#### KNOWLEDGE AND ANALYTICITY

### Ryszard Zuber

Analytic sentences are immune from falsification because the truth conditions of what they assert are independent of extralinguistic facts, for as Kant argues, the meaning of the predicate of an analytic sentence contains only attributes that are semantic components of the subject. A speaker possessing a full knowledge of a given language and capable of analysing all expressions of this language can decide whether or not a given sentence is analytic on the basis of semantic considerations alone. One can say that the speaker knows whether a given sentence is analytic because he is able to make the necessary analysis of the semantic components of the sentence. Thus every 'normal speaker' has knowledge about the truth of analytic sentences and this knowledge is, so to speak, purely linguistic and not dependent on ones experience. Moreover every speaker is equally aware of both his own linguistic competence and that of other members of his speech community. These remarke suggest, perhaps, that if p is an analytic sentence and A a normal speaker, then the sentence (1) is also analytic:

## (1) A knows that p

Indeed, I now intend to show that using a recently proposed definition of analyticity, we should have to consider as analytic a complex sentence, such as (2) which has as main verb *know* (or *realise*, *remember*, etc.) and as the complement an analytic sentence:

# (2) A knows that all bachalors are unmarried

The proposed definition is the one developped in linguistic semantics by Keenan (1973) (see also Zuber (1975)):

A sentence is analytic if and only if it presupposes itself

Presupposition is understood in the following way:

Sentence S presupposes sentence T if and only if to S is assigned the value *indeterminate* (non-true and non-false) in every interpretation in which to T is assigned the value non-true

Following this definition an analytic sentence does not assert (entails without presupposing) anything.

We can thus consider as analytic even those sentences which do not have a simple subject-predicate structure, i.e.

- (3) The mosquito (that) the colonel killed is dead
- (4) The colonel does not hate the things he likes

Now to be able to apply the above definition of analyticity to sentence having as a component the operator know, the following property of this operator is pertinent: the operator know when applied to the presupposition of the complement sentence gives the presupposition of the complex sentence. More precisely, if the sentence S(p) presupposes p, then know S(p) presupposes know(p).

Thus (5) presupposes (6), and (7) presupposes (8):

- (5) A knows that the mosquito the colonel killed is dead
- (6) A knows that the colonel killed a mosquito
- (7) A knows that only the colonel is intelligent
- (8) A knows that the colonel is intelligent

Clearly, not only does (5) entail (6), and (7) entail (8), but also the natural denial of (5) entails (6), and the denial of (7) entails (8) (1) We can now demonstrate that using the proposed definition of analyticity, complex sentences such as (2) are analytic.

<sup>(1)</sup> We consider here that (i) (in its opaque reading) entails (ii):

<sup>(</sup>i) A does not know that the girl B met is leftist

<sup>(</sup>ii) A knows that B met a girl

One can object that (i) can be true and (ii) false because of (iii):

<sup>(</sup>iii) A does not know that the girl B met is leftist because he does not know that B met a girl

But this argument is false because it relies on a transparent reading of (i). Moreover, an analogous objection would be valid for the well-known

Let p be an analytic sentence. Then
p presupposes p (definition of analyticity of p)
know (p) presupposes know (p) (property of know)

Consequently *know* (p) is analytic because it presupposes itself. Thus sentence (2) is analytic)

There remains a problem with the subject of the verb know. The existence of that subject and as well as its possession of certain properties can normally be considered as a matter of empirical facts, and consequently someone might argue that the truth conditions of the sentence with such a subject depend on the physical world. This objection, if valid, works against the proposed definition of analyticity: any supposedly analytic sentence will be contingent on the physical world by fact of being contingent on a presupposition which is itself so contingent. But whatever truth values of the presupposition of an analytic sentence may be, this sentence will never be false. For note that any consequence of an anlytic sentence is its presupposition, and consequently the non-truth of any consequence of such a sentence entails lack of truth-value for it. Thus an analytic sentence is either true or indeterminate but never false.

Now the existence of the subject of a complex sentence with know and the linguistic competence of this subject are presupposed and not asserted, and consequently when the subject does not exist, is not a human being or is not fully competent linguistically, then the complex sentence lacks truth value but does not cease to be analytic. (2) This point can be more easily seen perhaps by looking at the denial of an analytic sentence with know:

existential presupposition about the king: (iv) The king is not bald because he does not exist. And both (iii) and (iv) have the same status.

<sup>(2)</sup> If one does not agree that the existence and linguistic competence of the subject are presupposed, then one can take an indeterminate subject like for instance *someone*, obtaining thus a weaker generalisation of analyticity:

<sup>(</sup>i) Someone knows that all bachelars are unmarried.

- (9) A does not know that the mosquito the colonel killed is dead (9) will be true either when (10) or when (11) is true:
- (10) A does not know that the colonel killed one mosquito
- (11) A is not a human being

But both (10) and (11) are presuppositions of (9) or else (10) indicates that (9) is taken not in the opaque but in the transparent reading. But in this case (in the opaque reading) the complement of (9) is not an analytic sentence. Thus no consequence (which is not a tautology) of (9) is ever true and consequently (9) is a contradictory sentence.

#### REFERENCES:

Keenan, E.: «Presupposition in Natural Logic», Monist 57, 1973.

Zuber, R. «Propositions et opérateurs propositionnels», thèse de doctorat en logique, Université René Descartes, 1975.