Do implicit Questions under Discussion license the usage of fragments?

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Research question In order to convey a message, speakers can often choose between a full sentence (1a) and a *fragment* (Morgan, 1973) (1b). In a context like (2), both utterances will communicate that the speaker's mother called. We explore the hypothesis that fragments are licensed when there is a salient Question under Discussion (QuD) (Roberts, 1996) like (3a) that provides an antecedent for omissions in fragments. We measure the salience of QuDs in context with a production task and test whether the salience of QuDs improves the acceptability of corresponding fragments with an acceptability rating task.

Account The assumption that QuDs can license fragments has been defended in the theoretical literature (Ginzburg and Sag, 2000; Merchant, 2004; Reich, 2007), but not yet been empirically confirmed. Leaving aside conceptual differences, the general idea is that the material given in the question (*has called* in our example) can be omitted in *congruent* answers, which result from replacing the *wh*-phrase in the question by a focused constituent matching the semantic and syntactic properties of the *wh*-phrase (Krifka, 2001). In our example, this is a nominative singular DP referring to a person. From this perspective, interpreting discourse-initial fragments like (1b) requires the accommodation of a QuD. If the context (2) makes a QuD like (3a) salient, we expect that a fragment that answers this QuD (1b) is easier to interpret, and hence more acceptable, than a fragment like (1d) which answers a less salient QuD (3b).

Production study We used a production task to measure the salience of QuDs given extralinguistic context. Subjects read stories like (2) and entered the question that they considered to be most likely into a text field. For each story ($n = 30$), we collected 50 responses. We preprocessed the responses in order to determine the form of the congruent short answer fragment in terms of semantic (e.g. to people) and syntactic restrictions (category, case and number). Polar QuDs where excluded, since congruent answers are restricted to *yes*/*no* in that case. For the rating study, we selected the 24 items with the most salient QuDs introduced by a *wh*-phrase.

Rating study In a 2×2 design (SENTENTIALITY, SALIENCE) we investigated whether the salience of a QuD determines the acceptability of a congruent short answer fragment. The QuD account predicts a SENTENTIALITY:SALIENCE interaction, since the availability of a QuD in context is particularly relevant to the interpretation of fragments. In the experiment, 48 subjects rated the acceptability of utterances like (1a-d) in context of stories like (2). In the predictable condition, the target utterance answers the most salient QuD, in the unpredictable condition an only rarely ($n \leq 5$) or never produced QuD. The sentential conditions were generated by replacing the *wh*-phrase in the QuD by the fragment. Items were presented with 80 fillers in individual pseudo-randomized order. We analyzed the data with CLMMs (Christensen, 2019) in `R` that predict ratings from the frequency of the QuD in the production task and the sententiality of the answer. Our analysis reveals a general preference for sentences ($\chi^2 = 29.09, p < .001$) and for answers to salient QuDs ($\chi^2 = 13.98, p < .001$), but we do not observe the expected interaction between both factors ($\chi^2 = 1.4, p > .2$). However, a cluster analysis of our materials based on the difference in acceptability between conditions shows that our items do not behave uniformly with respect to our experimental manipulation. For the 10 stimuli contained in one of the three main clusters we observe the expected interaction ($\chi^2 = 10.9, p < .001$), but this effect is absent or even inverted for the other two clusters respectively.

Discussion The analysis of the complete data set shows that salient answers are overall perceived as more natural, but our prediction that fragments are more acceptable when they answer a contextually salient QuD could not be confirmed. The cluster analysis however showed that 10 out of the 24 stimuli exhibit the expected pattern. In further research to be conducted before the conference, we will investigate potential reasons underlying the observed patterns.

(1) a. “Meine Mutter hat angerufen.” Sentence, salient QuD
my mother has called

b. “Meine Mutter.” Fragment, salient QuD
my mother

c. “Es ging um die Arbeit.” Sentence, non-salient QuD
it went about the work

d. “Um die Arbeit.” Fragment, non-salient QuD
about the work

(2) a. Stefanie und Jan sitzen am Tisch und spielen Schach, als plötzlich Jans Handy klingelt. Er entschuldigt sich und verlässt zügig den Raum, um den Anruf im Flur entgegenzunehmen. Nachdem er das Telefonat beendet hat, kommt er zurück an den Tisch, wo Stefanie auf ihn wartet. (Stefanie fragt):

b. *Stefanie and Jan are sitting at the table playing chess when suddenly Jan’s mobile phone rings. He apologizes and quickly leaves the room to take the call in the hallway. After he has finished the phone call he comes back to the table where Stefanie is waiting for him. (Stefanie asks):*

(3) a. “Wer hat angerufen?” Salient QuD
who has called

b. “Worum ging es?” Non-salient QuD
what.about went it

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