PRESUPPOSITION AND ITS APPLICATION TO THE ANALYSIS OF FACTIVE VERBS

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The aim of this paper is to present various approaches to presupposition, which originated as a logico-philosophical concept and eventually proved useful in linguistic analysis. Thus, some philosophical accounts of presupposition will precede linguistic considerations of the concept. The problem put forth here concerns the applicability of presupposition to the semantic analysis of factive verbs. However, before an answer to this question is attempted some solutions already offered by linguists will be worth quoting. It should be noted, though, that the present paper is by no means an exhaustive analysis of the issue. It is merely a brief account of the most significant works on presupposition and winds up with a tentative suggestion concerning the presupposition/factivity correlation.

The first mention of the notion of presupposition has been ascribed to G. Frege. It cropped up as a result of analysing the truth value of proper names in his article "On sense and reference" (1892; English translation by Geach and Black 1952). For the sake of clarity, it must be noted that what Frege labelled a proper name comprised linguistic items ranging from sign and sign combination to word and expression. Their semantic structure is two-fold since, as he claims, proper names express their sense simultaneously standing for (or designating) their reference. The concept of presupposition is crucial here, since whenever we use any proper name its reference is automatically presupposed, i.e. the speaker takes for granted the existence of an entity to which a given name refers. Furthermore, reference is the necessary condition for a S containing it to have a truth value, i.e. to be either true or false. If, however, this condition fails, no statement is made at all (p. 62), though in cases of proper names denoting fictitious characters, like *the King of France*, *Odysseus*, they will be ascribed either null-class membership or a conventional denotation, respectively. Hence, Frege concludes that the truth value of a S constitutes its reference and he recognizes only 2 truth values, thus sub-

scribing to the classical two-valued logic. Before concluding, it must be emphasized that Frege did not confine himself to defining the notion of presupposition and the consequences of its failure, since he also noticed its constant nature under negation (p. 69).

While the notion of presupposition had attracted philosophers ever since, Frege's theory underwent severe criticisms. B. Russell's "On denoting" exemplifies a refutation of Frege's ideas while proposing Russell's own conception of what he calls "denoting phrases". He distinguishes two types of these phrases, i.e. the most primitive ones, including indefinite pronouns, like *everything, nothing, something*, and more complex denoting expressions, with the definite article *the, the father of Charles II*. According to Russell, uttering a S *X was the father of Charles II* one asserts a uniquely existential proposition, thus (1905 : 481—2):

> ...we not only assert that X had a certain relation to Charles II, but also that nothing else had that relation.

However, if this condition of uniqueness fails, i.e. the denoting phrase lacks reference, the proposition containing it is false. Thus, unlike Frege, Russell argues that *The present king of France is bald* is a false sentence. Here is where he reaches the point of refutation of Frege's theory. He abandons the null-class membership and conventional denotation of the cases where there otherwise would be none in view of the fact that denoting phrases never have any meaning in themselves, but every verbally expressed proposition containing them has a meaning (480). Consequently, Russell distinguishes between two occurrences of denoting phrases: primary, i.e. standing in subject position, and secondary. In the former case the proposition is either true or false (and it is always false if the denoting phrase has no reference), so that both *The present king of France is bald*, and its simple negation *The present king of France is not bald* are false. However, when the phrase has secondary occurrence, as in external negation *It is false that there is an entity which is now a king of France and is bald*, then it is true, though the phrase may not denote anything.

Thus, in this work Russell worked out his theory within the framework of two-valued logic, employing only the T/F dichotomy. However, in *An inquiry into meaning and truth* (1966) he abandons his previous approach. While discussing the significance of sentences he identified it with a proposition, since significant sentences must, like propositions, be either true or false. Simultaneously, if S is nonsensical or violates syntactical rules, it cannot be labelled significant (170).

Russellian Theory of Descriptions was critically analyzed by Strawson (1952 : 175), who emphasized the S/statement dichotomy utterly neglected by Russell. He is even more precise in his article (1950 : 168—9), where he differentiates between a sentence, its use and its utterance. And it is not a S

which is true or false, but only it is used to make a true or false assertion, to express a true or false proposition. Consequently, the significance of a S is not, as Russell claimed, a result of its being true or false, but of its making a true or false assertion. And this will be the case when the speaker uttering a S talks about something. If he fails to do so, his use of the sentence is a spurious or pseudo-use, he does not make either a true or false assertion, though he may think he does (173). Thus, Strawson refutes Russell's account of presupposition failure in the famous *The king of France* case. He agrees (174—5) that the utterance *The king of France is wise* may be true only if the referring expression has a referent, otherwise the question of the truth value does not arise and the whole assertion will be neither true nor false (an instance of three-valued logic). Still, it will be significant because it could be used in certain circumstances to say something either true or false, and to know the meaning of S and the expression it contains is to know what these circumstances are (176).

In *Introduction to logical theory* Strawson gives an explicit definition of presupposition (176):

> The existence of the members of the subject class is to be regarded as presupposed by statements made by use of sentences, to be regarded as a necessary condition not of the truth simply, but of the truth or falsity of such statements.

He adds that the existence of the subject being presupposed cannot be simultaneously asserted by a statement, thus rejecting Russell's theory of existential sentences. As Strawson emphasizes, to presuppose the existence does not mean that the statement is existential in form. Finally, he comes up with a general definition of presupposition, i.e. "The truth of S' is a necessary condition of the truth or falsity of S", and contends that if S presupposes S' in this sense, then there will be a kind of logical absurdity in conjoining S with the denial of S' (175). Moreover, his explanation of the presupposition/entailment contrast gives much insight into the problem under discussion:

> In case of presupposition, conjoining S with the denial of S' results in logical absurdity (—). In case of entailment (when S' is a necessary condition of the truth of S) it is self-contradictory to conjoin S with the denial of S' (175).

Summing up, Strawson's modification of logical apparatus shed much more light on the problem of truth values of utterances and logical relations between them. He not only worked out a novel, three-valued framework for the analysis of S's containing referring expressions, but also elaborated on the concepts of presupposition, entailment and the impact of their failure on the truth value of propositions.

Strawson's account of definite descriptions was challenged by Sellars in "Presupposing" (1954). The main argument against Strawson concerns his notion of presupposition and the third logical value 'neither-true-nor-false'

rejected by Sellars in favour of the classical two-valued logic. Hence, he follows Russell, whose theory required, according to him, only some minor modifications.

Sellars claims that Strawsonian presupposition is too powerful a concept, since a sentence *Jones has stopped beating his grandmother* would on this account presuppose that he once beat her and assert that he does not do it now. Thus, presupposition failure, i.e. when the speaker does not believe or believes falsely that Jones once beat his grandmother, would result in the neither-true--nor-false value of the utterance. To escape this, Sellars abandons the notion of presupposition pertaining to speaker's beliefs and adheres to Russell's theory. Consequently, the S in question makes now two assertions: 1) Jones once beat his grandmother, 2) He does not do it now; so that if the first of them is false, the whole S is false too (204).

Having adopted this analysis, Sellars complements it with the following reservations concerning the conventions governing a discourse (note their pragmatic nature as opposed to strictly theoretical considerations discussed so far):

i. It is normally incorrect to utter a sentence unless one believes its first assertion to be true, i.e. to say *Jones has stopped beating his grandmother* if he never beat her

ii. It is equally incorrect to deny the truth of such a statement, though we may believe the first assertion to be false

iii. Consequently, it is assumed that in any statement of the structure *p and q* only the truth of *q* can be questioned since the truth of *p* is taken for granted. Thus, while saying "That's false" we always refer to *q* (206—207).

Strawson defended his theorems in "A reply to Mr. Sellars" (1954), which proved the indispensability of presupposition in logical analysis. He believes Sellars misinterpreted his concept of presupposition, which makes no reference to the beliefs of the speaker. On the contrary, these are compatible with assertion, not presupposition, the latter being analysable only in terms of truth values (216—17):

Whether or not a S has a truth value depends on one thing, viz. whether S' is true. Whether or not it is correct for the speaker to assert S depends on quite another thing, viz. whether or not the speaker believes that S'.

Strawson does not equalize the conditions under which a S has a truth value with those under which it is correct for the speaker to assert S. These are two distinct notions and the whole of Sellars' criticism is out of place. He also defends the status of presupposition which cannot be replaced by assertion, e.g. in questions and commands (*Has Jones stopped beating his grandmother?*). These do not assert anything about his once beating her, but they still presuppose it (217).

It is worth noting, however, that Strawson modified one of his contentions, i.e. that a statement with a definite description is neither true nor false unless this description has a reference. He admits that this does not apply to lies, S's with descriptions lacking reference but still comprehensible for the hearer, and utterances with these descriptions standing not in the subject position.

To recapitulate, Strawson's successful defense against Sellars was due to the fact that, as Strawson put it (230):

...we are not producing competing solutions to the same problem but noncompeting solutions to different problems.

Even though his analysis of sentences in terms of presupposition has been ever since considered one of the most successful attempts to solve this problem, Strawson's theory still did not escape other criticisms. Thus, Nehrlich's article "Presupposition and entailment" (1965) questions the status of presupposition as distinct from entailment. He accuses Strawson of adopting two incompatible positions as to the presupposition failure, i.e. it results either in the utterance being neither true nor false, or in making no statement at all. Nehrlich thus contends that each of these positions requires a different notion of presupposition (34). Consequently, in the former case, presupposition does not have to be distinguished from entailment since it in fact is a special case of the latter (35). As to the latter position, Nehrlich abandons it entirely, since it is false in some centrally important cases (41). According to him, when a denoting phrase lacks reference, it may be false, or the speaker simply fails to identify a sufficiently determinate proposition. Consequently, he defends Russell's trichotomy: true, false or meaningless.

It could easily be noticed that many of Nehrlich's arguments against Strawson were based either on far-fetched conclusions or simple misinterpretations. That is what Nehrlich himself admits in "Presupposition and the classical logical relations" (1967), particularly in connection with the definition of entailment. Nehrlich and Sellars were followed in their attacks on Strawson's theory by others, to mention only Austin or Roberts. Austin's objections concerned more general problems, like truth values, interpretation of facts, etc., whereas Roberts tried to prove that what Strawson called presupposition was in fact a case of entailment.

Be that as it may, the limited scope of this paper does not allow for a more detailed discussion of the problem. The present sketch of some linguistic applications of presupposition aims at presenting its most fundamental characteristics as worked out first by logicians and philosophers, and later on adopted and elaborated by linguists. And it is the linguistic approach to presupposition that will concern us at the moment.

Within the framework of TG it was Katz who first established the status of the semantic component. In his account of semantic analysis (1966) he ad-

vocates formulation of projection rules which will operate on the output of the syntactic component, i.e. on syntactic markers, and will finally result in the semantic interpretation of sentences.

Elaborating on the overall structure of the semantic component, Katz barely touched upon the concept of presupposition. It was mentioned by him and Postal (1964 : 116) in connection with questions:

> The notion of the presupposition of a question concerns a condition that the asker of a question assumes will be accepted by anyone who tries to answer it, e.g. *When did Harry go home?* PR.: *Harry went home sometime.*

Thus, according to them, "S is a presupposition of the question F if S is entailed by a sentence whose reading is identical to the reading of the Nucleus in the leftmost semantically interpreted underlying phrase marker of F, except that there is no wh-bracketing and the marker S → Nucleus replaces the marker Nucleus" (117). It must be noted that the concept of entailment used in this definition was later on worked out by Katz in *Philosophy of language* (1966 : 205) as one of the possible relations between sentences (along-side with syntheticity, contradictoriness and analyticity). Since Katz's early semantic studies did not deal much with presupposition, the gap was filled by other linguists. Their approaches to the problem will be labelled (after Kempson 1975) lexical, represented e.g. by Fillmore and the Kiparskys, vs. pragmatic (the Lakóffs, Cooper, et al.).

Fillmore ("Types of lexical information" 1971a) viewed presuppositions as a part of lexicon and defined them (370) as:

> ...happiness conditions for the use of the item, the conditions that must be satisfied for the item to be used 'aptly'.

The term 'happiness conditions' has been borrowed from the theory of speech acts, in which it determines the appropriateness of a given S in expressing a desired linguistic function. Fillmore adopts this approach on p. 380:

> Sentences in a natural language are used for asking questions, giving commands, making assertions (—). We may identify the presuppositions of a S as those conditions which must be satisfied before the S can be used in any of the functions just mentioned.

Thus, the sentence *Please, open the door* can be used as a command only if the hearer knows what door is meant and if it is not closed. At this point Fillmore stresses the constant nature of presupposition under negation, since the specificity of the door and its closed state still hold for a S *Please, don't open the door*, which gives quite distinct instructions.

It is worth noting that for Fillmore the latter presupposition is a property of the verb *open* and here is where we can justify the label 'lexical' ascribed to his approach. Although he does mention presuppositions of counterfactuals

(381), he basically discusses presuppositions of lexical items, and particularly of predicate words. For example, he describes the verbs of judging, like *blame, accuse, criticise* (390—92), which he already analysed in detail in 1969. In both articles (1971a and b) presuppositions concern such preconditions as: the situation being good or bad, its factuality, who is responsible for it and the relations between the arguments of the predicate, i.e. the Judge, the Defendent, etc.

As to the presupposition failure, Fillmore believes it leads to inappropriate utterances (1971b : 277) or:

> If the presuppositional conditions are not satisfied the sentence is simply not apt. (1971a:381).

Here his opinion seems to be very close to Sellars' pragmatic position and contrasts with Strawson's logical account. However, Fillmore's approach is justified in view of the fact that he was employing the speech act theory framework and not a purely logical one.

To recapitulate, it must be emphasized that while working within the theory of speech acts Fillmore drew a strict distinction between the presuppositional (implicit) and illocutionary (explicit) levels of speech communication situations. Moreover, though lexical information was for him the only factor relevant to the analysis of presuppositions, still he was aware that the problem also involved global properties of sentences and contrastive stress.

Almost simultaneously, R. Lakoff approached the issue under discussion pragmatically ("If's, and's, and but's about conjunction" 1971). She focusde the discussion on the notion of common topic as the precondition for sentences to be conjoined. Since it is not necessarily overtly present, the hearer must make presuppositions about the overt elements in the S by supplying from his experience, knowledge of the world or the prior discourse some facts linking something in one conjunct with something in the second (118—119).

While analysing *and* Lakoff distinguishes its two uses: the symmetric and the asymmetric ones. The former allows for any number of conjuncts in the S and they may change their order freely, whereas the latter usually conjoins two (however complex) sentences standing in causal or consecutive relationship (127—8). The relevance of presupposition to both uses of *and* is stated as follows (128—9):

> With symmetric conjunction none of the conjuncts is presupposed but all are asserted. What is, however, presupposed here is the common topic. With asymmetric *and*, the first member of the pair is presupposed, in order for the second to be meaningful. In fact, each of the later conjuncts presupposes the earlier ones.

Lakoff also adds that the denial of the presupposed conjunct renders the whole discourse nonsensical, which is, according to her, the usual result of presupposition failure. Concluding the discussion of *and* she notices a significant

contrast: the symmetric *and* requires only parts of the conjoined S's to be related by presupposition, whereas with the asymmetric use it is the two conjoined S's as wholes that participate in the relationship, not parts of them (131).

As far as the second conjunction under discussion goes, Lakoff distinguishes between the semantic opposition *but* and the denial of expectation *but*. In the former case two lexical items are opposed, which is explicitly asserted by the conjunction: *John is tall but Bill is short*. The latter involves implicit presupposition (our expectation) which being not fulfilled allows for the use of *but* conjoining two assertions: *John is tall but he is not good at basketball*

           PR.: Someone tall must be good at basketball

           ASS.: John is tall and is not good at basketball (133).

Thus, with contrary to expectation *but* there is an implicit presupposition which sometimes has to be deduced, whereas in a S with semantic opposition *but* presupposition is part of the lexical item which is contrasted, rather than residing in speaker's knowledge of the world, and therefore his expectations (134).

The analysis of *or* employs the natural language approach which tends to treat it as an exclusive conjunction. Hence, the two disjuncts share a common topic which is asserted and presuppose that if one disjunct is true, the other is necessarily false (142). There is a significant difference between *or* and the other two conjunctions, at least in their asymmetric senses, since in the case of *and* and *but* the first conjunct was presupposed, while with *or* the truth of the first S is never presupposed; if anything, its negative is, when the second S is to be considered true or possibly true (148).

Note that R. Lakoff's pragmatic approach to presupposition pertains to the analysis of aspects of semantics distinct from what Fillmore took into account in his lexical approach. She did not limit herself to lexicon and was mainly concerned with intersentential relations. As was noted above, G. Lakoff also adopted the pragmatic framework of analysis, though dealing with slightly different issues.

In "Presupposition and relative well-formedness" (1971a), he challenges Chomsky's accounts of grammaticality and well-formedness of sentences, as it makes no sense to judge these properties in isolation. Lakoff suggests instead the concept of relative grammaticality, i.e. sentences are well-formed only with respect to some presuppositions about the nature of the world. The principles by which a speaker pairs a sentence with those presuppositions are part of his linguistic knowledge, i.e. linguistic competence. However, the speaker's judgements concerning the well-formedness of sentences originate in his knowledge of the extra-linguistic world, thus enter the sphere of performance (329—330).

Lakoff supports his proposal with several examples. For instance, the choice between the relative pronouns *who/which* involves the presupposition

that the antecedent NP must be human and alive at the time referred to in the S, viz.:

    *The dead man, who I came across in the alley, was covered with blood

    The dead man, who I had once come across at a party in Vienna, now looked a 'mess*

As to reciprocal contrastive stress, it is a consequence of presuppositions the speaker makes about the first conjunct of the sentence; in

$$\text{John called Mary a} \begin{Bmatrix} \text{whore} \\ \text{Republican} \\ \text{virgin} \\ \text{lexicalist} \end{Bmatrix}, \text{and then she insulted him}$$

we can use primary stress on both pronouns, thus implying that Mary reciprocated John an insult, only if we believe (presuppose), that calling a girl a whore, a Republican, etc. constitutes an insult. Compare the previous S with unacceptable:

    John praised Mary and then she insulted him (333).

Lakoff's "The role of deduction in grammar" (1971b) is an elaboration of the ideas presented above. He analyses some more instances involving presuppositions, e.g. the occurrence of *but* and *too*, and winds up with the following conclusion:

> ...the general principles governing the occurrence of *too, but* and reciprocal contrastive stress can be stated only in terms of presuppositions and deductions based on these presuppositions, i.e. certain sentences will be grammatical only relative to certain presuppositions and deductions (69).

In conclusion, Lakoff offers a modified account of grammaticality which, as he claims, must be defined relative to assumptions about situational contexts and to thought processes, assuming that natural logic deductions are a first approximation to a formal representation of thought processes (69).

What has been analysed so far was presupposition as viewed by philosophers on the one hand, and linguists on the other. The former account exhibited, with the exception of Sellars, the logical concept of presupposition, whereas the latter approached presupposition pragmatically, i.e. as a condition to be observed in speech-communication situations. This distinction was brought into focus by Keenan ("Two kinds of presupposition in natural language" 1971). First, the basic definition of presupposition and its failure is given (45):

> ...the presuppositions of the sentence are those conditions that the world must meet in order for the sentence to make literal sense. Thus, if some such condition is not met (—) then either S makes no sense at all or else it is understood in some nonliteral way, e.g. as a joke or metaphor.

Then, depending on the apparatus at hand, presupposition may be analysed

as a logical concept or as a pragmatic one. The definition in terms of truth and logical consequence is as follows (45—46):

> A sentence S logically presupposes S′ if the truth of S′ is a necessary condition on the truth or falsity of S. Thus, if S′ is not true, then S can be neither true nor false and must be assigned a third or "nonsense" value.

Keenan emphasizes (48) that logical presupposition is defined only in terms of abstract sentences and the world. Consequently, speaker's beliefs have nothing to do with whether the sentence makes a particular logical presupposition.

In case of pragmatic definition (49), "an utterance of a S pragmatically presupposes that its context is appropriate", if these contexts are not satisfied then the utterance is not understandable or is understood in some nonliteral way.

It must be noted that Keenan did not employ the concept of speaker's beliefs in either of these definitions, since:

> Logical presupposition is defined ultimately on the relation between the base structures and the world. Pragmatic presupposition is defined on the relation between utterances and their contexts (51).

After some theoretical considerations presented above, it will be shown how the concept of presupposition can be applied to semantic analysis of verbs called factive. The term is due to the Kiparskys, whose article "Fact" (1971) deals with a group of verbs taking *that*-complements either as subjects (*suffice, amuse, bother, matter*, etc.) or objects (*regret, resent, ignore, mind*, etc.). Juxtaposing two S's:

I regret that it is raining vs. *I suppose that it is raining*

they claim (348) that the first S carries a presupposition that it is raining, i.e. its complement is presupposed. In fact, their contention is that the speaker presupposes the truth of the embedded clause, expressing a true proposition and makes some assertion about this proposition. On the other hand, it is not the case with the second S, which only asserts a supposition. The Kiparskys conclude that only the predicates that behave syntactically as factives have this property.

It should be pointed out now that the present remarks will be strictly confined to the semantic analysis of factives due to the limited scope of this paper. Hence the syntactic considerations, however interesting, will be ignored.

The Kiparskys further emphasize that factivity depends upon presupposition, not assertion, and the propositions the speaker asserts to be true should be distinguished from those he presupposes to be true, e.g. (349):

It amuses me that John is blasted   Ass.: Something amuses me/John is blasted
                                   Pres.: John is blasted

To recapitulate, their own statement from p. 354: "Presuppositions are relative to the speaker", immediately classifies the Kiparskys as the advocates of the pragmatic approach to presupposition.

An analogous stand was taken by Karttunen, who in his series of articles (1970, 1971a, 1971b, 1973) elaborated on the Kiparskys' observations. In "On the semantics of complement sentences" (1970 : 328), he contends that the truth value of a S is not to be included in the semantic representation, since something may be regarded by the speaker to be true and yet not be true. So he defines the relation between a factive verb and its complement in terms of speaker's beliefs (1971b : 3):

> Any simple assertion with a factive verb commits the speaker to the belief that the complement S is also true.

This leads him to weakening the logical definition of presupposition, in favour of a linguistic definition (1971b : 3):

> P presupposes Q when if P is asserted, denied or questioned, then the speaker ought to believe that Q.

Analysing various groups of verbs taking *that*-complements, Karttunen classified factives as presupposing their complements, since both in affirmative and negative sentences the speaker is committed to the truth of the complement S, e.g.:

I regret (don't regret) that it is raining

To formalize his observations, Karttunen proposed meaning postulates accounting for the relation between the verb and the complement S. Thus, in case of factives:

    v(S) ⊃ S′   'v(S) is a sufficient condition for S′
    ~v(S) ⊃ S′   'v(S) is a necessary condition for S′

a sentence with these verbs is a necessary and sufficient condition for its complement to be true.

Karttunen also devoted much space to other types of verbs exhibiting somewhat weaker relations with their complements, e.g. implicatives entailing the truth of their complements (*happen, bother*), *if*-verbs expressing only sufficient condition for the truth of S′ (*cause, force*) and *only-if*-verbs implying the falsity of their complements in negative sentences (*can, have the time/chance/opportunity*).

It is worth noting that, working within the pragmatic framework, Karttunen strongly emphasized the distinction between proposition carrying the illocutionary force of S, thus being subjected to questioning, negating, etc., and presupposition, i.e. the unstated beliefs of the speaker underlying this proposition (1971a : 350).

A further contribution to the problem can be found in Karttunen (1973),

where he distinguishes 3 types of predicates affecting the presuppositions of compound sentences. Thus, plugs (verbs of saying) block off all the presuppositions of the complement S; filters (conjunction, disjunction, conditional S) cancel some of the presuppositions under certain circumstances; whereas holes let all the presuppositions of the complement S become the presuppositions of the matrix S. And in the light of previous discussion, it is to the last group that factives belong.

Karttunen's work stimulated other linguists to the analysis of the factivity/ presupposition correlation. An overall refutation of presuppositional analysis of factives was presented by Wilson (1972). She argued that the relation between S with a factive verb and its complement S' is that of entailment and that there is no point in talking about logical presupposition as distinct from it (406). Having constructed a logical argument out of sentences containing *know* she claimed that a presuppositional account would lead to an absurd result, i.e. the conclusion being both true and false. Thus, factives do not presuppose but entail the truth of their complements, since in case of entailment the truth of S implies the truth of S' and the falsity of S' renders the whole S false (407).

Wilson developed her ideas in "Presupposition, assertion and lexical items" (1975). What is brought into focus there is not the logical distinction between presupposition and entailment, but the pragmatic presupposition/ assertion one. Wilson rejects this contrast due to the wrong juxtaposition between assertions determining the semantic content of S's and presuppositions, which contribute only to the appropriateness conditions. In fact, both are relevant to the speech act content, thus there is no distributional basis for the presupposition/assertion distinction (98).

Numerous examples back up her position, so she claims that complex sentences cannot be treated as carrying presuppositions. The same holds true for simple sentences and factives in various constructions. She also rejects Karttunen's division of predicates into plugs, filters and holes and maintains that the interpretation of negatives, questions, conditionals, etc. should comprise two distinct presupposition-carrying and non-presupposition-carrying uses. Wilson's final conclusion states (113) that semantic analysis can do without presupposition and rely only on assertion/entailment dichotomy in pragmatic and logical approaches, respectively.

Questioning the indispensability of presupposition in semantic analysis is also due to Kempson (1975), who abandoned all the earlier versions of presuppositional analysis (60—64). The speaker-relative concept of R. Lakoff's as well as G. Lakoff's sets of pragmatic presuppositions lack, according to her, any explanatory adequacy. Fillmorian lexical presupposition does not, on the other hand, differ from the logical definition of entailment.

As far as factives go, Kempson makes some observations concerning the cancellation of the alleged presupposition in negative sentences, a phenomenon impossible in affirmative ones. Since presupposition fails to explain these facts, it is only entailment that can be said to hold between factives and their complements (71).

Kempson also refutes Karttunen's (1973) division of predicates, since if factives, i.e. holes, are in the matrix S, there is no test between presupposition and entailment (in both cases the truth of S implies the truth of the complement S) (69). Thus, there is no three-valued logic incorporating presupposition which is not distinct from entailment. The analysis of factives should, therefore, be carried out on a pragmatic level of explanation (82).

The pragmatic account comprises both definite NP's and factives described in terms of conversational implicatures. Both pragmatic properties of definite NP's: that in NG and Q the implication of existence of NP will not be included within the scope of the operator and that in all sentences there is a general implicature that the speaker believes the hearer knows the referent — are shared by the complements of factive verbs. As Kempson puts it:

> Factives implicate that the proposition expressed by their complement is a member of the Pragmatic Universe of Discourse, except in coordinate environments, so it follows that in any assertion (whether negative or positive), question, or command, these propositions would be assumed to be true (190).

A completely different position was taken earlier by Cooper (1974). While discussing some paradigmatic cases of presupposition, he challenged the explanatory adequacy of all the previous solutions to the problem. On the one hand, they were too extreme and labelled too many or too few cases as presuppositions (family resemblance and the austere view, respectively). On the other hand, they failed to offer sufficient explanation and provide satisfactory analysis of some crucial cases, like *the king of France* one (the truth condition and the conceptual accounts).

Cooper advocates the incorporation of presuppositions into the speech act theory, where they will be defined as certain necessary conditions for the performance of speech acts. Having analysed the notion of speaker's beliefs Cooper comes up with a more general definition of presupposition (97):

> An assertion to the effect that a is θ presupposes that a is satisfied.

where a ranges over events, classes, properties, things, persons, and θ may express any property.

He extends his theory to other speech acts (Imp, Q, Cond.) and winds up with a final formulation:

> To say 'U's speech act *a is θ* presupposes a' means U's belief that a is satisfied is a necessary condition of U's performing the speech act in the sense that U could not have the required M-(MM-)intention otherwise'.

Hence, Cooper works out his notion of presupposition within the framework of the speech act theory and accounts for the presupposition satisfaction in terms of speaker's intentions.

The main purpose of this paper was an overview of philosophical and linguistic approaches to presupposition, and that is what has been done above. No evaluation of these theories has been offered, since, as could be noticed, many of them were counterbalanced by alternative proposals. The limits of this paper do not allow for presenting any explicit theory the author believes to account for the presupposition/factivity correlation. However, a few remarks presented below constitute the general direction that might be taken to reach one of the possible solutions to the problem.

These tentative observations have been inspired by Rosenberg ("Factives that aren't so" 1975). He claims that factivity is by no means an independent property of a given group of verbs, but is determined by such pragmatic factors as emotivity, time and the difference between first person and third person subjects (1975 : 475).

Consider the following examples:

1. I regret that I have not seen the Christmas tree in front of Rockefeller Center
   *but I have actually seen it
2. I regret that Egypt has started the negotiations with Israel
   ??but the Egyptians actually broke the talks
1'. I regretted that I had not seen the Christmas tree in front of Rockefeller Center
   ?but I actually saw it while being drunk
2'. I regretted that Egypt had started the negotiations with Israel but the Egyptians actually broke the talks

Both pairs of sentences have *regret* as their main verb, which is normally said to presuppose the truth of its complement. We are concerned here with two factors affecting the presupposition: the first person subject, thus expressing the most subjective judgement, and the tense (present and past, respectively). It could be noticed that the sentences with first person subject in the present tense presuppose the truth of their complements (we cannot deny their truth without getting a nonsense), since, according to Rosenberg (1975:478), it is unlikely for anybody to observe a rule: "I have an emotional reaction to X, a situation I know is not the case". Note that in case of subjective observations (1), if the complement is denied, the result is an utterly ungrammatical S. In case of objective facts described by the complement, their denial renders a slightly more acceptable S (which may be understood self-mockingly). Thus, the degree of factivity of the verb diminishes as the objectivity of the facts referred to by the complement increases.

The situation is even more evident in the past tense, where with subjective observations presupposition still holds, but in case of objective facts it can be easily denied. I could regret something being not aware of the fact that it was not really the case.

In sentences with third person subjects the objectivity factor still increases, since the subject's opinion is judged by the speaker (utterer of the performative hypersentence) and the information available to both may differ. Consequently, the truth of the complement S believed by the third person subject may not be believed to hold by the speaker and thus explicitly denied (both in case of objective and subjective states of affairs):

3. John regrets that he has not seen the Christmas tree in front of Rockefeller Center but he had actually seen it while being drunk
4. John regrets that Egypt has started the negotiations with Israel but the Egyptians actually broke the talks

It goes without saying that the complements of sentences with the third person subject are also deniable in the past tense.

As was observed by Rosenberg (1975:478), people react emotionally to states and events that exist rather than to non-existent, fictitious or hypothetical ones. Still, they may react to something based on incorrect evidence or deduction, which is the case above.

Talking about a third person's beliefs and opinions is more objective than expressing one's own judgements. This supports our claim that factivity decreases as objectivity grows up to the point of absolutely objective statements about another person. In such situations the maximum objectivity cancels the presupposition carried by the complement.

My last contention is that the pragmatic account of factivity is a highly relative and thus vague notion. If presupposition holding between a factive verb and its complement is defined in terms of the speaker's commitment to the truth of this complement, then factivity loses its explanatory power. It is no longer an idiosyncratic feature of a limited group of verbs, but can be ascribed to virtually any verb taking *that*-complement.

Compare the three sets of sentences with *that*-complements following the factive, semi-factive and non-factive verbs, respectively:

5. I $\begin{cases} \text{deplore} \\ \text{regret} \\ \text{resent} \\ \text{ignore} \end{cases}$ (the fact) that the last snow storm stopped the traffic on LIE

6. I $\begin{cases} \text{discovered} \\ \text{believe} \\ \text{see} \\ \text{realize} \end{cases}$ (the fact) that everyone is getting bored right now

7. I $\begin{cases} \text{criticize} \\ \text{like} \\ \text{notice} \\ \text{confess} \end{cases}$ (the fact) that the library closes so early on Friday

It seems worth investigating to me why only the first group of verbs is said to presuppose the truth of their complements, when it is both unusual to regret or ignore something which is not the fact as it is weird to like or confess a non-existent state of affairs.

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