This book is designed to provide students of phonology with an accessible introduction to the phonological architecture of words. It offers a thorough discussion of the basic building blocks of phonology – in particular features, sounds, syllables and feet – and deals with a range of different theories about these units. Colin Ewen and Harry van der Hulst present their study within a non-linear framework, discussing the contributions of autosegmental phonology, dependency phonology, government phonology and metrical phonology, among others. Their coherent, integrated approach reveals that the differences between these models are not as great as is sometimes believed. The book provides a more detailed analysis of this subject than previously available in introductory textbooks and is an invaluable and indispensable first step towards understanding the major theoretical issues in modern phonology at the word level.

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# THE PHONOLOGICAL STRUCTURE OF WORDS

### AN INTRODUCTION

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### PREFACE

Our aim in writing this book has been to introduce the reader to some of the issues in the representation of the structure of the basic units of phonology. We have approached this by first, in Chapters 1 and 2, considering the ways in which the smallest phonological units, features, characterise the structure of sounds, or, more technically, segments. Chapters 3 and 4 are concerned with larger phonological units, in particular syllables and feet. As the title of the book suggests, we do not consider the representation of phonological units larger than the word, and therefore pay little attention to topics such as intonation.

Most of our analyses are formulated in terms of what has come to be referred to as non-linear phonology, as opposed to the 'linear' theories of phonological representation manifested in work in the tradition of Chomsky and Halle (1968). The term 'non-linear phonology' does not refer to a single coherent theory of the representation of phonological structure - whether segment-internal or suprasegmental - rather, since the early 1980s, work in phonology which has been concerned with enriching the structural properties of linear models has dealt with different aspects of these models, so that various apparently distinct theories have grown up. Two of the most familiar of these are **metrical phonology**, originating in the work of Liberman (1975) and Liberman and Prince (1977), and autosegmental phonology, which finds its first exposition in Goldsmith (1976). However, in recent years it has become apparent that many of the claims made in the various models are not in fact independent of each other, and that claims made within the framework of one approach are often restatements of those made elsewhere. In this book, therefore, we shall attempt to avoid a strict delineation between different 'sub-theories', and we shall concentrate on presenting what we consider to be the most characteristic aspects of non-linear phonology in general. It has therefore not been our intention to present any of these sub-theories in detail; rather, it has been our concern to show the reader how elements from various approaches might coexist in the characterisation of phonological structure.

#### Preface

The number of issues which might be dealt with in a book on phonological representation is substantial. Here, however, we are concerned with presenting the most important aspects of the subject to the student who is approaching it with little previous knowledge, and we have concentrated on presenting the material in such a way that it is reasonably self-contained, and, we hope, indicates the areas in which the theory makes interesting claims. However, we assume a basic knowledge of phonetic theory and terminology. In addition, some familiarity with basic phonological concepts which do not form an essential part of a specifically non-linear approach to phonology, such as traditional phoneme theory, is also desirable. Where appropriate, we refer to other sources for discussion of topics of a more general phonological nature.

Representation is only one aspect of a fully fledged phonological theory. Such a theory combines a specific view on phonological representations with a view on the relationship between various levels of structure, sometimes referred to as underlying (or lexical) structure and surface structure. More generally, what is the relationship between the most abstract level of representation, the input, and the least abstract, the output? Current views on the relationship between input and output are that the amount of computation required to get from one to the other must be minimal. In some theories, in fact, input and output are non-distinct. More often, however, they are distinct, and are related by a system that either derives the output via a set of (transformational) rules or by a procedure of selecting the correct output from a pool of possible candidates (as in Optimality Theory; see Kager 1999 for an introduction to Optimality Theory). In this book we take no principled stand with respect to these matters. As a matter of convenience we formulate most of the processes we consider in terms of derivational rules, but we are not concerned with the status of these rules in the phonology of the language under consideration; they should be viewed primarily as descriptive devices.

The material used for exemplification has been drawn as far as possible from languages which are likely to be reasonably familiar to many readers, in particular from English. This is in keeping with our aim of making the book accessible to as wide a readership as possible, rather than representing any prejudice on our part. Where evidence from these sources for a particular point does not exist, however, we have drawn our data from less familiar languages.

We hope that this book can be used as a first step towards an understanding of some of the major theoretical issues in modern phonology. As such, it is of interest (and accessible) to students and researchers who either intend to specialise further in phonology or need a thorough grounding in the issues of representation in phonology.

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#### Preface

This book has been a long time in the making. The fact that it has been completed is due primarily to the encouragement and patience of the editorial staff - past and present - at Cambridge University Press. We are sincerely grateful to, among others, Judith Ayling, Kate Brett, Penny Carter and Andrew Winnard; we appreciate how lucky we have been. We have been equally fortunate to have Neil Smith as our series editor. Apart from the fact that he has saved us from getting some of our more spectacular errors into print, he has been a fund of useful and relevant advice on content and presentation. Many generations of students have been confronted with earlier versions of parts of this book. We are grateful to all of them, particularly those whose comments have helped us to improve it, and we are equally appreciative of other people who have taken the trouble to comment on the manuscript. Among others, those who have helped us in the latter stages of the book's writing include Véronique van Gelderen, Martina Noteboom, Nancy Ritter, Erik Jan van der Torre and Jeroen van de Weijer. None of them - nor anyone else - is responsible for what we have done with their advice.