# The origin of nasality in Macedonian dialects

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**Abstract.** There is general consensus that the southern Macedonian dialects have partially retained the Proto-Slavic nasal vowels, and that the preservation was favoured by local Greek phonetics. There was, however, an additional source of (non-etymological) nasality in Macedonian – the Greek pre-nasalisation of stops. In the article, I would like to re-examine this issue in terms of the hypothesis that the source of nasality in Macedonian dialects was not the old nasal vowels, but the Greek pre-nasalisation of stops.

Key words: nasal vowels, multilingualism, Macedonian dialects, Greek dialects

## 1 Introduction

The Macedonian dialects which have partially preserved the nasality originating from old nasal vowels are used in the so-called Aegean Macedonia<sup>1</sup> (in its western part) and in southern Albania. At present, only isolated examples with traces of the old nasal vowels are observed in the east of Aegean Macedonia, and the options of the type [dəmbi]/[dəbi] 'oaks' were noted in the area of Thessaloniki in the mid-20<sup>th</sup> century.

Examples with relics of nasality have been known for a long time and continue to attract Slavists' attention. Attestations of the phenomenon occur in the oldest records (mostly folk texts) from Macedonia. They have been

1 The term Aegean Macedonia is used in Balkanology in order to distinguish the part of Macedonia located in Greece from Vardar Macedonia (Northern Macedonia) and Pirin Macedonia, located in Bulgaria.

described in linguistic literature at least since the mid-19<sup>th</sup> century (Милетич 1901, Дринов 1876, Теодоров 1882, Матов 1889, Мирчев 1932, Цицов 1881, Novaković 1892, Облак 1894, Цонев 1937, Кузов 1921, and more recently Małecki 1934, 1936, Шклифов 1973, Велчева 1979, Мицкова 2017, Sawicka 2019, Иллич-Свитыч 1962). The relevant literature is ample. In addition, a large number of examples are also provided in description of the dialects of particular villages and regions.

At first, linguists focused on collecting examples and delimiting the geographical range of the phenomenon. The first observations were imprecise and the attempts to explain the phenomenon were not credible (e.g. Mazon (1923) maintained that \*q is preserved before [b, g], and \*q before [d]; Teodorov (Теодоров 1882), explained the form [grob] 'grave' with reference to the simplification of the group that occurs in the plural form [grombove]; in a similar vein he explains the pair [sred] [srenda] 'Wednesday', where the situation is opposite: [m] and [n] are non-etymological). Oblak (Облак 1894) was the first to connect the occurrence of nasals with the voicing of the following consonant.

Illič-Svityč (Иллич-Свитыч 1962), who examined Kostur dialects (district of the city of Kastoria) in this respect, was the first to observe that the condition for the preservation of nasality is the centralisation of the vowel. If the nasal vowel approximated the value of schwa, then the nasal element (most often in the back nasal vowel) was retained in the form of a nasal sonorant, most often in the position before an occlusive. He did not consider, however, the combinatory distribution restrictions; on the contrary, as follows from his argumentation, he assumed that [V] and [VN] were facultative variants which could occur also before a fricative. In fact, in most cases nasality has not been preserved before fricatives. All his examples concern the position before an occlusive.

Irena Sawicka (Sawicka 2000, Савицка 2000), on the other hand, observed that the merging of central vowels with a nasal vowel (mostly the back one)<sup>2</sup> constitutes a mediaeval Balkanism and that it occurred not only in Macedonian, but also in Bulgarian, Romanian and Albanian. The relative chronology of Slavic languages suggests that the merging of central vowels with a nasal

<sup>2</sup> The merging of nasal vowels happens sporadically in Slavic dialects, which may have contributed to a slight increase in the range of merging central vowels with the nasal vowel in the area under consideration.

vowel in Slavic dialects must have taken place after the vocalisation of strong jers. This is evidenced by the fact that in Macedonian the merging did not affect the back jer (the central vowel originating from the Indo-European short \*u)<sup>3</sup>. Thus, the merging must have happened after the vocalisation of the jers in the strong position and the elimination of the jers in the weak position. The merger, however, affected the secondary jers – the secondary vocalism that developed later within some types of consonant clusters. The clusters in question are those which emerged after the elimination of weak jers and which violated the sonority principle in the structure of the syllable. In the South Slavic languages, such clusters were not accepted and were swiftly 'repaired': the sonorant became syllabic and then developed an anaptyptic vowel, initially of central quality, Mac. mazna 'fog' from  $*mgla \leftarrow *mbgla$ ;  $\partial o \delta a p$  'good' from  $*dobr \leftarrow *dobr b$ .

In several articles, Irena Sawicka has suggested that the reasons for the preservation of the Old Slavic nasal vowels should be sought in the co-existing non-Slavic dialects (e.g. Sawicka 1991, Савицка 2000). She observed an unusual frequency of the clusters in which a nasal sonorant is followed by an occlusive in the central area of Balkan convergence and she endeavoured to relate this fact to the reflexes of nasal vowels under consideration. The most likely reason seems to be the convergence with the local Greek phonetics, which co-occurs with the Macedonian dialects. All Macedonians in Aegean Macedonia are at least bilingual and in many villages they are multilingual: they may use Aromanian or Megleno-Romanian dialects or various Greek idioms – standard, the local dialect, the dialect of displaced people from Asia Minor (cf. Drettas 1981).

# 2 The Slavic situation

The degree of preservation of nasality in Macedonian dialects differs; the contextual conditions which guarantee the preservation of nasality are also different. The following situations are described in the literature:

- a) nasality is preserved only before occlusives; this is the most frequent situation, e.g. [dəmbi]/ [dambi] 'oaks' from \*dobi but [məʒi]/[maʒi]
- 3 In Macedonian dialects, there is only one example in which the jer in the strong position obtained nasality (\*bъzъ 'lilac').

- 'men' from  $*moz_b$ , also before etymologically voiceless, e.g. [zaents] 'hare'.
- b) nasality is preserved only before voiced occlusives, e.g. [dəmbi]/ [dambi] 'oaks' but [dəp]/ [dap] 'oak', [zəp] 'tooth' but pl. [zəmbi], [ret] 'row' but pl. [rendovi]. It is observed that nasality is more often preserved before [b], [d], and less frequently before [g]<sup>4</sup>. Examples such as [kłomko] ← \*kloboko 'ball of thread', (Pol. klobok) result from the simplification of a larger cluster \*mbk, in which a nasal sonorant originally occurred before a voiced stop.
- c) nasality is preserved before etymologically voiced occlusives, e.g. [dəmbi] and [dəmp], but [pət] 'road' from \*pots.
- d) nasality continues only the back nasal vowel, e.g. [dəmp]/ [damp] from \*dobb but [fedo] from \*čedo 'child'.

These conditions admit exceptions. In later texts, the first situation decidedly prevails (in combination with the fourth situation). Examples with preserved nasality of the Proto-Slavic front nasal vowel are highly exceptional. Somewhat more frequent are examples with nasality preserved before a fricative, where the insertion of an occlusive occurred. This is another Balkanism, characteristic of the dialects of the so-called Western Balkans (Greek, Albanian, Macedonian). Brian Newton termed the inserted segment 'buffer consonant' (Newton 1972). The occurrence of buffer consonants is a characteristic feature of the north-Greek dialects. According to Newton (1972, 209), this phenomenon most often occurs in groups with m, n or l in the first position and a sibilant in the second position. This phenomenon sometimes affected local Slavic Macedonian dialects. As a result, a stop was inserted in the middle of the reflexes of nasal vowels – between a nasal sonorant and a fricative. Thus the combination of a stop and fricative emerged, which produced an affricate. As a result, a nasal sonorant appeared before occlusion, which ensured its preservation, e.g. [gənts] 'goose' from \*gənts  $\leftarrow$  gəns  $\leftarrow$  \*gəs  $\leftarrow$  \*gosb).

4 This constitutes a parallel to various unrelated situations in rather distant Albanian dialects, where the clusters [mb], [nd] are simplified to [m], [n], and the cluster [ng] to [g] or [k], e.g. *mbret* 'king' [mret] but *nga* 'from' [ka]. On the other hand, in Arbëresh and southern Italian dialects [b] and [d] sometimes undergo prenasalisation, and [g] undergoes lenition, e.g. Calabrian [rimbresjun] 'repression', Arbëresh *rruga* 'street' [ruγa].

#### 3 The Greek situation

The prenasalisation of voiced occlusives occurred in ancient Greek. As a result, the voicing opposition of occlusives was reformulated: the opposition voiced stop vs. voiceless stop was replaced with the opposition prenasalised stop vs. non-prenasalised stop. In the native lexicon of standard Greek, the distributional situation is as follows: voiced occlusives are always preceded by a nasal sonorant with the same place of articulation. An exception is the word-initial position in careful speech; in emotionally marked speech, prenasalisation is also possible in this position. There are no consonant clusters which consist of a nasal sonorant and a voiceless occlusive. Progressive voicing can be observed live in the combinations of a proclitic with the stress-bearing word (e.g. dialectal [ton gzero]  $\leftarrow$  ton ksero 'I know this' [tim borta]  $\leftarrow$  tin porta 'door' acc. sg.) and in colloquial pronunciation of some borrowings (e.g. [mango] 'cash shortage'  $\leftarrow \mu \acute{\alpha} \nu \kappa o$ ). Such a distribution is not observed only in more recent borrowings in careful cultured speech, but in colloquial and dialectal speech, these rules are applied also in this vocabulary, so, for instance, the word menta 'mint' can be pronounced as [menta]/[menda] and [meda].

In most northern dialects, the clusters of the type 'nasal sonorant + voiced stop' have been simplified: nasality has withdrawn. This is an on-going process that has continued for ages. It has proceeded from east to west and it was observed in Pamphylian dialects (Asia Minor) as early as in antiquity. In Athens, which is located on the border between two main dialectal complexes, variant realisations are often observed. As far as Slavic issues are concerned, the situation in Aegean Macedonia is of importance. In east Aegean Macedonia, these clusters have already been simplified. Towards the west, the number of simplifications gradually decreases. In the western part of Macedonia, the clusters 'nasal sonorant + voiced stop' have been preserved (cf. Papanastasiou, Papadamou 2013 on the dialects of the Kastoria region). However, the distribution of these clusters in western dialects of Aegean Macedonia is not the same as in southern dialects or in standard. In northern dialects, there also occur clusters 'nasal sonorant + voiceless stop', which result from vowel reduction. The unstressed [e] and [o] have been raised to [i] and [u] whereas the unstressed [i] and [u] have disappeared, for instance, [i] and [u] between a nasal sonorant and a voiceless stop: pente 'five' → voicing [pende] → simplification [pedi], fenete 'occurs' → vowel reduction [fenti], fenunte 'occur' → voicing [fenunde] →

simplification of the cluster [fenude]  $\rightarrow$  vowel reduction [fendi]). Progressive voicing sometimes occurs in the new clusters created after the disappearance of the vowel; usually, however, they are preserved without changes.

# 4 Argumentation

The Slavic situation accurately reflects the situation in the Greek dialects of Macedonia. The nasality originating from the old Proto-Slavic nasal vowels has been preserved in the western dialects of Aegean Macedonia; in the vicinity of Thessaloniki variant forms have been observed; whereas in the eastern part of Macedonia, only some traces of nasality have been preserved in individual words

It is true that most Slavic words containing clusters 'nasal sonorant + stop' continue the old Slavic nasal vowels. It is also true that nasality has been preserved most often in the cases in which the vowel segment is central (schwa-like segment). However, these are not the only situations in which a nasal sonorant occurs before an occlusive. Non-etymological occurrences are observed, too.

The factor that favours the preservation of the consonant clusters under discussion is their high frequency in other dialects of western Balkans, although the origin of these clusters is different than in Slavic and Greek. They result from the reduction of the vowel separating the elements of the cluster (or the initial vowel before the cluster: 'nasal sonorant + stop'). Local language users are, thus, constantly exposed to particular sequences of speech sounds which are sometimes carried over into the native dialect. This is a typical situation which encourages phonetic convergence within a language league. Most importantly, however, it is conducive to the preservation of analogical sequences in the native dialect. This is an additional (although indirect) support, coming from the Romance dialects – Arumanian, Albanian, and more distant - Italian<sup>5</sup>.

In my opinion, it may be assumed that it is the local Greek phonetics that has the decisive influence on the preservation of Proto-Slavic nasality. The situation could have been similar if the contact with Greek had occurred after the disappearance of Slavic nasality – prenasalisations of stops after a non-na-

<sup>5</sup> Contrary to the official classification, I treat Albanian as a Romance language. An analogical situation can be observed also in southern Italian dialects (for details, cf. Sawicka, Sujecka 2015).

sal vowel also occur. This, however, was not the case. The situation in Greek stopped the process of the disappearance of nasals, however, only to a certain degree – only before occlusion (before stops and affricates).

To substantiate this claim, I will use selected examples from western Aegean Macedonia, where nasality has been preserved to the highest degree both in Greek and in Slavic dialects. The examples come from the works cited above, mostly from Illič-Svityč (Иллич-Свитыч 1962), *Fonološki opisi...* (1981), and from numerous works by Božidar Vidoeski (Видоески 1998, 1999, 1999a, 2000, 2000a). Some examples come from individual studies of the dialects spoken in particular villages, which I gathered for another work (Савицка, Цихнерска 2018).

The arguments for the claim that the Greek systemic relationships are responsible for the preservation/creation of nasal sonants in certain contexts are as follows:

- a) geographical argument: the process of disappearance of the reflexes of the Slavic nasal vowels – i.e. the disappearance of a nasal sonorant before a stop – occurred in Aegean Macedonia in the same areas in which the Greek clusters 'nasal sonorant + occlusive' were simplified to a stop. Nasality in Slavic examples was noted in studies from various periods, but in the oldest ones, nasality was noted most often.
- b) contextual arguments: in principle, only voiced occlusives are prenasalised in Greek dialects, which finds confirmation in Slavic material in numerous dialectal points. In northern Greek dialects, however, there also occur analogical clusters with a voiceless occlusive (as a result of vowel reductions), which rarely undergo voicing. Many Slavic dialects mirror such a distribution: the nasal sonants which continue Slavic nasal vowels occur before voiced as well as voiceless stops.
- c) another contextual argument is that nasality is most often preserved only before occlusives and it disappears before fricatives. The preservation of nasality before a fricative requires the insertion of an occlusive, which also mirrors the Greek dialectal phenomenon.
- d) in Slavic material, there occurs sporadic voicing of occlusives or affricates after a nasal sonorant, e.g. [stəŋghu] 'glass', [pajandʒina] 'cobweb', [pajangu] 'spider'. This, too, may have resulted from the influence of Greek.

- e) a significant argument for the decisive role of the Greek distributional system is that in Slavic dialects there are sporadic occurrences of unmotivated nasal sonants before stops, mostly in those cases in which the centralised vowel assumed a nasal quality, where nasality was nonetymological, i.e., in the case of secondary vocalism (non-etymological jer), e.g. \*msgla \rightarrow \*mgla \rightarrow \*mgla \rightarrow [məgla] \rightarrow [məgla] \rightarrow [məgla] \rightarrow [məgla] \rightarrow [məgla] 'fog', similarly [ləndʒa], 'lies' (cf. Pol. mgla, lże); also in the development of syllabic sonants accompanied by secondary vocalism, e.g. [rəndʒi] 'neigh', or [dləngu] 'long' (standard pra, doneu). Although a nasal schwa appears in the history of these examples, it was not present in examples such as [futfullinga] 'bird species' (village Zrnevo), or [trpenza] 'table' (village Lazaropole), or in [baranga], 'building' [junguslavija] 'Yugoslavia', [fambrika] 'factory' (quotes from colloquial Greek).6
- f) it seems that in older sources there are not only more examples with 'preserved' nasals, but also more localities in which nasals occur only before voiced stops and do not occur before etymologically voiceless or devoiced stops. This situation mirrors the 'classic' Greek distribution. The 19th century researchers often focused on the explanation of this regularity, so I assume that at that time such examples were frequent; at least their records provide more examples of this kind than later records. It seems that over time distributional rules adapt more to Slavic equivalences (which are determined by the morphonological, i.e., etymological, identification of a unit) and that nasality is preserved before etymologically voiced stops, both physically voiced and devoiced. Illič-Svityč (1962) was completely unconcerned with this problem, so I assume that in 1962 such examples were less numerous. Unfortunately, this change over time is difficult to verify at present. Finally, nasality is generally disappearing, which confirms that the mechanism of the identification of phonological units does not have a surface character (cf. below), and that it is morphophonemes that are identified as functional units and not phonemes or phones.

<sup>6</sup> Analogical examples from Albanian spoken on the territory of Greece: [ruŋgα] 'street', [voŋgeʎ] 'small' – standard forms: *rruga*, *vogël* (examples from Leake 1814).

g) the most important systemic argument, in my opinion, is the fact of the functional equivalence of the clusters 'nasal sonorant + stop' and single stops in Greek. This equivalence (also perceptual) makes possible mutual replacement of these contexts and the appearance of nonetymological nasals and the omission of the etymological ones. Options of the type [lamba]/[laba] 'lamp' are frequent in colloquial speech. Especially informative are examples such as the 19<sup>th</sup> century [gromb] 'grave' ~ [grombove], observed by Teodorov (Теодоров 1882) in the speech of the displaced people from the area of Kastoria. In this case, the purely Greek phonetic habits are copied without any Slavic motivation (there was never a nasal vowel there). According to Kuzov's study (Ky308 1921), concerning the village Popole in the Kastoria region, the principle of the preservation of nasality exclusively before etymologically voiced [b, d, g, dz] seems to admit of no exceptions.

The functional equivalence is understandable against the Greek background. Due to the progressive simplification of the clusters in question, morphemes occur in variant forms in the general Greek perspective, and options frequently occur also where these clusters still exist. In Slavic dialects, nasal sonorant before stops are also gradually disappearing, both those originating from nasal vowels and those that are etymologically unmotivated, and the variant forms of morphemes are infallibly identified.

Fonološki opisi (1981) note the phenomenon in 7 villages of the Kastoria region and in Boboščica in Albania and 1 in the Thessaloniki region<sup>7</sup>. On the basis of these records, it is possible to determine the villages in which the preservation of nasality occurs more regularly (Boboščica, Vambeł, Tiolišta, Visoka) or less regularly (Nestram) or rarely or sporadically (Dichovo, Tremno, Kroncelevo). At present, this information is actually outdated. Several records from various periods are available from the village Boboščica (near Korça). Nasal sonorants are still present in the older records from the beginning of the 20<sup>th</sup> century, but in the most recent records, they do not occur or they are vesti-

<sup>7</sup> Naturally, the actual range of the phenomenon in question is much more extensive. Fonološki opisi register exclusively the material from the field points designated for the All-Slavic Language Atlas.

gial (Steinke, Ylli 2007)<sup>8</sup>. The disappearance of nasality is favoured by similar processes taking place in Albanian and Greek, by more and more frequent contact with standard Macedonian, and above all, by the aforementioned functional equivalence.

However, the second condition which guarantees the preservation of nasality is of Slavic (or rather, of Balkan, but not Greek) origin; namely, nasality was preserved when the nasal vowel had centralised articulation. Nasal schwa was an ephemeral phenomenon; in most Balkan dialects in the history of which such a segment occurred, nasality disappeared (Romanian, Bulgarian, South-Albanian – Tosk Albanian). It was preserved only in stressed positions in North-Albanian – Gheg Albanian. In fact, the contexts discussed here do not continue nasal vowels as such, but the nasal schwa (apart from nasal vowels, the phenomenon affected also originally different segments, cf. above, but rarely affected the reflexes of the Proto-Slavic front nasal<sup>9</sup>).

Thus, in principle, this is a Balkan condition, not a Slavic one. I dare to think that if it had not been for the Greek influence, nasality in the Macedonian dialects under discussion would not have survived. The conditions are, thus, twofold. If the phenomenon were to be purely Greek, then large scale unmotivated prenasalisation of voiced stops in local Slavic dialects would be expected. Such examples also occur in Macedonian dialects in the area under discussion, but they are sporadic (cf. above).

## 5 Conclusion

The main factor in preserving or emergence of nasality is the systemic situation in Greek. The Slavic condition (the occurrence of the nasal schwa) is also important, especially since prenasalisations (not motivated in any of the ways enumerated above) rarely occur in groups which include a vowel that does not originate from an old nasal vowel + a voiced stop, (e.g. in words such as Mac. eden 'one' or oran 'fire').

- 8 Similarly, the buffer consonant [b] in clusters [mr], [ml] is withdrawing. This buffer consonant is characteristic of Albanian dialects, but it occurs also in local Macedonian dialects, e.g. mbleko from mleko 'milk', umbrjał from umrjał '(he) died'.
- 9 It must be admitted, however, that in early descriptions, the preservation of the nasality of \*ę was noted more often.

This situation is typical of convergences taking place in a language league where the relevant process is not pure code-copying, but rather the conditions come from both sides. Code-mixing seems to be more relevant as it involves imitating the sounds that constantly reach the hearing apparatus of the language user.

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