigger differences align with Klinedinst (2016)'s hypothesis, showing comparable LA and GA costs for *discover* but larger cost for GA than LA for *regret* (cf. Djärv et al. (2017)'s account of cognitive factives as entailing their PSP). Trigger variation clearly requires further scrutiny for a fuller picture of the accommodation mechanism(s) at play.

Our RT findings are surprising as well, in that there was no processing cost for either type of accommodation. LA Accept responses being faster than GA ones provides a novel comparison across accommodation types, that aligns with the acceptability pattern. Moreover, the fast LA RTs contrast with prior studies reporting slowdowns in RTs for LA (Chemla & Bott 2013; Romoli & Schwarz 2015), though these involved slightly different comparisons. But most importantly, our paradigm provided explicit contextual support for LA, whereas prior work offered the choice of an LA interpretation of a sentence in isolation. Prior claims that LA is hard to access may thus have to be reevaluated to take into account the role of contextual motivation, leaving more direct comparisons of relevant manipulations of contextual support as an important direction for future work.