LOGIC, LANGUAGE, AND PROBABILITY

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LOGIC, LANGUAGE, AND PROBABILITY

A SELECTION OF PAPERS CONTRIBUTED TO
SECTIONS IV, VI, AND XI OF THE FOURTH INTERNATIONAL
CONGRESS FOR LOGIC, METHODOLOGY, AND
PHILOSOPHY OF SCIENCE, BUCHAREST, SEPTEMBER 1971

Edited by

RADU J. BOGDAN *and* ILKKA NIINILUOTO

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PREFACE

The Fourth International Congress for Logic, Methodology, and Philosophy of Science was held in Bucharest, Romania, on August 29–September 4, 1971. The Congress was organized, under the auspices of the International Union for History and Philosophy of Science, Division of Logic, Methodology and Philosophy of Science, by the Academy of the Socialist Republic of Romania, the Academy of Social and Political Sciences of the Socialist Republic of Romania, and the Ministry of Education of Romania.

With more than eight hundred participating scholars from thirty-four countries, the Congress was one of the major scientific events of the year 1971. The dedicated efforts of the organizers, the rich and carefully planned program, and the warm and friendly atmosphere contributed to making the Congress a successful and fruitful forum of exchange of scientific ideas.

The work of the Congress consisted of invited one hour and half-hour addresses, symposia, and contributed papers. The proceedings were organized into twelve sections of Mathematical Logic, Foundations of Mathematical Theories, Automata and Programming Languages, Philosophy of Logic and Mathematics, General Problems of Methodology and Philosophy of Science, Foundations of Probability and Induction, Methodology and Philosophy of Physical Sciences, Methodology and Philosophy of Biological Sciences, Methodology and Philosophy of Psychological Sciences, Methodology and Philosophy of Historical and Social Sciences, Methodology and Philosophy of Linguistics, and History of Logic, Methodology and Philosophy of Science.

As in the case of its two immediate predecessors, the proceedings of the Bucharest Congress, containing the invited papers, will be published by the North-Holland Publishing Company of Amsterdam, Holland. The idea of publishing, for the first time, also a selection of contributed papers came up during the Congress. At a meeting in Bucharest, an agreement was made that a volume of papers contributed to the Congress would

be published by D. Reidel Publishing Company in collaboration with the Center of Information and Documentation in Social and Political Sciences of the Academy of Social and Political Sciences of the Socialist Republic of Romania. From the twelve sections of the Congress, Section IV on the Philosophy of Logic and Mathematics, Section VI on the Foundations of Probability and Induction, and Section XI on the Methodology and Philosophy of Linguistics were chosen, since they represent important fields in which Reidel's publication activity is specialized.

All the papers presented in Sections IV, VI, and XI could not be included in one volume. Nor were they all available to the editors. In selecting papers for this volume, we have focused mainly on technical contributions containing new ideas and results in their fields, as well as competent surveys. We have also tried to provide room for different schools and research traditions in these fields. It goes without saying that the task of selecting the papers was a difficult one, and we owe an apology to many authors whose interesting papers we have not been able to include in this volume. We have included twenty-nine papers whose authors represent twelve different countries. Without claiming these to be the best contributions, we hope that our selection is at least representative of the 1971 Congress.

We wish to record our thanks to the respective publishers and editors for permission to reprint four articles which have already appeared in print elsewhere as follows: the article by Professor A. R. Anderson has appeared in *Mind*, n.s., vol. **81** (1972), pp. 348–71; the article by Professor K. Lehrer has appeared in *Philosophia*, vol. **2**, no. 4 (Oct. 1972), Israel University Press; the article by Dr. T. A. van Dijk in *Linguistics*, Mouton, Holland; the article by Dr. J. Kotarbińska in *Logique et Analyse*, Nauwelaerts, Belgium. In addition, Dr. T. Potts has retained the copyright of his own article, as it is intended to form part of a forthcoming book.

In the process of editing this volume, we have had valuable and indispensable help from many sources. We are grateful to Professor Jaakko Hintikka for his patient guidance of the lengthy editorial project; to Professor Mircea Ioanid, the Editor-in-Chief of the above-mentioned Center of Information and Documentation in Social and Political Sciences, for his sustained support of the project, and to the members of his staff for their technical assistance in preparing the volume; to Dr. Sanda

Golopenția-Eretescu and Dr. Sorin Vieru, the secretaries of Sections XI and IV, respectively, for their help in actually assembling the proceedings; and to Professors Solomon Marcus, Risto Hilpinen, and Lauri Karttunen for their helpful advice and for their suggestions. Last but not least, we thank the authors of the contributions themselves.

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