

Morphology

THE DESCRIPTIVE
ANALYSIS OF WORDS

(Second Edition)

EUGENE A. NIDA

ANN ARBOR: THE UNIVERSITY OF MICHIGAN PRESS

TABLE OF CONTENTS

Chapter	Page
PREFACE	v
TABLE OF PROBLEMS	xiii
1. INTRODUCTION TO MORPHOLOGY	1
1.1 Morphology	1
1.2 Principles of Descriptive Analysis	1
A. Descriptive Analysis Must Be Based upon What People Say	1
B. The Forms Are Primary, and the Usages Secondary	2
C. No Part of a Language Can Be Adequately Described without Reference to All Other Parts	2
D. Languages Are Constantly in the Process of Change	3
1.3 Relationship of Descriptive Linguistics to Historical and Comparative Linguistics	3
1.4 Terminology of Descriptive Linguistics	4
1.5 Arrangement of Contents of This Book	4
1.6 Language Problems in the Present Volume	5
2. THE IDENTIFICATION OF MORPHEMES	6
2.1 Morphemes as Minimal Units	6
2.11 Isolation of Morphemes by Comparing Forms	6
2.12 The Definition of the Morpheme	6
2.2 Principles Employed in the Identification of Morphemes	7
2.21 Principle 1	7
2.21.1 The Meaning of Principle 1	7
2.21.2 The Application of Principle 1	8
A. Steps in Procedure	8
B. Problems of Residues	9
C. The Tentative Nature of an Analyst's Correlations	10
D. Supplementary Problems Illustrative of Principle 1	11
2.22 Principle 2	14
2.22.1 The Meaning of Principle 2	14
2.22.2 The Application of Principle 2	15
A. Where the Sounds Involved Exhibit Some Phonetic Similarities	15
B. Where the Sounds Involved May Not Exhibit Phonetic Similarities	15
C. Where Sequences of Phonemes Are Involved	16
D. Problems Illustrative of Principle 2	17
E. Steps in Procedure for Problems Involving Principle 2	18
F. Writing up the Answers to Problems	19
G. Types of Phonological Environment Described in Terms of Processes	21
1. Assimilation	21
2. Dissimilation	23
3. Assimilation of Tonemes	24
4. Loss of Consonant Phonemes	26
5. Loss of Vowel Phonemes	30
6. Palatalization	35
H. Supplementary Problems Illustrative of Principle 2	37
2.23 Principle 3	41

Chapter	Page
2.23.1 The Meaning of Principle 3	42
2.23.2 The Application of Principle 3	44
A. Determination of Allomorphs by Complementary Distribution	44
B. Basis of Complementation	44
C. Degree of Phonological Difference between Allomorphs	44
D. Basic and Nonbasic Allomorphs	45
E. Types of Zero	46
F. Supplementary Problems Illustrative of Principle 3	46
2.24 Principle 4	54
2.24.1 The Meaning of Principle 4	54
2.24.2 The Application of Principle 4	55
2.25 Principle 5	55
A. Definition of Homophonous Forms	56
B. Definition of Related Forms	56
C. Types of Related Areas of Meaning	56
D. Types of Distributional Differences	57
E. Problems Illustrative of Principle 5	57
2.26 Principle 6	58
A. Condition 1	59
B. Condition 2	59
C. Condition 3	60
3. TYPES OF MORPHEMES	62
3.1 Internal Composition of Morphemes	62
3.11 Types of Phonemes Which Compose Morphemes	62
3.11.1 Morphemes Consisting of Segmental Phonemes	62
3.11.2 Morphemes Consisting of Suprasegmental Phonemes	62
3.11.3 Morphemes Consisting of Segmental and Suprasegmental Phonemes	65
3.12 Different Shapes and Sizes of Morphemes	65
3.13 Formal Relationships of the Parts of Morphemes	67
3.2 Formal Relationships of Morphemes to Each Other	68
3.21 Structural Relationships of Morphemes to Each Other	69
3.21.1 Additive Morphemes	69
3.21.2 Replacive Morphemes	71
3.21.3 Subtractive Morphemes	75
3.22 Positional Relationships of Morphemes to Each Other	76
4. THE DISTRIBUTION OF MORPHEMES	78
4.1 Significance of the Distribution of Morphemes	78
4.2 Types of Morphemes as Determined by Their Distribution	81
A. Bound vs. Free Forms	81
B. Roots vs. Nonroots	82
C. Roots vs. Stems	83
D. Nuclei vs. Nonnuclei	83
E. Nuclear vs. Peripheral Structures	84
F. Morphemes of the Same Order vs. Morphemes of Different Orders	84
G. Mutually Exclusive Morphemes	84
H. Mutually Obligatory Morphemes	84
I. Obligatory vs. Nonobligatory Morphemes	85
J. Closing vs. Nonclosing Morphemes	85
4.3 Formal Combining of Morphemes	85
4.4 Immediate Constituents	86
4.41 Significance of Immediate Constituents	86
4.42 Positional Relationships between Immediate Constituents	88
A. Combinations of Two Immediate Constituents	88
1. Continuous Nuclear and Peripheral Immediate Constituents	88
a. With All Successive Peripheral Constituents on One Side of the Nucleus	88

Chapter	Page
b. With Successive Peripheral Constituents on More than One Side of or within the Nucleus	89
2. Discontinuous Immediate Constituents--Nuclear, Peripheral, or Both . .	90
B. Combinations of More than Two Immediate Constituents	90
4.43 Principles of Procedure in Determining Immediate Constituents	90
4.43.1 Principle 1	91
4.43.2 Principle 2	91
4.43.3 Principle 3	92
4.43.4 Principle 4	92
4.43.5 Principle 5	92
4.44 Functional Relationships between Immediate Constituents	94
4.44.1 Endocentric vs. Exocentric Constructions	94
4.44.2 Coördinate vs. Subordinate vs. Noncoördinate and Nonsubordinate Constructions	95
4.5 Types of Morphological Structure	97
4.6 Primary Structural Layers	98
4.7 The Limits of Morphological Structures	102
4.71 Structural Contrasts	102
4.72 Phonological Criteria for Establishing the Limits of Morphological Structures	102
4.73 Distributional Criteria for Establishing the Limits of Morphological Structures	103
4.74 Overlapping between Phonological and Morphological Criteria	104
4.75 Overlapping between Morphological and Syntactic Distributional Data	104
4.76 The Practical Limits of the Word	106
5. STRUCTURAL CLASSES	107
5.1 Types of Structural Classes	107
5.11 Form Classes	107
5.12 Sequence Classes	108
5.13 Distribution Classes	110
5.13.1 Definitions of Significant Features	110
5.13.2 Types of Distributional Arrangements	111
5.13.21 Distributional Arrangements in Single Sequence Classes	111
5.13.21.1 Forms Occurring in Determiner-Determined Series	112
5.13.21.11 Structural Series with No Subclasses of Determiner and No Subclasses of Determined	112
5.13.21.12 Structural Series with Subclasses of Determiner and No Subclasses of Determined	112
5.13.21.13 Structural Series with No Subclasses of Determiner but Subclasses of Determined	117
5.13.21.14 Structural Series with Subclasses of Determiner and Subclasses of Determined	125
5.13.21.2 Forms Not Occurring in Determiner-Determined Series	127
5.13.22 Distributional Arrangements in Multiple Sequence Classes	130
5.2 Systems of Structural Classes	147
6. THE MEANING OF MORPHEMES AND SEQUENCES OF MORPHEMES	151
6.1 Semantic Principles	151
6.11 Principle 1	151
6.12 Principle 2	152
A. Nonlinguistic Environments	152
1. Objective Environments	152
2. Subjective Environments	152
B. Linguistic Environments	153
1. Structural Environments	153
2. Contextual Environments	154
6.13 Principle 3	157

Chapter	Page
6.2 The Use of Symbols	161
6.3 Definability of Meaning	161
6.4 Procedures in Determining the Meanings of Morphemes	162
6.5 The Labeling of Morphemes	165
6.6 Grammatical Categories Expressed by Bound Forms	166
6.7 The Meaning of Grammatical Sequences	174
7. FIELD PROCEDURES	175
7.1 Monolingual Approach	175
7.2 Bilingual Approach	178
7.21 The Data	178
7.21.1 Simple Object Words	178
7.21.2 Object Words in Possible Morphological Categories	180
7.21.3 Simple Process Words	181
7.21.4 Process Words in Possible Morphological Categories	182
7.21.5 Combinations of Object and Process Words	183
7.21.6 Texts	186
7.22 Recording the Data	188
7.23 The Informant	189
7.23.1 Dialect Differences among Informants	189
7.23.2 Qualifications of Informants	190
7.23.3 Handling of Informants	190
8. ANALYTICAL PROCEDURES	192
8.1 Relationship of Analytical to Field Procedures	192
8.2 Steps in Analytical Procedure	192
8.21 Initial Observations	192
8.21.1 Phonetic Observations	193
8.21.2 Identificational Observations	193
8.21.3 Distributional Observations	194
8.22 Filing of Data	195
8.22.1 Purpose of Filing Data	195
8.22.2 Form of the Filing Slip	195
8.22.3 Relationship of Filing to Analysis	196
8.22.4 Nature and Quantity of the Data to be Filed	198
8.22.5 Number of Files	199
8.22.6 Form of the Structural File	199
8.22.61 Morphophonemic Section	200
8.22.62 Morphology Section	200
8.3 Determining the Relative Order of Morphemes	205
8.4 Use of Arbitrary Symbols in Identifying Forms	207
9. THE DESCRIPTIVE STATEMENT OF THE MORPHOLOGY	222
9.1 Structural Difficulties	222
9.11 Illustrative Outlines	222
9.11.1 Chichewa, by Mark Hanna Watkins	223
9.11.2 Chiricahua Apache, by Harry Hoijer	225
9.11.3 Delaware, by C. F. Voegelin	226
9.11.4 French, by Robert A. Hall, Jr.	227
9.11.5 Hebrew, by Zellig S. Harris	229
9.11.6 Potawatomi, by Charles F. Hockett	230
9.11.7 Southern Paiute, by Edward Sapir	231
9.11.8 Tzeltal, by Marianna C. Slocum	234
9.11.9 Yuma, by A. M. Halpern	235
9.12 Discussion of Illustrative Outlines	237
9.2 Technical Difficulties	239
9.21 Systems of Outlining	239

Chapter

Page

9.22	Terminology	240
9.23	Types of Descriptive Statements	240
9.3	Illustrative Language Problems	243
APPENDIX		283
Part I: Supplementary Problems		283
A.	Problems Supplementary to Section 2.22.2	283
A.1	Assimilation and Dissimilation	283
A.2	Medial Voicing	290
A.3	Final Unvoicing	290
A.4	Assimilation and Dissimilation of Tonemes	291
A.5	Reduction of Word-Medial Consonant Clusters	293
A.6	Reduction of Word-Final Consonant Clusters	296
A.7	Reduction of Vowel Sequences	297
A.8	"Weakening" of Consonants	301
A.9	"Weakening" of Vowels in Unstressed Syllables	302
A.10	Loss of Vowels in Unstressed Syllables	303
A.11	Differences of Vowel Length Due to Open and Closed Syllables	306
A.12	Compensatory Lengthening	306
A.13	Developed Phonemes	307
A.14	Palatalization	308
A.15	Nasalization	310
A.16	Verner's Phenomenon	311
A.17	Metathesis	312
B.	Problems Supplementary to Section 2.23.2	313
C.	Problems Supplementary to Chapter 3	315
D.	Problems Supplementary to Chapter 5	320
E.	Problems Supplementary to Chapter 6	324
Part II: Table of Phonetic Symbols		329
Part III: Phonemic Writing of English		332
BIBLIOGRAPHY		335
INDEX		339