PRESUPPOSITIONAL AMBIGUITY

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In current logical and linguistic usage the presupposition is defined as follows: p *presupposes* q if and only if

(a) if p is true then q is true,
(b) if $\sim p$ is true then q is true.

It is evident that this definition gives only logical truths as a presupposition, such as, for instance, $p \vee \sim p$ ($p \rightarrow p \vee \sim p$ and $\sim p \rightarrow \vee \sim p$). If one is looking for presuppositions which are not logical truths, one must give a linguistic interpretation to the logical negation, applying it to some constituent of the sentence. But I intend to show that in this case the above definition (and its equivalents) give different linguistic presuppositions, depending upon which constituents the negation is applied to.

Let us begin with a classical example. The logical negation of

(1) John stopped beating his wife

has at least six linguistic interpretations. Thus 'It is not the case that John stopped beating his wife' can mean:

N(1a) It is not *John* (but *Peter*) who stopped beating his wife
N(1b) John did not *stop* (but *began* or *continued*) beating his wife
N(1c) John did not stop *beating* (but *caressing*) his wife
N(1d) John did not stop beating *his* (but *his friend's*) wife
N(1e) John did not stop beating his *wife* (but his *mistress*)
N(1f) John did not stop beating *his wife* (but his friend's mistress)
N(1g) John did *not stop beating his wife* (but *began caressing his friend's mistress*)

The truth-value of all these interpretations are opposed to that of (1) but they differ by the presupposition involved. One obtains a presupposition of a given sentence by replacing a constituant to which a negation applies by a variable bounded by the existential quantifier (and superficially modifying the structure of the sentence) ([1]). Thus for (1) at least the following seven presuppositions are possible:

P(1a) Someone stopped beating his wife
P(1b) John might modify the aspect of the action of beating his wife
P(1c) John stopped doing something to his wife
P(1d) John stopped beating someone's wife
P(1e) John stopped beating someone 'belonging' to him
P(1f) John stopped beating someone
P(1g) John did something

The same considerations apply to (2):

(2) The King of France is bald

The negation of (2) has at least four interpretations and therefore (2) has at least four presuppositions:

P(2a) Someone 'connected with France' is bald
P(2b) The King of a certain country is bald
P(2c) The King of France has a certain characteristic
P(2d) Someone is bald

It is important to note that only in the case of N(1b) do we have as a presupposition the sentence 'John has beaten his wife (at some time)' and only in the case of P(2c) do we find the implication 'The King of France exists'. Since all implications of a presupposition of a given sentence are themselves presuppositions of the sentence, the sentence (2) presupposes the existence of the King of France only in the cas of P(2c).

It seems that logically any constituent may be negated and therefore replaced by a variable (of the same category) thus giving certain presupposition. This is true even when applied to a preposition: ([2])

(3) The book is *on* the table

One of the negations of this sentence,

N(3a) The book is not *on* (but *under*) the table

gives the presupposition P(3a):

P(3a) The book is somewhere in relation to the table

The same is possible with a propositional function such as 'John knows that' as in (4):

(4) John knows that God governs

This sentence can have at least the following negations:

N(4a) It is not *John* who knows that God governs
N(4b) John does not *know* (but only *suspects*) that God governs
N4(c) John does not know that *God governs* (but he knows that *God does not govern*)

The corresponding presuppositions will be the following:

P(4a) Someone knows that God governs
P(4b) John is in some 'epistemic relation' to the fact that God governs
P(4c) John knows something about God

The same result can be obtained by applying the definition of the presupposition related with the question. The 'yes-no' question has the same presuppositions as its answers. But the question Q: 'Is it the case that' is also, like the negation we have examined, 'presuppositionally ambiguous'. The question Q(1):

Q(1) Is it the case that John has stopped beating his wife ?

has at least seven interpretations differing by the presuppositions involved. This ambiguity can be detected by the following operation: to each interpretation of a yes-no question one can associate some wh-question; the constituent to which the question applies is replaced by a wh-some constituent (a superficial modification is necessary) (see Zuber 1972). Thus

for example for N(1a), N(1d), N(2b), N(2c), N(3a) and N(4b) we have respectively the following wh-questions:

q(1a) Who stopped beating his wife ?
q(1d) What did John stop doing to his wife ?
q(2b) The King of which country is bald ?
q(2c) What is the King of France like ?
q(3a) Where is the book in relation to the table ?
q(4b) In what 'epistemic relation' is John to the fact of God's governing ?

Supposing now that the answers to the wh-questions contain the same presuppositions as these questions, and knowing that the presupposition of the wh-question is obtained by replacing the *wh-some* constituent by *some* constituent, we arrive, e.g. for sentence (1) at the same seven presuppositions given above.

Up to now I have shown that the unary logical functions are presuppositionally ambiguous, applying to different constituents of the sentence. The same is true with regard to binary functions. For instance the nominal *and* in (5):

(5) A and B are P

has at least five negations:

N(5a) non-A and B are P
N(5b) A and non-B are P
N(5c) non-A and non-B are P
N(5d) only A is P
N(5e) Only B is P

These give rise to the following presuppositions:

P(5a) Something and B are P
P(5b) A and something are P
P(5c) Some two things are P
P(5d) A is P
P(5e) B is P

Now it is not difficult to see that the *and*'s are different in (6) and (7)

(6) A and B are nervous
(7) A and B are similar

Let us remark in passing that by the usual relation between logical connectives (conjunction and disjunction) and quantifiers, the latter can also be considered as presuppositionally ambiguous if the former are.

Our considerations so far have been purely logical. It is possible that the question 'Did John stop beating his wife' does not have as many interpretations as question 'It is the case that John stopped beating his wife ?'. It seems that in English the yes-no question marked by *does* applies only to the verb. Similarly, it seems that the two words *stop beating* should be considered as inseparable, forming only one constituent (probably a verb). One can also contest the negation of *to know* as in N(4c). Very often the context or other formal markers determine the constituent marked. For instance in (8):

(8) Only God governs

only one negation is possible:

N(8a) It is not only God who governs (Not only God governs)

and not, for instance, N(8b):

N(8b) Only God does not govern

But there are languages in which the markers of yes-no questions (or negations, assertions) can be applied theoretically to all constituents. To which constituents they do not apply and why can be an interesting subject of study. As we have seen above in (8) markers other than assertion, question or negation can also apply to the different constituents. In all languages there exist some special items acting as operators with different possible scope. For instance, the fact that in (9) the item *also* can apply to the subject or to the predicate, renders this sentence ambiguous:

(9) John also smokes

What is interesting for us here, is the fact that in both cases

we have the same assertion: *John smokes.* Only the presuppositions change, with the scope, these being either P(9a) or P(9b):

P(9a) Somebody (≠ John) smokes
P(9b) John does something (≠ to smoke)

On the other hand in the case of a simple sentence the most natural tendency, which is probably universal, is the applica- of the negation to the (logical) predicate, and the most resistent to such operations is the logical subject. This can mean that a presupposition is a generalisation of the notion of the logical subject and the predicate is generalised by the notion of the assertion (as opposed to the presupposition). But in ordinary logic there is no difference between the first argument of the predicate (this being the logical subject) and any other argument of the predicate, and consequently the above observation cannot be formally rendered.

It seems also that if one constituent was already marked by the application of some function, another function should also apply to the some constituent. 'It is God who governs' has as linguistic negation 'It is not God who governs' and not 'It is God who does not govern'. In natural languages the logical functions (with linguistic interpretations) cannot apply to all constituents at the same time because this would give a trivial presupposition composed only of bound variables (see Zuber, to appear).

One conclusion of what we have been saying is the following: a pressupposition is a linguistic phenomenon. To describe it, when bivalance is conserved, it is not enough to use the ordinary logical operators. The usual logical operators (negation, assertion, question etc.) are presuppositionally ambiguous, giving a series of different presuppositions following a constituent to which they apply. In order to obtain a unique assertion and not to the 'normal' presupposition, should be strengthened in the same manner as the strong or choice negation is strengthened when in opposition to weak or exclusive negation.

FOOTNOTES

(1) This is a modification of the definition of the question presupposition given in Kubinski 1969.

(2) I am not interested here in the question if prepositions form a special category or if they are predicates. And more generally I am aware of the fact that in logic there exist variables of only a very limited number of categories.

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