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Formal Aspects of Cognitive Processes

Interdisciplinary Conference
Ann Arbor, March 1972

Edited by Thomas Storer and David Winter



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PREFACE

The academic disciplines which have produced models of cognitive processes vary from psychology to sociology, linguistics, psycholinguistics, mathematical biology, neurophysiology, communication sciences, mathematics and logic, each of which may embody several distinct and diverse subdisciplines. Further, the types of models involved range from heuristic to empirical, pragmatic, programmatic, and (varying degrees of) formalistic with every combination of these also being represented.

The "Interdisciplinary Conference in the Formal Aspects of Cognitive Processes", which was held in Ann Arbor, Michigan in March 1972, was primarily devoted to formal models of cognitive processes with particular emphasis on the explication of the assumptions and hypotheses underlying new and existing models and theories in the above areas. As was anticipated, the atmosphere and the talks presented at the conference stimulated a free flow of ideas among the participants which, it is hoped, has opened continuing channels of communication among investigators from the disciplines represented, thereby contributing to continuing studies in the area of theoretical models of cognitive processes. We are publishing here a representative selection of the papers presented at the conference in further support of these studies.

We take this opportunity to warmly thank those who helped us with the conference and these conference proceedings. The conference was funded by the Institute of Science and Technology at The University of Michigan. Most of the organization work was done by Lee Zukowski. The typing of the proceedings was done by Catherine Rader. Finally, we wish to thank Springer Verlag for agreeing to publish the proceedings.

Thomas Storer, Buffalo and Ann Arbor

David Winter, Ann Arbor

November 1973

TABLE OF CONTENTS

WELCOME ABOARD - Thomas Storer	1
THEORIES OF THE BRAIN; BEHAVIOR, THE MIND, ROBOTS AND COGNITIVE PROCESSES, RESPECTIVELY - John T. Lamendella	4
TWO CLASSES OF HOLOGRAPHIC PROCESSES REALIZABLE IN THE NEUTRAL REALM - J. Patrick Cavanagh	14
SEMANTIC MEMORY RETRIEVAL: SOME DATA AND A MODEL - Elizabeth F. Loftus	41
IMPLICATION AS AN ALTERNATIVE TO SET-INCLUSION AS THE SEMANTIC PRIMITIVE - Arnold Lewis Glass	55
STRUCTURED-STORAGE AFA (Abstract)- Armen Gabrielian, Seymour Ginsburg	70
PREDICATE CALCULUS FEATURE GENERATION - David Rothenberg	72
A MATHEMATICAL MODEL FOR PERCEPTION APPLIED TO THE PERCEPTION OF PITCH - David Rothenberg	126
MODELS OF SPEECH PRODUCTION - Chin-W. Kim	142
TOWARDS A THEORY OF LINGUISTIC MEMORY - Terrence J. Keeney	159
THE GRAMMAR OF RELATIVE ADJECTIVES AND COMPARISON - Renate Bartsch, Theo Vennemann	168
A SIMPLE HIERARCHICAL MODEL OF NATURAL SELECTION - David J. Winter	186
ON THE NOTION OF A RULE - Thomas Olshewsky	189
EMPIRICAL RESTRICTIONS ON THE POWER OF TRANSFORMATIONAL GRAMMARS - Royal Skousen	204