A constraint on presupposition accommodation *

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Abstract

We discuss a constraint on global accommodation proposed by Heim stating that an accommodated presupposition must not settle the QUD [Hei15]. We argue that this constraint follows from the asymmetry between the pragmatic status of presuppositions and assertions assumed by the satisfaction theory [Sta70, Kar74]. We provide evidence that local accommodation is sensitive to this constraint, thus arguing that local accommodation maintains the asymmetry. This poses a challenge to theories of local accommodation.

1 Introduction

An important question in the literature on presuppositions is how to identify their pragmatic status. Under the satisfaction view, presuppositions impose conditions on the common ground, such that a sentenced can only be uttered if its presupposition is entailed by the common ground [Sta70, Kar74]. At first glance, this seems to incorrectly predict that sentences with presuppositions can never be felicitously uttered in a context where the presupposition is not met. Consider (1) for example. Here, the presupposition that B has a car is not met in the common ground, but nevertheless B's response is felicitous.

(1) **Context:** A doesn't know that B has a car.
   a. A: Why are you mad?
   b. B: My car got stolen.

In order to explain cases like (1), proponents of the satisfaction theory assume that there is a process of *Global Accommodation*, by which B can accommodate a common ground which does satisfy the presupposition and then evaluate the assertion with respect to that common ground. In (1), A therefore has to accommodate a common ground that entails that B has a car before evaluating the assertion with respect to the accommodated common ground.

The availability of global accommodation raises the question of whether we can ever detect a difference between the pragmatic status of presuppositions and assertions. In particular, what is the distinction between accommodating a novel common ground in order to satisfy a presupposition and updating the common ground by accepting an assertion [1]? If assertions are evaluated with respect to the accommodated common ground, then conditions on assertability have to be evaluated after accommodation. In principle, this should allow us to detect an asymmetry between presupposed content which has to be accommodated, and asserted content.

In the rest of the paper, we discuss a constraint on accommodation proposed by Heim, which relies on this asymmetry between accommodation and assertion. In section 2, we present evidence for this constraint and show how it follows from the satisfaction theory. In section 3, we argue that this asymmetry between presupposition and assertion is maintained when

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[1] See [AFH22] and the last section of [vF08] for a more detailed discussion of this puzzle.

presuppositions are locally accommodated. We discuss how this can be conceptualized under different theories of local accommodation.

2 Global accommodation

Heim argues that questions can't be answered with an accommodated presupposition [Hei15]. This constraint follows from the satisfaction view, once we make explicit certain conditions on assertability. In particular, in order for a proposition to be asserted it has to be informative, i.e. given a QUD which partitions the common ground, it has to eliminate some cells from the partition (2). The satisfaction view predicts that informativity has to be evaluated with respect to the common ground after accommodation, a requirement which can be formulated as shown in (3). If presupposition accommodation settles the QUD, then the assertion can't be informative after accommodation, violating the constraint in (3).

(2) A proposition p is informative with respect to a QUD Q and a common ground C **iff** $\exists q \in$ Q: $q \cap C \neq \emptyset \wedge p \cap q = \emptyset$

(3) **Post-Accommodation Informativity (PAI):** A sentence S_p (presupposing p) can be uttered felicitously only if S_p is informative w.r.t the QUD and common ground after presupposition accommodation.

Consider the example in (4) [Hei15]. After accommodating the presupposition that B has a sister, A's question is completely settled, making the assertion in (4-b) trivial with respect to the question. We can contrast this with (5), where accommodation is licensed. Here, accommodating that B has a sister does not settle the question, allowing the assertion to be informative with respect to the post-accommodation common ground [2].

(4) **Context:** A doesn't know B very well, and specifically knows nothing about her family.
   a. A: Do you have any siblings?
   b. B: # I need to pick up my sister from the airport.

(5) a. A: Are you coming to lunch?
   b. B: I need to pick up my sister from the airport.

The contrast between (4) and (5) shows that the QUD plays a crucial role, but it is not clear whether the infelicity of (4) is due to an asymmetry between presupposed and asserted content. In particular, it is possible that (4-b) is not a good answer because it provided additional information that is not relevant to the question.

In order to conclusively show the role of the asymmetry in this constraint, we have to look at minimal pairs which provide the same information but differ in terms of the division of labor between presupposition and assertion. Consider (6): note that after collapsing presupposition and assertion, (6-b) and (6-c) are completely equivalent – they are both true iff someone from NY adopted the Lab. Therefore, the infelicity of (6-c) has to be due to the presupposition that someone adopted the Labrador. Furthermore, given the availability of global accommodation, we can't attribute this simply to the fact that the presupposition is not met in the context. The infelicity therefore has to be explained by the constraint on accommodation in (3): accommodation is ruled out because the assertion that someone from NY adopted the Lab is uninformative with respect to the QUD after accommodating that someone adopted the Lab.

[2] It is sometimes possible for the hearer to accommodate an alternative QUD which satisfies PAI. The examples in this section try to control for this by making accommodation of such a QUD implausible.

(6) **Context:** A is visiting a dog shelter and is interested in adopting a Lab that she saw the week before when passing by the shelter. She comes back and asks an employee:
   a. A: Can I adopt the Lab?
   b. B: Someone from NY adopted the Lab.
   c. B': # It is someone from NY who adopted the Lab. [AFH22] (slightly modified)

Note that global accommodation with a cleft is in general licensed, given an appropriate QUD. In (7), the assertion that Mary adopted the Lab is still informative after accommodating that someone adopted the Lab, and A can therefore accommodate the presupposition. This provides further support that the infelicity of (6-c) is due to PAI and not due to a ban on accommodation with clefts in general.

(7) **Context:** A and B work at a dog shelter. B loves the Labrador and wants someone responsible to adopt it. A realizes that B is really upset. A also doesn't know that Mary, who they both know to be a careless person, adopted the Labrador the day before.
   a. A: Why are you upset?
   b. B: It is Mary who adopted the Lab.

Another example is given below. In (8-b), the assertion is trivial after accommodating that B has two children, which settles the question. In (9), we see that accommodation is licensed given an appropriate QUD. Finally, (8-c), under the non-restrictive reading of *adopted*, provides the same information as (8-b) if we collapse presupposition and assertion. This shows that it is the presupposition that causes the infelicity of (8-b).

(8) a. A: How many children do you have?
   b. B: # I adopted both of my children.
   c. B': I have two adopted children.

(9) **Context:** A and B are in a group for parents who have adopted children. A doesn't know B very well, and specifically knows nothing about her family.
   a. A: How many children have you adopted?
   b. B: I adopted both of my children.

We have therefore seen evidence supporting the view that informativity is evaluated after presupposition accommodation. This allowed us to diagnose an asymmetry between the presuppositional and assertive components of an utterance that follows from the satisfaction view of presuppositions. In the next section, we argue that local accommodation maintains this asymmetry, a result which is surprising given certain views of local accommodation.

3 Local accommodation

3.1 PAI for local accommodation

A characterizing property of presuppositions is that they project from certain embedded environments, such as negation and the antecedent of conditionals. But in some cases, this property of presuppositions disappears, as shown in (10) and (11). In both examples, not only is the presupposition of the embedded sentence not satisfied by the CG, it also contradicts the first sentence. Therefore, it is clear that no global accommodation is taking place. These facts have been explained by arguing that the presupposition of the embedded sentence is accommodated locally – under the negation in (10) and inside the antecedent in (11).

(10) The king of France didn't come. France doesn't have a king. [Hei83]

(11) I don't know whether John is married. But if John's wife came to the party, then he enjoyed it. [Pea10]

It's been claimed that some triggers allow local accommodation more easily than other triggers [Abu02, a.o.]. Therefore, in order to test whether PAI extends to local accommodation, we consider two *weak* triggers – *stop* and the possessive *her* – and focus our discussion on the antecedent of conditional sentences, leaving other environments for future work.

Consider (12): the only difference between (12-a) and (12-b) is that (12-a) presupposes that it was raining earlier. Why can't the presupposition of *stop* be locally accommodated in the antecedent in (12-a)? We argue that this is because accommodating the presupposition (that it was raining earlier) makes the antecedent trivial[3], given that it is common ground that it isn't raining now. Note that in (13) where it is not common ground that it isn't raining, local accommodation is licensed with the same sentence.

(12) **Context:** We've just left the movie theater and are standing in the exit hall, discussing what to do next. The morning forecast said that it might rain while we're at the movies, but we can all clearly hear that it isn't raining now.

a. # I don't know if it rained, but if it stopped raining, we might see a rainbow.
b. I don't know if it rained, but if it did rain and stopped, we might see a rainbow.

(13) **Context:** We're at the movie theater still in our seats, talking about what to do when we get out. The morning forecast said that it might rain while we're at the movies.
I don't know if it rained, but if it stopped raining, we might be able to see a rainbow.

Another example that illustrates this constraint is given in (14). Local accommodation is not licensed in (14-a), where it's common ground that Mary drove her vehicle to the party, since accommodating that Mary has a car in (14-a) makes the antecedent trivial. On the other hand, given an alternative common ground in (15), local accommodation is licensed.

(14) **Context:** We know that Mary drove her vehicle to the party and that it's is either a car or a motorcycle. We're wondering how we can get back home from the party.

a. # I don't know if Mary has a car or if she has a motorcycle, but if she drove her car here, she can drop us off.
b. I don't know if Mary has a car or if she has a motorcycle, but if she has a car and drove it here, she can drop us off.

(15) **Context:** We don't know how Mary got to the party, and we want to get back home:
I don't know if Mary has a car, but if she drove her car here, she can drop us off.

The data in (12-15) motivates the generalization in (16), which states that local accommodation is not licensed if the antecedent is trivial after updating the CG with its presupposition.

(16) Accommodation in the antecedent of 'if p_r, q' is not licensed **if** $C \cap r \rightarrow p$

In section 2, we saw that in the global accommodation case, PAI follows from the satisfaction view of accommodation, coupled with independently motivated constraints on assertion. We might have therefore expected PAI to be a strictly global phenomenon. The fact that we see

[3]Note that in both (12-a) and (14-a), the assertion of the antecedent is trivial post-accommodation regardless of the QUD. We constructed the examples that way to avoid making controversial assumptions about the relation between conditionals and QUDs.

a similar asymmetry with local accommodation raises interesting questions, both about the nature of local accommodation and the conception behind PAI. In what follows, we consider two different conceptions of local accommodation and discuss what assumptions are needed under each approach to explain the facts we have seen in this section.

3.2 Two conceptions of local accommodation

The nature of local accommodation is not obvious, especially in the Stalnakerian view of global accommodation as a pragmatic phenomenon. One class of theories argues that local accommodation is essentially a version of global accommodation, which takes place at the sub-sentential level [Hei83, a.o.]. We call this class of accounts **Unified Accommodation** (UA) theories.

In principle, UA-theories maintain the asymmetry in the status of presupposed and asserted content in local contexts. Looking specifically at the antecedent of conditionals, the predictions depend on whether there's a local requirement that targets informativity in the antecedent. If there is such a constraint, PAI predicts that it should be evaluated post-accommodation.

Note that conditionals are infelicitous when the antecedent is trivial with respect to the common ground, as shown in (17)[4]. There is a question of whether this constraint is a local informativity requirement on the antecedent (18) or some global requirement. Assuming that it is local, we argue that UA-theories predict the data in section 3.1[5].

(17) #I know that Mary read the book. If she read the book, she passed the exam.

(18) **Antecedent Triviality:** The antecedent of a conditional must be informative with respect to the local context of the antecedent.

Given PAI, we expect that (18) has to be evaluated after the antecedent's presupposition is accommodated in the local context. We therefore predict that the antecedent should be informative with respect to the common ground after presupposition accommodation – i.e. that local accommodation is not licensed under the conditions given in (16).

We therefore see that UA-theories predict the constraint in (16), but only under the assumption that there is a local triviality requirement on the antecedent of conditionals. Looking at more environments, the predictions are that we find this asymmetry only in environments where there is a local triviality requirement. To make clear predictions, we therefore need a general theory of this type of requirement. Nevertheless the UA-theories allow us to maintain that PAI follows from an asymmetry between the pragmatic status of presuppositions and assertions.

A second line of theory sees local accommodation as completely separate from global accommodation. This class of accounts views local accommodation as the result of an operation that collapses the presuppositional and asserted content of a proposition, and may apply at any scope site [BK01]. This operation is traditionally realized as the *A-operator*, given in (19). We call this class of accounts **Operator (O)** theories.

(19) $$[\![\text{A}]\!](\text{p}) = \begin{cases} 1 \text{ iff } p = 1 \\ 0 \text{ iff } p = \# \vee p = 0 \end{cases}$$ [Boc81]

Under the O-theories, we don't necessarily expect locally-accommodated presuppositions to behave differently from assertions, since all the *A*-operator does is collapse the two. The facts we have presented indicate that this cannot be the entire story, otherwise even the global cases

[4] There are some special cases, such as deduction contexts, where an antecedent may be trivial. We set these aside for the purposes of this paper.

[5] See [BDar] for further evidence that informativity is enforced locally.

like (6-c) and (8-b) should have been rescued by inserting A at the matrix level. The fact that we can ever detect PAI at work means that A must be sensitive to similar considerations.

One way to cash this out is to assume that the distribution of A is constrained in a way that prevents it from applying to a proposition if its asserted content does not contribute anything to the meaning of the entire sentence. More formally, we define an operator Prs which takes a trivalent proposition and extracts its presupposition (20-a). We propose that the A operator can't be inserted at any position where replacing it with Prs results in an equivalent meaning with respect to the context and QUD. This is formulated in (20-b).

(20) a. $[\![\text{Prs}]\!](\text{p}) = \begin{cases} 1 \text{ iff } p = 1 \vee p = 0 \\ 0 \text{ iff } p = \# \end{cases}$

b. **Distribution of A:** Given a sentence Φ that contains Ψ, and given a CG C and QUD Q:
$\Phi[\psi \rightarrow A[\psi]]$ is infelicitous if $[\![\Phi[\psi \rightarrow A[\psi]]]\!] \Leftrightarrow_{Q,C} [\![\Phi[\psi \rightarrow Prs[\psi]]]\!]$, where:
(i) Given a structure Φ that contains a constituent η, $\Phi[\eta \rightarrow \theta]$ is the structure where η is replaced by θ.
(ii) Given two propositions p, r: $p \Leftrightarrow_{Q,C} r$ **iff**
$\{q \in Q : q \cap C \neq \emptyset \wedge q \cap p = \emptyset\} = \{q \in Q : q \cap C \neq \emptyset \wedge q \cap r = \emptyset\}]$

Notice that (20-b) gives us the global version of PAI as a special case in which $\Phi = \Psi$. In other words, if the assertion is uninformative after accommodation, then the the result of applying Prs is necessarily equivalent to the result of applying A. Let's consider the example with the cleft (6-c). Here the presupposition (That someone adopted the Labrador) and the resulting proposition after applying A (That someone from New York adopted the Labrador) are equivalent with respect to the QUD: they both eliminate the cell where A can adopt the Labrador. Therefore, we predict that A can't be inserted in (6-c) given the QUD in (6).

The same is true for the conditional antecedents. In particular, given a conditional 'if p_r, q' and a common ground C where p_r is trivial with respect to $C \cap r$, then $A(p_r)$ is necessarily contextually equivalent to r. Therefore, replacing $A(p_r)$ with r in the antecedent will result in an equivalent proposition. This can be demonstrated using the example in (12). Given that it's common ground that it isn't raining now, the presupposition of the antecedent (that it was raining before) is contextually equivalent (regardless of the QUD) to the resulting proposition after applying A (that it was raining before and no longer is). Therefore, replacing A with Prs in the antecedent yields an equivalent meaning, and A can't be inserted.

This account of the local accommodation data yields clear predictions regarding the licensing of A in any environment – it should only be licensed if the equivalence in (20-b) doesn't hold. Notice that while we get the correct predictions, the O-theories demand us to posit a completely stipulative distribution rule for A, which doesn't follow from any pragmatic considerations.

4 Conclusion

In this paper, we have presented a constraint on global accommodation which follows from the satisfaction theory of presuppositions coupled with an informativity constraint on utterances. We have shown that a similar constraint holds for local accommodation in the antecedent of conditionals as well. In UA-theories, this follows from assuming a local triviality constraint on antecedents of conditionals, while in O-theories, we're required to posit a constraint on the distribution of the A operator. In future work, we will test the different predictions of these two approaches for other environments, e.g. the scope of quantifiers.

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