

# How is presupposition accommodation constrained, again?

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## Abstract

According to the *satisfaction view*, presuppositions are conditions on the discourse context which must be satisfied for the utterances carrying them to be felicitous. These conditions can either hold in the context *prior* to the utterance of a presuppositional sentence, or they may be added to the context *post-hoc*, via a process known as *presupposition accommodation*, after a presuppositional utterance has been introduced. Since Lewis (1979), it is known that controversial or surprising information resists accommodation. However, this apparent constraint does not seem to follow from the theory of discourse underpinning the satisfaction view. Building on a proposal by Doron and Wehbe (2022), we argue that the facts can be derived within that theory without stipulating any primitive constraints on accommodation, once we take into account independent considerations regarding the structure of discourse.

## 1 Introduction

What is the difference between presupposed and asserted content? According to an influential view originating with Stalnaker 1970, discourse is held relative to a context set  $c$  (defined in (1)), and while assertions are used to *update* this context set, presuppositions impose a condition that must be *satisfied* for the update to go through successfully.<sup>1</sup> This condition, termed *Stalnaker’s Bridge* (henceforth, SB) in (2), demands that the presupposition be true in every world in the context set. We will call this approach the *satisfaction view* of presuppositions.

- (1)  $c = \{w : w \text{ is compatible with what discourse participants consider common knowledge}\}.$
- (2) **Stalnaker’s Bridge (SB):** Updating a context  $c$  with an utterance  $\phi$  (i.e.,  $c + \llbracket\phi\rrbracket$ ) is only felicitous if  $c$  entails any presupposition of  $\phi$  at the time the update is preformed.

This simple view is complicated by the availability of *presupposition accommodation*, a process by which an addressee revises their assumptions about the context  $c$  *after* a presuppositional sentence has been uttered, to avoid violations of SB, as demonstrated in (3). In principle, then, the constraint imposed by a presupposition  $p$  on  $c$  can be satisfied in two ways:  $p$  can either hold in  $c$  *before*  $c$  is updated by an utterance that presupposes  $p$ , or  $c$  can be adjusted “quietly and without a fuss” after the fact, to ensure that context update does not fail (von Stechow 2008: 137).

- (3) **Context:** A and B have just met, and know nothing about each other.  
A: Do you want to join us for lunch?  
B: I have to pick up my sister from the airport.

The availability of accommodation obscures the empirical difference between presupposition and assertion, given that both accommodation and context update by the asserted content of an

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<sup>1</sup>There is no consensus in the literature as to the nature of *assertion*. On the so-called *two-dimensional* view, meanings of sentences are composed of a pair of propositions – a presupposition and an assertion. On the other hand, on the so-called *trivalent* view, the notion of assertion is only well-defined for sentences whose presupposition is already satisfied by the context. We remain neutral with respect to this debate, and avoid relying on a notion of assertion as an independent component. We use the term *assertion* here to refer to the proposition that is used to update the context set after presupposition accommodation has taken place.

utterance (henceforth, *context update*) result in a modified context set. However, certain cases of accommodation seem to be blocked, setting accommodation apart from context update. First, Lewis 1979 observes that information which is controversial or surprising in some intuitive sense seems to resist accommodation. We call this the *controversiality observation*, and while the notion of controversiality involved is often left vague in the literature, the canonical examples in (4) serve to illustrate the point. Second, as first observed in class notes by Irene Heim (2015), an accommodated presupposition cannot be used to address the question under discussion (*QUD*), as demonstrated in (5), where a sentence presupposing that Mary has a sister can be used to address a question involving Mary’s lunch plans, but not one inquiring whether she has siblings. We call this the *QUD observation*.

- (4) a. Daughter to her father, who does not know she is engaged: O dad, guess what?  
       #My fiancé is subleasing my apartment this summer. (adapted from von Stechow 2008)
- b. Sorry I’m late, #I was parking my camel. (adapted from Kissine and Pantazi 2020)
- (5) Q<sub>1</sub>: Can Mary join us for lunch?                           Q<sub>2</sub>: Does Mary have any siblings?  
       A<sub>1</sub>: ✓She is meeting her sister.                           A<sub>2</sub>: #She is meeting her sister.

These observations raise a challenge for the satisfaction view, articulated in the following passage from Szabó 2006, which refers to the controversiality observation in particular:<sup>2</sup>

It is a fundamental intuition that surprising things are better said than presupposed. How can we account for this? I don’t see anything in the framework that can do the job. At one point Stalnaker suggests otherwise – he points out that the hearer may not be willing to accommodate a presupposition simply on the grounds of recognizing that this is what the speaker expects. True enough. But the hearer may also not be willing to accept an assertion simply on the grounds of recognizing that this is what the speaker expects. So I don’t think there is an asymmetry here.

The goal of this paper is to sketch a reductive account of the controversiality observation. In particular, Doron and Wehbe (2022) show that the QUD observation is just a byproduct of the order of evaluation of SB relative to an independent *informativity* constraint on utterances. We show that once we pair *that* position with some auxiliary assumptions about the structure of discourse, we can explain the controversiality observation as just a special case of the QUD observation. The approach is appealing, as it allows us to avoid stipulating any primitive constraints on accommodation *qua* accommodation in our theory of natural language pragmatics.

The paper is organized as follows. In section 2, we show how the QUD observation follows from independent considerations regarding the informativity of utterances. In section 3, we propose that the controversiality observation follows from the interaction of the same considerations and an independent property of discourse structure. The approach makes testable predictions, which are shown to be borne out in section 4. Section 5 concludes.

## 2 Deriving the QUD observation

Doron and Wehbe (2022), henceforth D&W, show that resistance to accommodation in (5) is a byproduct of the architecture of context update. They assume that (i) discourse is relativized to a model  $\langle c, Q \rangle$ , where  $Q$  is the salient QUD partitioning  $c$ , as defined in (6) (Lewis 1988; Roberts 1996/2012 a.m.o.); and further that (ii) the *informativity* constraint in (7) constrains the set of admissible assertions by requiring that any utterance proposed as an update on  $c$  rule out at least one answer to  $Q$  (following, e.g., Groenendijk and Stokhof 1984; Roberts 1996/2012).

<sup>2</sup>As far as we know, this kind of challenge was first leveled against the satisfaction view in Gauker 1998.

- (6) In a model  $\langle c, Q \rangle$ ,  $Q$  is a partition over  $c$ ; i.e. a set  $\{q_1, \dots, q_n\}$  s.t. (a)  $Q = \{q_1\} \cup \{q_2\} \cup \dots \cup \{q_n\}$ ; (b)  $c = q_1 \cup q_2 \cup \dots \cup q_n$ ; (c)  $\forall i \leq n [q_i \neq \emptyset]$ ; and (d)  $\forall i, j \leq n [i \neq j \rightarrow q_i \cap q_j = \emptyset]$ .
- (7) **Informativity:**  $\phi$  is felicitous given a model  $\langle c, Q \rangle$  only if  $\exists Q' \subsetneq Q : [\phi] \cap c \subseteq \cup Q'$ .

D&W show that ordering the evaluation of informativity (7) *after* the evaluation of SB (2), which triggers accommodation of presuppositions not already entailed by the context  $c$ , reduces Heim's observation in (5) to a violation of informativity; i.e., that accommodation *bleeds* informativity. Assuming that to be asked felicitously,  $Q_2$  in (5) must partition  $c$  in a non-trivial way,  $c$  cannot entail that Mary has a sister prior to the utterance of  $A_2$ . Hence, accommodation is required. But accommodating that Mary has a sister resolves  $Q_2$  by ruling out its negative answer. The result is a partition consisting of the single cell compatible with the presupposition. And with respect to a single-celled partition, informativity (7), which requires an assertion to entail a subset of cells in the QUD while eliminating at least one, can never be satisfied.

A novel argument for D&W's account of (5) comes from the distinction between *full* and *partial* resolution of a question  $Q$ . A proposition fully resolves  $Q$  if it is only compatible with one of its cells, and partially resolves it if it is compatible with more than one but not with all of them. Given that polar questions like those in (5), when resolved, are always resolved in full, when such questions are resolved by an accommodated presupposition, the result always involves a violation of informativity. Yet when proposition  $p$  *partially* resolves  $Q$ , utterance  $\phi$  presupposing  $p$  (henceforth,  $\phi_p$ ) can still in principle comply with informativity after  $p$  is accommodated. In such cases, accommodation does not rule out all but one of  $Q$ 's cells, so if  $\phi_p$  entails a proper subset of the cells remaining after accommodation, it is nonetheless informative. Accommodation should be allowed then, when the answer's presupposition *partially* resolves  $Q$ , as long as the answer *asserts* a proposition that satisfies informativity relative to  $Q$ .

The discourses in (8)-(9) show that this is indeed the case. Take (9), for instance, where the presupposition of B's utterance with *only*, namely, that John came, *partially* resolves A's question; i.e., it rules out those cells of A's question in which John did not come to the party. *Full* resolution is achieved only via B's assertion, which further conveys that no one other than John came to the party, and the resulting discourse is felicitous. The felicity of (8)-(9) is predicted on D&W's theory, further supporting their attempt to derive the QUD observation from a bleeding relation between accommodation and informativity, rather than from constraints on accommodation *qua* accommodation.<sup>3</sup>

- (8) A: How many siblings do you have?      B: Apart from my brother, I have two sisters.  
 (9) A: Who came to the party?              B: Only John came.

### 3 Deriving the controversiality observation

The controversiality observation is described in the literature as a prohibition on accommodating controversial or surprising information. We propose that like the QUD observation, it is a by-product of independent constraints, and does not require any ad-hoc assumptions about accommodation *per se*. Moreover, we will show that the empirical picture has been mischaracterized; crucially, the differentiating factor which makes examples like (4) infelicitous does not pertain to the presupposition alone, but to the relation between the presupposition and the assertion, or more precisely, between the QUDs that they can be used to address.

The example of the controversiality observation in (4-a) conveys two things. That the speaker got engaged, as conveyed by the presupposition introduced by the DP "*my fiancé*", and that the speaker is subleasing her apartment this summer, as conveyed by the asserted content of

<sup>3</sup>Thank you to Mitya Privoznov for pointing this out to us.

(4-a). Notice that D&W's account of the QUD observation independently predicts (4-a) to be infelicitous if uttered relative to a QUD that inquires whether the speaker is engaged. Relative to such a question, (4-a) necessarily involves a violation of informativity (7), as discussed in Section 2 above. In principle, then, we can extend D&W's account of the QUD observation to the controversiality observation, as long as our model of discourse is designed in a way that *forces* (4-a) to be uttered relative to the question *Is the speaker engaged?*, which is fully resolved by its presupposition.

To achieve this desideratum, the following assumptions suffice. First, with (e.g.,) Farkas and Bruce (2010), we assume that discourse is relativized not just to a particular QUD, but to a *set* of questions that are *on the table*, i.e., that interlocutors aim to resolve, and that at each point in discourse the current QUD is chosen from this set and replaced with another once resolved. Second, we assume that the process of QUD-selection at any given stage of discourse is not free, but rather constrained in systematic way; among the QUDs to which the speaker can provide an answer, they must address the question which is most *urgent* by a certain criterion. Finally, we assume that of the questions in (10), (10-a) is generally ranked more urgent than (10-b) when both are part of the conversational question set. While the notion of *urgency* involved will remain somewhat of a black box throughout this paper,<sup>4</sup> these assumptions will provide us with testable predictions that extend beyond the realm of presupposition accommodation.

- (10) a. *Is the speaker engaged?*  
 b. *Is the speaker subleasing her apartment this summer?*

Here is how these assumptions account for the infelicity of (4-a) in particular. We assume that the question in (10-a) is generally always on the table in a conversation between parent and child, and that the question in (10-b) is on the table in the context of (4-a), given that the daughter felt the need to convey her plans to sublease the apartment in her assertion. Since the speaker knows the answer to both (as indicated by her utterance), she is expected to share them with her father. The question now is in what order she should do so. Given that, by stipulation, (10-a) is ranked higher than (10-b), she should address the engagement issue first. The sentence in (4-a) therefore necessarily violates informativity, given that it is uttered mandatorily relative to a QUD which it fully resolves with its presupposition.

Note that the picture we have presented thus far seems to predict that any conversation between parent and child must begin by addressing the question of whether the child is engaged. This is obviously wrong. If the daughter in our example were not engaged, she could have gone on to talk about her apartment without any mention of engagement. In fact, it would have been quite odd to begin a conversation with the statement “I am not engaged!” The daughter only has to address the engagement question first if she did get engaged.

This demands that we be slightly more explicit about the ranking presumed to hold among questions on the discourse table. Specifically, we need to have the speaker's epistemic state inform how questions are ranked. An intuitive way to do so would be to require the speaker at any given point in discourse to first address those questions for which the answer she can provide would be most urgent to her addressee (with *urgent* remaining an intuitive primitive).

We can now be more explicit about how the infelicity comes about in (4-b), another well-known example of the controversiality observation. There, the utterance *I was parking my camel* again conveys two pieces of information; one, that the speaker owns a camel as a mode of transportation, is conveyed by the presupposition, and the other, that the speaker parked her mode of transportation, is conveyed by the assertion. Intuitively, the latter piece of information seems to address the question *Why is the speaker late?* and the former — *What is the speaker's mode of transportation?* Without the speaker's epistemic state contributing to the urgency

<sup>4</sup>In ongoing work, we attempt to cash it out with information-theoretic tools.

ranking of open questions, it would be unclear why a question about the speaker's mode of transport should be ranked higher than one about the reasons for her delay. In fact, had the speaker said *Sorry I'm late, I was parking my car*, no infelicity would have arisen, even when it is not taken for granted that the speaker owns a car. Thus, it is precisely the speaker's knowledge that her mode of transportation is a camel, which is an intuitively noteworthy piece of information, that elevates the latter question relative to the former, again resulting in a violation of informativity when this question is resolved by the presupposition as in (4-b).

## 4 Predictions

The notion of urgency is left vague, and indeed, it is perhaps reasonable to assume that like other contextual standards, it varies greatly among interlocutors. However, it is different from the intuitive notion of controversiality in an important respect: It is not a property of a single proposition, but a rather a relation between questions. Furthermore, despite its vagueness, the proposed analysis diverges quite clearly from previous literature in what it takes to be the source of infelicity in examples of the controversiality observation: It is not about illicit accommodation, but about the order in which information is introduced into the discourse.

This, in turn, has two empirical predictions. First, we predict that the same infelicity should arise even in discourses that contain no presuppositional utterances, or only presuppositional utterances that do not require accommodation, as long as asserted information is conveyed in an order that does not comply with what the urgency ranking on open questions dictates. Second, even when presuppositional utterances are involved, we predict that this infelicity should be dependent on the *relative urgency* of the asserted and presupposed information; a sentence should be acceptable whenever its assertion is judged more urgent than its presupposition, and unacceptable otherwise.

We show that the first prediction is borne out in (11)-(12). The original examples of the controversiality observation are repeated in the (a)-examples. Then, we repackage the information conveyed together by the presupposition and assertion in the (a)-cases into a sequence of presupposition-less utterances in the (b)-examples.<sup>5</sup> Crucially, however, the intuitively less urgent information is conveyed earlier in each sequence than the more urgent information.

- (11) **Context:** A daughter to her father, who knows neither that she is engaged, nor that she is subleasing her apartment for the summer, and is interested in both:
- a. O dad, guess what? #My fiancé is subleasing my apartment this summer.
  - b. O dad, guess what? I'm subleasing my apartment this summer... #I got engaged to the subleser.
- (12)
- a. Sorry I'm late, #I was parking my camel.
  - b. Sorry I'm late, I was parking my vehicle. #It's a camel.

That the infelicity persists in the (b)-sentences seems to suggest that the role of accommodation in the (a)-sentences is purely accidental. The proposal we delineate above predicts the infelicity of, say, (12-b), where the second clause betrays that the speaker takes to be true a proposition that renders the question about her mode of transportation urgent, and thus her choice to first answer the less urgent question regarding the reasons for her delay flouts constraints on QUD-ordering.<sup>6</sup> The same explanation extends to (11).

<sup>5</sup>Or, rather, into a sequence of utterances such that each either lacks a presupposition altogether, or its presupposition is already taken for granted by the time it is uttered. This way, no accommodation is required.

<sup>6</sup>Note that there are also felicitous variants of the (b)-examples, formed by reordering the provided information in a way that complies with our urgency ranking. For instance, *Sorry I'm late. I use a camel to get around. I was parking it* seems to be an acceptable way to convey the information conveyed in (12-b). This is again predicted,

We turn to the second consequence of our analysis, namely that the governing factor in the controversiality observation is the relative urgency of the presupposition and the assertion. We expect to find two sentences which bear the same presupposition but contrast in acceptability in a given context in virtue of their assertion. An example of such a contrast is given in (13).

- (13) **Context:** A daughter to her father, who knows neither that she is engaged, nor that she is subleasing her apartment for the summer, and is interested in both:
- a. O dad, guess what? I got engaged to the person subleasing my apartment this summer.
  - b. O dad, guess what? ??I just had a really nice chat with the person subleasing my apartment this summer.

Both (13-a) and (13-b) presuppose that the daughter is subleasing her apartment for the summer. By stipulation, this is not common ground, and should thus be accommodated by the father. The difference lies in the asserted content of each sentence: In (13-a), the assertion addresses a QUD relating to the speaker getting engaged. As we have seen, given that the speaker got engaged, this kind of QUD is generally more urgent than the one relating to the subleasing of the speaker's apartment. For that reason, the sentence in (13-a) does not violate any ordering constraint, and is indeed judged felicitous. The sentence in (13-b), on the other hand, asserts information that corresponds to a QUD along the lines of *What were you doing before I called?* Intuitively, this QUD is less urgent than the one relating to the subleasing of the speaker's apartment. We thus correctly predict that (13-b) be infelicitous due to a violation of QUD-ordering.<sup>7</sup>

Our approach compares favorably to the alternative, usually at least implicitly assumed in the literature on accommodation, according to which controversiality restricts accommodation directly, via a primitive constraint posited in our theory of accommodation. This approach overgenerates the infelicitous examples in (11)-(12), as it views the infelicity of the (a)-examples as contingent on the presence of a presupposition that needs to be accommodated, thus failing to predict the infelicity of the (b)-examples which do not require accommodation. It also undergenerates the felicitous examples in (13), where the infelicity that arises from the presuppositional case disappears once we control for the level of urgency of what is conveyed by the assertion.

## 5 Conclusion

In this paper, we attempt to answer the question: Where do apparent constraints on accommodation come from? We promote the view that accommodation is not restricted directly, and is in fact as automatic and transparent as context update. Instead, when accommodation seems to be blocked, this reflects a violation of some independent constraint further down the line. We discuss a notable case of accommodation failure, the *controversiality observation*, and show that it can be explained as stemming from the interaction of constraints on informativity and on discourse structure. A central notion in our analysis, *urgency* – i.e., the relation between QUDs that requires a speaker to address one before the other – is left mostly unanalyzed throughout the paper. However, we show that regardless of the specifics, using such a notion allows us to better capture the empirical landscape. We thus conclude that the apparent failure to accommodate controversial information pertains directly neither to controversiality nor to accommodation.

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as in this case, the more urgent question is addressed before the less urgent one.

<sup>7</sup>We use ?? rather than # to indicate that the infelicity of the (13-b) is not as stark as that of the canonical examples. This is expected given that the higher urgency of the presupposition here is not as intuitively clear.

## References

- Doron, Omri and Jad Wehbe (2022). “A constraint on presupposition accommodation”. In: *Proceedings of the 23rd Amsterdam Colloquium*. Vol. 23.
- Farkas, Donka F and Kim B Bruce (2010). “On reacting to assertions and polar questions”. In: *Journal of semantics* 27.1, pp. 81–118.
- von Fintel, Kai (2008). “What is presupposition accommodation, again?” In: *Philosophical perspectives* 22, pp. 137–170.
- Gauker, Christopher (1998). “What is a context of utterance?” In: *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition* 91.2, pp. 149–172.
- Groenendijk, Jeroen Antonius Gerardus and Martin Johan Bastiaan Stokhof (1984). “Studies on the Semantics of Questions and the Pragmatics of Answers”. PhD thesis. Univ. Amsterdam.
- Heim, Irene (2015). *Presupposition. Class notes, 24.954 (MIT, Fox/Heim)*.
- Kissine, Mikhail and Myrto Pantazi (2020). “Pragmatic Accommodation”. In: *The Wiley Blackwell Companion to Semantics*. John Wiley & Sons, Ltd, pp. 1–16. DOI: 10.1002/9781118788516.sem140.
- Lewis, D (1979). “Scorekeeping in a Language Game”. In: *Journal of Philosophical Logic* 8, pp. 339–359.
- (1988). “Relevant implication”. In: *Theoria* 54, pp. 161–174.
- Roberts, Craige (1996/2012). “Information structure: Towards an integrated formal theory of pragmatics”. In: *Semantics and pragmatics* 5, pp. 6–1.
- Stalnaker, Robert C. (1970). “Pragmatics”. In: *Synthese* 22.1/2, pp. 272–289. ISSN: 00397857, 15730964.
- Szabó, Zoltán Gendler (2006). “Comments on Kai von Fintel’s paper. Unpublished manuscript, revised version of comments given at Ohio Workshop on Presupposition Accommodation.” URL: <https://bpb-us-w2.wpmucdn.com/campuspress.yale.edu/dist/d/1148/files/2015/10/On-Presupposition-Accommodation-2bded1a.pdf> (visited on 12/02/2024).