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Nota di contenuto	Machine generated contents note: I Background -- 1 Modelling Cognition -- What is Cognitive Modelling? -- A Sample Model -- What Makes a Good Model? -- The Rise of Cognitive Modelling -- Modelling and Simulation -- The Role of Cognitive Modelling -- Further Benefits of Cognitive Modelling -- Some Objections to Cognitive Modelling -- Approaches to Cognitive Modelling -- Strategies for the Use of Simulation -- Closing Remarks -- Further Reading -- 2 An Introduction to COGENT -- COGENT: Principal Features -- An Illustrative Task: Free Recall -- Getting Started -- Specifying Basic Experimenter Functions -- The Modal Model in COGENT -- Representation and Variable Binding -- Augmenting the Experiment Environment -- Extending the Modal Model -- Further Reading -- II Modelling in Specific Domains -- Overview -- 3 Arithmetic: A Cognitive Skill -- Cognitive Skills -- Multicolumn Addition -- Multicolumn Subtraction -- General Discussion -- Further Reading -- Appendix: Rules for Execute Action -- 4 Problem Solving -- The Psychology of Problem Solving -- The Missionaries and Cannibals Problem -- The Tower of Hanoi -- Toward a General Problem Solver -- Further Reading -- 5 Deductive Reasoning -- Introduction -- Basic Effects in Human Deductive Reasoning --

Syllogistic Reasoning with Mental Models -- Building a Mental Model -- Revising a Mental Model -- Project: Reasoning as Problem Solving -- Syllogistic Reasoning with Euler Circles -- General Discussion -- Further Reading -- 6 Decision Making -- The Psychology of Decision Making -- Medical Diagnosis -- Incorporating Cue Selection -- Medical Diagnosis by Hypothesis Testing -- Taking Stock -- Further Reading -- 7 Sentence Processing -- Background -- A First Model -- Towards Incremental Interpretation -- Serial Parsing -- Alternative Approaches to Sentence Processing -- Further Reading -- 8 Executive Processes -- The Domain of Executive Processes -- Basic Psychological Findings -- A Framework -- Modelling the Supervisory Attentional System -- Monitoring and the Six Element Test -- Alternative Views of Executive Processes -- Summary -- Further Reading -- III Reflections -- 9 Reflections -- An Assessment of Progress -- Emergent Issues -- Methodologies for Modelling -- Issues for COGENT -- An Agenda -- Closing Remarks.

Sommario/riassunto	This book is a practical guide to building computational models of high-level cognitive processes and systems. High-level processes are those central cognitive processes involved in thinking, reasoning, planning, and so on. These processes appear to share representational and processing requirements, and it is for this reason that they are considered together in this text. The book is divided into three parts. Part I considers foundational and background issues. Part II provides a series of case studies spanning a range of cognitive domains. Part III reflects upon issues raised by th