

Preface

This volume contains a selection of the papers that were presented at the Fifth Amsterdam Colloquium, which took place in August 1984. The papers collected in this book are contributions to the theory of generalized quantifiers, or to discourse representation theory (or to both).

The paper by van Benthem explores the idea of giving a procedural, rather than a declarative meaning to quantifier expressions, by treating them as 'semantic automata'. The Chomsky-hierarchy, familiar from mathematical linguistics and automata theory, turns out to make sense in this semantic field as well, providing us with a means to develop a fine-grained notion of 'complexity' for denotations. Taking a procedural view also allows us to give a new twist to matters of definability, shedding new light on the constraints used in characterizing logical determiners in earlier work. Keenan's contribution deals with the issue of the relative freedom that natural languages allow themselves in expressing possible denotations by means of lexical expressions. He claims that this freedom is a function of the size of the set of all possible denotations: small categories have more freedom than large ones. Though his analysis deals with several kinds of categories, the main inspiration for this investigation clearly derives from results in the theory of generalized quantifiers, to which it is another contribution as well. Löbner's paper is concerned with extending the theory of quantification in another direction. Quantification, he claims, is not a phenomenon that is restricted to noun phrases, but its application extends to several kinds of adverbs, modal verbs, verbs taking various types of complements, certain types of adjectives, and so on. In every such case, the notions and principles of the theory of generalized quantifiers (such as duality and monotonicity) can be applied fruitfully. Analyzing the meanings of non-nominal quantifiers such as *already/still*, *enough/too*, *big/small*, Löbner develops the conception of 'phase quantification', which he offers as a candidate for the general format of natural language quantification. In Verkuyl's paper we find an application of the theory of generalized quantifiers to yet another descriptive set of problems: the determination of the aspectual properties of sentences. Considering the basic aspectual opposition to be that between 'durative' and 'non-durative' aspect, Verkuyl develops a combinatorial mechanism that allows one to derive the marked one of these two: non-durativity.

With Partee's paper we are at the borderline between the two main topics of this volume. Her objective is to show that the theory of NP-interpretation

from generalized quantifier theory, and referential analyses of NP's such as definite descriptions, or the referential semantic analysis of indefinites that we know from discourse representation theory, can be reconciled if we allow ourselves more flexibility in relating syntax and semantics. General type-shifting principles, applicable in other domains of analysis as well, will allow us to go from one interpretation to another, thus giving us the best of both worlds, at least in semantics. A related paper is the one by Turner. Whereas Partee argues for a flexible relation between the categories of syntax and the types of semantics, Turner claims that natural language, in view of its possibilities of direct and indirect selfreference for example, needs a type-free theory. In his paper Turner not only wants to substantiate this claim, which he does by discussing various problems in the semantics of nominalizations, he also sets out to develop the foundations of a type-free theory which can be applied in natural language semantics. The paper by Klein is primarily devoted to a descriptive issue, the analysis of verb phrase ellipsis in discourse representation theory, but behind it lies a theoretical question: can the theory be made to conform to the 'rule-to-rule' format of compositionality, familiar from standard Montague grammar? While not tackling this question in its full generality, Klein argues for extending the formalism of discourse representation theory to incorporate a device similar to lambda-abstraction. This both facilitates the treatment of VP-representation, and also has the side-effect of allowing Kamp's treatment of *every* and *a* to be assimilated to the pattern of generalized quantifiers. Zeevat's paper investigates to what extent discourse representation theory can be interpreted as a formalization of a phenomenological theory of thoughts. In terms of this interpretation the theory is then applied by Zeevat to the semantics of belief-sentences, addressing many of the well-known problems in this area.

From this brief indication of the contents of the various contributions, it may be clear that they share a common theoretical and philosophical interest in the foundations and applications of semantics, yet that they also display a variety of approaches and frameworks. 'Logical' semantics in the broad sense of that word is no longer tied to a particular framework or set of principles, as it was at the stage of its inception. Rather it is a many-coloured thing. We hope that the papers in this volume may help to convince the reader that this is a virtue, rather than a vice.

A companion to this volume, containing various papers read at the colloquium which deal with the foundations of pragmatics and lexical semantics, appears as GRASS 7.

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The Editors