

Presupposition and anaphora

THE THEORY

Rob van der Sandt proposed a theory which claims that presuppositional expressions should not be treated only in terms of pragmatics, nor should they be seen as referring expressions and explained in terms of some non-standard logic. What he claims for, is that presuppositional expressions are simple anaphoric expressions, having more descriptive content.

The problem

Let's consider following examples:

Donkey (anaphoric) sentences:

- (1a) John owns a donkey. He beats it.
- (2a) If John owns a donkey, he beats it.
- (3a) Either John doesn't own a donkey or he beats it.

Bald (presuppositional) sentences (Karttunen 1973):

- (1b) Jack has children and all of Jack's children are bald.
- (2b) If Jack has children, all of Jack's children are bald.
- (3b) Either Jack has no children or all of Jack's children are bald.

These sets of sentences were made to illustrate two different problems –

- (30) Anaphora resolution (a-sentences)
- (31) Presuppositional filtering (b-sentences)

There is a certain parallelism between the a- and b-sentences: we find a pronoun in the b-sentence at the place of a full NP in the a-sentence.

- (4a) If John owns a donkey, he beats his donkey.
- (4b) If Jack has children, then they are bald.

We can easily see that there is a similar mechanism that underlies both pronoun resolution and presuppositional filtering.

The presuppositions in the (b)-sentences are not cancelled, but are linked up or bound to a previously established antecedent just like the pronouns.

Same thing with the VP – and full presuppositional anaphora.

VP-anaphora (clefts, aspectual verbs, presuppositional adverbs):

- (5a) If someone solved the problem it was Julius who {solved it/did}.
- (6a) If Harry stopped smoking, John {stopped/did} too.

Full propositional anaphora (/actives, temporal clauses):

- (5b) If John is ill, Mary regrets {that/ that he is ill}.
- (6b) If John died, he did see his children before {that/he did/he/died}.

As with NP-anaphora,

- (24) no difference in interpretation between the VP- and propositional anaphors and their full lexical expansion
- (25) the presuppositional expressions are bound by a previously established antecedent

It is thus obvious, that **presuppositions are simply anaphors!**

Differences between anaphoric pronouns and presuppositional expressions.

- Without a context
- 1) pronouns don't have any descriptive content of their own
 - 2) PE will have enough descriptive content (the effect of accommodation)

So **presuppositional expressions** differ from pronouns, VP- and propositional anaphors in that they **have their own semantic content**. Presuppositional expressions will generally contain **enough** descriptive content of their own **to establish an antecedent** in case the previous discourse does not provide one. It's called *the effect of accommodation*.

(7a) If baldness is hereditary, then they are all bald.

(7b) If baldness is hereditary, then all of Jack's children are bald.

Here the information contained in the presuppositional expression is accommodated at top level and thus entailed by the discourse structure.

Admittance.

Karttunen (1974), Stalnaker (1973,1974) and Heim (1983):

Presuppositions must be entailed by the context of utterance in order for this context to admit this sentence.

(19) A context C admits a simple sentence ϕ just in case C entails $\text{Pres}(\phi)$. [$\text{Pres}(\phi)$ is a finite list of elementary presuppositions for a given sentence ϕ].

(20) A context C admits a complex sentence ϕ iff each of ϕ 's constituent sentences is admitted by its local context. (For example, the local context of negation is its global content also, so the context will admit the negation iff it admits its unnegated counterpart)

According to these rules a context C will admit (8a) just in case C entails (8b):

(8 a) If John is married, his wife will be happy.

(8 b) If John is married, John has a wife.

The consequent of (8 a) triggers the presupposition that John has a wife. The rules above require that this presupposition should be entailed by the local context for the contextual update to be defined \rightarrow it should be entailed by $C + \text{John is married} \rightarrow$ the global context C should entail the implicative proposition (8 b).

\rightarrow This is a tautology, and since tautologies give no new information whatsoever, the condition for definedness is a trivial one. Definedness is guaranteed automatically and the content of the presupposition is cancelled.

Van der Sandt's approach to anaphora and presupposition can solve some linguistic problems.

ZERO ANAPHORA

K. J. Saeboe in his paper on zero anaphora [Saeboe 1996] claims that the problem of zero argument anaphora can be solved by using an anaphoric notion of presupposition.

The problem.

Here are some examples of zero argument anaphora:

(9) John wants to sell his house. Mary offered him one million, but he wasn't **satisfied**.

(10) Ваня положил ключи на полку. Потом он забыл, но Петя ему напомнил.

The question is, where does the definiteness come from? How do we know what the arguments of the predicates are supposed to be? It has been noted before that it must be something with the semantic structure of the verb.

Theory and examples.

We can talk about anaphoric presupposition in a narrow sense or in a more generalized sense.

In a narrow sense anaphoric presupposition is a presupposition represented as a structure with a nonempty universe. In this sense it is very close to the relevant triggers from a closed class: the definite article, particles like “too”, adverbs like “again”. Compare:

(11a) John started drinking **again**.

(11b) John **continued** drinking.

In a generalized sense anaphoric presuppositions are lexical presuppositions, triggered by predicates. If there is a predicate with an omissible argument, which triggers a presupposition with the involvement of an argument, the presupposition becomes anaphoric if the argument is omitted. Examples (12a) and (13a) are sentences with the predicates with an omissible argument. (12b) and (13b) are the sentences with presuppositional anaphora.

(12a) Иван начал писать диплом.

(12b) Иван пишет диплом. Он только начал.

(13a) Петя согласился обратиться в комнате.

(13b) Петю попросили обратиться в комнате. Он согласился.

Hypothesis.

A zero argument is anaphoric iff the predicate triggers a presupposition involving it.

This hypothesis can be applied to the study of such types of predicates, as reactions, emotive predicates and phase predicates.

RUSSIAN ASPECT PROBLEM.

The semantics of the Russian aspect is very complicated. And it's not always easy to explain why perfective or imperfective verbs are used. Here is some evidence from Russian how an anaphoric presupposition approach helps to solve an aspect problem.

The problem.

Consider some examples:

- (14) Маргарита вчера написала письмо Вадиму. **Писала** карандашом, ручки не было.
- (15) Иван наконец-то выбрался на дачу. **Ехал** поездом.
- (16) Пете удалось сдать экзамен. **Сдавал** экстерном.

What is interesting about these examples is the choice of imperfective for the verbs in bold. We are not going to discuss if perfective is possible in those cases and what semantics would lie underneath such changes. Our purpose is to define the meaning of imperfective in such cases.

The solution.

As a solution for such problem an anaphoric presupposition approach can be used. There is a presuppositional meaning of Russian imperfective which deals with event presupposition (событийная пресуппозиция). The imperfective verb is used if there is a perfective already in the context or there is a common knowledge about the action. In the sentences like (14), (15) and (16) the imperfective verb describes an event that is already known about. But now the attention is drawn not to the action itself, but to the conditions, actors, materials, etc.

- (17) Иван **ехал** на дачу поездом. *Он уехал на дачу?

The imperfective in (17) is suitable only if it is known already that the action has taken place. So for such cases we can claim the anaphoric presuppositional use of imperfective.

THE PROBLEMS OF ANAPHORA=PRESUPPOSITION THEORY

Although the anaphoric presupposition approach can solve many problems, there some problems that can not be solved by it. These problems are:

- 1) definite NPs that carry a presupposition but are not anaphorical;
- 2) presuppositions in the lexical meaning that have nothing to do with anaphora;
- 3) definite full NPs that are anaphorical but do not carry a presupposition;
- 4) some anaphorically used personal pronouns.

Non-anaphoric definite NPs.

A definite NP denotes a function that yields a unique value for it argument. The uniqueness may be determined by the context of occurrence. In other cases the uniqueness may be determined by the lexical semantics or some common knowledge. Consider the examples of such definite NPs and the presuppositions that they trigger:

- (18) The sum of 3 and 5 (There is a unique thing that is the sum of 3 and 4.)
- (21) the H₂O molecule (There is a unique thing that is the H₂O

molecule)

(22) the first thing that comes to mind when one thinks of formal semantics (There is a unique thing that first comes to mind first when one thinks of formal semantics)

(23) the beauty of a sunset (There is a unique thing that is the beauty of a sunset)

The existence of presupposition in examples (18)-(19) is obvious, but there is no anaphoric relation to the context at all.

Lexical presupposition of predicates

There are cases where the structure of a lexical item assumes a distinction between what is asserted and what is presupposed whenever the lexical item is predicated of an object. Study the examples:

(22) Tim is a bachelor (Tim is an adult)

(23) Fred ignored me (Fred noticed me)

There is no anaphora in such cases. And even if there is, it has no explanatory value.

Epithet NPs

There are some cases, where anaphora and presupposition exclude each other: there can be either one or another in the sentence. Epithet NPs are NPs that do not have their literal meaning. They are simply anaphors. Study the example:

(26) When I saw Tom, that old goat was cleaning his car.

The literal meaning of “the old goat” just doesn't fit in the sentence. It refers to Tom. Consider some more examples:

(25) When I arrived at John's the old grocer greeted me with the bill.

(26) When I arrived at John's the old GROcer greeted me with the bill.

(27) When I arrived at John's, it was the old GROcer who greeted me with the bill.

Once the epithet NP gets prosodically marked, it stops being an epithet NP. It is no more referred to the object it was referred before. But once it gets its meaning, it starts triggering its corresponding presuppositions. At the same time there is no more anaphora. Thus anaphora and presupposition exclude each other in such cases.

Emphatic pronouns

The anaphora=presupposition theory does not explain the problem of emphatic pronouns in languages like German and Russian that have gender pronouns. There is a formal gender congruence with the antecedent NP - with no semantic content. When a contrast accent is placed on the pronoun, the pronoun's gender is interpreted semantically as sex. That's why the sentences like (28) and (30) are acceptable, while (29) is unacceptable.

(28) Если ты хочешь вынуть гвоздь из доски, держи ее и тяни за него.

(29) *Если ты хочешь вынуть гвоздь из доски, держи ее и тяни за него.

(32) Если хочешь научить юношу и девушку танцевать, заставь его вести ее.

There is no way to explain this case by using the anaphoric presupposition approach.

CONCLUSION

The theory proposed by van der Sandt explains presuppositions in terms of more common anaphoric expressions with an internal content. Such anaphoric account to presupposition is an interesting decision, and it can be really grounded by the facts of the discourse structure organization.

There are problems that can be solved by using this approach, like zero argument anaphora problem or the meaning of Russian imperfective. But still there are cases where this theory doesn't work.

LITERATURE

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