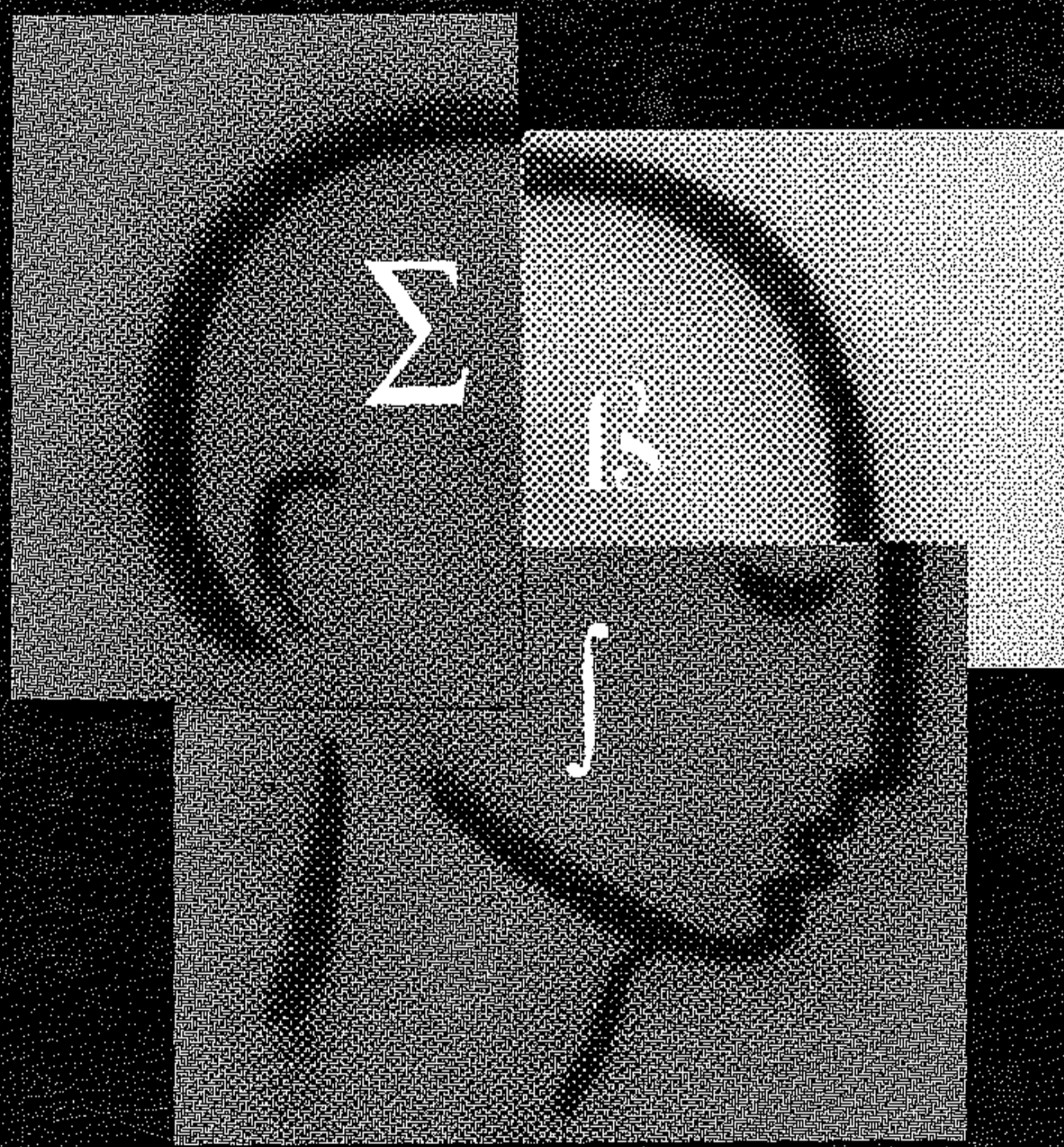


NEURONS AND SYMBOLS



THE STUFF THAT MIND
IS MADE OF



IGOR ALEKSANDER • HELEN MORTON



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Neurons and Symbols

The stuff that mind is made of

Igor Aleksander

Department of Electrical Engineering
Imperial College of Science, Technology and Medicine
London
UK

and

Helen Morton

Department of Human Sciences
Brunel University
Uxbridge
UK



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Neurons and Symbols

The stuff that mind is made of
Igor Aleksander and Helen Morton

Neurons and Symbols is the new book by the authors of the highly successful *An Introduction to Neural Computing*. In this new venture they present the emerging points of a fierce contemporary debate on the effect that neural models are likely to have on more classic symbolic models of cognition.

The non-mathematical approach of this book lays bare the arguments that are put forward by, on the one hand those who believe that the way to understand cognition is by knowing what the neural networks of the brain are doing and, on the other, those who believe that a program-like symbolic representation is the way to explain things. Is there a compromise between the two? The authors believe that there is, and present the results of their own research in the area. Being interdisciplinary, one of the aims of the book is to start from first principles in everything, providing the reader with sufficient background in neural systems, artificial intelligence, cognitive science, automata theory and computational theory.

Neurons and Symbols will be of interest to anyone who has wondered what the merits of various models of cognition might be. This includes not only neural networks specialists but also those working in artificial intelligence, psychology and linguistics.

Igor Aleksander is Head of the Department of Electrical Engineering at Imperial College, London, where he also holds the Chair of Neural Systems Engineering. His work in the field of neural computing led to the development of the first computer based on neural principles to reach the marketplace. Helen Morton is a psychologist and computer scientist. She is a Lecturer in the Department of Human Sciences at Brunel University, Uxbridge, Middlesex, UK.

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