

SUMMARY

THE NATURAL SEMANTICAL SYSTEM OF LANGUAGE

It is a well-known fact that natural language can use the same form of verbal expression to convey different meanings. Among the problems concerning denotation of nominal phrases like proper names, definite and indefinite descriptions and mass nouns, the ambiguities and also the more subtle shades of meaning are especially interesting. Ever since the philosophy of language called attention to these phenomena, they were seen as highly problematic.

We were interested in the question how language manages to convey those different meanings by using the same form. We wanted to explain how a listener can extract unequivocal information about the real or imaginary world meant, from an in itself highly ambiguous sentence.

Partly inspired by observations of phenomena of intonation, which accompanied again and again in a parallel way the ambiguities and nuances, we saw a system in these phenomena: natural language has the possibility of using nominal phrases in (four) different ways, thus causing a systematic (fourfold) ambiguity whenever there is a nominal phrase in a sentence. This ambiguity is intuitively the same whatever the nominal phrase looks like and whether there is a negation present or not. Thus the phenomena that from a logical point of view seemed very diverse and problematic, turn out to be just systematic.

To formalise this observed system we developed a theory consisting of (I) a rather new kind of model (to be seen as a variant of the partial models developed recently) and (II) a set of rules connecting the data of text and intonation with such a model.

(I) Reality can be made theoretically manageable - to an extent that is good enough to explain the functioning of language - in a language-dependent, intersubjective model with minimal assumptions about what really there is. It is not directly this model the text is interpreted upon.

The text is read by the rules as a series of instructions to gradually build up a (text)model, which looks to a great extent like a model of reality, but is more complicated because of the necessity to correctly represent the uncertainties a text leaves about the world meant. Sentences that cannot directly be read as instructions to build up the textmodel - for instance, negative sentences - are interpreted as instructions or prohibitions for the future construction of the textmodel. The model is open, so necessarily not two-valued; it represents the world meant by the text in a hypothetical way, that is to say, according to the limited and possibly distorted information the text offers about that world.

The meaning of the text can totally be given on the level of the textmodel. For whoever is interested in truth-conditions, these are determined by these meanings, and they can be defined between textmodel and model of the world.

(II) The ambiguities accompanying noun phrases we explained as follows: most noun phrases are not ambiguous themselves, each noun phrase has a meaning of its own, which is rather different for, for instance, proper names, definite descriptions, indefinite descriptions, and mass nouns. These meanings can nevertheless be defined in a parallel way, as the set of possible denotations (may be just one). Then there is a systematic ambiguity in the uses the noun phrases can be put to, and this ambiguity in use is the same for most noun phrases. For instance, a noun phrase can be used to denote one of the possible denotations, but not necessarily. The interpretation rules make it possible to connect a noun phrase in four different but related ways directly with the textmodel. Features of the intonation determine which variant of the rules has to be chosen.

The contribution a noun phrase makes to the meaning of the sentence is determined partly by its own meaning, partly by the use that is made of it. Thus by one set of rules the diverse ambiguities and nuances of the different noun phrases are explained, while the logical differences between them are also accounted for.

This theory was first applied to a syntactically simple, but semantically very rich fragment of Dutch, containing the noun phrases proper names, definite and indefinite descriptions and mass nouns, in combination with negation. Almost all semantical phenomena could be accounted for in a natural way. The explanatory power of the theory is especially notable in (1) negative sentences, where the various phenomena are a consequence of the rules (the so-called "scope" phenomena in case the negation follows the noun phrase, as well as the absence of such phenomena where the noun phrase follows the negation, as well as the presence of another, more subtle ambiguity in the last case); (2) the exist-sentences, the positive as well as the negative ones; and (3) the so-called "generics", where some surprising phenomena are predicted and consequently observed.

We formulated some hypotheses about what exactly are - in Dutch - the features in the intonation that determine the choice of the proper interpretation rule.

We enlarged the fragment so as to cover plurals (which are ambiguous themselves), every and all, and sentences containing objects.

We spend some words on modality, uncertainties, disagreement and fiction.

Finally we went into some classic and into some current discussions of the linguistic phenomena concerned.