PRESUPPOSITION[1] AND THE SCOPE OF NEGATION*

EWA MIODUSZEWSKA

University of Warsaw

During the discussion on the usefulness of the notion of presupposition in linguistics, two books have been of major importance: *Presupposition and the delimitation of semantics* written by Ruth Kempson, and *Presupposition and non-truth conditional semantics* written by Deirdre Wilson—both of them published in 1975.

Among many arguments for rejection of presupposition which have been gathered and presented in those books, one concerns the behaviour of presupposition in negation. According to the authors, presupposition does *not* remain constant under negation and is cancellable without any explanation even in simple negative sentences with definite noun phrase in subject position, as well as in sentences containing the so called factive verbs such as *regret*, *realize*, etc. and certain aspectuals such as *stop*, *continue*, *quit* etc.

Consequently, we can speak only of presuppositions of simple positives entences. Working on this assumption, presupposition would have no more explanatory power than entailment, and, at the same time, would make the semantic analysis more complicated than necessary. The way of argumentation in both books is very similar.

The understanding of negation in both publications follows de Morgan's

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[1] Presupposition is understood as logical presupposition and may be defined, following P. Strawson as: "a statement S presupposes a statement S' if and only if, the truth of S' is a precondition of the truth or falsity of S". (Garner 1971 : 29).

law of logic which says that the negation of conjunction is equivalent to the alternative of negations of particular factors of the conjunction, i.e.:

$$\sim(P\&Q)=\sim P \vee \sim Q^2$$

This framework is taken for granted by D. Wilson and explicitly stated and developed by R. Kempson.

The argument, as presented in the works mentioned above, was repeated, with slight alterations, by R. Kempson in her *Semantic theory* (1977).

Among other arguments against presupposition (such as its behaviour in complex sentences), the one discussing its behaviour under negation takes an important position in the discussion about the notion (although, perhaps, not the basic one— the latter being left for the necessity of justification for introducing three valued logic into the examination of the natural language).

The aim of the present paper is to rediscuss this argument. It is not the aim of the paper to express any opinion on the usefulness or uselessness of presupposition in linguistics, but only to decide whether the argument under discussion really holds if examined within the authors' own framework[3] — but in greater detail than it has been done in the mentioned works, as well as to decide whether the theoretical framework adopted for negation is justifiable.

Ruth Kempson's and Deirdre Wilson's argumentation presented in order to prove that presupposition does not remain constant under negation falls into three parts.

A. It happens that presupposition which holds in a positive sentence does not hold in its congener negative sentence (without any overt cancellation), although it should according to the definition. The following example is to prove it[4]:

1. John hasn't stopped beating his wife
2. John has stopped beating his wife

[2] Kempson (1975 : 12); Kempson (1977 : 128). D. Wilson does not introduce de Morgan's law explicitly. However, because of her roferences to R. Kempson (1975 : 107), as well as of the results of the analyses of particular sentences (which are very similar to those of R. Kempson and hardly attainable by purely intuitive insight), it seems that she accepts the interpretation of negation in agreement with de Morgan's law.

[3] It is also not the aim of the paper to decide whether negation is or is not ambiguous if viewed against any other framework than the one suggested by Ruth Kempson.

[4] Examples 1—14 are taken from the discussed works as representative for presented arguments. Numbers 15—18 are developed examples of Ruth Kempson. Polish examples are not direct translations of the English ones but form their equivalents, so that the conducted reasoning could be verified or rejected (or the difference in its application shown) on the basis of both English and Polish data.

1a. Janek nie przestał bijać swojej żony
2a. Janek przestał bijać swoją żonę

Within the three valued logic system both 1, 2 and 1a, 2a presuppose respectively:

3. John was beating his wife
3a. Janek bijał swoją żonę

According to the authors, the negative sentence 1 (1a) may be interpreted as:

4. Either John continues to beat his wife or he has never done it
4a. Albo Janek nadal bija swoją żonę albo też nigdy tego nie robił

which is to follow from the quoted de Morgan's law. Thus, presupposition seems not to hold under negation, which goes against its definition and heavily diminishes its explanatory power.

B. Presupposition can be overtly suspended (cancelled) in negative sentences without producing contradictory statements, which again, according to the authors, is contradictory to its definition. This cancellation applies both to existential cases and to the turth of factive verbs complements.

5. The King of France didn't come to the reception as the King of France doesn't exist
5a. Król Francji nie przybył na przyjęcie, ponieważ Król Francji nie istnieje

In those examples, presupposition

6. The King of France exists
6a. Król Francji istnieje

is suspended.

7. Mary doesn't regret that her grandma died -because her grandma didn't die
7a. Maria nie żałuje, że jej babcia umarła, ponieważ jej babcia nie umarła

In 7 and 7a presupposition

8. Mary's grandma died
8a. Babcia Marii umarła

is cancelled.

C. The mechanism of presupposition suspension is asymmetrical, i.e presupposition can be cancelled in negative sentences without resulting in

contradiction but an attempt of its suspension in the congener positive sentences produces contradictory statements.[5]

Existential cases:

9.* The Mayor of Liverpool visited the exhibition this year though there is no Mayor of Liverpool.
10. The Mayor of Liverpool did not visit the exhibition this year, as there is no Mayor of Liverpool any longer.
9a.* Burmistrz miasta Liverpool zwiedził w tym roku wystawę, chociaż Liverpool nie ma burmistrza.
10a. Burmistrz miasta Liverpool nie zwiedził w tym roku wystawy, ponieważ Liverpool nie ma już burmistrza.
11.* John has spent the morning at the local swimming pool though there is no swimming pool here.
12. John has not spent the morning at the local swimming pool—there isn't a swimming pool in this town.
11a.* Jan spędził przedpołudnie na miejscowym basenie, chociaż nie ma tu basenu.
12a. Jan nie spędził przedpołudnia na miejscowym basenie, ponieważ w tym mieście nie ma basenu.

Complements of factive verbs:

13.* Sue realized that Bill had been unfaithful to his wife, though he had in fact never been ungaithful.
14. Sue didn't realize that Bill had been unfaithful to his wife — how can she have done when he never has?
13a.* Zuzanna zdała sobie sprawę, że Bill zdradzał swoją żonę, chociaż tak naprawdę on jej nigdy nie zdradzał.
14a. Zuzanna nie zdawała sobie sprawy, że Bill zdradzał swoją żonę — jak mogła zdać sobie z tego sprawę, skoro on jej nigdy nie zdradzał?

An examination of such example leads the authors to the conclusion that presupposition is inherent only in positive sentences, behaving differently in negative sentences. That is why it is false to say that presupposition remains constant under negation.

[5] Unless special phrasing is adopted, some Polish negative sentences would hardly allow for presupposition cancellation, e.g.
Zuzanna nie zdawała sobie sprawy, że Bill zdradzał swoją żonę, bo on jej nie zdradzał. (Sue didn't realize that Bill had been unfaithful to his wife because he was not).
Similarly, if special phrasing is introduced, some positive sentences seem to allow for such a cancellation.
Edward regretted that Mary had failed although it finally turned out that she hadn't.

The authors admit that arguments B and C could be rejected and the presuppositional framework maintained if there was a possibility of considering negation as ambiguous, e.g. of distinguishing between "internal" and "external" negation[6] — external negation being an alternative of negations of all possible components or truth conditions of the sentence, and internal negation constituting solely the negation of an appropriate affirmative sentence. Then, within the presuppositional framework, cases in which presuppositions can be cancelled in negative sentences would constitute a separate, external sense of negation. This would explain why those presuppositions cannot be cancelled in the appropriate positive statements where this "separate sense" naturally does not appear. „Thus the entailment account is to be preferred unless the negative sentences can .... be shown as ambiguous".[7] Argument A is primarily based on the analysis of sentences with such verbs as *stop*, *continue*, *start*, *quit*, etc.

Reexamination of the arguments

Arguments B and C are valid only if negation is assumed to be non-ambiguous. R. Kempson accepts this assumption as true, basing on the data obtained by the application of two formal procedures she introduces; the procedures are — the ambiguity test and the understanding of negation as functioning in agreement with de Morgan's law of the negation of conjunction.

The Ambiguity test

According to Kempson, if some verb phrase is two ways ambiguous, then we can predict that when it is conjoined to a *do so* or other verb phrase pro-form expression, the entire sentence would be two ways ambiguous. Whichever interpretation is implied, the *do so* expression must be identical to that interpretation. It follows that if the sentence is ambiguous and the attempt to disambiguate it is made, by putting the actual explanation of the action in place of the pro-form, we would arrive at a contradictory sentence.[8]

It seems that this test, though very helpful to show syntactic or lexical

[6] D. Wilson accepts the possibility of interpreting negation as two ways ambiguous with internal negation (in which presupposition is preserved) constituting the preferred interpretation and external negation (usually marked with a heavy stress or with an overt denial of presupposition) being presupposition free. However, having to choose between ambiguous or non-ambiguous understanding of negation she favours the second solution: "... on the entailment analysis of negation there is no ambiguity: merely a disjunctive set of truth-conditions, the truth of any of which is sufficient for the truth of the negation" (1975 : 35). The entailment analysis is the one she accepts within the truth-conditional semantics.

[7] Kempson (1977 : 147).

[8] Kempson (1975 : 15); Kempson (1977 : 128—132).

ambiguity within a sentaence[9], is invalid if used to disambiguate a sentence between its presupposition-free and presupposition-carrying interpretations (i.e. if applied to disambiguating relations holding between two sentences). What the authors want to prove by introducing the test, is that, for example, the sentence

S. *The King of France didn't come to the reception*

is non-ambiguous between its presupptsoiion-free (S.... because he doesn't exist) and presupposition-carrying (S.... because he doesn't like receptions/ but exists/) interpretations. To do this, they apply the test, arriving at something like

S^1. *The King of France didn't come to the reception* and George didn't do so, either; The King didn't because he doesn't exist and George didn't because he doesn't like receptions.

Since S^1 is not contradictory, the authors conclude that S is not-ambiguous. Is seems, however, that S_1 has nothing to do with disambiguating S between its presupposition-free and presupposition -carrying interpretations.
In S_1 the disambiguating element is a *do so* expression. As it stands for a Verb Phrase *come to the reception*, it could show the ambiguity of this particular VP if there was any, but it cannot be helpful to disambiguate the sentence between its presupposition-carrying and presupposition-free interpretations. The choice of the conjoin (George didn't do so either ... because he doesn't like receptions) doesn't help to do this either, since it does not introduce the presupposition carrying interpretation of S (existence of the King) as opposed to its presupposition-free interpretation stated overtly (The King didn't come to the reception ..... because he doesn't exist). The test, as applied by the authors, cannot be accepted as conclusive, because, not confronting presupposition-carrying and presupposition-free interpretations of a negative sentence, nothing can be said about its ambiguity or non-ambiguity as far as those interpretations are concerned.

It seems possible to modify the test so as to escape its mentioned drawbacks. The *do so* expression would be of no importance then and the test would have to introduce the opposition between presupposition-free and presupposition-carrying interpretations of a sentence. But when we would arrive at contradictory sentences (contradiction being parallel to this of examples 9 (9a); 11 (11a); 13 (13a)):

[9] For example in:

* John doesn't like visiting relatives and George doesn't do so, either; John because he hates going out and George because he doesn't like having people at home.
the test shows the syntactic ambiguity of *visiting relatives*.

15.* The King of France didn't come to the reception and his sister didn't, either; the King didn't because he doesn't exist and his sister didn't because she doesn't like receptions.

15a.* Król Francji nie przybył na przyjęcie i jego siostra nie przyszła także; Król nie przyszedł ponieważ nie istnieje, a jego siostra nie przyszła ponieważ nie lubi przyjęć.

16.* John hasn't spent the morning at the local swimming pool and Jack hasn't done so, either ;John hasn't because there is no swimming pool in the town and Jack hasn't because he doesn't like this particular swimming pool.

16a.* Jan nie spędził przedpołudnia na miejscowym basenie i Jacek nie zrobił tego także; Janek — ponieważ w mieście nie było basenu, a Jacek — ponieważ tego właśnie basenu nie lubił.

17.* Mary doesn't regret that her grandma died and Mary's sister doesn't, either; Mary doesn't because she has inherited a lot of money and her sister doesn't because she knows that her grandma hasn't died.

17a.* Maria nie żałuje, że jej babcia umarła i siostra Marii nie żałuje tego również; Maria — ponieważ odziedziczyła dużą sumę pieniędzy, a jej siostra — ponieważ wie, że babcia nie umarła.

18.* Sue didn't realize that Bill had been unfaithful to his wife and his wife didn't either; his wife didn't because she was too stupid to have noticed anything although it was quite evident and Sue didn't because it was not true.

18a.* Zuzanna nie zdawała sobie sprawy, że Bill zdradzał swoją żonę i jego żona nie zdawała sobie z tego sprawy również; żona — ponieważ była zbyt głupia, żeby zauważyć cokolwiek chociaż było to całkiem widoczne, a Zuzanna — ponieważ nie było to prawdą.

Considering the test as conclusive, it would follow from the above examples that negative sentences are ambiguous between their presupposition-carrying and presupposition-free interpretations.

The Mechanism of negation functioning along the lines of de Morgan's law.

According to Kempson (1975), the other proof for non-ambiguity of negation is to follow from the theoretical framework explaining the functioning of negation — the framework based on de Morgan's law:

$$\sim(P \& Q) = -P \vee -Q$$

This law is to operate upon the formula (Spec X_1)([S]X_1)[10] and all its derivatives. This formula is to apply to all Nominal Phrases, both definite and in-

[10] Kempson (1975 : 120).

definite, due to the fact that in the Deep Structure there is a marker [+Def] (definite) which is either introduced in the process of derivation or omitted, thus resulting in definite or indefinite NPs respectively.[11] The formula (Spec X_1) ([S]X_1) reads as: some fixed object has the attribute [S]. Negation of this formula results in: A/(Spec X_1)([S]X_1) with A (=antonymy) being a symbol of negation. Then, according to Kempson in agreement with de Morgan's law the equivalence

A/(Spec X_1)([S]X_1)=(A/Spec X_1)([S]X_1)v(Spec X_1)A/([S]X_1)

is obtained. This equivalence reads as "if it is not true that some fixed object has the attribute [S], then, either there is no such fixed object or there is some fixed object but it does not have the attribute [S]".[12] Thus, the mechanism of negating the existence of an object is to be exactly the same as this of negating any feature of the object, which would point to the homogeneous nature of negation (the more so as the presented formula is to be a starting point for the formulae of all more complicated sentences).

As it follows from the reading of the negation of the formula, as well as from the formulation that (Spec X_1) means that an/the NP refers to a single object (which is paraphrasable to: there is a fixed object X_1), (Spec X_1) acts in the formula as the existential quantifier $\overset{\vee}{x}$. If so, from the point of view of logic the whole formula does not consist of a conjunation of sentences or propositions but constitutes a single sentence.[13] Not being a conjunaction of sentences it does not allow de Morgan's law to apply in the way suggested by Kempson as the application of de Morgan's law to quantified formulae is entirely different ($-\overset{\vee}{x}_{x\varepsilon X}\ \varphi(x) \equiv \widehat{x}_{x\varepsilon X} \sim \varphi(x)$)[14] and, naturally, does not lead to any of the conclusions suggested by the author. Thus, the whole formula:

A/(Spec X_1)([S]X_1)≡(A/Spec X_1)([S]X_1)v(Spec X_1)A/([S]X_1)

if understood in the way presented above (and this seems to be the understanding advocated by the author, and, at the same time, the only one possible) has no logical justification whatsoever.[15] This formula however underlies the

[11] The whole process is of no importance for the presented examination.

[12] As Mr Neubauer pointed out we have a negation of a proposition on the left side of the equation and a negation of a predicate in the second component of the alternative on the right side of the equation. To have this, there should be given a logically justified definition of a well-formed formula as understood by Kempson.

[13] I owe this observation to dr Jacek Jadacki of the Institute of Logical Semiotics, Department of Philosophy, University of Warsaw.

[14] Rasiowa H. (1977 : 221).

[15] Unless a different logical framework for the application of de Morgan's law is introduced or the logical framework is abandoned altogether and the formula defended on the grounds of capturing an important linguistic generalization.

theoretical handling of both: sentences with existential cases

The King bought a/the chandelier
(Spec X_1)([K]X_1.(Spec X_2)([C]X_2.[B]X_1X_2))

and with complements of factive verbs

The King regrets that the Queen is sick
(Spec X_1)([K]X_1. (Spec X_2)([P]X_2. [Regret] X_1X_2))[16]

As in none of the cases, the derivatives of the basic formula result in a conjunction of sentences, to none of them, while forming the negative counterpart, can de Morgan's law apply in the way it is done by the author. Thus nothing specific can be deduced as to ambiguity or non-ambiguity of negation on the basis of this framework.

Kempson's model of 1977, though not elaborated in detail, seems to differ slightly from this of 1975. In *Semantic Theory* she says that "if we have a sentence P whose semantic representation is the set of conditions [M_1]& &[M_2]&[M_3]&[M_4], the negation of that sentence will have as its semantic representation $-[M_1]v-[M_2]v-[M_3]v-[M_4]$", which again is based on de Morgan's law. The framework has to face various problems, depending on the way in which the truth conditions M_1, M_2, M_3,... are defined. If one of the conditions is that *There exists a fixed object*, then the conjunction of conditions stops being a conjunction, de Morgan's law cannot apply — and the whole reasoning loses its logical foundations. If, on the other hand, the set of conditions in the conjunction does not include the one of existence, but follows (as it seems to be the case in the model of *Semantic theory*) from the componential analysis of particular lexical items, the conjunction holds and de Morgan's law can be applied. But then, the denial of the existence of a particular object referred to by an NP would *not* follow from this framework and the sentence such as:

The King of France isn't bald

would still presuppose the existence of the King, which the author wants to prove is not the case. Finally, if some special formal device is introduced to cope with the denial of existence, with other cases of negation remaining explicable within de Morgan's law terms, it would point to the non-homogeneous nature of negation, which in turn would support the theory of its ambiguity; this is again what the author wants to avoid. Other types of difficulties arise when an explanation of sentences with factive verbs complements along the lines of the presented framework is attempted. Within the framework of 1975, the sentence:

[16] Kompson (1975 : 121; 133).

S. The King does not regret that the Queen is sick[17] is true, if

a. The King does not exist

or

b. There is some fixed object but it does not have the features of the King

or

c. There is nothing for the King to regret

or

d. The Queen does not exist

or

e. There is some fixed object but it does not have the features of the Queen

or

f. The Queen is not sick

or

g. There is no act of regretting performed

Not going into the question of existence for the reasons explained above, conditions b, e, f, g are left for analysis. [18] Concentrating on conditions f and g, the following reasoning (which seems to be in full agreement wiht models of both 1975 and 1977) may be performed.

Two of the truth conditions of the sentence

The King regrets that the Queen is sick

are:

$[M_1]$= The King regrets something

$[M_2]$= The Queen is sick

The conjunction of the conditions is:

$[M_1]\&[M_2]$= The King regrets something and The Queen is sick

It follows from de Morgan's law that the sentence

S. The King does not regret that the Queen is sick is true if $-[M_1]\vee-[M_2]$ i.e.

The King does not regret anything

or

Queen The is not sick

Because of the fact that *or* (v) in the alternative above is the inclusive *or* and cannot be interpreted as the exclusive *or* (with which R. Kempson fully

[17] The thorough analysis of this sentence, leading to the presented conclusions is carried out by Kempson (1975 : 133—4).

[18] The discussed conditions which are said to exhaust all the possibilities of the interpretation of S do not include conditions such as:

The King doesn't regret that the Queen is sick
because he doesn't know that she is sick.

agrees[19]), S will be true if at least one of the components of the alternative $-[M_1]\vee-[M_2]$ is true or if both of them are true at the same time. It follows that *S* should be true under the following conditions:

1. $-[M_1]$=false and $-[M_2]$=true:
   The King regrets that the Queen is not sick
2. $-[M_1]$=true and $-[M_2]$=true:
   The King does not regret that the Queen is not sick
3. $-[M_1]$=true and $-[M_2]$=false:
   The King does not regret that the Queen is sick

Condition 1 is clearly incompatible with *S*, and 2 is highly questionable as a truth condition of *S*. Only the third condition (which preserves the presupposition of *S*) is unquestionable but, being identical with the sentence under discussion, provides hardly any insight into the mechanism of negation.

The conducted examination seems to prove that the theoretical framework of negation presented by Ruth Kempson, apart from being logically faulty, does not provide a fully explanatory insight into the mechanism of negation. Nothing can also be deduced from the presented framework as to ambiguity or non-ambiguity of negative sentences between their presupposition-free and presupposition-carrying interpretations. Since arguments *B* and *C*, as presented by Kempson, stand on the assumption that negation is non-ambiguous, they simply do not hold when viewed within the discussed theoretical framework.

A. Argument A is stronger than arguments B and C as it suggests that presupposition does not hold without any concellation in certain negative sentences. Those sentences are primarily sentences with the so called aspectuals such as *stop*, *quit*, *start* etc. According to Wilson and Kempson such sentences, if examined along the lines of de Morgan's law, allow for the interpretation in which their presupposition is contradicted. The authors, however, do not carry out the analysis step by step but only give the final results, according to which examples 1, (1a) are interpreted as 4, (4a)[20]. It seems that the anylsis carried out in detail a) does not lead to exactly the same results as those presented by the authors; b) leads to interpretations contradictory to native speakers' intuition; c) does not provide a full insight into the meaning of discussed sentences. The analysis of the examples:

1. John hasn't stopped beating his wife
1a. Janek nie przestał bijać swojej żony

[19] Kempson (1975 : 16); Kempson (1977 : 126—127).

[20] Interpretations 4, (4a) result from the analysis within which only the verb falls within the scope of negation. This allows to omit the problem of the denial of existence. Consequently, the reexamination of this analysis is limited in the same way.

with *to stop* (przestać) interpreted as "to perform the action X before the time t and not to perform the action X after the time t" (wykonywać czynność X przed czasem t i nie wykonywać czynności X po czasie t) would run as follows: positive counterparts of 1, 1a are equivalent to:

19. John performed the action of beating his wife before the time t and John hasn't performed the action of beating his wife after the time t.

19a. Janek wykonywał czynność polegającą na biciu żony przed czasem t i Janek nie wykonuje czynności polegającej na biciu żony po czasie t.

and further on, to:

20. John beat his wife before the time t and John hasn't beaten his wife after the time t.

20a. Janek bijał swoją żonę przed czasem t i Janek nie bija swojej żony po czasie t.

As both 20 and 20a clearly constitute a conjunction of two sentences each, de Morgan's law can be justifiably applied. The application results in:

21. John didn't beat his wife before the time t or John has beaten his wife after the time t.

21a. Albo Janek nie bijał swojej żony przed czasem t albo bija ją po czasie t.

The interpretations of 1, 1a, which result directly from the application of de Morgan's law are not identical with the interpretations of 1, (1a) suggested by Kempson and Wilson

4. Either John continues to beat his wife or he has never done it.

4a. Albo Janek nadal bija swoją żonę albo też nigdy tego nie robił.

No implication of John's "continuing" the action (=beating before the time t and beating after the time t) follows from the application of de Morgan's law. Also the fact that he has *never* done it is dubious but may be justified if the time t is understood as the time of producing the sentence. Whether 21, 21a can be accepted as interpretations of 1, 1a respectively is to be judged by the intuitions of native speakers, e.g. the author of the present paper would not agree that the Polish sentence:

1a. Janek nie przestał bijać swojej żony

allows for the interpretation:

22. Janek nigdy jej nie bijał (John has never beaten her) unless it is overtly stated and explained. Taking into consideration the possibility that some native speakers might agree with such an interpretation, let us examine the results of the proposed analysis applied consequently to other sentences.

23. John hasn't started beating his wife

23a. Janek nie zaczął bijać swojej żony

24. John hasn't died

24a. Janek nie umarł

23 and 23a will be analysed in the following way:

John not [did not perform the action of beating before the time t and has performed the action of beating after the time t] his wife.

which is equivalent to:

John not [did not beat before the time t and has beaten after the time t] his wife.

After applying de Morgan's law we get the string which may be paraphrased as:

25. Either John beat his wife in the past or he doesn't beat her nowadays.

25a. Albo Janek bijał swoją żonę w przeszłości albo nie bija jej teraz.

This analysis does not bring up the most natural interpretation of 23 and 23 namely:

26. John didn't beat his wife in the past and doesn't beat her nowadays.

26a. Janek nie bijał i nie bija swojej żony.

The interpretation provided by 25, 25a seems to go strongly against native speakers' intuition. It becomes even more visible while analysing 24, 24a with *to die* being paraphrasable as *to stop living* which in turn is paraphrasable as *to live before the time t and not to live after the time t*. After the application of de Morgan's law one arrives at:

27. Either John didn't live before a certain time or he lives after this time.

27a. Albo Janek nie żył w przeszłości albo żyje teraz

This analysis again does not favour the most natural interpretation of 24, 24a; that is:

28. John lived in the past and lives now

28a. Janek żył i żyje.

Besides, it seems that 27, 27a do not agree with native speakers' intuition as interpretations of 24, 24a.

The presented analysis also poses a theoretical problem. R. Kempson and D. Wilson, while discussing negation, declare an acceptance of a consequent two-valued logic framework and inclusive interpretation of *or*. Within this framework the truth table for alternative states, as it has been already mentioned, that a sentence is true if at least one of the components of the al-

ternative is true. Thus, assuming that 21, 25 and 27 express the meaning of 1, 23 and 24 respectively (having, of course, the same truth value), it would follow that 1, 23 and 24 can be true, each under three various incompatible conditions:[21]

1. John hasn't stopped beating his wife true, if

a. John didn't beat his wife in the past and beats her nowadays (=John has started beating his wife)

or

b. John has never beaten his wife

or

c. John beat and continues to beat his wife

23. John hasn't started beating his wife

True, if

a. John beat his wife in the past and doesn't beat her nowadays (=John has stopped beating his wife)

[21] Defining of the conditions results from the following reasoning:

~(John has stopped beating his wife) = John hasn't stopped beating his wife
&
John has stopped beating his wife = John beat his wife before the time t and John hasn't beaten his wife after the time t.
&
~(John beat his wife before the time t *and* John hasn't beaten his wife after the time t) = John didn't beat his wife before the time t *or* John has beaten his wife after the time t

It follows that

I John hasn't stopped beating his wife = II John didn't beat
a { his wife before the time t
or John has beaten
b { his wife after his wife after the time t

I and II must, of course, have the same truth value.
From the truth table for alternative II is true if:
1. a=1 and b=1 which results in i) John didn't beat his wife in the past and beat her nowadays
2. a=1 and b=0 which results in ii) John has never beaten his wife
3. a=0 and b=1 which results in iii) John beat and continues to beat his wife

In each of the cases (i, ii, iii) I must also be true.

or

b. John has always beaten his wife

or

c. John didn't beat his wife in the past and doesn't beat her presently

24. John hasn't died

True, if

a. John didn't live in the past and lives now (=John was born)

or

b. John has never lived

or

c. John lived in the past and continues to live now.

Accepting the suggested framework one has to agree that each of those sentences (1, 23, 24) may be true for three various, incompatible reasons, in this way being three ways ambiguous or at least vague. What is more, (a) and (b) of each case clearly differ in character when compared with (c), which the analysis does not show. Finally, (a) interpretations go definitely against native speakers' intuition with (b) being highly questionable. The conclusions to which the analysis advocated by R. Kempson and D. Wilson leads, seem to justify the rejection of the analysis as invalid. Thus, the question whether sentences such as 1, 23, 24 may be interpreted in the way contradictory to their presuppositions remains open for native speakers' intuition to decide but there is no theoretical justification (as far as Wilson's and Kempson's frameworks are concerned) that this is the case.

Since neither arguments B and C nor argument A seem to hold when examined thoroughly on the basis of both English and Polish data, the problem of the behaviour of presupposition under negation, cannot be solved within R. Kempson's and D. Wilson's framework, the more so, as the framework itself seems to be faulty, at least at certain points.

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