EDITORIAL PREFACE

On 16 and 17 May 1997, the Belgian Society for Logic and Philosophy of Science (Belgisch Genootschap voor Logica en Wetenschapsfilosofie — Société Belge de Logique et de Philosophie des Sciences) organised a joint conference with its Italian counterpart (Società Italiana di Logica e Filosofia delle Scienze). The aim was to bring together Belgian and Italian researchers for lectures and discussion on the status of reality and the models and scientific theories in which this reality is supposed to be described. The title we chose for the conference was *Models and Reality*, echoing a famous paper by Hilary Putnam.

This volume of *Logique & Analyse* contains six of the papers that were presented at the conference. The first two papers address the topic from a methodological point of view. In *Qualitative Confirmation by the Hypothetico-Deductive Method*, Theo Kuipers develops a qualitative (i.e. classificatory and comparative) theory of deductive confirmation. The corresponding quantitative theory of deductive confirmation, and Kuipers' qualitative and quantitative treatments of non-deductive confirmation, will be published in one of the next issues of this journal under the title *Quantitative Confirmation and its Qualitative Consequences*. In the present paper, Kuipers develops a sophisticated version of the H-D method and argues that it can answer the truth questions of four important epistemological positions: constructive empiricism, instrumentalism, referential realism and theory realism.

In my own contribution, *Prudential Arguments in the Realism Debate*, I investigate whether pragmatist methods can resolve the debate between realists and instrumentalists or constructive empiricists. I first show that the issue cannot be settled without pragmatic arguments, and then that pragmatic arguments do not help us out of the debate either.

The third and fourth contribution concentrate on specific problems: time and forces. In *The Question of the Reality of Time and the Model-theoretic Approach to Scientific Theories*, Mauro Dorato discusses three options for defending the reality of time. The first two options fit within the model-theoretic conception of scientific theories. Dorato argues that these strategies for defending the reality of time are inferior to the third option (the causal option), which does not presuppose the model-theoretic view.

In *Van Fraassen's Constructive Empiricism, Symmetry Requirements and Scientific Realism*, Michel Ghins defends a selective form of realism: while

there is no good reason for interpreting all theoretical objects as real, Ghins argues that symmetry principles warrant realism with respect to some specific theoretical entities, e.g. forces.

In *Interpreting Reality: Models and Reference*, Evandro Agazzi proposes to regard models as intensional realities encoding a certain amount of properties that are exemplified by concrete objects. From this point of view, the opposition between models in mathematical logic and models in the empirical sciences can be overcome.

Finally, Roger Vergauwen defends metaphysical realism in *Models, Reference and Reality: Internal Realism and Beyond*. He argues that the logical and epistemological arguments of Putnam are insufficient to rebut metaphysical realism, so there is no reason to give up this position in favour of Putnam's internal realism.