An attempt at logical analysis of topic/focus articulation (TFA) has been made in [1] and [2], an empirical analysis of this articulation and a framework for its description was presented in [3] and [4]. Preserving the logical basis of our analysis, i.e. transparent intensional logic (TIL), see e.g. [5], we shall try to show that TFA of a sentence S can be logically accounted for if S is understood as a “redundant answer” (see [6]) to a Wh-question. Only empirical, i.e. non-mathematical sentences are considered in the present article; the reason for this limitation can be found in [7].

1. QUESTIONS AND ANSWERS

According to [7] and [9] the only component of an interrogative sentence that is analyzable in terms of a strictly logical approach is that “pragmatically neutral” component whose logical analysis is a construction that constructs an intension of the nth degree, \( n \geq 1 \). \(^2\) (We recall that \( i, o, \tau, \) and \( \omega \) are the types of individuals, truth-values, time points (real numbers), possible worlds, respectively, and that where \( \eta, \xi_1, \ldots, \xi_n \) are the types, \( (\eta\xi_1 \ldots \xi_n) \) is the type of functions from \( \xi_1 \times \cdots \times \xi_n \) to \( \eta \); the \( (((((\eta\omega)\tau\omega)\cdots \tau\omega)n) \)-objects are intensions of the nth degree. For \( n = 0 \), the objects are called extensions). The resulting intension can be called a question in this context.

A direct non-redundant answer to a question \( Q \) of the nth degree is a name of an intension of the \( (n-1) \)th degree. Indeed, asking a question \( Q \) one expects that the answer will refer to the value of \( Q \) in the actual world at the time point of speech, which would mean that the answer is the right answer.

A wrong answer that is all the same an admissible answer to \( Q \) refers to the value of \( Q \) in some other world-time pair (in the sequel, we write just “wt-pair” instead of “pair of a possible world and a time point”).

One also can construct an indirect non-redundant answer to a question \( Q \) of the nth degree: such an answer names an intension of the same type as \( Q \). Thus asking, who is the tallest man in the world, one can obtain direct non-redundant answers, viz. names of various individuals (the type...
of the question is $\omega_0$, or indirect non-redundant answers, naming various individual concepts (i.e. $\omega_0$-objects) such as

- the American President
- the strongest man in England
- etc.

Whereas a non-redundant answer to Q names an object from whose type the type of Q is derivable (being the same type or one degree higher), a redundant answer always names a proposition: it is always a (declarative) sentence. Therefore, the role of redundant answers has been criticized by Tichý in [9]. His objection to being in earnest with redundant answers consists in showing that owing to the monotonous $\omega_0$-type of redundant answers one cannot determine the question to which the redundant answer has been given. We shall show, however, that one can standardize the logical analysis of redundant direct answers in such a way that the corresponding questions can be unambiguously constructed. At the same time we shall show that such a standardization helps us to distinguish logically between sentences differing only in TFA.

Our approach to TFA is based on the results of Czech structural linguistics; a first attempt to include TFA into a generative description was made in [12]; our critical remarks to Chomsky’s account of presupposition and focus can be found in [3, pp. 161–165].

2. SOME EXAMPLES

Let us give some simple examples, to be logically analyzed in the next paragraph. Italics indicate the focus of the given sentence.3

1) Tom loves Mary.
2) Tom loves Mary.
3) Tom loves Mary.
4) Tom sells Jim a car.
5) Tom sells Jim a car.
6) Tom sells a car to Jim.
7) Tom sells Jim a car.

Unless we take TFA into account, (1)–(3) seem to express the same construction, viz. (1').

(1') $\lambda w (\lambda t [A v t][M])^4$.

The same holds for (4)–(7), where the construction is

(4') $\lambda w (\lambda t \exists x ([S v t T J x] \land [C v t x])).$