

### Discourse *even* vs. attitude *even*

Iatridou & Tatevosov (2014, “Our *even*”, talk given at SuB 19; hereafter I&T) discuss an interesting use of *even* in questions, which is illustrated by their example reproduced in (1).

(1) A: Let’s meet at Oleana’s for dinner. Is that OK?      B: Where is that even?

As I&T rightly point out, this occurrence of *even* is different from its canonical uses. They characterise this special use of *even* as involving ‘unlikelyhood of ignorance’, which is, in their words, “an epistemic inference that the speaker [is] ignorant about the most basic thing about (an issue relating to) the Question Under Discussion”. Building on earlier work on the regular uses of *even*, according to which it expresses unlikelyhood of propositions being true, I&T suggest that the core meaning of *even* is unlikelyhood, and that the above use of *even* can be understood as involving unlikelyhood of questions being asked, which results in a pragmatic inference of ignorance.

In the present work, we argue that I&T’s characterisation needs to be refined in several respects. We first argue that I&T are conflating two different uses of *even* in (wh-)questions. We claim that one use expresses the speaker’s (negative) attitude towards the possible answers (which we call ‘attitude *even*’), while the other use is more aptly treated as operating on pragmatic presuppositions (which we call ‘discourse *even*’), the latter of which seems to be what I&T mostly discusses. Furthermore, we challenge their idea that the core meaning of *even* that underlies its different uses is ‘unlikelyhood’. Firstly, we argue that the attitude use of *even* is not adequately described as involving unlikelyhood. Secondly, we raise a counter-example to I&T’s analysis of discourse *even* as expressing the unlikelyhood of the question being asked. Instead, we suggest the core meaning of *even* is ‘low-rankness’ on some scale: the canonical use involves low-rankedness on the likelihood scale, the attitude use involves low-rankedness on some modal scale, and the discourse use involves low-rankedness of accommodatability of certain presuppositions (something which often, but not always, correlates with likelihood).

I&T observe that the use of *even* they discuss is syntactically limited. In particular, they claim that it can appear at the end of the question as in (1B) and (2B), or on the VP as in (2B’), but not on other constituents, (2B’’) and (2B’’’). The examples in (2) are also I&T’s.

(2) A: Shall we go to Oleana’s for dinner?  
 B: What do they serve even?      B’’: #Where is even Oleana’s?  
 B’: What do they even serve?      B’’’: #What do they serve even there?

Contrary to their claim, however, we observe that there is an interpretive difference between (2B) and (2B’). Roughly put, what the speaker of (2B’) is asking is whether there is anything worth eating at all at Oleana’s, and simultaneously signaling that they doubt there is (thereby objecting to A’s suggestion). On the other hand, although (2B) can be read this way as well, it can also be used to mean something else, which is perhaps closer to what I&T have in mind. That is, (2B) can be used to ask what A seems to be presupposing, i.e. they both know where Oleana is. Notice that in this case, the speaker’s negative attitude is not expressed, unlike (2B). Let us call the former use ‘attitude *even*’ and the latter use ‘discourse *even*’. To see this contrast more clearly, consider the following example modeled after I&T’s.

(3) A: Do you want to go to Oleana’s?  
 B: Sure!! #But what do they even serve?      B’: Sure!! But what do they serve even?

This contrast can be understood as follows. (3B)’s use of *sure* indicates their willingness to go to Oleana’s, but this is in conflict with the question with the negative attitude toward whatever is served in Oleana’s. (3B’), on the other hand, has a reading that does not involve the speaker’s negative attitude, which does not cause a conflict here.

More concretely, we propose that attitude *even* says that all conceivable answers to the wh-question are low-ranked according to some modal ordering, which we assume can be based on the speaker’s desires (bouletic), goals (teleological), or expectations (epistemic). For (2B’), the most prominent reading is a bouletic one. That is, the speaker thinks that whatever is served in Oleana’s is not desirable for them. On the other hand, the modal ordering is an epistemic one in (4).

(4) [Context: Andrew is smoking something that is causing a pungent smell.]  
 What is Andrew even smoking!?

Notice, incidentally, that this example is problematic for I&T. In the context above, this question is obviously the most likely one to be asked. Thus, this again shows that the use of *even* here is

different from what they discuss. We describe the semantics of attitude *even* as in (5) where  $Q$  is a Hamblin-question denotation, i.e. a set of propositions. We assume context  $c$  specifies the ordering  $c_o$  among the speaker  $c_s$ 's doxastic alternatives  $\text{Dox}_{c_w}(c_s)$  in the actual world  $c_w$ .

- (5)  $\llbracket \text{even}_{\text{att}} \rrbracket^c(Q)$  conventionally implicates that for each  $q \in Q$ , for all  $w \in \text{Dox}_{c_w}(c_s)$ , if  $q(w) = 1$ , then  $w$  is nonmaximal according to the ordering  $c_o$ .

A nice prediction of the present analysis is that attitude *even* cannot appear in yes/no-questions. That is, since yes/no-questions denote two-membered covers of the entire set of possible worlds, the possible answers cannot be both nonmaximal, given that the speaker has a teleological motivation for distinguishing between them. Also, (5) assumes that the identity of the possible answers to the question  $Q$  in which *even* appears depend on the epistemic state of the questioner. In (2), the speaker means to indicate that everything that could possibly be served at Oleana's is probably undesirable, an attitude which the speaker of (2A) likely does not share, for she is proposing going there for dinner. We therefore must allow the speaker's epistemic state to determine the identity of  $Q$ . This seems in keeping with the general nature of alternative sets.

What happens to the discourse context after an utterance like (2B)? The effect of this discourse move is to indicate that the speaker wants to close discussion of a particular issue by showing that it does not have an answer that furthers the goals of the discourse participants. In the case of (2B), the speaker indicates that all things that Oleana's could possibly serve are undesirable; in a context like (2), that will serve to close the issue of whether to go to Oleana's for dinner, i.e. to close the question introduced by (2A). Thus, *even* on this use serves as a means of managing some parts of the information in the discourse context, in particular the goals which the discourse is meant to address; this ties models involving Questions Under Discussion (QUDs) to more general issues of goal-directed communication like those discussed in e.g. game-theoretic pragmatics, and on the other hand to discourse management devices like discourse particles.

What about discourse *even*? On our analysis, it does not involve the speaker's attitude. Rather, its crucial aspect is that the question asks about the presupposition that another interlocutor is implicitly making. Here, we largely follow I&T's intuition that the question indicates that there is an issue that must be resolved before accepting the interlocutor's previous discourse move. But importantly we disagree with them that the core meaning of discourse *even* has to do with unlikelihood, since unlikelihood of the question being asked does not always lead to questioning the previous discourse move. For instance, consider (6).

- (6) [Context: A&B are classifying newly discovered species according to a set of questions.]

A: The wug seems to be cold-blooded. B: Skipping ahead, what does it feed on (#even)? In this context, there is a question to be asked, i.e. what the wug feeds on, which is unlikely to be asked at the current moment but still is a relevant question. However, this unlikelihood is not sufficient to license discourse *even*, contrary to what would be expected under I&T's view. Rather, what is expressed by felicitous uses of discourse *even* seems to be **rejection of presupposition accommodation**. While putting forward a similar idea, I&T only derive this effect as a result of complex pragmatic reasoning triggered by the unlikelihood of the question being asked. We propose, instead, that discourse *even* directly expresses it.

In order to model this more formally, we assume that for each discourse agent  $a$  there is a set  $PB_a$  of propositions that  $a$  is publicly committed to, or  $a$ 's public beliefs. Then, the common ground  $CG$  is the grand intersection of the public beliefs,  $\bigcap_{x \in A} PB_x$  (where  $A$  is the set of discourse agents). Now suppose that an agent  $a$ 's behaviour indicates a tacit assumption ' $p \in CG$ ' for some proposition  $p$  that is not entailed by  $\bigcap CG$ . Then, the proposition ' $p \in CG$ ' is added to  $PB_a$ , but this does not necessarily result in adding  $p$  to  $CG$ ;  $p$  must be accommodated. Further, suppose that asking a question  $Q$  signals that the questioner takes the other agent(s) to have access to necessary resources for answering other questions 'more basic' than  $Q$  (written  $Q' < Q$  via a defeasible information-based partial ordering  $<$ ): so for instance asking how much stamps cost at the post office presupposes being able to say where the post office is. We take discourse *even* to challenge this presupposition; specifically, ' $Q$  even' indicates that the speaker is not willing to accommodate the presupposition that she is able to answer the 'easier' questions  $Q' < Q$ . Since such questions are in general easier to answer, this gives the 'unlikelihood' impression discussed by I&T.