Compulsory Presupposition in Discourse

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1. Data   The phenomenon we are dealing with in this paper is the following: there seem to be cases where the use of a presupposition trigger is compulsory. This is illustrated by the following contrast:[1]

(1) a. Jean est allé il y a deux ans au Canada. Il n'ira <u>plus</u> là-bas.
         John went to Canada two years ago. He won't go there anymore
      b. # Jean est allé il y a deux ans au Canada. Il n'ira <u>pas</u> là-bas.
         John went to Canada two years ago. He won't go there

The presuposition trigger *ne... plus* (not anymore) is preferred over the simple negation *ne... pas* (not). However, both have the same asserted content, and the presuppositional content conveyed by *ne... plus* does not add anything in this context, because (1a) is a clear instance of presupposition binding [van der Sandt, 1992, Kamp, 2001]: what *ne... plus* could add with respect to *ne... pas* (*i.e.* John went to Canada) is already asserted in the first clause. In other words, there are contexts where the speaker is "forced to presuppose", forced to use a presupposition trigger even if this trigger doesn't convey any new information in context. The contrast is even more striking since (1a) seems to contradict both informativity and economy principles which are usually considered as governing discourse quality.
This phenomenon can be observed with other presupposition triggers, like *aussi* (too), *encore* (again, still), the complementizer of *savoir* (to know), etc.

(2) a. Jean est malade, Marie est malade (# ∅ / aussi)
         John is sick, Mary is sick (∅ / too)
      b. Il était là hier, il est (# ∅ / encore) là.
         He was there yesterday, he is (∅ / still) there
      c. [Léa est partie en Afrique.] Jean ne le dit à personne, bien qu'il sache (# si / que) elle est partie là-bas.
         [*Lea's gone to Africa.*] *John tells no one, even though he knows (whether / that) she's gone there*

This contrast is robust, and can be observed in situations where the presupposition triggers are embedded under attitude verbs, questions and negation:[2]

(3) a. Jean est malade. Paul croit que Marie est malade (# ∅ / aussi)
         John is sick. Paul believes that Marie is sick (∅ / too)
      b. Jean est malade. Est-ce que Marie est malade (# ∅ / aussi) ?
         John is sick. Is Marie sick (∅ / too)?
      c. [Léa est partie en Afrique.] Jean la cherche partout, car il ne sait pas (# si / que) elle est partie là-bas.
         [*Lea's gone to Africa.*] *John is looking for her everywhere, for he doesn't know (whether / that) she's gone there*

The question we want to address here is simple: how to explain the contrasts given in (1), (2) and (3) and how to predict the unacceptabilities?

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[1]We provide examples in French, but we believe that the phenomenon at stake here is not restricted to French.
[2]The embedding under negation can't be easily done with many of our examples, because *ne... plus* is a negative polarity item, and *aussi* and *encore* are positive polarity items.

2. Pragmatic Explanation To explain the data, we can compare them with those studied in [Heim, 1991] (we use Sauerland's [2003] presentation). Let's consider (4).

(4) a. # A wife of John's is intelligent
    b. The wife of John's is intelligent

They explain the unacceptability of (4a) by the fact that *a* and *the* form a scalar alternative, where *the* bears more presuppositions than *a* (uniqueness presupposition). Then the use of *a* implicates that the presuppositions of the other term of the scale are not fulfilled (namely, that it's not true that John has a unique wife), which is incompatible with world knowledge. This behavior is supposed to derive from a general principle labelled "maximize presupposition" in [Sauerland, 2003].

We take a similar way to explain our data, with the difference that the phenomenon occurs in discourse and not in isolation. We start with the familiar scalar implicature computation. Let's try and explain why the presupposition trigger *aussi* is compulsory in (2a). First, there is an (asymmetric) entailment relation given in (5a). For expository reasons, we write this down as in (5b), where A stands for assertion, and P for presupposition.[3] We can then consider the two propositions in (5a) as forming a scalar alternative.[4] Then by a classical computation we get that by uttering A the speaker implicates that $(A \wedge P)$ is not appropriate (5c). An additional step is required: uttering A and implicating $\neg(A \wedge P)$ leads to the conclusion that the presupposition does not hold (5d).

(5) a. Mary is sick too $\rightarrow$ Mary is sick
    b. $(A \wedge P) \rightarrow A$
    c. $A \rightsquigarrow \neg(A \wedge P)$
    d. $\neg P$ = No one else than Mary (in the appropriate context) is sick

Now this implicature is in turn incompatible with the first part of the discourse (2a), namely, John is sick. So, it appears that the contrasts above can all be predicted if sentences with and without presupposition triggers are considered as scalar alternatives.

We would like now to see how this principle can be integrated into a Discourse Coherence perspective.

3. Presupposition and Discourse Coherence The phenomenon at stake, which establish an intersentential anaphoric relation, has a discursive dimension. And, indeed, it seems sensitive to the nature of the rhetorical relation available. For instance, the discourses (2) become much better if prosody, or the adjunction of other text spans, suggests an enumeration relation:

(6) a. Jean est malade, Marie est malade, Paul est malade, tout le monde est malade alors !
       John is sick, Marie is sick, Paul is sick, everybody is sick then!
    b. Il était là hier, il est là aujourd'hui
       He was there yesterday, he is there today

Adopting a "Discourse Coherence" point of view, like for instance the one advocated for in [Asher and Lascarides, 2003], one can try to predict the unacceptability of (1b) by the fact that it is impossible to attach the second sentence to the previous discourse via a discourse relation. Under this view, the unacceptable discourse would be incoherent. This makes sense only if one considers that the acceptable versions are discursively coherent, which is the case if one adopts the proposal made in [Asher and Lascarides, 1998] that presupposition triggers introduce a discourse relation (roughly).

However, one can wonder what reason would prevent the reader/hearer to infer a discourse relation in the absence of a presupposition trigger. For instance, in the case of (1b), it seems possible to infer a "justification" (or maybe explanation) relation. Besides, the addition of an explicit discourse connective, providing what's necessary to help attachment, changes the above contrasts only marginally. Consider (7).

(7) a. Jean est allé il y a deux ans au Canada. C'est pourquoi il n'ira plus là-bas.
       John went to Canada two years ago. That's why he won't go there anymore
    b. ?# Jean est allé il y a deux ans au Canada. C'est pourquoi il n'ira pas là-bas.
       John went to Canada two years ago. That's why he won't go there

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[3]This notation, reminiscent of Russell's treatment of presupposition, may be controversial, but we use it here for simplicity reasons and we believe that nothing important hinges on it.

[4]Leaving aside the traditional problem of deciding why the two propositions are "natural" competitors.

At this point, we have to go further to derive the unacceptabilities within a theory of dicourse coherence. We assume the perspective defended in [Asher and Lascarides, 2003], where presupposed propositions are connected with the discourse via rhetorical relations (the default being *background*). The proposal we want to make in this paper, and which can only be briefly sketched in this abstract, is to implement within SDRT the "maximize presupposition" principle as an additional case in the definition of the `SDRT's` `update function`. The idea is that before attaching a new clause to the SDRS, a comparison is made between the clause and its scalar alternatives, so that a check can be made against the context: if the information conveyed by the presupposition trigger is available in the context, then the trigger must be used.

Conclusion

- Dynamic approaches to presupposition in discourse have distinguished two different situations: binding and accommodation [van der Sandt, 1992, Kamp, 2001]. Asher and Lascarides's proposal [1998] have shown that there are constraints on accommodation that can only be taken into account by considering rhetorical relations. By translating the "maximize presupposition" principle as a constraint on the update function, we show how binding can interfere with rhetorical relations.

- In addition, since the phenomenon illustrated here occurs only with a limited subset of presupposition triggers (the ones that bring only content at the presupposition level), this work could help isolate a new class of triggers, which might prove relevant for other phenomena.

- At last, we can revisit the role of redondancy in discourse. What is usually assumed is that some discourses are unfelicitous for redundancy reasons, it is less known that there are cases where redundancy is *required* in discourse for the very same reasons.

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