

Conditional Exhaustivity Presuppositions in Clefts (And Definites)

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1 Background: Exhaustivity in Clefts

A cleft of the form *It is x that Q* not only expresses that x has property Q , but also that x is the only element that has Q , i.e. that x exhaustively identifies Q (in the relevant contextual domain). Call that the EXHAUSTIVITY CLAIM.

1.1 Exhaustivity is not Part of the Asserted/At Issue Content

As pointed out in Horn (1981), the Exhaustivity Claim associated with clefts does not behave like a part of the at issue content, i.e. it does not appear to be asserted. This is particularly evident when we compare cleft sentences with parallel sentences with *only*:

- (1) a. It was Fred she invited.
b. She only invited Fred.

Both sentences in (1) convey that she didn't invite anyone other than Fred. But only in (1b) does this seem to be part of the assertion. This is evident if we try embed either of (1) under negation for the sole reason that the Exhaustivity Claim is false (examples modelled on Horn, 1981, exx.(11–12)):

- (2) a. #Bob knew she invited Fred, but he didn't know it was Fred she invited.
b. Bob knew she invited Fred, but he didn't know she only invited Fred.
- (3) a. #It wasn't Fred she invited. She also invited Gord.

- b. #It wasn't Fred she invited. She invited Fred and Gord.¹
- c. She didn't only invite Fred. She also invited Gord.
- d. She didn't only invite Fred. She invited Fred and Gord

The contrasts in (2) and (3) makes sense if the Exhaustivity Claim is part of the assertion in *only*-sentences, but isn't in clefts.

1.2 Exhaustivity Presuppositions?

It is occasionally claimed, therefore, that the Exhaustivity Claim is presupposed rather than asserted in clefts. But what is meant by this? Clearly, (4a/b) do not presuppose (4c):

- (4) a. It wasn't Fred she invited.
- b. Was it Fred she invited?
- c. She invited Fred and no-one else.

A similar objection can be raised against the idea that exhaustivity is conventionally (or conversationally, as in Horn, 1981) implicated, since implicatures, too, are standardly held to survive under negation, question formation etc.

One could argue that the presupposition is instead that she invited exactly one individual, and more generally, that *it was x that Q* presupposes that Q denotes a singleton set. This would successfully explain the ill-formedness of (2a), (3a) and (3b): Since Bob is presupposed to know that she invited exactly one person, he must therefore know that she invited only Fred if he knows that she invited Fred; similarly a speaker who presupposes that she invited only one person (though not necessarily Fred) can't then assert that she invited Fred and Gord.

This explanation, however, rests on the assumption that clefts are inherently singular, an unwarranted assumption:

- (5) It wasn't Fred she invited. She invited Bob and Gord.

Likewise, the phenomena can be replicated with plural clefts:

- (6) It wasn't Fred and Sue she invited. # She invited Fred, Sue and Gord.
- (7) #John knew she invited Fred and Sue, but he didn't know it was Fred and Sue she invited.

¹One could claim that in certain contexts, (3b) is ok. Crucially, however, in such contexts, *She didn't invite Fred, she invited Fred and Sue* seems as good as (3b). In other words, (3b) has the general quality of a sentence in which negation targets a non-asserted aspect of the sentence's meaning.

Evidently, the first sentence in (6) and the second one in (7) can't be claimed to presuppose that (John knows that) she invited exactly one person. Yet the sentences clearly imply that she invited Fred, Sue, and no-one else. Where does exhaustivity come from, then?

Note that a presupposition of 'plural exhaustivity' would amount to nothing more than existence: there will be a maximal group of individuals that she invited whenever she invited someone. Clearly, presuppositions of this kind aren't going to give us exhaustivity in the plural case, and hence seem unpromising to help us in general.

Our problem, then, is that exhaustivity is somehow implied in clefts, but it seems neither asserted, nor presupposed or implicated.

2 Towards a Solution

I want to explore the idea that exhaustiveness in clefts is indeed presuppositional, but that the presupposition is itself a conditional one. For example, (8) presupposes (8b) (and asserts (8a)):

- (8) It was Fred she invited.
a. Ass: She invited Fred.
b. PRES: If she invited Fred, she didn't invited anyone else.

I will explore the question how such a presupposition should come about in a moment. Let us first see how it would address our problems noted in the previous section. First, assertion and presupposition of (8) taken together correctly imply exhaustivity: She invited Fred and no-one else. Second, negation:

- (9) It wasn't Fred she invited.
Ass: she did not invited Fred.
PRES: if she invited Fred, she invited no-one else

From the assertion and presupposition in (9), it does not follow that she invited Fred (as our previous attempt at putting exhaustivity in the presupposition wrongly did). Indeed, it doesn't even follow that she invited any single person (so we get (5) right). It does follow that she didn't invite Fred, so it is clear why any continuation of the form *She invited Fred and...* won't be coherent.

Third, belief contexts:

- (10) #Bob knew she invited Fred, but he didn't know it was Fred she

invited.

By standard assumptions about presupposition projection under *verba sentiendi* (e.g. Heim, 1990), *Bob didn't know it was Fred she invited*, given (9), entails that Bob didn't know that she invited Fred, and presupposes that Bob knew that if she invited Fred, she invited no-one else. The former is incompatible with first sentence, which asserts that Bob knew she invited Fred.²

So a conditional presupposition as stated in (9) looks promising in deriving the correct patterns in the examples we've looked at. We now should turn to the question of how this presupposition comes about, and what its general form is. I will sketch two possibilities in section 4 below. First, however, I'd like to take us on a quick excursus.

3 Excursus on Definites

According to Percus (1997), *it was Fred she invited* has the LF *the person(s)/one she invited was Fred*, i.e. involves a definite description. (Note that that proposal and its rendering already take into consideration that clefts are number-neutral.) Would adopting Percus' proposal give use the correct behavior for the Exhaustivity Claim (given that definite descriptions on many analysis are presuppositional)? It won't. Without going into too much detail, consider two common interpretations for definite descriptions.

On a term (a Fregean) interpretation, 'the individual(s) she invited' denotes a (plural) individual if such an individual exists, and fails to denote otherwise. It correctly follows that 'the individual(s) she invited = Fred' implies (indeed asserts) exhaustivity. However, its negation is defined if there is a (possibly plural) individual she invited, and true if that individual is not identical to Fred. This is clearly the case if, for example, she invited Fred and Gord (since $\text{Fred} \neq \text{Fred} + \text{Gord}$ —where + marks mereological sum formation). It is thus unclear what should be wrong with (3a) and (3b); similar for the belief case.

On a presuppositional generalized quantifier (or Russellian) interpretation of definites, 'the individual(s) she invited' maps a property Q to true if there is an individual Y she invited which has Q and presupposes that every

²Indeed, the assertion of the first sentence together with the presupposition of the second entails that Bob knew she invited Fred and only Fred. This correctly predicts the oddness of (i), too:

- (i) #Bob knew she invited Fred. Indeed, he even knew that it was Fred she invited.

individual she invited is a part of Y . ‘The individual(s) she invited \neq Fred’ (i.e. Q is the property of not being Fred) is thus again true if the maximal individual she invited is not Fred, including in case it is Fred+Gord. So in either case, even if we grant a presuppositional analysis, we don’t get exhaustivity to be part of that presupposition.

What is interesting in our context here, though, is the observation that definite descriptions in identity sentences pattern just like clefts when we consider exhaustivity facts (I use plural examples to avoid the awkward *person(s) . . . is/are* circumscription):

- (11) #The people she invited weren’t Fred and Sue. She invited Fred, Sue and Gord.
- (12) #John knew she invited Fred and Sue, but he didn’t know the people she invited were Fred and Sue

That is to say, the parallelism between clefts and identity statement with definites observed in Percus (1997) is sustained when it comes to exhaustivity. The problem lies not with Percus’ idea that clefts underlyingly involve definites, but with an inadequate underlying semantics for definites. Rather than presupposing that there is a maximal group of individuals she invited, which is what standard analyses of *the people she invited* predict (and which comes down to a mere existential presupposition, as discussed above), it should hold that:

- (13) The people she invited were Fred and Sue.
Ass: she invited Fred and Sue
PRES: if she invited Fred and Sue, she didn’t invite anyone else

Let me summarize at this point. We have run into two problems related to exhaustivity, one in clefts, one in identity statements with definite descriptions. In both cases, exhaustivity apparently needs to be coded in the form of a conditional presupposition. If the proposal in Percus (1997) is correct, both problems are underlyingly the same. In what follows I will assume that they are, and discuss further steps towards an analysis in terms of identity statements involving definites. It may be good to keep in mind that if it turns out that clefts do not involve definites, the problems don’t become fewer, but more; because in that case, a solution for clefts will have to be adduced in addition.

4 How to Encode the Conditional Exhaustiveness Presupposition

4.1 Exhaustivity as Uniformity in Definites

Suppose the general presupposition that comes with a sentence of the form *[the P] Q* is (14a), while its assertion is (14b):

- (14) a. PRES: $[P \cap Q \neq \emptyset] \rightarrow \max(P) \in Q$
b. ASS: $P \cap Q \neq \emptyset$
ancillary: for any property Q , $\max(Q)$ is the smallest (plural) individual Y s.t. for all $x \in Q$, x is a mereological part of Y

Similar proposals are found in Fodor (1970), Löbner (1987, p.83; 2000, pp.239ff) and Schwarzschild (1994, pp.220ff), under various names. I call this a uniformity presupposition here, since it generally states that a sentence of the form *[the P] Q* presupposes that either all P s Q or no P Q s.

Assuming (14), we get for example (15):

- (15) The boys went swimming.
ASS: boys went swimming
PRES: if boys went swimming, all boys went swimming

Quite transparently, this analysis predicts nothing new for the positive case. It does predict that *The boys didn't go swimming* implies that none of the boys went swimming, which strikes me as acceptable (see also the discussion in the sources quoted above). It also predicts the contrast in (16):

- (16) a. A: The boys went swimming.
B: #No, the boys didn't go swimming. Mike stayed at the shore.
b. A: The boys went swimming.
B: No, not all the boys went swimming. Mike stayed at the shore.

There are probably other ways to explain this contrast, but at least the general effect of the presupposition in (15) doesn't strike me as problematic in the light of such examples.

Applied to a cleft sentence, we get the following:

- (17) It was Fred and Sue she invited.
= the persons she invited are Fred and Sue

- (i) $P =$ be a person (or group) she invited ($*\lambda x$.she invited x)
 - (ii) $Q =$ be Fred and Sue ($\lambda x.x = \text{Fred+Sue}$)
- ASS: she invited Fred and Sue (someone she invited equals Fred+Sue)
 PRES: if she invited Fred and Sue, the people she invited were Fred and Sue (if she invited Fred+Sue, $\max(*\lambda x$.she invited $x) = \text{Fred+Sue}$)

This is the correct result.

4.2 Clefts without Definites

As just shown, a uniformity presupposition for definites correctly handles exhaustivity facts in identity sentences with definite descriptions. If we analyze clefts as such structures underlyingly, as urged in Percus (1997), we also get an explanation for the exhaustivity facts in cleft sentences.

The general strategy employed here can also be directly applied to clefts (e.g. if you don't believe in the 'clefts as definites' story). For that suppose the general presupposition that comes with a cleft of the form *it was P that Q* is (18):

$$(18) \quad \text{if } P \in Q, \text{ then } \{P\} = \max(Q)$$

That is to say, *it was P that Q* presupposes that if P Q -ed, P is the group of all Q -ers. Put differently, if we think of the cleft *it was...that...* as a two-place relation, this function is only defined for pairs of (plural) individuals P and properties Q s.t. either P is not in Q , or P is the maximum element in Q .

4.3 Presupposition or Conventional Implicature?

I have described (conditional) exhaustivity as a presupposition. Essentially, what the presupposition will amount to is that all participants must have partitioned the space of possible invitees (in our example) into mutually exclusive groups. (Technically, they must only hold this presupposition for Fred+Sue, but in practice why would they assume anything so specific about Fred+Sue, but not the other possible answers?)

It may seem more palatable to see the Exhaustivity Claim as a conventional implicature, rather than a presupposition. That way, nothing about any particular individuals needs to be presupposed, not even conditionally. Indeed, everything I say in this article is compatible with the Exhaustivity Claim being a conventional implicature, rather than a presupposition. I note, however, that the exhaustivity claim appears to be strictly local. For

example, (19) ascribes to Peter the belief that no-one other than Fred was invited. As a consequence, (20) sounds contradictory:

- (19) Peter believes that it was Fred she invited.
- (20) I think only one person was invited. Peter believes that it was Fred who was invited,# and that Sue and Gord were, too.

In particular, the second sentence in (20) can't be interpreted to mean that Peter believes that Fred and Sue and Gord were invited, whereas the presupposition that if Fred was invited, no-one else was, would be ascribed to the speaker.

In contrast, as observed in Potts (2007:477), a conventional implicature, e.g. triggered by an appositive, can be attributed to the speaker, even if embedded under a verb of saying or thinking:

- (21) Sheila says that Chuck, a confirmed psychopath, is fit to watch the kids.

That is to say, the claim that Chuck is a confirmed psychopath (the conventional implicature) need not be part of what Sheila said (and hence she doesn't have to hold the strange attitude that a confirmed psychopath is fit to watch the kids) (these are the 'editorial comments' in Bach, 1999, p.339).

Presumably it is a hallmark of presuppositions, as opposed to conventional implicatures, that they need to be met in the local context in which the sentence triggering them is evaluated. Since this appears to be the case for the Exhaustivity claim, witness (20), I choose to characterize it as a presupposition. In principle, however, any dimension of meaning that delivers locality in this sense would be appropriate.

5 More Data and Speculative Remarks

So far I haven't talked about the existence presupposition; it was silently assumed to be there in addition to the exhaustivity claim (note that exhaustivity, as formulated presently, does not entail existence, since it is conditional). In this section I want to point out a few phenomena and contrasts that follow from exhaustivity, *assuming there is no existence presupposition*.

For example, consider the following dialog:

- (22) Did John call Mary, or Mary John?
 - a. It was JOHN who called MARY.
 - b. JOHN is the one who called MARY.

I think neither (22a) nor (22b) can be assumed to presuppose that someone called Mary in the context of (22). While it *does* follow from (22) that a call between John and Mary was made, whether someone called Mary (i.e. whether Mary, as opposed to John, was called) is precisely the point being asked.

So there doesn't seem to be an existence presupposition here. But that isn't all: (22) contrasts with (23):

- (23) Who called whom?
a. MARY called JOHN, and SUE called BILL.
b. #It was MARY who called JOHN, and it was SUE who called BILL.

Unlike (23a), (23b) is only fine if it was presupposed that John and Bill received calls (or at any rate were supposed to be called). While this would follow from an existence presupposition for the . . . *who called John/Bill* clause in the clefts, this can't be the story in light of (22) above. But then what is the difference between (22) and (23)?

Exhaustivity may provide a clue here. The exhaustivity presuppositions associated with (22a), (22b) and (23b) are given in (24):

- (24) a. if John called Mary, no-one else called her.
b. if Mary called John (if Sue called Bill), no-one else called him

It seems clear why (24a) would be met in the context of (22): Since only one call is under discussion, at most one person (or called group) called Mary. (24b), on the other hand, wouldn't be met in a run-of-the-mill scenario of the sort: for each of a given group of people, tell me who they called (i.e. what appears to be the neutral meaning conveyed by a question like (23)). If on the other hand it was known that John and Bill were supposed to be called, the presupposition would again be met.

A second class of examples relates to talk about hypothetical or potential individuals, this time involving definites. As pointed out by David Schueler (p.c. and Schueler, 2008), existential nominals in subjunctive hypotheticals usually have to be indefinite, as in (25):

- (25) I hope the others won't be there. I would regret an/#the altercation.

If a definite article is used, the sentence as a whole seems to presuppose something about the altercation in question (e.g. it has been described and discussed before); pretheoretically, the indefinite makes sense because the

sentence *introduces* the alteration as a hypothetical: *if* there were an (not: the) alteration, I would regret that.

In certain cases, notably with event nominals, though, a definite is used:

- (26) Be careful where you dig! I would regret the destruction of the old bench.

Crucially, this sentence does not seem to presuppose anything about the destruction of the old bench; like (25), it introduces a hypothetical: *if* the bench were destroyed, I would regret that. Based on these intuitions (which closely follow the analysis in Schueller, 2008), it seems that the definite in (26) asserts, rather than presupposes, existence the same way the indefinite in (25) does.

What does set (25) and (26) apart is of course that the destruction of the old bench is by necessity a unique event, while the alteration isn't. In other words, the destruction of the bench licenses a presupposition to the effect that if there is a destruction of the bench, that would be the exhaustive/unique destruction of the bench. This seems remarkably similar to the presupposition I proposed for definites and clefts above.

What can we conclude from the data in this section? Arguably, good is done by an exhaustivity presupposition along the lines explored here. However, the effects discussed in this section (unlike those connected to identity statements and simple clefts discussed initially) are only explained by the exhaustivity presupposition if we assume at the same time that there is no existence presupposition (which would seem to be violated in all the cases discussed).

On the other hand, there is strong evidence that clefts and definites do have existential presuppositions (for clefts see e.g. the arguments in Rooth, 1999), so we can't very well dismiss them generally. Perhaps a more cautious approach is to say that existence presupposition and exhaustivity presupposition in definites (and clefts) are independent of each other. Under certain, as of yet ill-understood, circumstances, the existence presupposition can somehow be ignored, while the exhaustivity presupposition is still active. These would be the cases discussed in this section.

6 Summary and Conclusion

In this note I have proposed a new, conditional exhaustivity presupposition for clefts. That presupposition amounts to the claim that for any individual in the domain of the function denoted by *it was... that Q*, if that individual is *Q*, it is the maximal element that is *Q*. This was shown to explain the

peculiar status of exhaustivity in clefts: it is not asserted, yet seemingly disappears under negation and similar presupposition filters.

I then showed that this presupposition can be compositionally derived under the assumption that *it was P that Q* is underlyingly *the one(s) that Q = P*, as argued for in Percus (1997). Or that, at any rate, identity statements with definite descriptions show the same puzzling behavior as clefts and therefore need to receive a parallel treatment. The pertinent presupposition of a definite in *the Q P* would then be that if there is a *Q* that is *P*, the maximal element in *Q* is *P*.

Finally, I threw in a some data in which the conditional exhaustivity presupposition contemplated here would seem to explain a number of surprising contrasts. Their analysis, however, ultimately hinges on a proper treatment of the existential presupposition in definites, which I did not discuss at any length here.

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