

# I Introduction

1.0 The first chapter begins by stating the central aim of this book (the establishment of a descriptive framework for the study of modern Greek dialects) and 1.2 seeks to justify briefly the interpretation of dialectal variation as the outcome of historical changes acting on an originally uniform language rather than as a conglomeration of static self-contained phonological systems. The next two sections describe the sounds of the various dialects in terms of the usual articulatory features and 1.5 lists the segments (phonemes) which can be shown to underlie (or provide the historical source for) these sounds. Section 1.6 presents a rough classification of the 'core' dialects, whose phonological structures are studied in this book (i.e. all except those of southern Italy, Tsakonia and Asia Minor). Readers with some knowledge of linguistics will doubtless wish to proceed immediately to chapter 2.

#### 1.1 Aims

Ancient Greek  $\pi\alpha\imath\delta\alpha$ , pronounced something like [paydía] (with the accent realized as a rise in pitch), and meaning 'young children' or 'young slaves', persists in modern standard Greek as [pe $\delta\gamma$ á] (or better [pe $\delta\gamma$ á], with a voiced palatal fricative rather than a glide). Its accent is now represented by increased loudness ('dynamic stress') and its meaning is 'children, lads, folks'. This is a fairly commonplace piece of information, familiar to many readers of this book. But why should anyone be interested in it? Among other things it tells us something about the way a certain word has changed in sound, and an investigation of this and other items enables us to formulate the general rules which correlate ancient and modern sound systems. But sound change itself may be studied for a variety of reasons. There are at least three possible motivations, and the sort of data we select for examination as well as the method of description we employ will be largely determined by our particular goal:

(a) We may be interested in accounting for all the changes which are observed to have affected the sound structure of Greek over the period

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for which documentary evidence is available or which is accessible to the methods of internal and comparative reconstruction. This is an important and, particularly in the case of Greek, rich and rewarding field. This book is not concerned, however, with the history of Greek as such.

(b) We may wish to seek an explanation for the phonological (morphophonemic) alternations of a language or dialect at a given stage of its evolution. As was observed by the great historical linguists of the last century, sound change (specifically, 'conditional merger') often has the effect of introducing 'irregularity' into a language. The Latin morpheme meaning 'flower' had two shapes, flos (in the nominative singular) and flor (in the other forms of its paradigm), and it is easy to establish that the reason for this 'biallomorphy' lies in a sound change which replaced s by r intervocalically in the pre-classical period; so that while, e.g., flos remained with a final sibilant, flosem went to florem. This alternation between s and r occurs throughout classical Latin (cf. genus: generis, est: erat, mus: muris) and is clearly an important phonological feature of the language. The possibility of studying morphophonemic alternation from a synchronic (descriptive) point of view provides one of the main justifications for modern 'generative' phonology. It is important to notice that while some changes leave a mark on the language in the form of alternations, not all do. Furthermore, changes which do leave alternations do not do so in every morpheme affected by them. The fronting of Latin  $\bar{u}$  to French u has left no trace in the modern language and there is no evidence within classical Latin itself to suggest that the r of ara'altar' was once s; it is true that we know from comparative evidence that it was indeed s (cf. Umbrian asa), but this information cannot be recovered by internal reconstruction and is accordingly irrelevant to a generative phonology of classical Latin (it could form no part of the Roman speaker's linguistic 'competence'). The study of morphophonemic alternation therefore ranges over such data as are available to the native speaker and is not concerned with phenomena accessible only to the historian or dialectologist. Clearly the generative phonologist's 'rules' will to a large extent recapitulate some of the language's history, and aims (a) and (b) may lead to very similar types of activity (although in strictly generative studies considerations of simplicity and naturalness may take precedence over the faithful reproduction of known historical fact). Again the purpose of this book is not to describe the generative phonology of modern Greek as such; rather it is orientated towards a



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reconstruction of the actual sequence of events which led to the dialectal differentiation of the modern language, and it does not attempt to handle alternations which are common to all dialects. Furthermore there is no explicit discussion of 'morpheme structure' (the principles which determine the set of possible 'underlying forms', or sound sequences in the structures from which the morphemes of the modern dialects are derived by the application of sound changes).

(c) We may wish to account for the interdialectal variation which characterizes a language at a particular stage. Dialects arise because many sound changes fail to diffuse over a whole speech community, so that the study of dialects and the study of a language's history are intimately connected; furthermore dialectal variation may involve differences in patterns of alternation (Umbrian lacked the s/r alternation of Latin). Closely linked as the methods and results associated with these three approaches are, our selection of data will be largely determined in accordance with our particular interest. The present book sets out to make a modest contribution towards the achievement of this third goal, that is, to suggest a framework for the study of dialectal variation in modern Greek.

To clarify the relation of choice of goal to data selection let us again consider [peδyá]. The most obvious historical changes affecting ancient [paydía] have been as follows:

- (1) The diphthong [ay] has developed to [e]. This has not resulted in any obvious alternation pattern and the change has affected all dialects. This means that the change from [ay] to [e] is of no relevance to the functioning of the modern language, so that only a historian of Greek would wish to consider it.
- (2) Ancient [d] is now continued as the fricative [ $\delta$ ]. Now this change was inhibited by a preceding nasal (e.g. ancient [ándres] 'men' has [d], never [ $\delta$ ], in all modern dialects), so that the possibility of [d]:[ $\delta$ ] alternation arose. Does it occur? I think we can say that it occurs marginally in the case of the word for 'ten'. Ancient [déka] goes to modern [ $\delta$ éka] but [héndeka] 'eleven' is represented by [éndeka]. It is doubtful, though, whether there is much point in setting up a rule '[d] goes to [ $\delta$ ] except after a nasal', although if such cases were much more frequent it might be worth while. In any case all dialects agree in this matter and even if alternation were regular it would belong to generative phonology rather than to the topic of this book.
  - (3) Ancient [i] before a vowel goes to [y] and any stress borne by it

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is shifted forward. This development has had a far-reaching effect on the structure of the language. [peδyá] matches the singular [peδí] and illustrates the common rule that neuters in stressed [i] have a plural in [yá]. Thus the 'biallomorphy' of the stem (the alternation between [peδί] and [peδy]) has a simple explanation in terms of a particular historical development. A description of modern Greek which incorporates the change in the form of a 'rule' will clearly be more revealing than one which merely repeats the facts. However, from our point of view the rule is important, not because it accounts for alternation of this type, but because not all dialects have undergone it. Thus in Megara (on the isthmus of Corinth) and in Zakinthos we find [pedía], which means that these dialects are distinguished by not possessing that part of the rule of 'glide formation' which converts stressed [i] to [y] before vowels. In the island of Karpathos we observe that the word is pronounced [peía], which means that not only did the above change fail to occur but the [δ] dropped. Again we are confronted not with an isolated phenomenon but with the effect of a change which dropped the intervocalic voiced fricatives [v],  $[\delta]$  and  $[\gamma]$  over a wide area. Just as the replacement of [i] by [y] has resulted in alternation so has the loss of voiced fricatives. Consider a dialect which underwent 'glide formation' and then 'voiced fricative deletion'. Its [peδía] would first go to [peδyá], and then when the fricative was later lost from the singular [peδi] the plural would remain unaffected because of the protection afforded by the [y]. The resultant [pei]:[peδyá] type of alternation is found in various Dodecanesian dialects.

I shall be concerned then with establishing the rules which account for dialectal variation, and shall give general indications of their areal extent; incidental reference will be made to the types of alternation induced by the rules where appropriate.

## 1.2 General approach

In discussing various dialectal forms of the word for 'children' I referred to the occurrence of sound changes (or, looking at the matter from a synchronic angle, 'rules') and it is clear that a description of dialectal variation will involve a specification of the changes operative in each area. It is equally clear that in illustrating the effects of a given change or series of changes on a particular word we shall require a suitable starting point. In this instance there would be no gain in starting with,



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say, [paydía], for the monophthongization of [ay] and the fricativization of [d] are common to all dialects. In fact it turns out that we do not need to go further back than [pedia] to account for all the dialectal forms of the word in terms of phonological processes. In general I shall not delve any further back into the history of Greek than is necessary to illustrate the operation of the rules required for the purposes of the book. In accordance with common practice I shall refer to the starting point as the 'underlying form' and enclose its transcription in diagonals (e.g. /peδía/). Square brackets are used to indicate the phonetic form of the word, i.e. the broad phonetic transcription of the word as it appears in a particular dialect. When reference has to be made to a form intermediate between the underlying and phonetic representations square brackets will also be used, but this should not cause any confusion. It should be noted that just as it is important to select an appropriate cut-off point in working backwards from a given pronunciation, so we must stop at a reasonable point in the other direction; there are clearly many phonetic peculiarities of dialects which must be ignored in a general survey of this kind (if indeed they are known!). In general, differences which cannot be expressed in terms of the distinctive phonological features mentioned in 1.3 and 1.4 will not be mentioned. For example, the retroflexion of /1/ in the Sphakia area of Crete, or the differences in the points of articulation of palatalized /s/, the lesser or greater degree of fronting in /a/ and many similar points of divergence belong to the detailed investigation of specific dialects.

Because dialects arise from an originally more or less uniform language it is possible to show that they can for the most part be described in terms of a common set of underlying forms; variation is introduced by the phonological processes which operate on these forms. Not only may certain processes be completely absent from a given set of dialects, or differ somewhat in character from one dialect to the other; we also find instances where two dialects have the same underlying forms and share a common set of rules, but differ in the order in which they apply the rules. While this is a commonplace of dialectology, readers new to linguistics might appreciate an illustration from modern Greek of what is involved here.

Because the most appropriate starting point may vary according to the purpose in hand the same word may be shown in more than one way; in particular verbs may be unstressed and marked for vowel length or stressed and not so marked. Single symbols enclosed in diagonals indicate underlying segments or epenthetic elements such as  $|\gamma|$  which are acted on by subsequent rules.



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In all modern dialects there is a prohibition against a sequence of two voiceless fricatives (other than [sf]). Where such a sequence would be expected we find instead a sequence of fricative+stop (with certain qualifications not relevant to the present discussion). Thus while underlying /skotóθike/ 'he was killed' goes to [skotóθik'e] in, e.g., a Peloponnesian dialect, /yráfθike/ 'it was written' and /kurázθike/ 'he was tired' go to [yráftik'e] and [kurástik'e]. There is in other cases no evidence in the form of alternations to indicate whether a sequence such as [sk] originates in earlier /sx/ or /sk/; [sk'ilos] 'dog', for instance, reflects an earlier /sk/, while [sk'izo] 'I tear' may be regarded as coming from /sx/. We can therefore claim for all dialects the (rough) rule that any voiceless obstruent following a voiceless fricative will be a stop. Let this be labelled the rule of 'manner dissimilation'. Now we noted in the last section that [i] converts to [y] before a vowel. This [y] usually then goes to [x'] (a palatal voiceless fricative as in German ich) after a voiceless consonant or to [y'] (the voiced counterpart of this) after a voiced consonant. Thus /mátia/ 'eyes' goes first to [mátya], then this to [mátx'a], [δóndia] 'teeth' (from underlying /δóntia/) to [δóndya], then [δóndy'a]. Consider now a word such as /ráfia/ 'shelves'; this will go by 'glide formation' to [ráfya] and by the present rule ('consonantality') to [ráfx'a]. However [fx'] from original /fx/ is subject to manner dissimilation (e.g. /efxi/ 'blessing' becomes [efx'i] by 'palatalization', then efk'í]), and the question which naturally poses itself is whether this [fx'] from /fi/ undergoes manner dissimilation. The answer is that it does indeed go to [fk'] by manner dissimilation in some dialects, yielding e.g. [ráfk'a]. The simplest way to describe this difference is to say that in some dialects manner dissimilation precedes consonantality, while in others the rules are transposed:

(1)	ráfia	efxí
Glide formation	ráfya	
Palatalization		efx'í
Manner dissimilation		efk'í
Consonantality	ráfx'a	
(2)	ráfia	efxí
Glide formation	ráfya	
Palatalization		efx'í
Consonantality	ráfx'a	
Manner dissimilation	ráfk'a	efk'í



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Even where dialects agree in having undergone a given pair of rules in the same order it is often important to specify this order. We saw, for instance, that some dialects have [pei] but plural [pe $\delta$ yá]. Clearly the [i] of the plural went to [y] before the loss of voiced fricatives occurred, for if the contrary had been the case the process which deleted the [ $\delta$ ] of [pe $\delta$ i] would also have deleted that of [pe $\delta$ ia]:

(3)	peδí	peδía
Voiced fricative deletion	peí	peía
Glide formation		*peyá

As far as I am aware such a dialect does not in fact exist.1

It is important to notice that in accounting for dialectal variation in terms of ordered rules acting on underlying forms I am presenting the facts in so far as they are recoverable by internal reconstruction (based on alternation in a single dialect) or cross-dialectal comparison, not as they may be deduced, in certain favourable instances, from extant documentation. The justification for this is partly that the history of only very few dialects is reasonably well attested (e.g. Cretan, Cypriot) but more particularly that I am concerned essentially with exhibiting the nature of the differences between dialects as these differences represent a synchronic reality. Thus, while the 'rules' we shall require reflect in general historical processes, and their ordering recapitulates the actual temporal sequence of events, there may very well be discrepancies between historical fact and synchronic description. One obvious illustration is provided by the account just given of the difference between dialects with [ráfx'a], [efk'í], which were said to apply manner dissimilation and consonantality in that order, and those in which the order is reversed, yielding [ráfk'a], [efk'í]. For it is perfectly possible, and indeed likely, that dialects of the last type went through the [ráfx'a], [efk'í] stage and then at some later time manner dissimilation reoccurred:

(4)	ráfia	efxí
Glide formation	ráfya	
Palatalization	-	efx'í
Manner dissimilation		efk'í
Consonantality	ráfx'a	
Manner dissimilation	ráfk'a	

The asterisk is used throughout to indicate an incorrect 'output', not a reconstructed form.



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The crucial point to notice, however, is that the question of whether derivation (4) or (2) represents the true historical development is irrelevant to a statement of the present-day realities of the language. These are more naturally represented by derivation (2), which has the virtue of relative simplicity. Then again, while historical processes are extended in time, the picture imposed on our minds by 'derivations' tends to be that of instantaneous changes; yet still a third historical account of a [ráfk'a], [efk'í] dialect might assume the action of manner dissimilation over a long period, enclosing, so to speak, that of consonantality at both ends. In fact there are occasional cases where the relevant historical processes were so spaced in relation to one another that the conventional 'derivation' cannot easily be made to work.¹ For the most part, though, what I shall have to say can be interpreted either as recoverable history or synchronic description. Most linguists would probably accept that the two approaches are not as incompatible as they once seemed.

### 1.3 The consonants of modern Greek

Although it would certainly be possible to describe the sound structure of modern Greek dialects in terms of unanalysed sounds (or 'phonemes' or 'segments'), only by using a classificatory scheme of some sort can we make fairly simple and straightforward statements; this is largely because historical sound changes act in general not on individual sounds but on classes of sounds. For instance, at some stage a change must have occurred whereby [mp] was replaced by [mb], [nt] by [nd] and [nk] (as in English sink) by [ng]. Rather than list the individual changes we prefer to regard them as instances of a single change which brought about the voicing of stops after nasals; or, looking at the matter from a purely descriptive point of view, we can state that in modern Greek stops are always voiced after nasals. I shall follow the usual custom of describing sounds in terms of their articulation and try as far as possible to avoid technical terms which do not at the time of writing have general currency outside linguistic journals. The only term which may puzzle readers lacking direct acquaintance with linguistics is 'strident'; I shall use this to describe the sibilant sounds such as [s] and [č] (as in church) which contrast (by being 'noisier') with their non-strident counterparts as follows:2

<sup>&</sup>lt;sup>1</sup> The topic is discussed, with examples from modern Greek, in Newton, 'Ordering Paradoxes in Phonology', Journal of Linguistics 7 (1971), 31-53.

<sup>&</sup>lt;sup>2</sup> 'Strident' is not used in this book of [f] and [v], although they are labio-dental in Greek. In some languages [f] is said to contrast with a bilabial fricative (similar to the sound made when blowing out a candle) as 'strident' versus 'nonstrident' ('mellow').



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- (1) The strident counterpart of [t] is [t] as in German Zimmer; that is, it is an affricate similar to the final cluster of English bits but pronounced more rapidly as a unit segment. We may note here that in some dialects the affricate [t] contrasts with the sequence [ts]. Thus in parts of Lesbos we find [éta] 'so' but [métsa] 'I got drunk'.
- (2) The strident counterpart of [d] is [d] as in Italian mezzo; it is simply [t] voiced and accordingly similar to the final cluster of English bids.
- (3) If [t] is pronounced a little further back we get [ $\delta$ ], a sound very similar to the *ch* of English *chin* or the *c* of Italian *cento*. It is in contrast with [k'], which shares with it a palatal point of articulation but lacks stridency. Again certain dialects have a contrast between the affricate [ $\delta$ ] and the sequence [ $\delta$ ] (this may be compared loosely to the *ch* of *why choose* versus the *t sh* of *white shoes*).
- (4) The voiced counterpart of [č] is [j] as in Italian gente, English Jim. Its non-strident counterpart is [g'].
- (5) [s] and [z] are strident in contrast to  $[\theta]$  (as in *thin*) and  $[\delta]$  (as in *this*). Pronounced further back they become  $[\check{s}]$  and  $[\check{z}]$  as in French *chien*, Jean, English she, measure.

The palatal sounds of modern Greek are represented by a prime (') in the case of the non-stridents and by an inverted circumflex ( $^{\vee}$ ) in the case of the stridents. The former consist of [k'], [g'], [x'] and  $[\gamma']$ . [k'] and [g'] are usually thought of as fronted counterparts of [k] and [g] and resemble the initial sounds of English *keep*, *geyser* (compared to those of *call*, *gaunt*). Phonetically they might equally well be described as backed [t] and [d] and indeed in one dialect (that of Plumari, Lesbos) [k'] and [g'] arise from [t] and [d] before [i] (cf. [afk'i] for αὐτή 'her'). [x'] is similar to the sound of *ch* in German *ich* and is again conveniently thought of as a fronted [x] (this latter as in English *loch*, German *ach*). [x'] when voiced gives  $[\gamma']$ , just as [x] when voiced gives  $[\gamma]$ .  $[\gamma']$  is closely related to the glide [y] from which it differs in having audible fricativity. If the reader starts from  $[pe\delta y\acute{a}]$  'children' and attempts to narrow the gap between his tongue and palate in pronouncing the [y], he will get  $[\gamma']$ .

The consonants of modern Greek are displayed in Table 1 in terms of the features we shall be needing. The voiceless stops [p, t, k', k] and their voiced correlates [b, d, g', g] are described as 'noncontinuous'. The affricates  $[f, \check{c}, d', \check{j}]$  are also 'noncontinuous', and are distinguished from the stops in being 'strident'. The fricatives are 'continuous'. Stops,



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affricates and fricatives constitute the 'obstruent' system. Obstruents and nasals are 'true consonants' (consonantal, nonvocalic), while the liquids are consonantal, vocalic. The four points of articulation are 'labial', 'dental', 'palatal', 'velar'. As in English, [p b] are bilabial while [f v] are labiodental. [m] is also bilabial except in the learned clusters [mf] and [mv], when it becomes labiodental by assimilation. It would be possible to describe the four points of articulation in terms of combinations of plus and minus values of two features, according to a common practice (i.e. by treating 'dental' and 'palatal' as central versus peripheral and 'labial' and 'dental' as front versus back) but there seems to be no clear advantage in departing from the familiar four-term system in a description of modern Greek dialects.

TABLE 1. The consonants of modern Greek dialects

	Cont.	Voiced	Stri.	Lab.	Dent.	Pal.	Vel.	
Obstruent								
	_	_	_	p	t	k′	k	
	_	+		b	d	g' x'	g	
	+		_	f	0	x'	x	
	+	+		$\mathbf{v}$	δ	$\gamma'$	γ	
	_	-	+		ť	č		
	_	+	+		ď	j		
	+	_	+		S	š		
	+	+	+		z	ž		
Nasal								
	+	+		m	n	n'	ŋ	
				Liquid				
	+	+	-	*	r/1	1′		

In addition to the true consonants modern Greek dialects possess the liquids [l] and [r], as well as a palatal variant of the former [l'] (resembling the gl of Italian gli, or the ll of Castilian Spanish). I shall follow the usual practice of treating liquids as consonantal and vocalic (while the true consonants are consonantal and non-vocalic). The [l] and [r] share a dental point of articulation and differ in that [l] is lateral; the normal replacement of [l] by [r] before true consonants can then be described as 'delateralization'; for example standard [a\delta elf\delta s] 'brother' appears as [a\delta erf\delta s] in the dialects. Palatality is viewed above as a point of articulation. It may be mentioned at this point that in parts of north-eastern Greece a plain: palatal contrast may characterize all the consonants (e.g.