negation of S, and therefore, it cannot be that the presupposition S is false. Thus, no presupposition can be false.16

We note that this argument cannot be gotten around by claiming that if the presupposition S is false, then the sentence is neither true nor false because this reply would admit just the point we are arguing for, namely, that the Fregean definition is the basic definition of logical presupposition. We note further that we might well have known this from the start, since the Fregean definition explains what it is that a sentence has when it has a presupposition, namely, a condition that tells us what must be the case in order that (standard) uses of the sentence make a statement (ask a question, make a request, a promise, etc.), whereas (5) does not.

This brings us full circle round. The attractiveness of (5) lies in its simplicity, its freedom from dependence on unsolved problems of semantic description, and its reliance on well-understood apparatus from logic. Now we see that the difficulties with (5) are so great that we are happy to settle for a more complex approach whose working out depends on obtaining solutions to unsolved semantic problems by not too well understood apparatus from the theory of grammar.

References


Strawson, P. F. (1952) Introduction to Logical Theory, Methuen, London.

16 I am indebted to James F. Thomson for the point underlying this argument and for other helpful suggestions.

Identity of sense pronounalization, as is well known, operates with considerable freedom (subject only to the constraints on backwards pronounalization) and ignores sentence boundaries, islands, and other barriers to rules with variables:

(1) Jack favors the older gorilla. I like the younger one.

(2) My gorilla is cute, but Jack’s is really luscious.

(3) Jack admits that my gorilla is cute, but he claims that his is a lot nearer.

(4) Jack admits that my gorilla is cute, but he won’t listen to the suggestion that we get mine and his together.

Sentences (2)–(4) demonstrate a typical effect of identity of sense pronounalization, that of leaving a genitive NP as the only trace of a pronounalized NP. The same rule can leave a genitive interrogative pronoun:

(5) My gorilla is over there drinking punch. Whose is that banana?

(6) I don’t know whose you could have seen banging at the window.

(7) Jack doesn’t believe my claim that I don’t know whose he saw banging at the window.

(8) That I can’t have any idea whose you saw banging at the window should be obvious.

In short: not surprisingly, the rule of identity of sense pronounalization is insensitive to whether the genitive NP left behind is an interrogative pronoun or not. The rule is, however, inexplicably sensitive to whether the genitive NP left behind is a relative pronoun:

(9) My gorilla is over there drinking punch. The guy whose you saw banging at the window is over there watering the rubber tree.

(10) *Melvin, whose is banging at the window, is over there watering the rubber tree.

Our present theory of pronounalization cannot account for this difference. Will anybody whose can please step forward?

Amidst the confusion about what kind of linguistic phenomena can and cannot be justifiably referred to as "presuppositions," there has always been one class of examples above suspicion, the presuppositions on so-called "factive predicates". Recently, this paradigm case has been chal-
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Lenged wholesale: Wilson (1972), in a recent issue of Linguistic Inquiry, argues (i) that the relation between full factive sentences and their complements is not one of presupposition but one of entailment, and (ii) that in doing semantics "it is never necessary to talk of logical presuppositions as distinct from entailments". Wilson offers two explicit arguments in support of (i); understandably enough, she offers no sufficient argument for (ii), although in view of the paradigmatic standing of factive presuppositions, (ii) would of course greatly gain in plausibility, if (i) turned out to be true. But is it true? Let us consider the first argument in support of (i) (Wilson 1972, 406f). Wilson puts forth the following extended syllogism:

Premise 1: No one knows (can know) that Nixon is bald unless Nixon is bald.
Premise 2: Nixon is not bald.
Conclusion 1: No one knows (can know) that Nixon is bald.
(from P1, P2)
Premise 3: John is a person.
Conclusion 2: John does not know that Nixon is bald.
(from P3, P1, P2 via C2)

Wilson considers the premises of this argument to be true and fully grammatical statements. If this is the case, then this argument proves that sentences like (1) and (2)

1. John does not know that Nixon is bald. (= C2)
2. John knows that Nixon is bald. (= ~C2)

can have a truth value, namely "true" and "false" respectively, even if (3) is assumed to be false (viz. P3).

(5) Nixon is bald.

This situation is only compatible, however, with (3) being entailed by (2) (via ~P2 = P1 being entailed by ~P3). If (3) were presupposed by (1) and (2), then the failure of the alleged presupposition (3) (viz. P3) should have resulted in (1) and (2) having no truth value at all.

1 I use "factive sentence" as a shorthand expression for "sentences containing a factive predicate followed by a that clause"; likewise, "factive presupposition" stands for "the presupposition of factive sentences, that the proposition expressed by their complement sentence is true".


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This chain of reasoning, however, is as weak as its first assumptions about P1: that P1 has the truth value "true"; furthermore, that P1 is a genuine instance of normal implication; and that "know" in P1 and C1, C2, C3, C4 are the same predicates. Only if these assumptions are justified, does the desired situation follow. If P1 were indeterminate, then so would be C1, C2: If P1 is not an instance of normal implication, there is no deduction leading from P1, P2 to C1, C2: If there has been an equivocation of predicates, either P1 or C2, C4 will have a different meaning. In either case, Wilson's argument fails its purpose. The proper course of refuting Wilson's argument will then be to attack the assumptions about P1.

For obvious reasons, Wilson must intend her argument to be applicable not only to know but also to all factive predicates. We shall assume then, that in P1, X can range over all factive predicates, thereby always resulting in sentences as acceptable as the original P1:

P1: If Nixon is not bald, nobody knows (X's) that Nixon is bald.

Accordingly, these sentences are assumed to be true statements, to be genuine instances of normal implication, and to contain the same predicate X as the corresponding conclusions C1, C2. Suppose X ranges, for example, over know, remember, forget, aware, unaware, and the corresponding sentences are used as first premise to Wilson's otherwise unaltered syllogism. Then, by Wilson's argument, (4a-e) will entail (5):

4a. (still knows)
4b. forgets/has forgotten
4c. John remembers
4d. is aware
4e. is unaware

(5) Nixon is bald.

For the sake of the argument I shall be insensitive to the awkwardness of nobody knows that X. If one takes it as a strictly universal statement, as Wilson has to, he might wish for the complementizer whether, in which case Wilson's deduction would end up with a whether clause in C2 and thus be irrelevant for her purpose. If taken as meaning nobody else know that X (excluding at least the speaker) that is appropriate, but deduction is no longer possible. This dilemma seems to me, however, only to arise with epistemic qualifiers like know, be aware, etc. It does not arise with emotive factives and, therefore, shall be assumed to have no bearing on the validity of Wilson's argument in general.
whereas (6a–e) do not entail (5), but are in turn entailed by the negation of (5).

(6) a. [does not know (any more)]
   b. [does not forget; has not forgotten]
   c. John [does not remember]
   d. [is not aware]
   e. [is not unaware]

Nixon is bald.

Items like unaware, forget, have forgotten, remember, however, can be lexically decomposed—by virtue of undisputable entailment relations—into something like not aware, cease to know = not know any more] (due to a change in the mental state of the subject), not forget; not have forgotten. These expressions I consider to be cognitively synonymous with unaware, forget, remember. Synonyms should be substitutable salva veritate; hence also (4b', c', e') should entail (5).

(4) b'. John [does not know any more (due ...)]
   c'. John [does not forget; has not forgotten]
   e'. [is not aware]

Nixon is bald.

This move, however, yields a contradiction, (6a) and (4b'), (6b) and (4c'), and (6d) and (4e') are all relevant aspects ‘‘the same sentence’’ respectively, in that both members of each pair contain the same factive predicate under negation. Hence, by Wilson’s analysis, there are factive sentences that do and do not entail their complement sentence (5) at the same time. From this contradiction it follows that either the initial assumptions about Pᵥ will have to be given up, or all lexical decompositions involving a negative element. Since Wilson is maintaining, in effect, that (traditional) entailment is the only important semantic relation (cf. Wilson 1972, 405), this amounts to a dilemma. Factive ‘‘entailments’’ can only be saved at the cost of arbitrarily suspending seemingly valid entailments involving a negative element.6

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6 This paraphrase is due to G. Lakoff (1971, 272a). It incorporates the observations of de Rijk (1968) with respect to the differences between forget and cease is known/not know anyone.

7 There are variants of the argument just presented that make essential use of the weaker relation of meaning inclusion rather than synonymy. Thus, whatever the differences in meaning between ‘‘forget’’ and ‘‘know’’ might be, undoubtedly a sentence like (a) ‘‘John hasn’t forgotten that S at least entails (b) ‘‘John still knows that S’’ (This can be supported by the evidence of but (and in conjunction, cf. ‘‘John hasn’t forgotten that S, and yet he still knows it’’). By Wilson’s analysis, (a) should not entail S, whereas (b) does entail S. Entailment, however, is transitive; if (a) ⇒ (b), (b) ⇒ S, then also (a) ⇒ S, by which move the same contradiction arises as above.

8 Cf. van Fraassen (1968, 143).

9 Cf. Kemen (1970, 89). The phenomenon in question has also been characterized as ‘‘choice vs. exclusion negation, internal vs. external negation.’’
Wilson's second argument in support of (i) comes from but and and so sentences. It is well known "that when two sentences are conjoined [by but, and], if the first entails the second, the result is a performance oddity" (Wilson 1972, 407); whereas and so is especially felicitous, when such an entailment relation does indeed hold (cf. p. 408). Hence, if the entailment analysis of factives is correct, only the but and conjunction of positive factive sentences with their complements should be unacceptable; the presuppositional analysis, however, would predict oddity for the but and conjunction of negative factive sentences and their complements as well. The same holds in reverse for and so conjunction. The sentences Wilson cites do indeed show an undisputable difference in acceptability, cf. (11)–(14).

(11) *John knows that Nixon is bald, but and Nixon is bald.
(12) John does not know that Nixon is bald, but and Nixon is bald.
(13) John knows that Nixon is bald, and so Nixon is bald.
(14) *John does not know that Nixon is bald, and so Nixon is bald.

But Wilson's conclusion that this bears out the correctness of an entailment analysis of factives cannot be accepted. It is true that a number of factives behave like know with respect to the but conjunctions in question, cf. for example (15):

(15) a. know, disclose, let out, discover, find out, realize, notice, remember, confess, be aware, make clear
b. exhilarating, great, wonderful, be happy, in rapture, pleased, delighted
c. important, significant, relevant, interesting

But for factives like those in (16)

(16) a. conceal, keep a secret, ignore, overlook, forget, be unaware, obscure
b. nauseating, ridiculous, annoying, (no laughing matter), be sorry, regret, despise, resent, be angry, disappointed
c. odd, strange, funny ('strange')
d. uninteresting, trivial, bore to death

\[8\] In my counterargument I shall confine myself to the case of but conjunctions, where matters seem to be clearer, or at least informant reactions have been more straightforward than for and so and.

The reverse starring pattern seems to hold; the positive sentence is uniformly rated much more acceptable than the negative one, cf. (17)–(20).

(17) John keeps forgetting that Nixon is bald, but he is.
(18) John does not forget that Nixon is bald, but he is.
(19) John regrets that Nixon is bald, but he is.
(20) *John does not forget that Nixon is bald, but he is.

Finally, there are factives like those listed in (21)

(21) crazy, sad, a tragedy, comical, enough, sufficient, instructive, exciting, defy, comment, surprise, alarm, fascinate, bother, put up with

for which a third starring pattern emerges: positive and negative but conjunctions involving items from (21) are not infrequently judged equally (un)acceptable, or much closer in acceptability than the corresponding pairs from (15)–(16). It must however be said that about but sentences involving (21) intuitions seem to be especially unclear and sometimes contradictory.\[9\]

Obviously, these different patterns of acceptability cannot be accounted for by Wilson's entailment hypothesis. However, by attributing presuppositional properties to factives, they cannot be readily explained either. Only factive sentences containing items from (21) exhibit to some degree the proper behavior with respect to but conjunction with their own complements; sentences involving factives from (15) and (16) do not. Taken at face value, the facts of but (and and so) conjunction are then irrelevant to the issue at hand. Yet they are interesting, and, on second sight, can be seen to even lead to an argument in point. Notice that the starring patterns do not vary freely over factives; there are semantic regularities—in terms of the idiosyncratic meanings of the verbs in question—behind them. This is obvious for all cognitives, i.e. factives con-

\[9\] I regard the list of factives assigned to (21) on the basis of limited data as no more than preliminary (and of course, as is the case with (15), (16), incomplete). Spurious items include for example sad (cf. great with clear polar judgments), comical (cf. exhilarating). I am convinced, however, that between (15) and (16) such a middle class with respect to the but conjunctions in question exists. Everybody I asked assigned at least some of the factives in (21) to the third acceptability pattern; moreover, the contradictory assignments seem to result from the informants' willingness to understand factives from (21) and the corresponding but sentences along the lines of (15b, c) and (16b, c, d).

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Stating KNOW in their semantic representation (cf. 15a, 16a). If they are lexically negative, they belong to (17), and if they are lexically positive, they belong to (17); none behaves like the factives in (21). The behavior of cognitives with respect to the but conjunctions considered above is then quite predictable: only if (after the law of double negation has applied) NOT KNOW is present in the propositional content of the factive sentence—no matter whether NOT derives from the meaning of the cognitive verb or from internal sentence negation—will but conjunction with its own complement sentence be permissible, and as such conjunction be odd.

A similar polarity can be observed with emotive factives. All the emotives included in (16b, c) entail that the facts expressed in the complement do not conform to our wishes and expectations; they are wished to be otherwise. For the emotives in (16b), however, no such relation of contrariness between predicate and complement holds. Taking into account that sentence negation will reverse this polarity, the behavior of emotives with respect to but conjunctions also becomes predictable. Only if an emotive factive sentence entails the wish that the complement sentence be false will the but conjunctions in question be acceptable and the and so conjunction presumably odd.

To some extent, this prediction also covers the behavior of the factives listed in (21). However, questionable the inclusion of some items into (21) might be, most of its members are either noncommittal as to the desirability of the truth of the complement, or at least much less committal than the emotives listed in (15b) and (16b). Reversal of behavior under negation, hence, cannot be expected. These facts, in themselves, do not of course serve to explain why but conjunctions of factive sentences with their complements can be acceptable at all. Accepting the framework of Robin Lakoff’s analysis of but, one might try to account for these cases in the following way. As to cognitive factive but sentences, the but’s in question seem to be instances of Lakoff’s “denial of expectation but.” Sentence S₁, but S₂ containing it are acceptable just in case the “presupposition” of but—Exp (S₁ → S₂)—can in some way be fulfilled. With respect to the acceptable but sentences discussed above this presupposition obviously cannot be

12 This account raises the question why the factives listed in (15b) and (16d), which certainly are just as noncommittal as the most pertinent items in (21), exhibit such a consistently different and politer oriented behavior. As present I have no answer to this.

stated solely in terms of the propositional content of the but conjunctions alone; it crucially involves the performative level. Take, for example, (12):

(12) S₁: John does not know that Nixon is bald.
S₂: (I assure you) It is true that Nixon is bald.
FSP: One (other) might expect that, if somebody does not know that X, X might not be true after all.

That the assertive function of S₂ figures crucially in the acceptability of (12) and (17) is supported by the fact that sentences of the form (13) exhibit exactly the same starrmg pattern as the sentences (11–12), (17–18), cf. (23)–(26):

(13) John (Y’s does not know) that X, but (I assure you) X is true.
(23) (does not know)
(24) John (keeps forgetting)
(25) *knows
(26) *(does not forget)

Since the second conjuncts of e.g. (12) and (23) are quite different in propositional content, this parallelism can only be explained by reference to the one level on which they are identical, the performative level.

Reference to the performative properties of but conjunctions is no ad hoc device. Hence, the apparent paradox of S₃ = (12) being acceptably but conjuncted with its entailment S₄: Nixon is bald dissolves in a natural way. Not know that X entails the truth of X, but not the assertion of the truth of X. This already might be sufficient reason to invoke the notion of presupposition as distinct from and irreducible to the traditional notion of entailment. For, if S₄ entails S₃ and “S₃” is asserted, then “S₄” is also indirectly asserted. But this is precisely not the case with presuppositions.

The acceptability of (12) and (17), then, has clearly to do with the pragmatic connections between the truth of X and the knowledge that X. The truth of X seems to invite the inference that one is aware of it, or, vice versa, somebody’s NOT KNOWING that X invites the inference that the truth of X might not be undoubtable after all. It is this latter inference (expectation) which in the acceptable but conjunctions involving cognitives is cancelled.

15 Cf. R. Lakoff (1971, 140f.) for sentences like Frite like bananas, but, after all, all members do. Their acceptability, too, can best be explained by reference to the performative function the respective conjuncts have when uttered in isolation.
The acceptable but conjunctions of emotive factive sentences with their complements require a somewhat different explanation. What seems involved there is not the "denial of expectation but"; rather Lakoff’s "semantic opposition but," the members of the opposition being wishful thinking regarding "-S" on the one hand (first conjunct) and the reality of hard fact regarding "S" on the other (second conjunct). Again, these opposites $S_1$, $S_2$ cannot be stated in terms of the conjuncts $S_1$, $S_2$ of the given but sentence $S_3$ alone. Rather, stating $S_2$ involves the performative level of $S_2$; $S_2$ must be deduced from $S_1$ by which it is entailed. Take for example (27a, b):

(27) a. If it is odd
b. John deplores

that Nixon is (should be) bald, but he is.

$S_1$ a. If it is odd
b. John deplores

that Nixon is (should be) bald.

$S_2$ a. Nixon is bald.

$S_2$ a. One (would have expected and still prefers) Nixon is not bald.

b. John wishes: Nixon is not bald.

$S_2$ a. b. (I assert shruggingly; it is true) a fact, that Nixon is bald.

Again, as with the cognitives, the paradox of sentences being acceptably but conjoined with their entailments is only apparent. Neither $S_1$, nor $S_2$, entails the assertion of the truth of the complement. This again can be seen as indirectly supporting the notion of presupposition as distinct from the traditional notion of entailment Wilson seems to advocate.

In the course of this discussion I have tried to establish two points: (a) the arguments Wilson cites fail to support an entailment analysis of factives, (b) the facts underlying her arguments can be reconciled with, even support, a presuppositional analysis of factives. This was not to say

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16 R. Lakoff (1971, 135). Notice that the evaluative factives in (190) and (196, d) which are commonly classed as "emotives" behave rather like the cognitives in that the corresponding but sentences seem to be instances of the "denial of expectation but".

17 For the role of deduction in interpreting but conjunctions cf. G. Lakoff (1972a, 661), R. Lakoff (1971, 135).

13 The adverb is meant literally. Utterances of the second conjunct of the but sentences in question are almost invariably accompanied by shrugging one’s shoulders. This indicates, that, with emotives, the assertion of the truth of the complement sentence $S$ "say" something else than with cognitives: it does not dispel doubts (cf. 18); rather, asserting that something which we already know is a fact is indeed a fact means "nothing can be done about it," "it can’t be helped".

References


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18 Cf. especially Karttunen (1971).