

TABLE OF CONTENTS

Acknowledgment	5
List of figures	13
I. Introduction	15
Background — Goal of a theory of natural language — Essential features — Restrictions — Intuitive and nonintui- tive — Formal and nonformal — Sentence and statement — Critical aims of this book — Philosophical value of a theory of natural language.	
II. A Logical Analysis of Scientific Theories	23
Scientific Theories as Instruments	24
Descriptive symbols — Auxiliary symbols — Experimental laws — Overt experimental procedures — Descriptive constants in scientific theories.	
Components of Scientific Theories	26
Abstract calculus — Model or interpretation — Correspon- dence rules — Epistemic correlations — Flexibility of scientific theories.	
III. Language Theory and Ordinary-Language	
Philosophy	32
Wittgenstein	32
Description of language — Improvement of language — Various functions of language — Intuitive and nonintuitive — Rules of language — Language game — Intermediate cases.	
Austin	38

Details of language — Ordinary language — Clarity — Words as tools — Different conceptual schemata — Excuses — Systematic aids — Logical grammar — Comprehensive science of language.	
Ryle	44
Ordinary use of an expression — Use and usage — Unwritten laws — Category — Category-mistake — Logical geography of concepts — Logical cross-bearings of concepts.	
IV. Language Theory and Ideal-Language Philosophy . .	53
Formalized Languages	53
Uninterpreted calculus — Requirement of effectiveness — Interpretation — Soundness — Syntax and Semantics — Object-language and meta-language — Carnap's formal semantics — State-description — Meaning postulates — Pragmatics — Semantic rules — Synonymy — Analyticity.	
Descriptive, Legislative, and Ideal Claims for Ideal-Languages	67
Description of natural language — Stipulation — Distortion of natural language — The ideal model — Unsystematic nature of natural language — Consistency and elegance.	
Empirical Controls upon Ideal-Language Theories .	78
Correspondence rules — Primitive semantic terms — Pure mathematics — Relevance to natural language — Carnap's formal semantics — Empirical behavioristic procedures for formal semantic notions — Intensionality — Intuitive controls — Appeal to the linguistic intuition.	
V. Phonological and Morphological Foundations of Language Theory	90
Linguistics	90
Descriptive linguistics — Historical linguistics — Comparative linguistics.	
Descriptive Linguistics	91
Language and dialect — Collective data — Elements as logical symbols — Phonology — Morphology — Semantics.	
Phonemes	95
Intuitive and nonintuitive explanations — Phonetic difference — Phonemic difference — Minimal contrasting pair —	

Phonemic relativity to particular languages — Nonintuitive characterization of phoneme — Complementary distribution — Contrastive distribution — Phonetic transcription — Allophones — Kinds of phonemes in English.	
Morphemes	104
Intuitive and nonintuitive explanation — A higher level of linguistic element — Recurrent partials — Smallest meaningful recurring phoneme sequences — Kinds of morphemes — Allomorphs — Infixes — Affixes — Phonological conditioning — Morphological conditioning — Morphemic segments — Free variation — Tentative morphemes — Morphemes.	
Parts of Speech	115
Derivation and inflection — Traditional description — Distributional relations — Paradigmatic classes — Syntactic classes — Inflectional suffixes — Derivational affixes.	
Grammar	118
Immediate constituent grammars — Structural similarity — Construction — Constituent — Immediate constituent — Comparing samples — Method of substitution — Freedom of occurrence.	
VI. Success in Grammar — Failure in Semantics	122
Syntax	122
Goals — Traditional grammar — Conditions of adequacy — Abstract grammar — Models for grammar — Frequency model — Finite state Markov process model — Phrase structure model — Immediate constituent grammar — Transformational grammar — Obligatory transformations — Optional transformations — Success in grammar — Grammar and meaning.	
Semantics	132
Absolute meaning — Platonic idea — Essence — Mental image — Reference — Synonymy — Linguistic context — Extra-linguistic context — Goal of semantics — Scope of semantics — Components of a semantic theory — Dictionary — Projection rules — Semantic interpretation.	
The Problem of Synonymy	140
Practical and nonintuitive — Kind of synonymy — Criterion for synonymy — Definition — Interchangeability — Stimulus meaning — Stimulus synonymy — Sentence synonymy — Goodman's criterion for synonymy.	

VII. Katz and Fodor's Semantic Theory of Natural Language	148
The Dictionary	148
Dictionary entries — Normal form — Projection rules — Sense characterization — Grammatical markers — Semantic markers — Distinguishers — Ambiguity — Selection restriction — Distribution of lexical information — Inadequacy of dictionary — Conceptual economy — Inadequacy of an evaluation procedure — Need for a discovery procedure — The dictionary problem.	
Projection Rules	161
Correlations of meanings and lexical items — Type 1 projection rule — Type 2 projection rule — Elimination of possible meanings.	
Semantic Interpretation	165
Anomalous of regular — Ambiguous or unambiguous.	
Analyticity	166
Traditional explanation — Katz's definition — Noncircularity — Dependence upon the dictionary component — Inadequacy of dictionary component.	
VIII. Ziff's Semantic Theory of Natural Language	170
Ziff's Project	170
Evaluation procedure for competing dictionary entries — Discovery procedure for dictionary entries — Utterance type and utterance token — Reference of theory.	
Semantic Regularities	172
Conditions generally obtaining — Statistical Correlations — Empirical verification — Speech acts.	
Principle of Conventionality	174
Derivation at will — Conditions associated with all utterances — Pairing of expressions — Incorrect correlations.	
Principle of Composition	176
Incorrect correlations — Structural similarity — Projected correlation.	
Relevant Semantic Difference	177
Distributive set — Contrastive set — Relevant semantic	

difference — Common relevant semantic difference — Dictionary entry.	
Critical Evaluation	179
Inadequacy of principle of conventionality — Relevant conditions — Irrelevant conditions — Degree of generality — Vagueness of 'condition' — Inadequacy of the principle of composition — Appeal to linguistic intuition — Status of intuitive insights — Conditions generally associated with an utterance.	
IX. A Plurality of Conceptual Schemata	187
Quine's View of the Language of Knowledge	188
Conflict with experience — Re-evaluation of statements — The Lexicographer's problem in terms of the analytic-synthetic distinction — Incompatibility with lexicographer's problem — Exact synonymy — Fuzzy boundaries.	
Duhem's View of the Postulates of Physics	191
Isolated hypotheses — Systematic principles — The nature of light — Newton's optics versus Huygens' optics — Refutation of postulates of physics.	
Putnam's View of the Statements of Physics	194
Kinetic energy — Revision of principles — Conventionality in science — The language of science and natural language.	
In Defense	196
Hofstadter's attack upon holism — The systematic view, not the holistic view — Stipulation by the theory — A single dictionary — Grice and Strawson's criterion for statement synonymy — Appeal to linguistic intuition.	
X. Difficulties in Lexicography	203
A Practical Nonintuitive Procedure	203
What Quine claims to show — What Quine in fact shows — The insolubility of the lexicographer's problem.	
In Defense	205
A plea to our semantic intuition — Family circle of inter-definable expressions — Informal explanation — Sentence significance and synonymy — Putnam's criteria — Generally accepted criterion for the use of a term — Circular definitions — Too strong a condition of adequacy — Mates's	

empirical criterion for analyticity — The appeal to intuition
— The observation of behavior — Fuzziness.

XI. Skinner's Functional Analysis 217

Functional Analysis 218

Variables controlling verbal behavior — Notions of animal
experimentation — Exclusion of internal factors — Operant
— Mand — Tact — Autoclitic.

Stimulus Control 222

Extremely subtle properties — Reference — Lack of
scientific objectivity — Distortion of scientific notions —
Request — Command — Prayer.

Grammatical Sentence 225

Key responses on a skeletal frame — Lexical items in
grammatical frames — Shortcomings.

Chomsky's Conclusions 226

Metaphorical or unscientific — Neglect of the speaker's
contribution — Obscuring of important distinctions —
Skinner's questions hopelessly premature.

XII. Conclusion 228

Definition and goals of a theory of natural language —
Wittgenstein — Austin — Ryle — Ideal-language philoso-
phers — Skinner's functional analysis — Descriptive linguists
— Problem of synonymy — Katz and Fodor's failure —
Ziff's failure — Insolubility of the lexicographer's problem.

Bibliography 241

Index 236

LIST OF FIGURES

1. A Constituent Structure Characterization of the Sentence <i>The Man Hit the Ball</i>	127
2. A Dictionary Entry for <i>Bachelor</i> in Normal Form . .	150
3. A Partial Constituent Structure Characterization of the Sentence <i>The Man Hits the Colorful Ball</i>	163