PRESUPPOSITION ACCOMMODATION AND QUANTIFIER DOMAINS COMMENTS ON BEAVER'S "ACCOMMODATING TOPICS"

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Natural language expressions are context-dependent. When a hearer tries to assign an interpretation to a speaker's utterance, she will have to use her knowledge of the context to fill in all the underspecified ingredients in the expression. It is unrealistic and in fact pernicious to assume that her picture of the context agrees perfectly with the speaker's context. To reach an approximation of the speaker's meaning, the hearer would do well to try and figure out what the speaker's context looks like. Communication is always at least in part an attempt at mind reading. David Beaver has shown in his work that we can work with sophisticated formal models of this mind reading process.

When we ask ourselves and our informants what the possible or preferred interpretations of some sentence are, we implicitly ask them to make up a context in which the sentence might have occurred, to use that imagined context to interpret the context-dependent material in the sentence, and then report the resulting interpretation. This is not as unnatural a task as we might think, precisely because we <u>always</u> have to make guesses about which context the speaker thinks she's in. But a design based on larger chunks of discourse may be helpful because it would allow us to control for differences in mind reading skills.[1,2]

Beaver shows that presupposition accommodation is one of the phenomena that should not be studied just by looking at isolated sentences. He argues that the phenomenon of local accommodation of a presupposition into the restriction of a quantifier is an artefact of the limited experimental design. His view of what is really going on is (as he readily admits) merely suggestive and not very explicit. Let me spell out my own perspective on these matters, which is

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[1]Just like the typical made-up examples of isolated sentences, made-up chunks of discourse have the advantage of allowing us to control for interfering factors. The study of naturally occurring language (corpus studies) would also be helpful, as <u>one</u> among many techniques, although such data are much harder to interpret (imagine a study of mechanics that didn't allow itself any laboratory experiments but only real world observations). Methodological pluralism is called for!

[2]Mind reading is an important factor in communication, as shown most dramatically in research on autism, cf. e.g. Baron-Cohen (1995).

largely the same as Beaver's but perhaps a little more explicit. The crucial idea is that apparent local accommodation is in fact a kind of global accommodation after standard presupposition projection has been computed.

Natural language quantifiers are context-dependent. Their domain is contextually restricted. One implementation option is to posit a free variable C in the representation of a quantificational structure:

(1)   Every$_C$ man sneezed.

There is a familiarity presupposition associated with the C variable.[3] For our sentence in (1), this means that there must be a familiar set of individuals supplied by the context on which the quantifier then operates. The assertion of (1) is then that the interesection of C with the set of men is a subset of the sneezers.

What happens when there is a presupposition trigger in the nuclear scope of determiner-quantified sentences? I will assume a strong claim about presupposition projection in this case: all of the elements in the quantifier domain have to satisfy the presupposition. The strength of the claim is immediately tempered by the presence of implicit restrictions.

(2)   Every man loves his wife.

The logical form for this sentence will be something like (3).

(3)   [every$_C$ man] λ_1 (t_1 loves his$_1$ wife)

There are two presuppositions triggered, the familiarity of C and the universal presupposition of having a wife:

(4)   Presuppositions of (3):
         (i) C is familiar
         (ii) $\forall x \in (C \cap man)$: x has a wife

There are three obvious ways that the second presupposition can turn out to be satisfied:

(i) C may not play a role because all men simpliciter are married.
(ii) C may consist wholly of married people and thus the intersection of C with the set of men will yield a set of married men.
(iii) C contains among other things some men and all of <u>them</u> are married, thus the intersection of C with the set of men will yield a set of married men.

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[3]In those (rare?) cases where the quantifier roams freely without contextual restriction, we can resort to a trivial value for the C variable.

Now since *C* is presupposed to be familiar, the hearer is supposed to be able to just look at which one of these options turns out to be correct. If none are correct, the sentence (2) will suffer from presupposition failure. But, that of course is often unrealistic. The hearer is engaged in mind reading and one of the things she will be trying to figure out is which domain *C* the speaker has in mind. So, instead of checking whether the presupposition is satisfied, the hearer will take for granted that it is satisfied. Her task instead is to choose between the three ways in which the presupposition can be satisified. In other words, she has to choose between three kinds of accommodation. The first option corresponds to what has been called <u>global</u> accommodation. The second and third options are different flavors of so-called <u>local</u> accommodation.

But it is crucial to realize that there is really no local accommodation here. The assumption that is added if we take for example the option (ii) is this: the domain *C* (presupposed to be familiar in the global discourse context) contains only married people.   This kind of <u>global</u> accommodation is similar to a case discussed by Zeevat (1992):

(5)   [A man]ᵢ died in a car crash yesterday evening.
       [The Amsterdam father of four]ᵢ was found to have been drinking.

Zeevat writes: "This is not accommodation proper, which would also create the antecedents themselves. … Global accommodation … can be seen as the further determination of an object that is not completely explicit from the ongoing discourse".

The picture we have started to develop then is that quantifiers are relativized to an implicit domain restriction, which is presupposed to be familiar in the discourse. Presupposition triggers in the nuclear scope impose strong restrictions on what the context has to be like, thus indirectly on the identity of the implicit domain.

This perspective is very different from the claim that the presuppositions of the nuclear scope become part of the restriction, which is called "local accommodation". A particularly straightforward formulation of this view is found in Berman (1989, 1991), who proposes the following principle:

(6)   Presuppositions of the nuclear scope are accommodated into the restricted term.[4]

What is meant here is a kind of automatic copying operation transforming the logical form of sentences with quantifiers. Beaver and I argue that there is no such process. There is no local accommodation in an example like (2), repeated here:

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[4]Berman employs this process in the analysis of some very interesting interactions between adverbial quantifiers and embedded interrogatives. I will not discuss these cases here. The origins of the principle in (6) are somewhat obscure. Kratzer (1989) uses it and is most certainly the source for Berman. A suspicion that Heim (1983) already contained a hint of it is not at all borne out.

(2)   Every man loves his wife.

The sentence does presuppose that the domain quantified over consists entirely of married men, but that is a presupposition and not part of the assertion. When marriedhood becomes overtly part of the assertion, we get a sentence with a different meaning:

(7)   Every man who has a wife loves his wife.

The sentence in (7) lacks a presupposition that (2) had.

Here are two pieces of evidence for this story. First, when there is little chance that C plays a role in the interpretation, there is no accommodation of information about C:

(8)   Every man in this room loves his wife.

It is harder to imagine a context in which an implicit domain plays a role if the domain is already as explicit as "men in this room". Here, we prefer the "global accommodation": (8) is naturally read as presupposing that every man in this room has a wife.

Secondly, consider:

(9)   a.   Not every player on the team is married.
              #But everyone loves their spouse.
         b.   Not every player on the team is married.
              But everyone who IS married loves their spouse.

The domain C for *everyone* in (9a) is the set of players on the team (no other domains are salient). We project the presupposition that every member of C is married, which contradicts the assertion of the first sentence. If local accommodation of presuppositions of the nuclear scope into the restrictive clause existed, we would expect (9a) to be just as coherent as (9b), contrary to fact. There is no local accommodation, just presupposition projection plus possible global accommodation of information about C.

What is the difference between my story and Beaver's? Beaver appeals to accommodation of topics, I use accommodation of information about salient domains of individuals. Depending on what topics turn out to be, our analyses might turn out to be exactly the same, presumably not an undesirable outcome.

With Beaver, we expect that similar processes will occur with conditionals, based on two assumptions: (i) Kratzer's thesis that *if*-clauses are semantically restrictors of quantificational operators and (ii) the natural expectation that presupposition projection works uniformly for all

natural language quantifiers. Here, I will just suggest some further lines of inquiry, beyond those mentioned by Beaver.[5]

A nice turf for investigation of presuppositions in modal contexts is found in so-called simple subjunctives, a topic explored in work by Kasper (1987, 1992). These are conditional utterances without a conditional restrictor:

(10)   Agassi would beat me at tennis, but he doesn't know anything about presuppositions.

Kasper argues that the restriction of the modal operator *would* can be retrieved from the presuppositions of its local clause. Being beaten by Agassi at tennis presupposes playing tennis in the first place. So, we reconstruct the *if*-clause: "if Agassi and von Fintel played tennis,…". This would seem to look a lot like local presupposition accommodation. But here again, we can argue that what really is going on is global accommodation of a discourse topic or an implicit quantifier domain. In cases where we may have a hard time imagining the right context with the right topic, we will feel that there is no local accommodation (unless we're very good at making up contexts):

(11)   a. My brother is a baskeball player.
        b. My brother would be a basketball player.
            ≠ If I had a brother, he would be a basketball player.

        c. The German chancellor raised taxes.
        d. The German chancellor would raise taxes.
            ≠ If there was a German chancellor, he would raise taxes.

The central clue about what is going on comes from the fact that in richer contexts the "local accommodation" phenomenon resurfaces:[6]

(12)   a. My brother would be third in succession to the throne.
        b. Maybe things would be easier if European countries went back to monarchy.
            The German king would raise taxes, the Queen of Italy would …
        c. The discoverer of a tenth planet would be an instant celebrity.
        d. The purchaser of this house would pay any property taxes due.
        e. The largest prime number would have inconsistent properties.

Why is it perceptibly easier to locally accommodate into the restrictor in these cases than in the ones considered earlier? Here is what I think is going on. In the cases that look like local accommodation, there is a discourse topic in the context which is really the licenser for the presupposition. The job for the hearer is to reconstruct the discourse topic (a global discourse

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[5]Something closer to Beaver's concerns is actually found in Berman's dissertation where he discusses an example (attributed to Angelika Kratzer) that behaves unexpectedly from the perspective of his theory:

(i)   If Galileo claims that the earth is round, he knows that the earth is round.
        ≠   If the earth is round and Galileo claims that the earth is round, he knows that the earth is round.
        =   The earth is round and if Galileo claims that the earth is round, he knows that the earth is round.

[6]Most of these were suggested to me by Barbara Partee.

object), this is not the same as local accommodation but achieves much the same effect. In (12), it is just easier to imagine the right context than it is in (11).

Note that I am not saying that there is no pragmatic identification of quantifier domains from sentence-internal information. That does happen:

(13)   John won't buy a car because he wouldn't have room for it in his garage.[7]

Here, we construct a restriction: *what if he did buy a car*? All I'm saying is that what is happening is <u>not</u> local copying of information. The discourse topic *what if he did buy a car?* constitutes the mediating link.

We can find similar phenomena with adverbially quantified sentences:

(14)   Most people in the Sherwood gang are actually pretty bad shooters.
        But Robin Hood never misses.

It is not hard to see that the internal material of the target sentence is not all that we have to compute the quantifiers domain. The first sentence already can give rise to a discourse topic having to do with people shooting. Now, we can intersect that with the discourse topic triggered by the contrastive topic marking on *Robin Hood*. The result is a set of situations where Robin Hood is shooting. There need not be local accommodation triggered by the verb *miss*. Instead, the presupposition of *miss* is satisfied by the quantifier domain, which in turn is computed by the pragmatics on the basis of the discourse topics in the context.

Schubert & Pelletier (1987) had examples that show that what is going on is not automatic presupposition accommodation but pragmatic guesses about discourse topics:

(15)   a.   Bullfighters are often injured.
        b.   Muggers often threaten their victims with a knife.
        c.   Hit-and-run drivers are almost always caught.

Here, we are quantifying over bullfighting situations in (15a), muggings in (15b), and hit-and-run accidents in (15c). But these situations are not recoverable from presuppositions of these sentences. They are instead hidden in the lexical meanings of the subject nouns. Hence, only a non-automatic, "abductive" inference will be able to recover the set of situations quantified over.

In conclusion, there is no local presupposition accommodation. Instead, since quantifiers are usually implicitly restricted, the hearer needs to accumulate information about which domain the speaker has in mind. The usual mechanisms of presupposition projection will provide

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[7]This example is from Partee (1972: ex. (50)).

information about the assumptions of the speaker, which can be used to globally accommodate information about quantifier domains (or discourse topics).

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