

Early Modern Greek /b d g/: Evidence from Rebétika and Folk Songs

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Abstract

*In Arvaniti and Joseph (2000) we studied the variability in the pronunciation of the Greek phones spelled $\mu\pi$, $\nu\tau$, $\gamma\gamma/\gamma\chi$, which in speech are said to consist of a nasal consonant, e.g., *m*, and a “voiced” stop consonant, e.g., *b*. Our data showed that the presence of the nasal depended largely on age, with younger speakers producing many more nasalless instances of these phones than older speakers. Here we examine the pronunciation of $\mu\pi$, $\nu\tau$, $\gamma\gamma/\gamma\chi$ in original recordings of early twentieth-century Greek rebétika and folk songs to see if these show similar variation, as linguistic theory would predict, or not (as traditional studies of Greek dialectology suggest). Our new data show variation in the pronunciation of these phones in a period for which no variation had been reported before. This early twentieth-century variation confirms our earlier conclusion that variation at the end of the twentieth century betokens a change to a new nasalless pronunciation, away for a previously stable variation pattern.*

This study reports on variability in the way in which speakers of Modern Greek pronounce the phones spelled $\mu\pi$, $\nu\tau$, $\gamma\gamma/\gamma\chi$, which in speech are typically said to consist of a nasal consonant (*m*, *n*, or η^1) and a “voiced”² stop consonant (*b*, *d*, *g*). Our starting point is the situation found in the contemporary standard language, drawing on quantitative sociolinguistic data presented in Arvaniti and Joseph (2000). Here, however, we extend the empirical basis for understanding this situation by examining data from sound recordings of early twentieth-century Greek, in particular rebétika and folk songs from the period from 1910 to 1937, a corpus not previously exploited for the study of the historical development of Greek pronunciation. Before we proceed with our study, a brief presentation of the nature of variability in language is in order.

The Nature of Variability in Language

One of the constants, so to speak, when it comes to language, is change. Even a glimpse at an earlier stage of a language, especially in comparison with a later stage, will bring to light numerous points of difference, the key to determining that a change has occurred. With such comparison, it is usual to talk about a change in “real time,” since different temporal “slices” of a language’s chronological development are involved. The differences between compared stages can be quite striking, especially when the temporal distance is great, as in (1), where both examples translate into English as “I don’t want to give”:

- (1) a. οὐκ ἐθέλω δομέναι (adapted from *Iliad* 7.364) [eighth century B.C.]
(literally, not want/1SG give/INFIN)
 b. δεῦν θέλω να δώσω (contemporary Modern Greek)
(literally, not want/1SG SUBJUNC give/1SG)

Moreover, virtually all aspects of a language can be subject to change. In (1) there is evidence for change involving: (i) vocabulary: e.g., οὐκ vs. δεῦν for ‘not’; (ii) form: e.g., δομέναι (to give), an “infinitive,” is not part of the repertoire of verbal forms now found in Greek; (iii) syntax: e.g., the verb ἐθέλω (want) occurs with an infinitive as a subordinate form in Ancient Greek, and thus with no personal agreement endings on the subordinate verb, but its Modern Greek equivalent, θέλω, occurs with a subjunctive and thus with agreement; (iv) pronunciation: e.g., the verb *want* has three syllables in its Ancient Greek form but only two in Modern Greek.³

It should be clear that recognizing that a change has occurred can be easier with regard to some aspects of a language’s structure than with others. For instance, changes in the syntax of subordination with *want* are as obvious in (1) as they are striking; the availability of written records from earlier stages makes the comparison possible from which an observation of change can be made. However, if one is interested in matters of change in sounds (phonological or phonetic change), dealing with written records can present many problems, since writing systems often mask facts about details of pronunciation. Thus, as Labov (1994:11) puts it, the historical linguist often has to “mak[e] the best use of bad data.” While Janda and Joseph (2003:14) suggest “imperfect” as a better characterization of such data, in that the information available from earlier stages of a language “will of necessity be fragmentary or otherwise incomplete, possibly misleading,” Labov’s point is well-taken. It is thus incumbent on the linguist interested in studying a particular change in a given language to consider as much relevant data as possible, and thus when studying sound change to exploit sources of

information on actual pronunciation of sounds in earlier, otherwise not directly accessible, stages of a language.

Because of such problems when working with historical data, many linguists have turned to the examination of ways in which the relevant data can be directly observed or inferred from a single stage, without comparisons across real time. In particular, they have focused attention on variation in usage found in the contemporary period, treating such variation as a window into change in language. Of special significance in this regard are the notions of “change in progress” and “change in apparent time.”

These notions are rooted in the observation that variability is inherent in language. No two speakers, even of the same language, are exactly identical in all aspects of their language use, and differences among them may well depend not only on geographical (dialectal) variation, but also on social factors such as the class or gender of the speaker. Even one and the same speaker can show internal fluctuations in his/her own usage, depending on factors such as the style of speech and the social context in which the speech is uttered. This effectively means that a given linguistic feature—such as the pronunciation of a vowel, or the syntax of the English verb *to need*—can show variant forms; when these functionally equivalent “variants” acquire social significance for the speakers of a language, they form a “linguistic variable.” Linguists have reason to believe, moreover, that the linguistic variables can be evidence of a language change in progress, i.e., of a change that is becoming established in the speech community and is in the process of becoming a new usage norm in that community. This is especially so when there is “age-grading” evident in the distribution of variants across a speech community, i.e., when greater or lesser use of one variant as opposed to another correlates directly with age. For instance, younger speakers of American English are at the forefront of the use of *be like* as a way of introducing direct quotation (e.g., *I’m like ‘Oh my God . . .’*). As discussed by Romaine and Lange (1991) this usage is clearly innovative yet rapidly becoming the new norm, replacing the older use of *go* (e.g., *And then I go ‘Oh my God . . .’*) in the same function (on *go* see Butters, 1980). In such a case, one can talk of “change in apparent time,” since no real temporal “slices” are at issue; rather, the time dimension is reflected in the different ages of the speakers examined, with older speakers presumably reflecting usage fixed when they were young, and younger speakers reflecting innovations in usage.⁴

At the same time, though, not all variation indicates change in progress; there can be stable variation, even if age-grading is evident. For instance, the use of a term of address such as *Mommy* shows age-grading in American English, with younger speakers using it, while older

speakers tend to use *Mom* or *Mother*. This variability, however, reflects a maturational aspect of each individual speaker's development rather than a shift in usage in the speech community as a whole.

However, even when techniques for identifying changes in a language (such as looking for age-grading in variation and interpreting it) are employed, it is usually necessary to have some fixed point of reference against which to consider the data in order to see that a change has taken place—or is taking place—and what the direction of that change is. Finding a suitable point of reference for comparison often involves the interpretation of written records or an inference about what a likely prior stage was like (e.g., based on comparisons of related or similar situations). Interpreting data from earlier stages can be straightforward where written texts provide clear indications, as with elements of sentence syntax evident in (1). However, getting at fine details of pronunciation from written records alone is often quite difficult. Most importantly, spelling does not always reflect current pronunciation. The use of the multiple breathing and accent marks in the spelling of Greek into the second half of the twentieth century is a case in point, as these reflect simply a continuation of Ancient Greek spelling practices that have had no phonetic reality after the period of the Greek Koine. In such cases, the use of oral data, such as the recordings of folk and rebétika songs used here, if available, can be indispensable. Before we present our findings from the examination of such songs, however, we need to present some details on the situation with the nasal plus stop combinations that were the focus of our investigations.

The variability in the pronunciation of $\mu\pi$, $\nu\tau$, $\gamma\gamma/\gamma\chi$

In the above mentioned earlier study by Arvaniti and Joseph (2000), the results of which are summarized below, we used variationist techniques on data collected in the 1990s from a sampling of Greek speakers of different ages, thus looking at “apparent time,” in order to assess the situation with an aspect of the pronunciation of contemporary Standard Modern Greek. In particular, we investigated the ways in which our sample of thirty speakers produced the phones represented in Greek orthography as $\mu\pi$, $\nu\tau$, $\gamma\gamma/\gamma\chi$.

These spellings reflect not one but several possible pronunciations. Thus, the pronunciation of $\mu\pi$, $\nu\tau$, $\gamma\gamma/\gamma\chi$ can include a combination of a nasal consonant and a following “voiced stop consonant,”⁵ making them similar to the English sequences *mb*, *nd*, *ng* in words such as *limbo*, *end*, and *finger*; a Greek example of this pronunciation would be *συγκαλύπτω* (to cover up). However, $\mu\pi$, $\nu\tau$, $\gamma\gamma/\gamma\chi$ can also be

pronounced simply as voiced stops—as in the words *μπύρα* (beer) or *ντομάτα* (tomato)—or as a combination of a nasal consonant and a voiceless stop consonant (i.e., like the sequences *mp*, *nt*, *nk* in the English words *limp*, *dent*, and *ink* respectively), e.g., in *μεμπτός* (blame-worthy). For convenience, we are going to refer to the three different phonetic categories mentioned above, nasal consonants, voiced stop consonants and voiceless stop consonants as N, D, and T respectively.

The *μπ*, *ντ*, *γγ/γκ* combinations have largely arisen in Modern Greek from Ancient Greek clusters of consonants involving nasals (N in our notation) and two types of stops, voiced and voiceless ones (D and T respectively). Examples of these two types of clusters include the words *άνδρα* (man) and *πέντε* (five) in Ancient Greek. In the first word, *νδ* was pronounced *nd* (as in the English word *send*; ND in our notation); in the second word, *ντ* was pronounced *nt* (as in the English word *cent*; NT in our notation). The pronunciations of these ND and NT clusters are known to have begun to merge to ND by the sixth or seventh centuries A.D. at the latest and most likely even earlier than that (Tonnet 1993: 40–46; Horrocks 1997:112).

From this ND outcome in Middle Greek, several discrete outcomes are found in regional dialects of Modern Greek⁶ (Mirambel 1933; Mirambel 1959; Newton 1972). The key ones for our purposes are the following: (i) preservation of ND word-internally and simplification to D word-initially, e.g., *πέντε* with ND, but *ντύνω* (to dress) pronounced with D, as in the Athenian standard and in most dialects of the Peloponnese and Northern Greece (Newton 1972:94); (ii) simplification to D in all positions, e.g., *πέντε* and *ντύνω* both pronounced with D, as in Cretan, Thracian, Eastern Macedonia dialects, Thasos, Samothraki, Lesbos, Skiros, and Samos (Newton 1972:95).

It is also important to note that occasional instances of variability *internal* to particular dialects (that is, from speaker to speaker) have been documented for regional Greek of the late nineteenth and early twentieth centuries. For example, Thumb (1891:107–108) describing the dialect of Aegina notes that “n is almost completely missing so that when I was transcribing the words I often doubted whether I should write the n or not; in general *ντ* or *μπ* . . . are very close to . . . d, b, but differ from [them] only in that a light nasal resonance precedes them during production” [our translation]. This quote suggests that although Aegina speakers for the most part had the nasal pronunciation they must at least occasionally have omitted the nasal. Similarly, Dawkins (1916:69, 81) in his description of Cappadocian Greek in the early twentieth century notes that one can hear *mb*, *b*, and even *p* as outcomes of historical *mp*, showing yet another source of variation within one and the same dialect with regard to the realization of these phones. Newton

(1972:95), describing a later stage of the Greek language, also mentions that there are dialects which show fluctuation in terms of how much nasality is used in the pronunciation of these phones and how often nasality occurs.

As far as the standard language is concerned, it has often been assumed that the nasal is *always* pronounced (e.g., Mirambel 1933; Newton 1972), except word-initially (e.g., Mirambel 1933:157; Householder 1964:20; Newton 1972:96). However, as with the regional varieties of Greek, variability in the Standard has been reported in the literature on Greek linguistics, beginning in the 1960s. Householder (1964), for instance, mentions that in Greek, at least as spoken by educated Athenian speakers, there are three types of words: (i) words that fluctuate between D and ND; e.g., λοντάρι (lion), πουργί (purse), τσαμπί (bunch); (ii) words that are pronounced (almost) exclusively with ND; e.g., κάμπος (plain), γογγύλι (turnip), αντιδι (endive); (iii) words that are pronounced (almost) exclusively with D; e.g., μπαμπάς (dad), νταντά (nanny), στρίγγλα (shrew).⁷ Householder's fluctuating words would thus show variation in their pronunciation, and the system overall would show variation in that there was no single overarching generalization about how the voiced stops were pronounced. Similarly, Newton (1972:95) notes that in Athens itself, "where the 'standard' pronunciation would be expected" (97), the nasal is rarely perceptible at least as far as fairly rapid speech is concerned.

Newton's comment suggests that in his view there was *stylistic* variation between D and ND in the standard; that is speakers show a tendency to simplify ND to D word-internally in casual speech. Similar views are also expressed by Kazazis (1968; 1976). On the other hand, quantitative studies (Charalambopoulos, Arapopoulou, Kokolakis, and Kiradzis 1992; Pagoni 1989; Mikros 1997) suggest that realization depends largely on two factors: first, age, with older speakers using more instances of ND than younger speakers, and second, education, with more educated speakers using ND more than the less educated ones.

In addition, we should stress that these pronunciations occur not only within words, but also when the nasal and stop occur across a word boundary, as in the case of combinations such as τον πατέρα (the father, ACC.) or την καλοσύνη (the goodness, ACC.). Similarly to word-internal instances, these nasal plus stop sequences also show variation. Although in very careful speech they may be pronounced as sequences of nasal and voiceless stop, NT, typically they are pronounced as nasal plus voiced stop, ND, or as a plain stop, D, depending on the dialect.

These historical and contemporary observations raised the question of whether the variants involved represent a case of stable variation or instead a case where variation reflects a change in progress (hence a

variable, notated *ND*). Our earlier study (Arvaniti and Joseph 2000) was designed to answer this question.

The findings of Arvaniti and Joseph (2000)

The findings that emerged from Arvaniti and Joseph (2000) were quite revealing, and suggested that there is a real change going on in Greek with regard to (ND).

We examined all the factors that previous studies had suggested as, but had not conclusively shown to be, relevant for the variation in the realization of (ND), namely style, age, gender, education, social class, and linguistic context. Specifically, our study included data in formal and informal style (reading of an especially composed text and approximately 30 minutes of casual conversation) elicited from a sample of 30 native speakers of Athenian Greek (15 men and 15 women) stratified according to class, education level, and age.

The data yielded 5396 instances of (ND), 3660 from the two repetitions of the text and 1736 from the conversational data. These tokens were classified into three variants, ND (for tokens exhibiting both nasality and voicing, e.g., *αμπέλι* (vineyard) pronounced with *mb*), D (for tokens without nasality but with voicing, e.g., *ντέφι* (tambourine), pronounced with an initial *d*), and NT (for tokens with nasality but no voicing, e.g., *την Τετάρτη* (on Wednesday) when the sequence \rightarrow T- is pronounced *nt*). The percentage of each of the variants was computed separately for each speaker and context, i.e., separately for (ND) in word-initial position, word-internal position, and across a word boundary, since differences among these positions had already been noted in the literature. The computed percentages formed the basis for our statistical analysis of the data.

Our results showed that the pronunciation of (ND) depended primarily on linguistic context and age, and to a much lesser extent on style and gender. Our results confirmed traditional accounts that word-initial voiced stops are virtually always pronounced without nasality. In addition, in word-internal (ND), variation in the use of the ND and D variants shows a strong correlation with age, with speakers below the age of 45 displaying a dramatic reduction in ND pronunciations when compared with older speakers. On the other hand, gender, education, and class did not affect the speakers' choice of variant (a finding that typically suggests that a change has already been completed, as shown by Labov 1963 and 1994, for instance). Significantly, style did not affect (ND) realization, except in the case of older speakers, who showed an increase of ND usage in reading: thus these speakers used ND 56% of the time when *reading* words such as *δέντρο* (tree) and *αντίθετα* (in

contrast), but this percentage decreased to 42% during spontaneous conversation.

We also found that the pronunciation of (ND) across a word boundary was affected by age, but that within each age group the variable was influenced in different ways by gender and style of speech. In the youngest age group these factors did not affect (ND) realization, and in the majority of cases the variant used was D. In the oldest age group, style affected the choice of variant, resulting in higher ND and lower D percentages in reading than in conversation for both men and women. In the middle age group, on the other hand, women showed an increase of NT in reading compared to conversation; this increase was at the expense of the D variant, while women's percentage of ND pronunciations remained the same in the two styles. Unlike the youngest and oldest age groups, women in the middle group behaved differently from men, whose choice of variant was not influenced by style; this difference suggests that for the middle age group there is sociolinguistic significance in the choice of (ND) variant across a word boundary, and that women are more sensitive to it.

The overwhelming effect of the age factor compared to all other factors suggests that the pattern of stable variation depicted in most traditional grammars and descriptive works (e.g., Mackridge 1990; Newton 1972), in which ND is the formal and D the informal variant, is changing, that is to say, showing change in progress. It appears from our data that for the majority of the younger speakers, ND is no longer a prestigious marker of careful speech, and D forms are no longer stigmatized. On the contrary, our results suggest that prenasalized voiced stops may have actually begun to disappear from Greek, or more accurately, from the speech of the younger speakers of Standard (Athenian) Greek, resulting in an age-grading phenomenon.

What makes the observed pattern of some interest is (a) the abruptness of the change, which seems to have taken place within one generation, and (b) the direction of the change, namely the fact that the currently dominant variant, D, is traditionally thought of as less prestigious. In Arvaniti and Joseph (2000) we proposed that these phenomena are due to the overwhelming political changes which took place in Greece in the mid-seventies and led, on the one hand, to social changes, and on the other, to the official abolition (in 1976) of Katharevousa, the "high" variety in the long standing Greek diglossia, in favor of Dhemotiki, the "low" variety in the diglossic situation. Specifically, it appears that before the mid 1970s, in addition to ND, the prestigious variant linked to Katharevousa, an Athenian "low" standard with D as its reflex for older ND was emerging among those upwardly mobile strata of society—always considered innovators (Labov 1980)—that after the Second

World War formed what Lytras (1993) terms the “new middle class.” Eventually the D of the low prevailed for socio-political reasons, namely the end of the military government and the subsequent abolition of Katharevousa as Greece’s official language (the timing of these events correlates with the sharp age division in our results). The reason D prevailed was that Katharevousa related norms were generally rejected because of the connection of Katharevousa with the military government (see Frangoudaki 1992).

Using folk and rebétika songs

Using variationist methods on contemporary data was appropriate for the study of this phenomenon, because it is especially difficult to draw clear inferences about ND combinations for earlier stages of the language, owing to the vagaries of Greek orthography; as suggested above, conventional spellings for these combinations do not always reflect pronunciation accurately. Moreover, despite the occasional reports of regional intra-dialectal variation in pre-contemporary Greek noted above, there was no reason to believe that there was such variation in the *standard language*. It is not entirely clear what “standard language” would mean in the context of nineteenth and early twentieth-century scholarship on Greek; for our purposes we assume that descriptions of Greek that do not make specific reference to regional dialects refer in fact to the author’s conception of standard Greek (e.g., Mirambel 1933). With that definition in mind, we note that no description of Greek from this era says anything about pronunciations of ND clusters other than, essentially, that ND occurred in word-internal position and D in word-initial position.⁸

Still, our study, being an investigation of contemporary usage, could not possibly provide any hard evidence bearing on the state of affairs with nasal plus stop combinations in pre-contemporary Greek. In order to have a reference point against which to judge the patterns of variation found for late twentieth-century Greek, we made reasonable assumptions concerning the earlier situation, drawing on historical information and facts about the realization of these combinations in various modern dialects. Still, direct evidence of pronunciation from earlier stages was lacking and our conclusions were only as strong as our inferences about these earlier states.

We thus turned to a heretofore unexploited source of directly observable—as opposed to inferable—data bearing on how (ND) was actually pronounced in early twentieth-century Greek. The data in question come from early recordings of folk and rebétika songs, and thus, since we are not dealing with written documents that have to be

philologically interpreted, we are in a better position to say with some certainty just what the range of pronunciations were that were available several generations prior to the speech of our sample in the earlier study.

Our source was tapes and CDs of original recordings of rebétika and folk songs from the 1910s to the 1930s. Although we do not know what the earliest (nonwritten) record of Greek is, given that the technology of recording speech for listening has emerged only within the last 120 years or so, we expect that recordings from the 1910s, which are the earliest we have, must be among the earliest available sound recordings of the language.

We note that there *may* be other possible sources of recorded oral Greek from that period, such as radio recordings. However, there are certain advantages to using the song corpus. First, song recordings are easily accessible, since one can buy them in stores instead of having to search through archives for which permission might be needed. Second, they are more likely to reflect real and natural usage than radio recordings, which typically are more formal, or films, which do not provide *real* data about pronunciation and usage, but rather, reflect *attitudes* speakers hold about variation and stereotypical usage.⁹ Third, the recordings we examined provide two types of stylistic information: (a) there are two styles of singing involved—folk songs and rebétika—and (b) there are interjections of the singer to the orchestra, so that the same person is recorded both singing and speaking. Fourth, the recordings provide us with a variety of speakers and dialects. Moreover, since the singers are well known, their birthplace is almost always known and provided in biographical notes accompanying each recording. This is very different from the situation that one faces with radio recordings, where the announcers are generally anonymous so it is impossible to ascertain their origins (and hence their accent).

There are of course some necessary caveats in the use of early rebétika/folk song recordings as linguistic evidence. First, the recordings are obviously not of high quality. This would be a potential problem for certain types of detailed phonetic analysis, but would be unlikely to affect the variable under consideration (and in any case, bad sound quality is an inevitability when working with recordings of that period). Second, with performed language as in singing, stylized pronunciations that do not directly reflect actual spoken usage are possible (cf. pronunciation of final schwa in French songs, in words such as *chose* (thing), which are pronounced without the final schwa in regular speech). Here though there is no reason to think that singers would target (ND) for such stylization. We have some evidence that this is so,

since the same singers were often recorded singing both rebétika and folk songs, and the comparison of their pronunciation of (ND) in the two singing styles shows no evidence of conventional singing-style related differences (note, in contrast, that the folk style involves mannerisms that seriously affect vowel quality; these mannerisms are absent from the rebétika songs).

Corpus and methods

Corpus. Our corpus consisted of several tapes and CDs of folk and rebétika songs from the 1920s and 1930s, with two songs recorded as early as 1911, but most falling between 1922 and 1937. The results presented here are based on the analysis of thirty songs, sixteen folk songs taken from recordings reproduced on CD (but not digitally remastered) and fourteen rebétika songs taken from recordings reproduced on tape and later on (non-digitally remastered) CD (our source for the rebétika songs was primarily the CD, but for expository reasons we will be referring to them as the songs from the tape). The songs in the *analyzed* corpus fall mostly in the period 1926–1937, but also include the two songs recorded in 1911 (for titles and original recording dates see Appendices I and II).

These thirty songs were sung by twelve different singers, three female and nine male (see Appendices I and II). The names and origin of all singers and information about their dialect with respect to (ND)—where known—are listed in Table 1 below. As can be seen in this table, it is often the case that information about the pronunciation of (ND) in a particular dialect is available from several sources. In all these cases, sources agree in their description of (ND) pronunciation. Thessaloniki, however, is an exception, with Mirambel (1933) reporting D, while Newton (1972) and Kondosopoulos (2001) report ND (the descriptions of Newton and Kondosopoulos are closer to contemporary usage, as reported in Charalambopoulos et al. 1992). We should also note that for some of the singers only one dialect is given because biographical notes tell us only where the singer was born, though it is most likely that they all lived in Athens as adults, since they were able to record their songs. For others, the notes make it clear that they moved to Athens at some point; for singers from Istanbul and Smyrna, this time most often coincides with the events of 1922.

Methods. Both authors listened independently to the tape and noted the pronunciation of each instance of (ND). The two transcriptions showed a high degree of agreement. In addition, the first author listened also to

Table 1. Singers in our corpus, with information about the number and style of songs transcribed for each, and the expected realization of (ND) in their dialect (according to source(s) given in brackets: ‡ = Mirambel, 1933; * = Newton, 1972; † = Kondosopoulos, 2001).

Singer	Style of song	Dialect (in chronological order of residence) and expected (ND) realization
Abadzi	3 rembétika, 2 folk	Smyrna: D (‡ †); Athens: ND (‡ *)
Dalgas	3 rembétika, 1 folk	Istanbul: D (‡); Athens: ND (‡ *)
Eskenazi	2 rembétika, 2 folk	Istanbul: D (‡); Thessaloniki: D (‡), ND (* †), Komotini: D (‡ * †), Athens: ND (‡ *)
Holevas	2 folk	unknown
Kanaropoulou	1 rembétiko	Bursa (no data)
Panayis	1 rembétiko	Smyrna: D (‡ †), Athens: ND (‡ *)
Papasideris	1 rembétiko, 3 folk	Salamina: ND (‡)
Payiumdzis	1 rembétiko	Aivali: D (‡ * †); Lesbos: D (‡ * †), Pireus: : ND (‡ *)
Psamatialis	2 folk	Istanbul: D (‡)
Roukounas	4 folk	Samos: D (‡ *)
Stasinopoulos	1 folk	Kalavrita: ND (‡ * †)
Yerotheodorou	1 folk	Unknown

the CD, and then repeated listening to both tape and CD a while later, with the two different transcriptions also showing a high degree of agreement.

The data were divided into three categories: the *Exclusively D* context, *Intervocalic (ND)*, and *Phrasal (ND)*. The *exclusively D* context included words with initial (ND), e.g., *μπροστά* (in front), and also words in which (ND) is preceded by another consonant and thus found in syllable initial position; e.g., *σεβντάς* (heartache). As the name implies, in these cases only D is expected for phonological reasons (see e.g., Householder 1964 for a description; Arvaniti 1999 for a phonological explanation).

Intervocalic (ND) refers to (ND) in word-internal position between vowels; e.g., *μάγκας* (hipster), *γλεντώ* (to have fun), *αντάμωσα* (I-met). In this context, variation across singers is expected since they come from areas of Greece in which (ND) realization differs. However, if the traditional sources which advocate that there is no intra-dialectal variation are correct, the realization of (ND) should be stable within each singer's data and across the data of singers who were speakers of the same dialect.

Phrasal (ND) refers to the presence of (ND) across a word boundary; e.g., *μην περάσεις* (don't pass), *των πλουσίων* (the rich, GEN.PL.), *στην πόρτα* (at the door). In the case of phrasal (ND) variation is also

expected across speakers depending on their origin, in a similar fashion to variation for intervocalic (ND). Again, no variation within each singer's data and within each dialect is expected, if we assume, like traditional sources, that there is no intra-dialectal variation.

Overall, the data consisted of 121 instances of (ND) that came both from the singing parts and the interjections of the singers to the orchestra. Of these 121 instances, 61 were of intervocalic (ND), 44 were instances of phrasal (ND), and 16 were of (ND) in the exclusively D context (for the full set of data, divided by type of (ND) realization and singer, see Appendix III). Thus, the majority of our tokens are intervocalic or phrasal, the contexts for which variation has been reported. As was inevitable, some of the singers provided more data than others. For this reason, we will concentrate mainly on the data from Abatzi, Dalgas, Eskenazi, Papisideris, Roukounas, and Stasinopoulos, since we have several instances of (ND) from these speakers and their dialects are relatively well documented.

Results and discussion

As mentioned, all of the instances of (ND) divided by category and singer are presented in Appendix III. Overall, our transcriptions showed the following.

First, in the exclusively D context, i.e., in word-initial position, and also when (ND) is preceded by another consonant, there are only tokens without nasality; in other words, only the D variant was observed in the data of all the speakers. This result agrees entirely with what has been reported for all dialects of Greek, including those that have been described as using the ND variant intervocalically (Mirambel 1933:157; Newton 1972:96). Exclusive use of D in this context during the singing suggests that as far as the (ND) variable is concerned the singers used a natural style of speech, thus making the possibility of a mannerism relating to (ND) improbable. This strengthens the validity of the rest of the data, which show more variation.

As far as intervocalic (ND) is concerned, we observed that two of the singers, Stasinopoulos and Roukounas, use exclusively the D variant. Although it is possible that this consistency is due to our limited data, it is in sharp contrast with the data from the singers who used primarily the ND variant, since none of these used ND at the exclusion of D, i.e., all had some words in which they used D instead. This is evident in the data from Abatzi, Dalgas, Eskenazi, and Papisideris. For instance, Dalgas uses exclusively ND in the folk song *Σαράντα παλληκάρια* (Forty Lads); in *Μάγκιχο* (Lowdown Doll), however, he uses the title word four times: three tokens have ND, but the fourth has D. In the same song

(*Μάγκικο*), he also pronounces *την καρδιά μου* (my heart, ACC.) with D. Similarly Rita Abadzi uses mostly ND, e.g. in *άντρα* (man) or *πόντος* (slick); however, she also alternates between ND and D within the same “phrase,” when singing one of the folk songs: in *Μια κοντή κοντούλα* (A short one, shorty), she has ND in *κοντή* and D in *κοντούλα*. Variation is even more striking in the songs recorded by Eskenazi, who often shifts from D to ND within the same song. For example, she uses ND throughout *Τράβα ρε (μάγκα και) αλάτι* (Hipster hit the road), a song in which the word *μάγκας* (tough guy) is repeated seven times (all pronounced with ND); however, when addressing the orchestra at the end of the song she uses *άντε* (Go on!) with D.

It should be noted here that the data from intervocalic (ND) do not always agree with the traditional descriptions of the dialects spoken by the singers. Specifically, Dalgas, who comes from Istanbul, used primarily ND, though the descriptions available (Mirambel 1933; Kondosopoulos 2001) suggest that Istanbul had D. Similar is the case of Abatzi, a native of Smyrna, who also uses mostly ND, although her native dialect is said to have D (Mirambel 1933; Kondosopoulos 2001). Finally, Stasinopoulos, a Kalavrita native, has only D, but is a speaker of an ND dialect according to all descriptions (Mirambel 1933; Newton 1972; Kondosopoulos 2001). On the other hand, our data agree with traditional descriptions in the case of Roukounas and Papisideris: Roukounas, a native of Samos, uses only D as descriptions of his dialect suggest (Mirambel 1933; Newton 1972; Kondosopoulos 2001); the same seems to be the case with Papisideris, a native of Salamina.¹⁰

While we have no exact explanation for these deviations, we do note that they could reflect deficiencies in the traditional descriptions (which typically were based on the speech of a few speakers serving as informants for the dialectologist); since we know that there was internal variation in some dialects (see the discussion above and citations from Dawkins and Thumb in footnote 8); these differences may be interpreted as a reflection of variation in the native dialects of these singers. It is important to realize that dialect-internal variation may take the form of different speakers from the same area each having a different realization or a single speaker him/herself having multiple realizations of a given feature; in both cases, the overall region would show variable realizations.

Our data from phrasal (ND) show the same kind of variation that we observed in our data of Arvaniti and Joseph (2000). Thus, both the ND and D realizations occur for phrasal (ND), but we also found a few NT and T realizations (see Appendix III). More importantly, the phrasal (ND) data show that most singers pronounced (ND) in this position in the same way they pronounced it intervocalically. Thus, Roukounas and

Stasinopoulos, who used D exclusively in intervocalic position, also used D only in the phrasal context. Those who used predominantly ND, but also variation with D intervocalically, showed the same variation in their phrasal (ND) data (e.g., Abatzi, Dalgas, Eskenazi). It is also interesting to note that for some speakers, such as Holevas, we have only D intervocalically, but only ND in the phrasal context; Papisideris on the other hand, has only ND in the phrasal context, but fluctuates between D and ND intervocalically. This could of course be an artifact of our limited sample, but it is an indication that a change from ND to D could have already begun at the time our recordings took place; the pattern of variation we observed further suggests that the change initially affected only (ND) found within word boundaries and gradually spread to the phrasal context, a pattern that agrees with everything we know about language change (e.g., Labov 1963, 1994).

Conclusion

Our data clearly suggest that existing dialectal descriptions are often accurate in reporting the main output of Ancient Greek nasal plus stop clusters. However, speakers were not always consistent in their use of one or the other contemporary variant. Rather, our data are in agreement with descriptions from the 1950s in showing that speakers often fluctuated in their realization of (ND) even in the *early* twentieth century. This finding, in turn, supports the claim that (ND) had been in a situation of stable variation considerably earlier than the 1950s (when this variation is first consistently noted).

The existence of early twentieth-century stable variation is in agreement with the view of sound change espoused by Labov; specifically, Labov (1963, 1994) among others has demonstrated that change in the sound system of a language starts as variation internal to a speech community and to individual speakers. This variation can remain in place for a long time until one variant, generally for socially-based reasons of prestige or association with particular speakers or attitudes, is generalized at the expense of another until it becomes the new norm. This is precisely what our present data show in conjunction with our results from Arvaniti and Joseph (2000). In other words, our data constitute clear documentary evidence of synchronic variation at a period not within the reach of current speakers, and thus confirm that Arvaniti and Joseph (2000) were not amiss in their assumptions about the sociolinguistic state of affairs in the early part of the twentieth century with Greek and the realization of (ND). This type of variation is known as “stable variation,” and our data corroborate the view that such stable variation was present in many Greek dialects prior to 1950 (thus

providing support for inferences of variation in cases where no direct evidence is to be found).

In addition, we have demonstrated that the “discrete/unitary” accounts of Greek varieties (whether standard or dialectal) found in earlier literature are oversimplified: our data show that variation existed both within the speech of a single speaker and across speakers for the same dialect. This is perhaps not a surprising result, but needs to be emphasized again and again, since so much of what we do when we study historical phonology is to act as if accounts are discrete and unitary in the face of no evidence to the contrary—perhaps we need to be more cautious!

Finally, our study represents a new methodology, using a new type of data. Our findings show that it is possible to draw valid conclusions from singing data. Further work is planned to extend this research to the rest of our archive.

AFFILIATION?

NOTES

¹ This symbol represents a sound comparable to the English sound spelled *ng*.

² The term “voiced” refers to vibrations of the vocal folds as air from the lungs is pushed through them; “voiceless” refers to the absence of such vibrations.

³ The form *θέλω* does occur in Ancient Greek, but the longer form, *ἐθέλω*, does not occur as such in Modern Greek, so that this aspect of the word’s pronunciation—the number of syllables—has indeed changed.

⁴ Innovations are not just restricted to the young; adults can innovate linguistically too, but age-grading is particularly clear in cases where the younger speakers are the innovators.

⁵ Stops are consonants produced with complete blockage of the flow of air through the mouth. The vocal cords vibrate for voiced stops, such as *b*, *d*, and *g*, but do not vibrate for voiceless ones, such as *p*, *t*, and *k*.

⁶ Other outcomes were possible and attested in various dialects, e.g. *dd* and *nn* (see Mirambel 1933), but these are not relevant to the issues in question here.

⁷ It must be noted that Householder’s data for his description of Greek come from some forty years ago and there have been some changes in the norms for the pronunciations of these words; indeed, that is our point.

⁸ The formulation of Thumb (1912) is typical: “the tenues [= voiceless stops] after nasals become mediae [= voiced stops], i.e., *μπ*, *ντ*, *γκ* are pronounced like *mb*, *nd*, *ng* . . . the same sounds arise when a nasal and (a[n]cient) Gk.) *β δ γ* come together, so that *μβ*, *γγ*, and *νδ* are pronounced like *mb*, *ng*, *nd*, preserving the ancient Greek mediae. . . . When, owing to the dropping of a vowel, the groups *μπ*, *γκ* (*γγ*), *ντ* begin the word, they

are pronounced almost exactly like pure voiced *mediae* [= voiced stops], i.e., like the North German or Romanic *b, d, g* (or more correctly, ^mb, ⁿg, ^d with reduced nasal).” It is interesting that Thumb was sharp-eared and intellectually “honest” enough to be precise about noting variation in Aegina (see above), so the absence of comment about variation for the standard language of the time is striking. Sophocles (1842), in his description of “Romaic,” is similarly silent on the matter of variation. Such negative evidence must of course be understood against a backdrop of assumptions about what the notion of “standard” language may have meant to these scholars, but cannot be completely discounted, we would argue.

⁹ Such stereotypes and attitudes are interesting in their own right (see Georgakopoulou 2000), but different in kind from our corpus.

¹⁰ To be precise, Salamina does not figure in any description of Greek dialects, as it was considered an area of Arvanitika speakers. However, given its proximity to Athens, it is reasonable to assume that its Greek-speaking population used a variety close to the Athenian standard, which by all accounts had ND.

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Appendix I. Titles of songs, singers and recording dates from *Greek-Oriental Rebetika: Songs and Dances in the Asia Minor Style. The Golden Years: 1911–1937*.

1. Gazeli Mustaar (Burned Again); Yiorgos Papisideris; c. 1935
2. Sabah Manes (Open the Graves); Stratos Payiumdzis; c. 1936
3. Τα χανουμάκια (Hashish Harem); Rita Abadzi; late 1930s
4. Σούστα Πολίτικη (Constantinople, my Dream and my Torment); Andonis Dalgas; c. 1933
5. Μάγκικο (Lowdown Doll); Andonis Dalgas; c. 1934
6. Neva Hedzaz (Like a Dry and Drifting Leaf); Marika Kanaropoulou; c. 1934
7. Γιατί φουμάρω κοκαΐνη (Why I Smoke Cocaine); Roza Eskenazi; c. 1932
8. Gazeli Neva Sebah (The Hour of Death); Rita Abadzi; c. 1935
9. Τράβα ρε (μάγκα και) αλάνι (Hipster, Hit the Road!); Roza Eskenazi; c. 1934
10. Hedzaz Neva Manes (No Life Left for me); Haralambos Panayis; c. 1934
11. Της ξενιτιάς ο πόνος (The Exile's Grief); Andonis Dalgas; c. 1935
12. Είσαι πόντος (You're Slick); Rita Abadzi; c. 1935
13. Συμυρνείκομανές (Bordello Blues); Yangos Psamatialis; c. 1911
14. Χιώτικος μανές (If I Were the Hem of your Skirt); Yiangos Psamatialis; c. 1911

Appendix II. Titles of songs, singers and recording dates from *Arxio Ellinikis Diskografias, Dimotika Tragoudia I: Leivadia* (Archive of Greek Recordings, Folk Songs I: Leivadia).

1. Σαράντα Παλληκάρια (Forty Lads); Sotiris Stasinopoulos; c. 1929
2. Στης Λειβαδιάς τον καφενέ (In Leivadia's Coffee Shop); Dimos Holevas; c. 1937
3. Τα κορίτσια της Λειβαδιάς (Leivadia's Lasses); Kostas Roukounas; c. 1934
4. Λειβαδιά αλλά μωραΐτα (Leivadia Morias-style); Roza Eskenazi; c. 1934
5. Μια κοντή κοντούλα (A Short One, a Shorty); Rita Abadzi; c. 1934
6. Εδώ δεν είναι Λειβαδιά (This is not Leivadia); Dimos Holevas; c. 1934
7. Ο Σωτήρχαινας (Sotirhainas); Yiorgos Papisideris; c. 1933
8. Στης Λειβαδιάς τη ρεματιά (In Leivadia's Gorge); Yiorgos Papisideris; c. 1938
9. Οι όμορφες της Λειβαδιάς (The Beauties of Leivadia); Roza Eskenazi; c. 1934–35
10. Τρεις βλαχοπούλες της Λειβαδιάς (Three Vlach Girls from Leivadia); Rita Abadzi; c. 1934
11. Πέρα εκεί στη Λειβαδιά (Down There in Leivadia); Kostas Roukounas; c. 1938
12. Ποιός είδε τέτοιο θαύμασμα (Who Has Seen Such a Miracle); Yiorgos Papisideris; c. 1931
13. Λειβαδιώτισσα (Woman from Leivadia); Kostas Roukounas; c. 1938
14. Σαράντα Παλληκάρια (Forty Lads); Andonis Dalgas; c. 1928
15. Μου στείλανε μια προξενιά (They Sent me a Marriage Proposal); Kostas Roukounas; c. 1937
16. Εύμορφη που είναι η Λειβαδιά (How Beautiful Leivadia is!); Serafim Yerotheodorou; c. 1926

Appendix III. Data for the three (ND) contexts and variants divided by singer.

Singer	Exclusively D	Intervocalic D	Intervocalic ND	Phrasal ND	Phrasal D	Phrasal NT
Abatzi	ντυμένες	κοντούλα	κοντή	την τυραννεί	θα μπει	θα τον πάρω
	ντυμένες Το Μπήρο Μπήρο μ' νταλακάκι ντεβίσση σεβντά μπαγλαμαδιάκι Μπαρμπα-Γιάννη		άντρα Λάμπρο μου είσαι πόντος κοντά μας		την καρδιά	
Dalgas	Νταλιγά μου μπροστά μπροστά	μάγακι	σαράντα απαντούν μάγακι μάγακι μάγακι	την Τροπολιτσά την Τροπολιτσά την Τροπολιτσά την Τροπολιτσά την ξεντιά	την καρδιά	
	χουβαρντάδες μπροστά	ανταμώνω Άντε Άντε να ζήσει έμπλεξε Άντε	άντρας παντρεφτώ λαμπερό λεβεντιά αρχοντιά μάγκας αφεντάδες εγλεντούσα μάγκα Λάμπρο μου μάγκα μάγκα γλέντι	την πληγωμένη την καρδιά μην περάσεις	την πληγωμένη δεν μπορώ δεν μπορώ	

Appendix III (*continued*). Data for the three (ND) contexts and variants divided by singer.

Singer	Exclusively D	Intervocalic D	Intervocalic ND	Phrasal ND	Phrasal D	Phrasal NT
Eskenazi cont.			μάγρια μάγρια γλεντώ γλεντώ μάγρια μάγρια μάγρια			
Holevas	μπαλακονάκια	λεβεντιές σαν άγγελος		τον καφενέ τον καφενέ στον τάφο στον τάφο στον τάφο		
Kanaropoulou						στην ξενιτιά στην ξενιτιά
Panayis						στον κόσμο στον κόσμο
Papasideris		λεβεντιά κοντοραχούλες	λεβέντη αντάμωσα κουβεντιάζουν κουβεντιάζουν πάντα λαμπρό	την τρομάρα		σκοτώσαντον σκοτώσαντον
Papumdzis					των πλουσίων	

Appendix III (*continued*). Data for the three (ND) contexts and variants divided by singer.

Singer	Exclusively D	Intervocalic D	Intervocalic ND	Phrasal ND	Phrasal D	Phrasal NT
Psamatyalis	Μπουμπάλη	Γιάγκο Μπουμπάλη		την τρύπα		
Roukounas		ανταμώσω αρχοντοσπιτάκι στον κάμπο στον κάμπο να παντρευτώ			στην πόρτα τι να την κάνω την ξεύρουν την ξεύρουν στον κάμπο στον κάμπο	σαν το γάλα
Stasinopoulos		σαράντα σαράντα σαράντα ατήνησαν γέροντας γέροντας			δεν μπορώ δεν μπορώ τον πιο τον πιο	
Yerotheodorou			έρχονται			δεν το χαιδεύει

Phrasal T. δεν ξεχνώ (Eskenzi), τον φίλο (Psamatyalis)