A critical lexicostatistical examination of Ancient and Modern Greek and Tsakonian

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Abstract. This article provides a lexicostatistical comparison of Ancient and Modern Greek Swadesh-100 vocabulary with data from the three recorded dialects of Tsakonian: Southern, Northern, and Propontis. Propontis Tsakonian (now extinct) has undergone the most influence from Modern Greek; Northern Tsakonian is known to have undergone more influence than Southern. Tsakonian is renowned for its Doric heritage, and there are some startling archaisms in its core vocabulary; but its lexicon overall takes Early Modern Greek rather than Doric or even Attic Greek as its departure point. Tsakonian phonology is distinctive compared to Modern Greek, which helps identify loanwords readily; the phonological developments that led from Ancient to Modern Greek, and from Ancient and Modern Greek to Tsakonian, are discussed in some detail. The etymologies of the Tsakonian forms in the Swadesh-100 vocabulary are also discussed in detail. There is a high number of cognates between Modern Greek and Tsakonian, that observe Tsakonian phonology, as well as a significant number of clear loanwords from Modern Greek that do not. Previous lexicostatistical studies on Tsakonian are examined, including the necessity for sound etymological analysis, and the challenges in identifying the primary term for a wordlist item; but also the fragility of interpreting the same etymological data, depending on one’s default assumptions about the relation between the two variants.

Keywords: Ancient Greek, Modern Greek, Tsakonian, etymology, lexicostatistics.

1. Introduction

In the development of lexicostatistical and glottochronological theory, a prominent role has been given to the evidence from Greek, as a language with a long written tradition. Until now, however, the lexicostatistical data used for Greek has not been published; nor has it been subject to the kind of scrutiny exemplified by Bergland and Vogt’s (1962) classic study.

While glottochronology is not generally considered reliable, lexicostatistics is still used to give a rough guide of how closely related languages are, especially in the absence of more reliable data (e.g. in Amerindian, Australian, and Papuan linguistics). So long as it is taken as only a rough guide, it can shed some light. In this study, I use lexicostatistics to give such a rough guide on how closely related Tsakonian is to Standard Modern Greek. Judgements on how cognate forms are involve more subtle judgement than is usually done in lexicostatistical studies: I expose those difficulties in arriving at such judgements here, to foreground how problematic they are, but also to illustrate the ways in which more mainstream forms of Greek have influenced Tsakonian at various stages.

Tsakonian has three dialects: Northern, Southern, and Propontis Tsakonian — formerly spoken by a colony in North-Eastern Turkey, and heavily influenced by Thracian Greek, a dialect much closer to Standard Modern Greek. There is thus a range of data to draw on for a lexicostatistical investigation.

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2. Tsakonian

Tsakonian is a now moribund language, spoken by perhaps 1000 people in the Peloponnese, and formerly in two villages in North-Eastern Turkey. Tsakonian is not mutually intelligible with Standard Modern Greek, and deviates from Greek noticeably in its morphology. After some debate earlier this century, it has become accepted that Tsakonian is descended from Doric, the Ancient Greek dialect associated with Sparta, and not Attic-Ionic, the dialect which was to give rise to all other Modern Greek dialects, via Hellenistic Koine. Indeed, the word Tsakonian is often derived from *Laconian*, Laconia being the region in which Sparta was situated. (Caratzas (1976) has more convincingly concluded that it derives from διάκονοι, and refers to the military office often given to Tsakonians.) The association was already made by the Byzantines; thus, the Byzantine historian George Pachymeres (I 309) refers to “many of the Laconians, who are also called Tsakonians in corrupted form” (ἄλλοι τε πλεῖστοι ἐκ τῶν δακώνων, οὕς καὶ Τζάκωνας παραφθείροντες ἔλεγον...) A good deal of the lexical evidence for the association with Doric is adduced in this paper; one of the major questions such a study could help resolve — and a question which does not seem to have been raised in the literature until now — is to what extent Tsakonian derives from Doric proper, as opposed to a Doric-coloured Hellenistic Koine, as was the case with Italiot Greek.

Tsakonian can be divided into three dialects. *Southern Tsakonian* (Pernot 1934) includes the villages of Melana, Prastos, Tiros, the smaller villages of Pramatefti and Sapunakeika, and the town of Leonidio (vernacular: Lenidi; Tsakonian: *Agie Lidi*). *Northern Tsakonian* (Costakis 1951) includes the villages of Sitena and Kastanitsa, and formerly the town of Prastos. Standard Modern Greek made its presence known much more strongly in these villages than in Southern Tsakonia, since primary schools opened up in the area much earlier, and the Kastanitsiots were very mobile as a result of their trade as travelling whitewashers. In addition, Northern Tsakonia was not as geographically isolated:

Kastanitsa seul a un accès plus facile vers certaines régions de l’intérieur, ce qui me paraît expliquer et le caractère plus moderne du tsakonien qu’on y parle et le fait que celui-ci n’a pas pratiqué certains changements qu’on observe à Lénidi; les noms de famille indiquent aussi qu’il y a eu là un afflux de gens du dehors. (Pernot 1934, 139) (The settlers in Northern Tsakonia (13th–14th century AD) appear to have been Epirots: Costakis 1951, 59.)

As a result, Northern Tsakonian is closer to Standard Modern Greek than Southern Tsakonian is, both lexically and phonologically, and the language has retreated much more rapidly; indeed, Haralambopoulos (1980, 7) reports he was unable to find consultants who could offer more than isolated words as far back as 1971. The date on which the two metropolitan dialects diverged is unknown, but Turkish traveller Evliya Çelebi, who visited the area in 1668, gives both a northern and a southern form for ‘house’ (Costakis 1951, 153): *tanjala* (ταν τσέλα) ‘the house’ (Northern) vs. *tanja* (ταν τσέα) ‘the house’ (Southern)—the elision of /l/ before back vowels is the main isogloss separating the two dialects. Pernot (1934, 503) prefers to see in this the singular / plural contrast evident in the glosses: *tά tεέλε/ in the houses’, [tʰan ‘dzea] ‘in the house’. However, he believes the data was given to Çelebi by a Kastanitsiot, and accepts that the dialects had diverged by that time. Tzitzilis (in prep, cited in Liosis 2007, 37) believes Çelebi’s data represents a distinct, now extinct dialect of Tsakonian, which he calls Papadianika after the nearby village, and which Liosis calls Western Tsakonian.

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2 In that regard, cf. Pernot (1934, 214) on the etymology of πῇ *RELATIVISER*: “La forme ancienne πῇ [pɐːi; Attic-Ionic] d’où on le [pʰi] tire est plus indiquée [Attic-Ionic /ɛːi/ > Modern Greek /i/]. Comme on ne trouve pas ici le dorian πَا [pə:i > *pʰʔa], il y faut voir une preuve de plus de la pénétration en Laconie de la koine ancienne.”
The third dialect, Propontis Tsakonian, was formerly spoken in the villages of Vatka (Musatsa) and Havoutsi (now Havutça and Misakça), on the mouth of the Gönen (Aesepus) River, in the Propontis (Sea of Marmara) in North-Eastern Turkey. The inhabitants of these villages were subject to the 1922 population exchanges between Turkey and Greece, although they had already ceased speaking Tsakonian as their primary language in 1914, when they were internally exiled with other ethnic Greeks at the outbreak of World War I (Costakis 1986, X). Although Propontis Tsakonian is grammatically more conservative than metropolitan Tsakonian, morphologically and lexically it has been influenced significantly by Thracian, the dialect of Greeks in the surrounding area, which is much closer to Standard Modern Greek. The dialect has now died out.

The date on which the Tsakonians emigrated to the Propontis is under dispute. Koukoules (1924) argued for a 13th century AD emigration on the basis of historical evidence; the Byzantine historian George Pachymeres says explicitly that Emperor Michael VIII resettled Tsakonians in Constantinople. Costakis (1951, 151–155) argues for a much later date, possibly the time of the Orloff revolt (1770–1780), given what he considers to be the good preservation of archaic features of Tsakonian. He also adduces Turkish traveller Evliya Çelebi’s information that Tsakonian was spoken far south of Leonidio in 1668, in a region since settled by Arvanites (confirmed by Scutt 1912–13, 139) — and which includes a village called Vatika. As Scutt (1912–13, 138) discusses, the 14th century Chronicle of Morea includes in Tsakonia villages further south from the modern boundary, like Geraki, but not Vatika or Monemvasia. Tsakonian is spoken in the district of Cynuria, which is now administratively part of Arcadia, but was historically northeastern Laconia. If Tsakonian was spoken as far south as Monemvasia, Papadianika (where Çelebi visited) and Vatika, as the historical evidence hints, then it was originally spoken throughout the eastern half of Laconia.

Fixing a date on the divergence of Tsakonian from Standard Modern Greek is even more problematic. If we accept the received knowledge that Tsakonian is directly descended from Doric, without any Koine admixture, the divergence should be dated at the break-off of Doric from Proto-Greek — some time in the second millennium BC. By 1st century BC, the Ancient Greek dialects were dying out in the face of Hellenistic Koine; Laconian Doric experienced a revival in inscriptions up to 2nd century AD (where it is called Neo-Laconian), with varying degrees of success, but researchers have concluded the revival was largely artificial (Panayiotou 1993).

Phonologically, the divergence must be dated at around 800, the date by which almost all phonological changes and the most substantial morphological changes between Ancient and Modern Greek had been realised. Tsakonian phonology deviates significantly from Standard Modern Greek; nevertheless, most of the phonological changeovers from Ancient to Modern Greek have also taken place in Tsakonian. This does not imply that the languages could not have diverged before 800. Greek voiced and voiceless aspirated stops, for example, had started leniting to voiced and voiceless fricatives in 1st century AD. So with /g, pʰ, kʰ/ already lenited to /ɣ, f, θ, x/, the remaining stops /d/ and /b/ could have readily lenited to /ð/ and /v/ independently in Middle Greek and Proto-Tsakonian after 500, under typological pressure. The major phonological archaism of Tsakonian (with the exception of the Doricism /bʰ →/s/) is u/ →/u/, as opposed to its development in Middle Greek, /y/ →/i/ (known to have taken place by 11th century AD); Tsakonian shares this feature with other archaic dialects of Greek — notably Old Athenian and Maniot — but it is not universally applied: τοί/ ‘io, for example, is the Tsakonian reflex of Ancient Greek ὕδωρ /húdɔːr/ (cf. γυναίκα /ɡunaíka/ → γουναίκα /ɣuˈneka/). Furthermore, as seen below, neither /bʰ/ →/s/ nor /u/ →/u/ are particularly widespread processes.

Grammatically, the situation is even more complex. Some innovations of Middle Greek are absent in Tsakonian: the complementiser πως pos, datable to 2nd–6th century AD (Nicholas, 1996);
the negator δεν δεν, first used as a reanalysis of ουδεν ouδεν ‘nothing’ in 1st century BC; the analogical remodelling of ιμεις hуμεις ‘you.pl’ into εσεις ε’sis to obviate phonological merger with ιμεις hуμεις ‘we’ (6th century AD, according to Palmer 1980, 184.) The use of a participial periphrasis for the present tense is a feature of Koine abandoned in Standard Modern Greek (where it seems to have died out around 1400), but retained in Tsakonian. Other Middle Greek innovations, however, are present both in Standard Modern Greek and Tsakonian: the use of a locative as a relativiser (πη φη; cf. MG που pu; first instance 5th century AD); the use of a volitive future (θα θα; volitive futures appear around 1st century AD, although they become the predominant expression of future tense only around 15th century AD); infinitive loss (10th–16th century AD).

The historical endpoint for the divergence of Tsakonian from Standard Modern Greek seems to be the Slavic invasions of the Peloponnese in the eighth century. The first reference to Tsakonians is considered to be Constantine Porphyrogenitus’ De Arte Imperiando (224) (ca. 950), in which he mentions that the inhabitants of the district of Maina are not from the breed of the aforementioned Slavs, but are of the older Greeks, who are to this day called Hellenes (pagans) by the locals for being pagans in time past and worshippers of idols, like the Hellenes of old, and were baptised and became Christians during the reign of the late Basil (867–886). (‘Ιστεόν ὅτι οἱ τοῦ κάστρου τῆς Μαΐνης οἰκήτορες οὐκ εἰσὶν ἀπὸ τῆς γενεᾶς τῶν προρρηθέντων Σκλάβων, ἀλλ’ ἐκ τῶν παλαιότερων Ῥωμαίων, οἱ καὶ μέχρι τοῦ νῦν παρά τῶν ἐντοπίων Ἑλλήνες προσαγορείονται διὰ τὸ ἐν τοῖς προπαλαιῶσι χρόνοις εἰδωλολάτρας εἶναι καὶ προσκυνήται τῶν εἰδώλων κατὰ τοὺς παλαιοὺς Ἑλλήνας, οἵτινες ἐπὶ τῆς βασιλείας τοῦ ἀοιδίμου Βασιλείου βαπτισθέντες χριστιανοὶ γεγόνασι.)

Mani is a distinct region of the Peloponnese, which has remained isolated and distinct from its neighbours in modern times; but scholars routinely assume the passage also refers to the even more linguistically isolated Tsakonians. The fact that the Tsakonians remained pagan for so long is indicative of long-time isolation from mainstream Greek society.

In later Byzantium, Tsakonians were frequently conscripted into the Byzantine army, and were known of in Constantinople; hence the routine references to τζάκωνες or τζέκωνες as border guards. The first explicit allusion we have to Tsakonian not being intelligible by Standard Modern Greek speakers comes in the 15th century satire Mazaris’ Sojourn in Hades (quoted in Costakis 1951, 26):

I thought I would myself turn into a barbarian, just like the Laconians have become barbarians, and are now called Tsakonians. (Δέδοικα [...] ἵνα μὴ βαρβαρωθῶ καὶ αὐτός, ὡσπερ ἄρα βεβαρβάρωνται γε οἱ Λάκωνες καὶ νῦν κέκληται Τσάκωνες)

As Pernot (1934, 240) points out, the words Mazaris goes on to quote as ‘barbaric’ are actually from Mani — the region we have already seen Porphyrogenitus refer to, which scholars refer to Tsakonia as well; that seems to indicate once again that the term ‘Tsakonian’ was formerly used with a much broader denotation than nowadays.

But while there is much evidence for a long-lasting separation of Tsakonians from Standard Modern Greek, it is just as true that Tsakonian has undergone gradual and constant contact with Standard Modern Greek for an extended period — earlier than the modern period, since the inception of the Greek state, when Tsakonian started dying out. (Already by the end of the 19th century, Tsakonians sung their folk songs in Standard Modern Greek.) Since, in particular, Tsakonian was spoken much further to the south of Leonidio in times past, there would have been extensive opportunities for contact. This contact is apparent even in the core vocabulary of Tsakonian.
3. Historical Phonology

3.1. Modern Greek

The phonological developments in Modern Greek (often concealed by historical orthography) can be summarised as follows:

- Aspirated consonants have been lenited to unvoiced fricatives: /pʰ, tʰ, kʰ/ → /f, θ, χ/ (pʰɔː → fos ‘light’, tʰánatos → ‘θanatos ‘death’, kʰarά → xa’ra ‘joy’).
- Voiced consonants have been lenited to voiced fricatives: /b, d, g/ → /v, ɣ, ŋ/ (barús → va’ris ‘heavy’, dɛkʰomai → ‘dexome ‘to accept’, gumsnós → yim’nos ‘naked’). This process failed to take place in clusters, particularly with nasals; e. g. /mb/ → /mb/ (embainono: → ‘mbsn ‘to enter’).
- The phoneme /h/, occurring only before word-initial vowels, has been lost (hɔː:ra → ‘ora ‘hour’, hópou → ‘opu ‘where’), as has the voicelessness of initial /ŋ/ → /ŋ/ (tizda → ‘riza ‘root’).
- Clusters have dissimilated in manner, so that stop–stop clusters have lenited to fricative–stop (ktizdo: → ‘xtizo ‘build’, pterón → fte’ro ‘wing’), and fricative–fricative clusters have likewise dissimilated to fricative–stop (with the exception of /sf/) (pʰtʰánο: → ‘fθano → ‘ftano ‘arrive’, kʰtʰɛs → xtɛs → xtes ‘yesterday’, skʰtizdo: → ‘sxizo → ‘skizo ‘split’, but sʰpʰendόne: → sfn’dona ‘slingshot’).
- The cluster /zd/ has been lenited to /z/ (ktizdo: → ‘xtizo ‘build’).
- Pitch accent has become stress accent.
- Contrastive vowel length has been lost.
- Long mid vowels were phonemically distinct from short; they had also become quantitatively differentiated, becoming raised. Of these, /ɛ:/ regularly became raised to /i/ (agápe: → a’yapi ‘love’), although there are counterexamples (ne:rón → nero ‘water’, kse:rós → kse’ros ‘dry’). /ɔ:/ became /o/ regularly (ɔ:mos → omos ‘shoulder’), although there are many examples of it also raising, to /u/ (klɔ:bós → kluvi ‘cage’, tragsidɔ: → tru’do ‘sing’, sapsɔ:nio: → sa’puni ‘soap’).

As there are also sporadic instances of /o/ → /u/ in Modern Greek (kɔmbion → kum’bi ‘button’, rɔpʰɔ: → ru’fo ‘suck’), the /ɔ:/ → /u/ development is considered by most linguists a secondary phenomenon; this is how it is discussed, for instance, by Hatzidakis (1975 [1892], 105). It should be noted, nonetheless, that in MG this raising occurs rather more frequently for Ancient /ɔ:/ than it does for /o/.

- Of the ancient diphthongs, those whose first vowel was long had the second vowel drop out: /a:i, e:i, o:i/ → /a, e, o/ (háide’s: → ‘adis ‘Hades’, zdɔ:nion → ‘zo(o) ‘animal’).
- Diphthongs whose second vowel was /u/ had it fortitioned to a labiodental fricative, assimilating in voicing to the following segment: /au, eu/ → /af, av, ef, ev/ (augé: → av’i ‘dawn’, eutuk’kɛ:s → efi’xis ‘happy’). The diphthong /ou/ had already been monophthongised and raised to /u/ in late Attic — a value it has retained since.
- Diphthongs whose second vowel was /i/ were monophthongised and raised: /ai, ei, oi, yi/ → /e, i, y, y/ (haɪma → ‘ema ‘blood’, peiνa → ‘pina ‘hunger’).
- Ancient Greek /u/ fronted into /γ/ in Attic, although it remained /u/ in the other dialects of Ancient Greek, including Doric. By Roman times, it had been joined by the reflexes of the diphthongs /oi/ and /yi/. Eventually, /γ/ was unrounded to /i/ (e. g. húpno: → hýpno: → ‘ipno: ‘sleep’, moɪrα → myrα → ‘mira ‘fate’). This change came about rather late in Greek; 11th century AD is the conventional date (Lauritzen 2009 gives evidence it had taken place by 1030), although toponymic loanwords (Korfoi → Old French Corfu, Oinoe →
Turkish Ünye) suggest the old pronunciation remained widespread as late as 13th century AD.

• Word-initial unstressed vowels have dropped out (embaino: → ‘mbeno ‘enter’, oligos → ‘liyos ‘few’); such vowels present in the contemporary language are usually reimports from Puristic Greek, although the elision was less frequent for disyllabic and trisyllabic words, for low and high rather than mid vowels, or where it would lead to unacceptable initial clusters (e. g. argos → ar’ya ‘late’, akoiv: → a’kuo ‘hear’).

• Unstressed prevocalic /i/ has become a yod (diafora → [ðjafo’ra] ‘difference’, opsária → [’psarja] ‘fishes’). As an extension, stressed prevocalic /i/ and /e/ also become yods (paídía → [pe’ðja] ‘children’, eleut’ería → lefte’rja ‘freedom’, ennéa → [e’na] ‘nine’, me’léa: → [mi’ləa] ‘apple tree’). This process has not taken place in Tsakonian; it has also not taken place in Maniot.

3.2. Tsakonian

For the most part, Tsakonian vocalism and consonantism are the same as those of Modern Greek. There are a plethora of phonological processes listed in the introductions to Pernot’s and Costakis’ works, not all of which are regular. In the following, the major processes are listed, including those which constitute archaisms with respect to Modern Greek.

3.2.1. Doricisms

The following processes in Tsakonian have been claimed to be Doricisms — that is, to continue characteristics which separated Doric from other Ancient Greek dialects. As should become clear in the discussion, subjective factors have been at work in claiming Tsakonian to be directly descended from Doric; Pernot’s critical discussion of these claims was crucial in forestalling their overly enthusiastic acceptance.

1. /θ/ → /s/ (*θ’y’yatir → ST ‘sati PT ‘sae ‘daughter’, *θ’eros → NT ‘seri ST ‘seri ‘harvest’, *θi’lazo → ST si’lindu ‘to suckle’, *kri’θi → ST PT ‘krisa ‘barley’). The rendering of Ancient Greek θ /θ²/ as Doric σ was first attested at the beginning of 4th century BC (Palmer 1980, 120); e. g. σάλασσα sállassa is written for θάλασσα thálassa, MG θ’alasa ST θα’asa ‘sea’ (Hatzidakis 1989 [1905], 365).

There has been controversy over the phonetic value of this θ. The obvious process is for /θ²/ to have lenited to /θ/ earlier in Doric than in the other dialects of Greek, which would have been orthographically ill-equipped to denote the new sound. Hatzidakis’ counterargument, that the Laconians would not represent a new sound with the same letter as a sound /s/ still extant in their dialect, but would have invented a new letter, is unconvincing. So is the argument that words later borrowed into Tsakonian from MG retain their /θ/. However, the (phonologically more plausible) /θ/ interpretation of Laconian σ requires the process /θ²/> /θ/> /s/ to have been completed in Proto-Tsakonian before it started borrowing MG words with /θ/. Note that initial /θ/ is frequently retained in Tk in words which cannot have been borrowed from MG — e. g. ST θ’ouν θ’iu ‘to slaughter’ < AG θ’ou ϊε ‘to offer a burnt sacrifice; to kill’ (MG σφα’ξο ϊε).
So as Scutt (1912–13, 152) finds, “the small number of these words makes it unlikely that the change $\theta > \sigma$ was ever a regular law of the dialect, and the only explanation is that at the time when Laconian used $\sigma$ for $\theta$, a number of such words spread to the Tsakonian district, and have since become reduced under the influence of Modern Greek to the few quoted above.” After a fashion, Pernot (1934, 132–134) concurs: the number of instances is much smaller than claimed by Deffner, and the only convincing examples precede front vowels, making this an instance of palatalisation (see below). Pernot (1934, 138) concludes that this should be eliminated from the number of Doricisms in Tsakonian “certainement pour une partie des exemples, sinon pour la totalité.”

2. /s/ → /θ/ word-finally (*pos → pur ‘how’, *’tinos → ’tsuner ‘whose?’). Rhotacism was a prominent feature of Neo-Laconian (Pernot 1934, 17). In Modern Tsakonian, word-final /r/ persists only as a euphonic liaison phoneme; in the unmarked case, it drops out. This seems to explain why word-final /s/ has dropped out in Tsakonian.

3. /e:/ → /a/. One of the most salient features of Doric was that it used long /a/ where other Greek dialects used long /e/; for example, Doric used $\gamma\alpha$: for Ionic $\gamma\epsilon$: ‘earth’. This Doricism undergoes what Pernot (1934, 18) calls “persistence et extension”; e. g. ST a ‘mati PT a ‘mai corresponds to Ionic he: më:ter: and MG i mëtera ‘the mother’. The domain where Doric /a/ is most prominent is in noun morphology: while MG uses both /i/ < /e:/ and /a/ as feminine noun endings, Tsakonian uses only /a/—to the extent that Tsakonians hypercorrect MG -/a/ nouns to -/i/ (e. g. u’ri for MG u’ra Tsakonian tu’ra ‘tail’) (Pernot 1934, 42). This /a/ is less widespread in other parts of the word.

4. /zd/ → /nd/ in verb endings (*fo’nazôn → ST fo’nandu PT fo’nazo ‘to shout’, *θ’il’azôn → ST si’lindu ‘to suckle’). This also occurs in the word *’rizo → ST ’finda PT ’rizu ‘root’. Scutt (1912–13, 156) believes that this change, without parallel in Modern Greek dialects, is a further development of Doric */zd/ → /dd/; see also Pernot (1934, 106, 122), who postulates the in intermediate stage /dð/. The phenomenon does not apply to PT.

3.2.2. Archaisms

The following processes in Tsakonian appear to be more archaic than their equivalents in Standard Modern Greek.

1. The Tsakonian reflex of Ancient Greek /u/ is not /i/, but /ju/ after a coronal, and /u/ otherwise (*’lykos → *’ljukos → ST ’uku ‘wolf’, *ty’ros → ’tu’ros → ST [cu’re] ‘cheese’, *’kyon → ST NT ’kue ‘dog’, *’mya → ST PT ’muza ‘fly’). In this way, Tsakonian keeps Middle Greek /y/ distinct from /i/; this also occurs in the Old Athenian–Maniot group of Modern Greek dialects, and sporadically in Standard Modern Greek itself (*phýskê: → ’fuska ‘bubble’ (cf. Tsakonian ’fuk’a ‘belly’), *’kylós → ku’los ‘maimed’, *’kýtion → ku’ti ‘box’, *’mýstaks → mu’staki ‘moustache’)—although most instances can be considered later developments after a labial or velar, rather than survivals (Hatzidakis 1990 [1907], 295). It does not seem this tendency regularly extends to the other Ancient Greek phoneme realised as /y/ in Middle Greek—/oi/: the regular reflex for this is /i/, as in MG (ko’le: → *’kyti → ST ’têita ‘bed’, po’is: → *’py’o → ST NT ’piu ‘to do’), although examples with /j/ are extant (*’ko’iros → *’xyros → ST NT PT ’xyjure ‘pig’; Costakis (1951, 37) calls this example “unique in Tsakonian.”)

The palatalisation of ’xjure is inconsistent with the rule for /u/, and also occurs for other instances where /ju/ is preceded by a non-coronal — both of /oi/ (heptako’lion → *epta’kylí → ST fta’tculi ‘fecund (of vine)’) and /u/ (kúrios → *’kyrios → ’kjuri → ST NT ’curi ‘father’, gu’rezd:n → *’yy’rizôn → *’ju’rizu → ST [ju’rizu] PT [ju’rizo] ‘to turn’). Scutt (1912–13, 146) considers this evidence of two original phonemes: Tsakonian retains the Doric pronunciation of $\upsilon$ as /u/, as is evident in Hesychius, notwithstanding his vacillation between (inscriptional?) $\upsilon$ and (transcribed?)
ou: the proto-form for a regular word like *'uku was likelier *lukos than *lykos, with the palatalisation caused by the consonant rather than any frontness in the vowel. The reflex of /oi/ and the instances in 'teuri and [ju'rizu], on the other hand, where the /y/-sound palatalises a velar, mean that the proto-form here was a front vowel, which dates from later in the language. This is either Middle Greek /y/ or Modern Greek /i/; the former is likelier, although Scutt insists on calling it a sound.

After extensive discussion, Pernot (1934, 115) concludes that the words where /u/ reflects /e/ in certain contexts (*'strivon ST 'jufu NT 'stjufu PT 'stjufo 'to twist', *olis'thendon ST 'nu'tfenu 'to slip', *ksifion ST 'fjufi'awl', *otinos ST 'otsune NT 'otsunu 'whose') — although what that context is is not clear.

Instances displaying /i/, the Standard Modern Greek reflex of Ancient Greek /u/, are not at all infrequent. The instances are dismissed by both Scutt (1912–13, 144) and Hatzidakis as loans from MG — but this does not ring true, as these words include core vocabulary (*'yodor ST NT 'io 'water', *'yos ST NT PT i'ze 'son', *'ynpos ST ST 'ipre PT 'ipne 'sleep', *'thyon ST 'thio 'to slaughter'). Indeed, in the case of /io and /thio, and other instances like *'ольyme ST olin'dumene 'to get lost; to howl', *ta'nyzon ST ta'nindu NT ta'nizu PT ta'nizo 'to stretch', *'грюmbi ST fjyjy NT 'griygi 'ripe olive' (Pernot 1934, 110), the words had probably died out from MG by the time the transition /y/ → /i/ was complete after 11th century AD; the Modern word for ‘water’, ne'ro, first appears as early as 2nd century BC. In MG, in fact, /y/ has gone to /u/ in the reflex of *'грюmbi: *'грumba. In Tsakonian, /y/ → /i/ occurs regularly in the prefix syn- and word-initially; Pernot (1934, 111) finds only two exceptions, *ye'tia ‘raininess’ → ST [ju'cia] ‘wet weather’ and *'yli ‘matter’ → ST NT 'ui PT 'luni ‘silt’ (Deffner’s etymology, uncontested by Pernot; C derives it from *'ilys ‘mud’), which appears to be a loan in its -i ending (Pernot 1934, 364), and which is found in that form in other Greek dialects (Cythera) (Hatzidakis 1990 [1907], 278).

2. Word-initial /r/ becomes /ʃ/ (*'ravon ST 'jafu 'to sew', *'riza ST 'jinda 'root’). The easiest way to explain this development seems to be by appeal to the Ancient Greek voiceless allophone of /r/, [ɾ], which only occurred word-initially. Pernot (1934, 100) prefers to treat this as a modern phenomenon, related to initial /tr/> /ʃ/ (see §3.2.3.1a): he posits initial /r/ had /ɾ/ preposed as a dissimilatory epenthesis after preceding /n/. For example, he derives *'jinda as *tin 'rinda → tin 'rinda → tin 'jinda → tin 'jinda → ti 'jinda ‘the root’. This phenomenon does not apply to PT.

3. Classical /ɔ:/ goes regularly to /u/ rather than /o/ in Tsakonian (*'pqma ST 'puma ‘plug’, *'xora ST xura ‘field’, *'yrarfon ST NT 'yrafu ‘to write’). This would indicate that Proto-Tsakonian kept /ɔ:/ > */o/ and /ø/ apart, as Hatzidakis (1989 [1905], 635 and elsewhere) has claimed. The counterargument raised for Standard Modern Greek also applies for Tsakonian, however: there are instances where Classical short / lax /o/ goes to /u/, and these include four words on the Swadesh-100 list: 'podas ST NT 'pua ‘foot’, 'yona ST 'yuna ‘knee', 'stoma ST NT 'thuma ‘mouth', and 'onoma ST NT 'onuma ‘name’. This counterargument is particularly strong in Scutt (1912–13, 145), who asserts that, where /ɔ:/ → /u/ is not morphologically predictable (primarily in verb endings), it has arisen “perhaps under the influence of neighbouring sounds [..] the evidence for [Hatzidakis’] theory can scarcely be said to be satisfactory.” Nonetheless, a (near)-minimal pair like *'oron ST NT o'ru ‘to see’, *'ora ST NT 'ura ‘hour’ corroborates Hatzidakis’ surmise.
Hatzidakis (cited in Costakis 1951, 37) considered /o/ → /u/ to have been triggered first by adjacent velars or labials, and then extended to liquids and nasals. (This also holds for PT.) For /ɔː/ → /u/ not to be an instance of the same phenomenon, there must be an instance of /o/ → /u/ between two coronal obstruents — the environment Hatzidakis ruled out for /o/ → /u/. *ateleίο:tos → ST a'te'λιυτε NT atε'λιυτε ‘unfinished’ seems to be such an instance. However, the environment forcing /o/ → /u/ is rather broad: velars, labials, liquids and nasals can either precede or follow (*'yona → ST 'yunα 'knee', *'ofis → ST 'uβί 'snake', *'poοὰ → ST NT 'pua 'foot', *'ολος → NT PT 'ule 'all'); and the rule is by no means exceptionless (*'yonus → ST 'υονε 'spawn', *θομυfari → ST οfari 'boulder', *'poros → ST NT PT 'pore 'door', *'ολος → ST PT 'ολε 'all').

While the phenomenon applies to PT (*τον → dun 'their', *φυ'nazi → φυναζ 'he shouts', *λοιγον → ο'γυ 'kinds'), it is much less widespread. In particular, the participial ending used as the citation form for verbs in Tk (AG -ον) is PT /o/, rather than ST NT /u/. Since in addition Thracian, the MG dialect PT was in contact with, raises unstressed /o/ to /u/, the evidence for the persistence of the phenomenon is weak.

4. There are a few Tsakonian words where /v/ appears to correspond to the Ancient Greek digamma /ϝ/, which had already disappeared from Attic–Ionic; e. g. γαμνός wamnós 'lamb' > *wanne > 'vane, δαβελός (δαβελός in Hesychius) dawelós 'torch' > dave'le.

3.2.3. Innovations

The following processes in Tsakonian are innovations with respect to Middle Greek, and have no precedent or equivalent in Standard Modern Greek.

1. One of the most characteristic features of Tsakonian is its avoidance of clusters; these are uniformly replaced by affricates or aspirated stops.
   a. Thus, clusters involving a dental and a liquid (/ðr, θr, tr/) go to /ts/ (*'drys → ST NT 'tίρα 'oak', *'αθροπος → ST NT at'θροπο 'man', *'trayos → ST τίαο 'he-goat'). Word-initially, /θr/ is further lenited to /ʃ/ (*'θρινακς → ST 'φινακα 'pitchfork', *'θρεφον → ST 'θεφυ 'to fatten'); this also occurs at times for /tr/ (*'τρεμον → ST 'τέμυ 'to tremble'). This phenomenon does not apply to PT.
   b. Clusters involving a sibilant followed by a stop or fricative go to the homorganic aspirated stop (*'spiror → ST 'φιρο 'to sow', *'is'tos → ST NT it'θε 'sail', *'sta'fiða → PT th'ia'feα ST *θ'iaiθia > k'haiθia [eθhaiθia] 'raisin', *'επι'asθη → ST ekj'atve [eθcatve] 'I seized', *'as'kοs → ST NT a'kβο 'sack', *'isxon → ST 'iκβυ 'to hold'). However, there are instances where /sx/ goes to /sk/, as in Modern Greek (*'σχα'da → ST NT as'ka PT ska'ia 'dry fig'); and /sf/ does not go to /ph/ at all (*'σφί'ri → ST sf'i'ζί ST NT PT sf'i'ri 'hammer') (Pernot 1934, 128; Pernot thinks *sfondylοs → ST 'pζondile 'vertebrum' is a recent importation, and derives from *spondylos). There is evidence to suggest this phenomenon dates from Proto-Tsakonian: AG δεκός askόs Hesychius ἀκκόρ akkόr → ST NT a'kβο 'sack'.
   c. Clusters involving a nasal followed by a fricative go to the homorganic aspirated stop (*omfa'los → ST PT ap'bαle 'navel', *'yron'thia → ST yr'o'thia ST PT yr'u'teαa 'punch', *'γυνχοσ → ST 'ικβο 'nose').
   d. The cluster /ks/ goes to the affricate /ts/ (*'ks'e'ros → ST NT PT tse're 'dry', *'fy'λακσ → ST fi'at'σu 'I guard'.
   e. The stop–stop cluster /kt/ goes to the aspirate /tv/ (*'dατkylο → ST NT 'dατβιλε 'finger', *'nykta → ST NT μυ'tβα PT 'nυτβα 'night'), although /pt/ goes to /ft/ like MG, instead of /tv/ (opt:s: → ST NT 'fινu 'to cook' (MG mayi'revo), ptοc'sis → ST 'fιοiς 'fear' (MG 'fivos), pεmπt:c: → ST PT 'pεfιa 'Thursday' (MG 'pemtiti). Similarly, the fricative–fricative cluster /θθ/ goes to /tv/ (*'δεξθθ: → ST δετβυ 'I accept'.

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‘I get wet.' 

Although /fθ/ goes to /ft/ like MG, instead of /tθ/ (‘*fθonο > Τστ δονu ‘to envy’) (MG ζι’λευο) — but *mazefθume → PT mazuθume ST mazuθume ‘we get together.’

f. Clusters whose second element is /l/ frequently lenite it to /r/ (*plα’ty > ΤΤ πρα’κju PT pla’ti, πω’ατi ‘wide’, *κλε’τις > ST NT ‘κρεφτα ‘thief’, *γλο’sa > ST NT ‘γρυ’sa ‘tongue’, *ακ’λαδες > ST ακ’rae PT xrae, xraie ‘pears’). This also occurs for clusters whose second element is /n/ (*’ypnos > ST ‘ιπpe ‘sleep’, *τεxnι > ST ‘tεξra ‘craft’). This phenomenon is severely restricted in PT.

g. Clusters involving /r/ and a stop or /β/ go to the homorganic nasal + voiced stop cluster (*skοrpι’sa ‘scorpion → k’οm’bιο ST ‘spider’ PT ‘mole’, *αρτος > ST NT ‘ανde ‘bread’, *’αρκα > ST NT PT ‘ανγια ‘I took’, *πο’ρ’δι > ST p’ουν’dα ‘fart’).

h. There is evidence suggesting that AG /kk/> Tk /kβ/: AG σάκκοσ > ST ‘σακβο ‘sack’, AG κόκκοσ > ST NT PT ‘κοκβο ‘fava bean’, AG λάκκοσ > ST PT ‘ακβο ‘hole’, Latin acumbo → MG akum’bο NT akum’bιxu ST k’υν’γιξu ‘to touch, to lean on’ (Costakis 1951, 50, 61–62). This phenomenon may even date from Proto-Tsakonian: Costakis cites Phrynichus (2nd century AD), who says that the Dorians pronounced σάκκοσ with two /k/’s, while the Athenians used one.

2. Word-final /ο/ is raised after a coronal, becoming /e/ (*’ονος > ST NT ‘ονε ‘donkey’, *’ξυρος > ST NT PT ‘ξυρε ‘pig’, *’υρα’τος > ST ‘υρα’τε ‘writing’). Coronals here include front vowels (*’ξερος > ST ‘χειρε ‘debt’). This change is widely seen, as it involves the major masculine and neuter citation-form endings for nominals. In PT, it is extended to labial nasals (*’δρομος > ST ‘δρομε ‘path’, *’κοσμος > ST ‘κοσμε ‘world’, *’πολεμος > ST NT PT ‘πολεμε ‘war, effort’), and sporadically to other labials and velars (*’πυρος > ST ‘κηρυο NT ‘πηρυο PT ‘πιρε ‘tower’).

3. Various palatalisations, involving consonants preceding front vowels, and in particular /i/, go further in Tsakonian than in Standard Modern Greek. In fact, Katsanis (1989) draws an intriguing correspondence between Arumanian and Tsakonian: palatalisation proceeded much further in both languages than in dialects of Greek proper, because the latter were much more subject to conservative pressure from Standard Modern Greek than were Tsakonian (a distinct Hellenic language) and Arumanian (a Romance language). Thus, Standard Modern Greek has palatal allophones of velars before front vowels (/k, ɲg, x, ɧ/ → [c,ɲg, ç, ɲ]), and a palatal allophone of the alveolar liquids (/l, n/) before non-syllabic /i/. In Tsakonian, the following palatalisations take place:

a. The palatal unvoiced stop preceding front vowels is further fronted to an alveopalatal affricate (*’κερος [ce’ros] > ST NT PT ‘κε’ρε ‘weather’, *’κιπος [ci’pos] > ST NT ‘τειπο ‘garden’). Its voiced counterpart fronts even further, to become an alveolar affricate (*’αν’γιζον [ap’jizon] > ST an’diziu ST NT an’diziu PT an’dizio ‘to touch’, *’στραν’γιζον [stran’jizon] > ST stran’diziu PT stran’dizio ‘to strain’). Occasionally, the unvoiced stop also fronts further, to become alveolar (*’κεφα’λι > ST τςυ’fα NT τςυ’fαλα ‘head’, *’κιπος > ST ‘τειπο, τςιπο ‘garden’, Turkish kayık > MG ka’iķi > ST ka’itei, ka’itti ‘boat’). Pernot (1934, 72) notes that, with the exception of ‘τςυφα, *κ > t is characteristic of recent loans, and Costakis himself used /tc/ in such words; consistent with this,
C only records words such as *ka’iteci with /tc/. So it would seem /k/> /ts/ is a late and restricted development, which has exceptionally become generalised in the case of *tsufia. In PT, *k/> ts is more common (*bu’kia → PT bu’tsia ‘mouthful’, *ky’lia → PT ts’lia ‘belly’, *kyp’rinos → H tisp’rine V kip’rini ‘carp’).

b. The typological gap vacated by palatalised velars is filled by both palatalised labials and dentals, which become palataled before /i/ (*pi’yaði → ST [ci’yaði] ‘well’, *pisa → ST [c’isa] ‘tar’, *kum’bi → ST [ku’pi] ‘button’, *ty’ros → ST [ci’re] NT [ci’re] ‘cheese’, *di’a’mandi → ST NT [ja’maçu] ‘diamond’). (Following Haralambopoulos (1980, 53) analysis, these palatal stops are henceforth treated phonologically as velars preceding a yod: [ci’re] = [k/u’re/].) In NT, these palatalisations occur but are severely restricted (*pi’anon → ST NT kjanu [’canu] ‘to get’, *ty’liyôn → ST NT ki’liçu [ci’liçu] ‘to wrap’, *praymateftis → ST NT pramakef’ki [pramakef’ci] ‘salesman’, but *pi’nôn → NT pi’nu ST ki’nu [’cinu] ‘to be hungry’, *a’yapi → NT a’yapi ST a’yaki [a’yaci] ‘love’, *ti’mon → NT ti’mu ST ki’mu [ci’mu] ‘to honour’, *ku’ti → NT ku’ti ST ku’ki [ku’ci] ‘box’) (Costakis 1951, 55). This phenomenon does not take place at all in PT; the instances given by Costakis (1951, 163) of /d/> /ɡ/ do not involve palatalisation (*ma’dq → ‘mango ‘to pluck’, *ma’dumenos → ma’ygonne ‘plucked’)

Palatalised velars are also realised as dental affricates (*’oti → ST NT PT ’otsi ‘COMPLEMENTISER’, *op’tilos → *op’tislos → ST NT epsi’le PT psi’le ‘eye’). According to Pernot (1934, 74), /ti/ > [ci] is older than /ti/ > /tsi/, and there is no reason to think that /ti/ > [ci] > [tsi]. The transition /ti/ > [ci] went through the intermediate step [ti], still extant as a result in Pernot’s time, although not as frequent as [ci]; Pernot found that [ti] was frequently backed: [t]. The labial seems to have gone through the same transition (Pernot 1934, 77): /pi/ > */pti/> */ti/ > [tsi]. Pernot found that like /ti/, /pi/ was realised as both [ti] and [ci], so that there was no difference in realisation between *ti’mα → ST [ti’ma, ci’mα] ‘honour.IMP!’ and *’pima → ST [ti’ma, ci’mα] ‘drinking’, although he had the impression that “pi se gutturisale plus asemend que ti.” Indeed, Pernot even heard instances where backed /pi/ was no longer palatal: *ndro’pi → ST [dro’ki] ‘shame’.

c. Palatalised alveolar liquids become palatal; unlike Standard Modern Greek, palatal liquids enjoy phonemic status. Such palatalisation also occurs before syllabic /i/, unlike in MG, where it is restricted to non-vocalic /i/ (*a’niyôn [a’niyô], ST NT a’nindu PT a’niyô/ ‘to open’ (MG [a’nîô]), *ili’azon [i’lázôn] → ST ’lázu PT ’lazo ‘to sun’ (MG [’lázô])

(As Costakis (1951, 33) notes, this is also characteristic of the Standard-Greek speaking villages to the south of Leonidio, such as Tsitalia, and indeed of Peloponnnesian Greek in general; for example, /’yianis/ [’janis] ‘John’ is pronounced as [’janîs] in Tsitalia — although, perplexingly, as [’janis] in Tsakonian).

4. Intervocalic voiced fricatives — particularly /ð/ and /ɣ/—frequently drop out (*’poda → ST NT ’poda PT pa’ foot’, *evo’mosa → ST vó’mosa NT PT võ’mosa ‘week’, *’y’yat → ST ’sati NT ’fatı PT ’sae ‘daughter’, *travo → ST ’toa ‘he-goat’). This process is characteristic of other Modern Greek dialects, such as Cypriot.

5. Intervocalic hiatus or yod is fortitioned to /z/ (*’mya → ST PT ’mize fly’, *y/os → ST NT PT i’ze ‘son’ or /v/ (AG k’áos ‘chaos, chasm’ → *xaos → ST NT ’xavo ‘chasm’, *y’adu → y’atu → ST NT ’vatnu ‘water.gen’, AG kyanós ‘blue’ → ST NT ku’vane ‘black’). There seems to be no clear conditioning factor at work: cf. ’miza with ku’vane. This development was already
in place by 1668; Çelebi records ızemi ‘my son’. This contrasts with MG, which inserts /γ/ instead (aɛ:t, aɛ₁rós → a’erós → a’ýeras ‘air’, akoúxt, → a’kut, a’kuyo ‘to hear’, ãç:ros → ‘ayorós → ‘ayuros ‘unripe’).

6. Infrequently, stops become aspirated in Tsakonian; this is a characteristic of South-Eastern Greek dialects, as well (Pernot 1934, 131). In Peloponnesian Tsakonian, this only occurs for /k/ and /p/, predominantly word-initially (*kambi → ST PT ‘kamba’ ‘caterpillar’, *por’di → ST ‘por’ða ‘fart’, *pɔndiko → ST ‘poni’ko NT pɔndiko PT pondo’ke H ‘pəndiko’ ‘mouse’). In PT, this aspiration is further extended to /t/ (Mirambel 1960, 58) (*θyya’teres → sa’tere ‘daughters’).

7. There is a tendency for /e/ to be raised to /i/ word-finally (*e’dare → NT e’dari ‘now’, *ame’reos → *ame’re → ST amé’rei ‘day.GEN’, *kalos → *kale → ST ‘kali ‘stick’, *sates → ST NT ‘satsi ‘this year’), although the conditioning is not obvious; and in the word-final groups /’e/a/ and /’e/o/ (*’le’a → ST NT e’lia PT e’ši’a ‘olive’, *’kreos → ST ‘Xrie ‘debt’). The raising of /e/ word-finally does not apply to PT.

8. As seen above, /s/ + stop combinations go to aspirated stops. When an /s/ + stop combination results in Tsakonian as a secondary development — e. g. through an interceding vowel dropping out, or as a more recent loan into the language — /s/ becomes /ʃ/ (Mediaeval Greek *’laspi → ST ‘laspi PT ‘a’pi, o’a’pi ‘mud’, *sa tanq → ST ‘f’tanu ‘above, in the mountains’).

3.2.4. Local Innovations

The following processes in Tsakonian are regionally restricted to Southern Tsakonian, rather than Northern. In all these instances, Northern Tsakonian patterns consistently with Standard Modern Greek; this has led Costakis to conclude that Northern Tsakonian ‘corrected’ the phonological innovations,undoing them under Standard Modern Greek influence. Liosis (2007, 167) however rejects this as an instance of internalised bias against Northern Tsakonian, which retreated much earlier than Southern, and believes they are simply NT archaisms — which is indeed the more economical explanation.

1. /l/ disappears before back vowels (*av’dela → ST av’deta NT av’dela PT av’dela, av’dewa, av’daa ‘leech’, *loýos → ST ‘o’yo NT ‘lo’yo PT ‘lo’yo, ‘oyo ‘word’, *’luzan → ST uk’u NT ‘luk’u PT ‘luzo, ‘uzo ‘to bathe’). This change may have been in place by 1668, as discussed above, and the data from Propontis Tsakonian shows it was also in place before the colonisation (Costakis 1951, 56); it is, as Hatzidakis (1989 [1905], 365) pointed out, more recent than the fronting of /o/ to /e/ after coronals (*kalos → ST NT PT ka’le ‘good’, *’olos → ST NT PT ‘øle ‘all’). Costakis’ (1951, 57) argument that it is Northern Tsakonian that innovates in reintroducing /l/ is based on the existence of hypercorrect insertion of /l/ (which also took place in Leonidio, the urban centre of Modern Tsakonia) (*’axyrqa → NT ‘laxira ST ‘æxure ‘hay’, *ayp’nia → NT aip’nita ST PT aip’nia ‘sleeplessness’, *’ayano → Leonidio ‘layane ST NT PT ‘a’yan ‘beard of wheat’).

This process also takes place in PT; but while it is regular in Vatka, it is not attested in Havoutsi — which, being on the coast, was subject to much stronger influence from MG (*’ala → ST a NT H ‘ala V ‘awa, ‘aa ‘other.FEM, *la’yos → ST V a’yo NT H la’yo ‘hare’, *lo’stos → ST os’e NT H los’e H us’e V us’e ‘crowbar’). Vatka Tsakonian also presents other consonants in place of the lenited /l/; Costakis’ (1951, 161–162) discussion implies they are epenthetic, but they are clearly intermediate stages in the lenition (awkwardly described by Costakis), which has thus not progressed as thoroughly as in ST. Thus, velarised *’l/ is realised in Vatka as ∅, /o/ (*’lampa → o’ampa ‘lamp’), “a sound resembling more or less /u/” (clearly /w/; Makris (1951, 201) describes it as “corresponding almost to the digamma (p)”, which in Ancient Greek represented /w/, and is a common reflex cross-linguistically of /l/ (*’ylosa → yu’osa [’ywosa] ‘tongue’),
“a sound comparable to /uv/, with /v/ barely audible” (possibly fricated /w/) (*xalakos → xauva’ko [xaya’ko] ‘to be ruined’), “a clear /v/” (by fortition of /w/) (*ke’fala → tse’fawa ‘head’), /vo/ (combining two lenited forms (*ka’la → kavo’a ‘well.ADV’), and /vu/ (possibly /vw/ or /vν/, as an intermediate stage between /w/ and /v/ (*a’naskela → a’nastevnea [a’nastevwa] ‘supine’).

2. Palatalised /m/ assimilates to /n/ (*mia [mja] → ST /nja PT mae ‘one’, *mia → ST ’nia NT PT ‘mia ‘one’, *ma’mi → ST ma’ni NT PT ma’mi ‘midwife’). This is consistent with the behaviour of palatalised /n/ in Tsakonian.

3. Unlike Standard Modern Greek, the palatalisation of liquids also extends to /r/, whose palatalised variant is realised as /r̩/ in women’s Southern Tsakonian, although modern men’s Southern Tsakonian realise it as /r/ (Haralambopoulos 1980, 35) (e. g. *ry’aki → ’zatei, ri’aki ’stream’, *’ryzi → ’zizi, ’rizi ’rice’). In xix AD, this palatalised variant seems to have been more like a fricative trill [r] (Scutt 1912–13, 151: “it becomes something very similar to a Czechish r, often sounding like ζ.”); by the early twentieth century, this realisation had substantially died out (Pernot 1934, 97). In Northern Tsakonian, when /r/ is palatalised, Costakis (1951, 33) distinguishes between old people’s [z] and the younger / male realisations [rz] and [r̩], which he considers assimilations towards MG /ri/—a changeover apparently complete by Haralambopoulos’ time. While Liosis (2007, 351) did observe variation between [z] and [r̩], he did not find it correlated with gender, and indeed he found [r̩] is now extremely rare: 3% for fluent speakers, exclusively in NT, against 43% for [z] and 50% for the MG [r].

4. There are several instances where NT /i/ corresponds to ST /u, ju/ (*’artyma → NT PT ’artima ST ’artuma ’cheese’, *y’mon → NT ’jimu ST ’numu ’you.PL’, *vy’zi → NT PT vi’zi ST PT vu’zi ‘teat’) and vice versa (*try’yon → NT tf’i’yu ST ti’yu PT tri’yο ‘to harvest’, *sy’y’rizon → NT su’yur’gizu ST si’yiz’izu PT si’yir’zo ‘to tidy’, *ky’lon → NT ku’lizu ST ak’α’liu PT te’ilo, te’o ‘to roll’). In this instance, one dialect is conservative while the other patterns with Standard Modern Greek; neither dialect is consistently more conservative, which points to either different loans in different dialects, or lexical diffusional.

5. NT uses /ʃ/ “more frequently” (Costakis 1951, 32) than ST. Although Costakis gives no conditioning factors, the innovation specific to NT seems to be a palatalisation of /ʃ/, which also extends to the clusters /ks/ (which goes to /ts/ regularly) and /ps/ (*kra’si → NT kra’fi ST PT kra’si ‘wine’; *ksila → NT ’kfila PT ksila, *ksia, *ksia (ST ’kasa) ’pieces of wood’, *taksi → NT ’taksi ST PT ’taksi’ order; menstrual period, *ek’sinda → NT ek’sinda ST ksinda ‘sixty’; *psy’xi → NT ’psuxa ST PT ’psuxa ‘soul’). A palatalisation interpretation is reinforced by Costakis’ (1951, 37) observation that, where /u/ > /y/ > /ju/ after a coronal, “/i/ is not heard after /ʃ/ (/kʃ, pʃ/) or /j/” (*karyo → NT ’kαzu, ’kαrzu, ’karu, ST ’kazi, ST PT ’kari ‘walnut’, *syko → NT ’fukɔ ST PT ’suko ‘fig’, *ok’symilo → NT ’fjumale ST tf’u’mα’iù ‘plum, *psy’xi → NT ’psuxa ST PT ’psuxa ‘soul’). Strangely, C makes no mention of this process, nor does it list many of the variant pronunciations given in Costakis (1951). This process also applies to cases where Tk /s/ is a reflex of AG /tʰ/ (*kα’θimenos → NT ka’jimene ST ka’simene ‘seated’). In the case of NT /fati/ ST ’sati ‘daughter’, we may have a secondary development from the etymon òugà’t: > òy’yàtir: *òy’yàtir > *sy’yàtir > *syu’yàtir (normal development after coronal) > *ju’ati (morphological reanalysis) > NT *fu’ati > /fati/; in ST the palatalisation did not take place, so *ju’ati > *’jati > /sati/. Costakis (1951, 32) attributes this development to the neighbouring non-Tsakonian villages, “where /s/ is pronounced thick [as /ʃ/]”; one would presume that the phenomenon in those villages is also an instance of palatalisation.

6. PT has lost the Peloponnesian Tsakonian contrast between /u/ and /ju/ (*’lykos → ST ’luko H ’luko H V ’uko ‘wolf’, *’endyma → ST ’onjuma PT ’onduma ‘clothing’, *’stylos → ST [cʰule] PT *’tule ‘post’). /ju/ is present only in the stem *’yyro > *’yjuro → ST NT PT [jure] ‘around’.

N. Nicholas
7. PT regularly merges /ia/ into /æ/ or /æa/, when /i/ is unstressed (i.e. a yod) (*mya'lo → mæ'le ‘brain’, *fti'ano → ftæno ‘to make’, *vori'ades → voræ'ade ‘north winds’, *kami'a → kamæ'a ‘any.fem’). In mainland Tsakonian, this applies only to the proper name *mili'tadis → mil'tædi ‘Miltiades’, which is of recent importation.

That a form has undergone characteristic Tsakonian phonological processes is not in itself sufficient guarantee that it is not a loan. Some phonological processes — particularly those involved in morphology and the palatalisation of /k/ — are universal, and apply to words which are definitely loans. Examples given by Pernot (1934, 43) include Turkish inat → MG /i'nati/ → [i'naci, i'natsi] ‘spite’, MG /irino'dikis/ [irino'dics] → [ziño'dici, ziño'ditsi] ‘justice of the peace’, and MG /'γramati'ki/ → [γramaci'tsi] ‘grammar’. Phonological assimilation can be undertaken quite systematically in Tsakonian; as Pernot (1934, 43) comments, “il faut tenir compte du fait que tous les villageois ont dans l’esprit un système de correspondances phonétiques et morphologiques, une sorte de sentiment linguistique inné, qui leur permet d’ordinary une grande précision.”

One final point which should be raised is the likelihood of non-Greek influence on Tsakonian. As Pernot (1934, 141), himself formerly a sceptic on the Doric origins of Tsakonian, admits, “je touche ici à une point délicat” — Hesseling’s speculations on non-Greek admixtures in Tsakonian drew the indignant response of a Leonidio town meeting, and as Pernot (1934, 144) grumbles, “ce n’est pas ainsi que la question pourra être éclaircie.”

The Doric heritage of Tsakonian seems now to be beyond dispute. Yet it is also true that this Doric heritage has been overstated, for reasons of the prestige which comes with the unique status of Tsakonian as heir to Doric. One need only contrast Pernot’s scrupulous caution with the enthusiasm of both Deffner before him, and Costakis after him. Yet Costakis’ dictum (pers. comm.) that “the foreign influences on Tsakonian stopped at the shepherd’s hut door,” rings true: while livestock colours are largely borrowed from Albanian, for example (Costakis 1975–76), the names of kitchen utensils are native. The influence of Slavonic on Tsakonian is similarly small (Kisilier 2017, 114–115 lists 13 loanwords, and teepa ‘skin, membrane’ discussed in this article is likely a fourteenth) — although Tsakonia has bordered on first Slavonic-speaking, and then Albanian-speaking territory for a long period. (Liosis 2007 nonetheless has extensive documentation on the possibility of Albanian–Tsakonian contact, with a formerly mixed population immediately south of present-day Tsakonia. Kisilier 2017, 115–116 also adduces a longer list of Albanian loanwords.)

Pernot’s (1934, 143–144) speculations on foreign (Slavonic) influence on Tsakonian are limited to morphology; they appear somewhat impressionistic, and in any case are beyond the scope of a study on historical phonology. One phonological feature Pernot does find worth mentioning is the extent of palatalisation in Tsakonian — both how widely it is spread (including, for example, all liquids), and the phenomena /ti/> [tsi] and /pi/> *[ptʃi], which are not characteristic of Greek. Pernot’s (1934, 141) impression is that

une influence extérieure qui n’est pas celle de la langue commune, s’est exercée à un moment, donné, qu’elle n’a eu phonétiquement qu’une influence limitée et que le dialecte est en train de réagir, dans la mesure où il le peut.

4. Historical Lexical Issues

Two major processes involved in the transition from Ancient to Modern Greek vocabulary are the replacement of nouns by -ion diminutives (followed by the dropping of the /on/ neuter suffix after /i/) (poús → pódion ‘foot’, ónukσ → onúkʰiôn → ‘nixi ‘nail’), and the morphological regularisation of nominals by generalising their oblique stems to the nominative (ɡunɛː;
gunaikós → yi’neka, yi’nekas ‘woman’, ané:r, andrós → ‘andras, ‘andra ‘man’). Both these processes date from Middle Greek; the use of diminutives is already widespread in the New Testament, while the morphological simplification is noticeable in papyri after 3rd century AD.

The citation forms given for verbs vary. In Ancient and Modern Greek, the form given is the first person indicative present; the infinitive has not survived into Modern Greek. In Tsakonian, the indicative present tense is formed with an auxiliary and a participle; so the active present participle is the citation form. The Tsakonian participle corresponds to the Ancient Greek όηn ending; as the /n/ has dropped out, the reflex /u/ is usually the same as that for the indicative present, whose first person ending is ο. (Standard Modern Greek o, Metropolitan Tsakonian *u).

The effect of Puristic on MG has been profound; ancient revivals have displaced vocabulary even in the Swadesh-100 list (e. g. ‘skin’; Kassian 2018 elicits the archaic fli’os for ‘bark’). In order to account for this, I have attempted to provide the pre-Puristic vernacular term where possible.

5. Swadesh-100 List

In the following, I draw mainly on Costakis’ (1986) comprehensive dictionary to compile the basic word lists. As this is a unidirectional dictionary, in which the entries for different dialect equivalents are not always cross-linked, I have not been successful in tracing all entries for Northern Tsakonian; I have supplemented this with enquiries to Dimitris Houpis. As comparison with Costakis (1951) and Pernot (1934) makes clear, the dictionary does not list all phonetic variation present in the language — although it seems fairly reliable for Southern Tsakonian.

To determine the unmarked form out of the available options, I have used textual frequency in the Tsakonian texts at my disposal: for all three dialects, the dialect texts collected and published by Costakis (1981; 1986 — predominantly Southern); in addition, for Southern Tsakonian, the texts in Haralambopoulos (1980); for Northern Tsakonian (Kastanitsa), Houpis’ texts (1990; 1993) — although the fact that Houpis is literate and late means his texts should be looked at with caution, notwithstanding the fact that Houpis checked his language use with old Kastanitsios; and for Propontis Tsakonian (Havoutsi), Karaliotis’ (1969) autobiography, written at the behest of Costakis. I have occasionally cited the word list gathered in Kisilier’s (2017) fieldwork, where it supplements other findings.

Our major source in tracing the transition from Doric to Tsakonian, after the Neo-Laconian inscriptions, is Hesychius’ 5th century AD dialect dictionary. This is a highly heterogeneous source containing words ranging from the Homeric to contemporary Latin loanwords, with no indication of provenance other than a one-word regional epithet, like ‘Cypriot’ or ‘Laconian’. Pernot (1934, 103–105) spends some time discussing how reliable a witness Hesychius is; while there are some inconsistencies, particularly in transcription, he takes Hesychius’ Laconian forms present in Tsakonian but unattested in Neo-Laconian as reasonably belonging to 4th century AD Proto-Tsakonian. More recently, in Tsakonian proper, we have 35 Tsakonian words recorded by Evliya Çelebi in 1668 (cited in Costakis 1951), the 55 words recorded by Jean-Baptiste-Gaspard d’Ansse de Villoison in his 1785–86 trip to Greece and published in 1788 (Famerie 2007), with a further 100 words recorded in his travel journal and recently published (Famerie 2006, not seen for this study); and the 52 words and phrases recorded by Johan David Åkerblad, in one of his trips to Greece, either 1785–1788, or 1796–1797 (Manolessou and Pantelidis 2018).

The villages drawn upon as reference points for the three dialects are those about whose language we know most: Melana (Costakis’ birthplace) for Southern Tsakonian, Kastanitsa for Northern Tsakonian, and Havoutsi for Propontis Tsakonian. The orthography used is that of Costakis (1986). Comparative text counts between two synonyms in a Tsakonian dialect are only given when neither is cognate with the Standard Modern Greek form, to determine whether there is a match or not. To determine the unmarked stems in Classical Greek, text counts...
were used: primarily in the corpus of Plato, secondarily in Aristophanes and Thucydidides (using the *Thesaurus Linguae Graecae*); Classical words were checked against Woodhouse 1979 [1932] and Liddell, Scott *et al.* (1940).

<table>
<thead>
<tr>
<th>Word</th>
<th>MG</th>
<th>NT</th>
<th>ST</th>
<th>PT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I</td>
<td>εγώ ε'γο</td>
<td>εξού ε'ζου</td>
<td>εξού(τε) ε'ζυ(νε)</td>
<td>εγώ ε'γο, εγώνα ε'γόνα, (ε)γόνε (ε)γόνε</td>
</tr>
</tbody>
</table>

Ά esou. MT ε'ζου < εγώ [ε'jo] < Α εγώ εγό: (Pernot 1934, 203): first the intervocalic fricative is lenited to a yod or dropped (§3.2.3.4), and then it is reftortiooned to /z/ (§3.2.3.5), with final /μ/ raised to /μ/ (§3.2.2.3). ε'ζυνε, ε'γόνε by analogy with e'kjune, e'tune 'thou'. All forms cognate, although PT may have borrowed the MG form.

| 2. thou | εσύ ε'si | εκιού ε'κju | εκιού(τε) ε'κju(νε) | (ε)τού (ε)τ'υ, (ε)τούνε (ε)τ'unε, ετούνα ε'tuna |

Ά etjou. MG ε'si < IG σύ ισύ < IE *του 'thou.nom', asssibilated by *τυ'- 'thou.obl'. Tk e'kju, e'tu < D τó tú: < IE *τu (C; Palmer 1980, 288; Hesychiius is somewhat vague in this respect). For the palatalisation /t/ > /k/ [c] see §3.2.3.3b. Pernot (1934, 187) gives the form as [e'tu]; at the time Pernot collected his data, there was still fluidity between [t] and [c], which seems now to have been resolved in favour of [c]. Costakis (1951, 191) cites e'tu as an instance of PT being more conservative than MT; however, the loss of palatal /j/ is a PT innovation (§3.2.4.6).

Pernot (1934, 204) explains the endings of ST 'you' as being completely remodelled after those for Ι' (*et'i'u after *e'yi'u), rather than pointing back to Hesychius' τούνη τούνε': 'you', which does not explain the palatalisation of /t/. The palatalisation before reflexes of EMG /y/ (§3.2.2.1), Pernot had decided, occurs only to those instances where Doric /u/ had not survived — and it seems from Hesychius that Doric /u/ has survived here. (This seems to be confirmed by PT e'tu, which does not palatalise.) He conceded nevertheless that ("semble-t-il") the form is likely Doric in origin, and (e)'kju is the regular Tk reflex of D tú: (tú: > *τjú > *kju). The ne suffix is also present as an emphatic in the Modern Greek accusative of 'thou' (e'sena, e'senane), whence it has been generalised in Tsakonian to the nominative. The initial /e/ of e'si developed in Greek by analogy with eγό: Ι' around 1st century AD (Palmer 1980, 184). All forms cognate.

| 3. we | εμείς ε'mis | εμεί ε'mi, εμεύ ε'mi, | ενεί(νε) ε'ni(νε) | εμεί ε'mi, εμεύ ε'mi, |

Ά eni. ST e'ni follows from palatalisation of /m/ (§3.2.4.2). Costakis (1951, 84) also gives e'mu for NT. Tsakonian has not held on to D ἦμες ha:mes (Palmer 1980, 288), but has adopted IG ἦμες he:meis > MG εμείς ε'mis. The D form survives in M K oblique vύμου 'namu 'us', which Pernot (1934, 202) derives from D ἦμων ha'mon 'of us', with the initial /m/ metanalysed.

Anagnostopoulos (cited in Pernot 1934, 203) and Scutt (1912–13, 163) attempt to assert the Doric status of e'ni by adducing D ἐμίο hemió and ἐμίο hemíx:, used by the ancient comedian Rhinthon (C). The simplest explanation nevertheless seems to be that this is an early MG (or IG) loan — with which Pernot (1934, 204) concurs: “La non persistance de a'ni = ἦμεις (cf. 'namu) rend possible, mais non certain, un emprunt à la langue commune.” All forms borrowed (very early).

| 4. this | αυτός af'tos | ἐνανθ' 'endeni | ἐνανθη 'enderi | τερ' te'ri |
| 5. that | εκείνος e'kinos | ετήνε e'tine | ἐτερε' 'etrei | τήνε t'ine |
À etineri ‘that masc’, eteneni ‘that fem’, see below. The correspondences of demonstrative pronouns are complex. MG has a three-way distinction: τούτος ‘tutos’ (proximal), αυτός ‘af’tos’ (unmarked), εκείνος ‘ekinos’ (distal). In Pernot (1934, 191), ST is said to also have a three-way distinction: έντενη ‘inden’ or έντερη ‘ender’ (proximal), έτενη ‘eteni’ (medium distance), ετήνε ‘etine’ (distal—‘ce dernier indiquant un grand éloignement dans le temps out dans l’espace’). (This is not counting the emphatic variants ending in -eri and -eri.) Pernot reports that Costakis (his language consultant) ‘saisit mal une opposition de τούτος et de αυτός’, and thus glossed the three Tsakonian demonstratives as αυτός εδώ ‘af’tos here’, αυτός εκεί ‘af’tos there’, and εκείνος.

In C, however, ‘eteni’ is listed simply as a variant of ‘endeni’. Furthermore, C refers to ‘etine’ as “indicating no clear differentiation of distance” — in other words, it is claimed to be unmarked, not distal. This is illustrated in Pernot’s (1934, 43) report that Tsakonians speaking Standard Modern Greek say για κείνο με ήθελες για ‘kino me ‘ithes instead of για αυτό με ήθελες γι αφ’τοι με ‘ithes for ‘that’s why you wanted me’; this is because the unmarked demonstrative, used in both languages for clausal referents, is in Tsakonian the distal rather than the medial (cf. Tsakonian ‘[ja ci m ‘esa ‘θeu’] ibid.’, where (‘e)ci is the neuter distal).

While NT has a huge panoply of demonstratives (11 nominative masculine forms), Costakis (1951, 86) claims that the “same forms are used in NT whether for a great or small distance, while in ST the distinction is clear” (i.e., the distance distinctions are effaced in NT.) PT is similarly complex, with 6 demonstratives. To help make some sense of all this, I tabulate the demonstratives in three groups:

**Group A (ende-):** EMG ένι τος ‘en tos ‘it is he’ > Tsitalia έντος ‘endos ‘there he is’ (Pernot 1934, 208). Pernot gives the traditional derivation τος < αυτός ‘af’tos ‘that one’ nom; but Joseph (1994) has proposed that this is in fact an analogical development from accusative τον < αυτόν ‘af’an.

Deffner (cited in Scutt 1912–13, 164) sees the en element as derived from AG ἵνα ‘en ‘behold!’, rather than ένι ‘eni ‘it is’. Scutt (1912–13, 164) finds these etymologies improbable, and prefers a connection with Hesychius ἰδα άνδα ‘that’ (Cypriot), άντετοις antetois ‘that year’ (Laconian); Pernot (1934, 207) comments that “il y a loin de là, sous tous les rapports, au tsakonien ‘enderi, ‘endai’. C prefers an etymological connection with ετήνε ‘etine’; as a result, he spells the pronoun endings with η, although in Costakis (1951) he used ι.

Tzitzilis (in prep, cited in Liosis 2007, 415) rejects the proposed grammaticalisation of ‘en tos ‘it is he’, and prefers to see proximal ‘endeni and medial ‘eteni as cognate, with et- > “emphatic” ett- > e(n)d-, given that e(n)d- pronouns are attested in Greek dialect. The forms he cites starting in ett- (Italy, Cappadocia) are more readily derived from af’tos > eftos by assimilation. The claim of ett- > e(n)d- is based on Cappadocian ‘etos ~ ‘ettos ~ ‘edos as recorded in the Historical Dictionary of Modern Greek (-t- variants also occur in Chios and Southern Italy): the likeliest account for that variation is analogical extension from clitic pronoun do, which in turn resulted from metanalysis of -n to (a commonplace development in Greek dialect). (A similar development would not be feasible in Tsakonian, which lacks that specific clitic.)

Tk έντενη ‘endeni, PT έντενα ‘endena, ‘τενά ‘nde’nα, ‘τενά ‘nde’n < έντον ‘endene, ACC. of έντος. The unpalatalised /n/ in ‘endeni indicates the form was originally *endene, so that...
palatalisation was not triggered (Pernot 1934, 208). Unlike other variants of Greek, prenasalisation of voiced stops in Tsakonian is still the usual option, as confirmed in Liosis (2007, 344); so *'edeni, which is occasionally realized as *'edeni.

This means that *'etini was originally an emphatic form, and the emphatic forms *'etepoli *'endeno'ri, *'etepoli *'etineri maintain the same suffix. Pernot (1934, 192) reports that *ori is the most frequent emphatic pronominal suffix, and that for his native language consultant (Costakis) it constitutes an independent word.

In fact, the -ori suffix has been semantically bleached in the emphatics as well, giving the renewed forms *'etepoli *'endeno'ri and *'etepoli *'etineri (Pernot 1934, 193). Costakis (1951, 177) derives the -ri suffix from Tsakonian rhotacism and the Ancient emphatic clitic -i, which is well attested for pronouns in Ancient Greek (e.g. outos-i ‘this very one’); thus, *enotoi *'endosi > *eneto-i *'endesi > *etepoi *'enderi. But there is an attested tendency for renewal of -ori, and the posited -i suffix seems artificial (Modern Greek affixes -e to pronouns instead, and only to the accusative); so Pernot’s derivation is much more believable.

But as Pernot retorts, /i/ drops out of *'e tos ‘look!’ Pernot (1934, 192) expresses surprise that Costakis’ paradigm does not contain this term, by analogy with Modern Greek affixes -e to -gori, which he claims is also used in Southern Italian and Heptanesian Greek.

**Group B (ete-):** EMG ἐδε τος *'edeto s ‘look!’ he’ > Dialectal Greek ἥ τος *'etos ‘there he is’ (attested, for instance, in Crete and Chios); ἐδε *'ede> EMG ε! e ‘interjection’ + ἐδε i'de ‘look!’ Tzitzilis (in prep, cited in Liosis 2007, 415) considers this derivation “unsustainable”, and derives it instead from autós > af'tos ‘that’ > *ef'tos > 'etos.

**Group C (eti-):** D τῆνος τέ:nos ‘that one’ (cognate with MG ἕκεινος e'kinos; cf. Aeolian κήνος kēnos, AG (ἐ)κεῖνος (e)keînos) has been proposed as an etymon (Hatzidakis 1989 [1905], 94, 365, Scutt 1912–13, 165; defended in Liosis 2007, 416). Costakis does not question the Doric etymology of e'tine (presumably because of PT 'tine)—hence its spelling with an η in C (τῆνος > ετήνε). But this proposal is emphatically rejected by Pernot (1934, 209–210) (“s’il existe des lois phonétiques, le τ prouve précisément qu’il ne s’agit pas du dorien τῆνος”), as /t/ here has undergone neither the number of syllables and position of the accent”. But as Pernot retorts, /i/ drops out of e'tine

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7 In doing so contra Costakis and Liosis, I take Pernot’s approach of considering modern etymologies in Tsakonian more plausible than ancient accounts, where they involve elements that have not otherwise survived in Greek, ceteris paribus. Liosis (2007, 415) argues for a clitic -i based on the older feminine genitives en’dari < endas + i, et’rari < etinas + i (§3.2.1.2), which analogically extended to the feminine nominatives en’dari, et’rari, where a final -i would not be justified. But if an ancient clitic -i can extend from FEM.GEN to FEM.NOM, then a modern suffixed -ori can just as readily (and with fewer moving parts) extend from MASC.NOM and FEM.NOM to FEM.GEN.
in rapid speech, and at any rate the stressed /i/ of e’tine could hardly be epenthetic. In the end, Pernot cannot offer an alternative etymology; but drawing on the fact that, for Costakis, the declension paradigm of e’tine is contaminated in the neuter by that of ‘eteni, he suspects that there might have been influence working between several forms: in particular, that the /t/ of e’tine is related to a’tos or e’tos, dialectal variants of af’tos.

Tk⁴ eti-νε e’tine, ST eti-νεi, PT tivi-νεe, ντi-νε ‘ndine. Of these, e’ti is used as an animate or inanimate pronoun where MG would drop the pronoun; this even includes dummy pronouns, as in m e’cατεε ˈprexα ‘but it started raining’ (Pernot 1934, 192). Pernot (1934, 210) does not believe enough is known to establish whether e’ti is a truncation of e’tine or not.

ST ęτηνεpι, ęτηνεpηi ‘etineri’, ‘etineri’ is listed by Scutt as a variant of e’tine; there is no reason to doubt ętineri’ < e’tine + o’ri ‘look!’ In fact, the etymology Pernot (1934, 193) gives for it is e’tina ‘that. Fem’ + o’ri > e’tina + ri > ‘etineri’ ‘that.masc’. However, Scutt derives the form as tē:nos > ‘tiner (§3.2.1.2, §3.2.3.2), with the ‘i ending by analogy to other Ancient Greek emphatic pronouns, such as οὗτοςi houtos ‘this very one’, αὐτηΐ haute:i ‘that very one’. Costakis gave a similar derivation for ‘enderi, and both derivations are defended by Liosis (2007, 416). (For ęτηνεpεν ‘etine’, see below.)

PT e’ti-νεi (Costakis 1951, 176; not mentioned in C); presumably from e’tine + o’yi ‘here’, just as with ‘endei above.

PT tήνε ‘tinde, τητά ti’ta. No etymology has been offered, but it is tempting to see in the second syllable a reflex of the definite article / relativiser το to; alternatively, this could be an old analogical remodelling of (e)’tine after *ende and *ete. At any rate, these demonstratives are not common in PT texts.

NT éτρενι ‘etreni < *etneni < étηνενi ‘etine’i (emphatic demonstrative in ST, though not in NT); this is derived by Liosis (2007, 417) from e’tine + the accusative ending -ne, as already seen in nde’ni < ‘endent.” The unpalatalised /n/ is a problem, but may be an analogical formation after ‘eteni and ‘endeni. = The etr- demonstratives are listed under éντενη ‘endeni in C; étẹγεi ‘etendi, étẹγεi ‘etredi and étẹγη ‘eterali are analogous to éντενη ‘endedi, éντην ‘endedi and éντενη ‘enderi. The neuter of NT ‘eterei in Scutt (1912–13, 164) is ‘ekini, which is also the neuter of ST ‘etineri’i; this indicates that the two are cognate. For our table, the conclusion is as follows. Of the Tk demonstratives, ende- and ete-, and possibly eti- demonstratives are related to the unmarked MG demonstrative (and third person pronoun) af’tos; there is a less compelling case for eti- demonstratives being cognate with the distal MG demonstrative ekinos, via D tē:nos. Whether to treat them as matches depends on the choice of MG terms corresponding to ‘this’ and ‘that’. All three dialects of Tk have a distal eti- demonstrative: PT tine is glossed as e’kinos, and the NT phrase éτρεη τιρ ημέρε ‘etrei tir a’mere as ekéinei τις ημέρες “those days” (Costakis 1951, 88) strongly suggests a similar role for ‘etrei, which seems to be the main NT cognate for e’tine. All these forms are taken to correspond to MG e’kinos.

For ‘this’, ‘enderi has been selected for ST; ‘eteni seems to be a much more infrequent variant. The NT phrase μ’ έντενον ογι m’ ęndero o’yi ‘with these people here’ (Costakis 1951, 88) shows ‘enderi (glossed as af’tos) to be equivalent to ‘this’. The main term other than ‘tine used in PT texts is te’ri and that is the form quoted here for ‘this’; Makris (1952, 205), it should be noted, gloses te’ri as ‘tutos. (Costakis never uses MG ‘tutos ‘this’ as a gloss in his work, ⁴C claims e’tine does not occur in NT, counter to Costakis (1951).

⁵In an earlier draft of this paper, I derived ‘etine’i from e’tine + o’ri, with assimilation (‘etinerti is a variant of ‘etimeri); “The unpalatalised /n/ is a problem, but may be an analogical formation after ‘eteni and ‘endeni.” Liosis (2007, 417) rejects this account as convoluted, and I accept his counterproposal: instead of ‘eteni providing a model for analogical adjustment, it provides the simpler derivation.

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and this is very probably ST influence on his MG idiolect, as pointed out by Pernot.) Since the distal scale appears to be weakened in NT and PT, and 'eteri is infrequent in ST, the MG equivalent selected for 'this' here is the unmarked form af'tos, while the MG distal e'kinos is chosen to render 'that'. As a result, all 'this' forms are cognate, and no 'that' forms are cognate (following Pernot in rejecting e'tine < tê:nos).

6. who

| ποιος poios | ποιε(ρ(ε)) 'pie(r(e)), pe(ρ) | ποιο(ρ) 'pio(r), τοι(ρ(e)) 'tso(r(e)) |

Already in IG, ποίος poîos ‘what sort of’ had started displacing τίς tís ‘who’. Pernot (1934, 215) points out that the regular process /pi/ > /ki/ (§ 3.2.3.3.b) did not take place with this word (cf. D πᾷ pâ:i> Tk kia kja ‘where’, cognate with poïos); “Ceci me paraît supposer que le mot est entré en tsakonien à une époque où cette évolution phonétique ne se produisait plus”. In other words, this is probably an MG loan (Scutt 1912–13, 167 concurs), displacing the earlier usage of τσιρ tsir < D τίρ tír ‘who’ (cf. IG τίς tís ‘who’) (§ 3.2.1.2, § 3.2.3.3.b), which survives in PT: τσιρ είρ tsir ir ‘who is it?’ (C)—Costakis (1951, 191) mentions τσιρ as a PT archaism. As a result, all 'this' forms are cognate, and no 'that' forms are cognate (following Pernot in rejecting e'tine < tê:nos).

7. what

| τί ti | τι ti | τοι tsi, τοι tsi, τοι tsi, τοι tsi, τοι tsi, τοι tsi, τοι tsi, τοι tsi |

 Already in IG, ποίος poîos ‘what sort of’ had started displacing τίς tís ‘who’. Pernot (1934, 215) points out that the regular process /pi/ > /ki/ (§ 3.2.3.3.b) did not take place with this word (cf. D π哌 pâ:i> Tk kia kja ‘where’, cognate with poïos); “Ceci me paraît supposer que le mot est entré en tsakonien à une époque où cette évolution phonétique ne se produisait plus”. In other words, this is probably an MG loan (Scutt 1912–13, 167 concurs), displacing the earlier usage of τσιρ tsir < D τίρ tír ‘who’ (cf. IG τίς tís ‘who’) (§ 3.2.1.2, § 3.2.3.3.b), which survives in PT: τσιρ είρ tsir ir ‘who is it?’ (C)—Costakis (1951, 191) mentions τσιρ as a PT archaism. As a result, all 'this' forms are cognate, and no 'that' forms are cognate (following Pernot in rejecting e'tine < tê:nos).

8. not

| οὐ(κ) ou(k) | δεν den | ο o | ο o | δεν den |

 According to C, MT o < AG o variant of οὐ(κ) ou(k) (EMG u(k) ‘not’). Pernot (1934, 295) more plausibly derives o from the Tsakonian process /uʃe/> /o/ (also present in many dialects of Greek: Andriotis 1956): u ’iνι > ’ινι ‘they are not’, u ’ενι > ’ονι ‘he is not’. The exigiencies of the Tk conjugational system have /e/ as the usual vowel before which a negator occurs, so this was generalised at the expense of /u/. MG δεν < AG οὐδέν oudén ‘nothing’ has penetrated into MT, although Costakis (1951, 125) explicitly refers to it as a loan from MG, and it does not appear to have become the unmarked alternative in Tk texts. AG ou(k) did not survive after EMG outside Pontic (kʰi < u’kʰi < uk). NT, ST forms non-cognate; PT form borrowed.

9. all

| πᾶς pâs | όλος ’olos | όλε ’ole, ούλε ’ule | όλε ’ole | όλε ’ole, ούλε ’ule |

 MG ’olos < AG όλος ho’los ‘whole’. All forms cognate.

10. many

| πολλοί polloi | πολλοί po’li | πολλοί po’li, πρεσσοί pres’si, πάσε ’pase | πορ po’o | πορ po’o |

 MG ’olos < AG όλος ho’los ‘whole’. All forms cognate.
ST pre’si < AG περισσοί perissoi ‘too many’; MT ‘paʃu, ’pase < AG πᾶς pās ‘all’, with the declension class regularised to singular *pasos > pase, plural pasi > paʃi. Houpis (1990, 100) names the distinction between NT ‘pafa and ST pre’sa (NEUT.PL.) as one of the main differences between NT and ST. Pernot (1934, 178) explicitly refers to ST pre’si and ‘pase as synonyms; the texts, however, clearly show pre’si to be indeed the unmarked variant in ST: 18 instances of an allomorph of pre’si in Samp, Dict and Har, as against 2 of ‘pase. V po’o < MG po’li, which (as πολύ po’li) is indeed the PT singular of ‘many’ (‘a lot’). According to Costakis (1951, 78), po’lu is the usual, suppletive form for the masculine plural of NT pre’se ‘too many; many’ rather than pre’fu, although the feminine and neuter plural and the singular use forms of pre’se. ST form non-cognate; NT and PT form borrowed.

11. one  |  ἕν  |  ἕνα  |  ἕνα  |  ἕνα  |  ἕνα

Č ena. All forms cognate.

12. two  |  δύο  |  δύο  |  δύο  |  δύο  |  ντύο

Č dwya; Pernot (1934, 502) believes Çelebi or a copyist has conflated the ending of ‘two’ with that of the next word in the list, truywa ‘three’ (tria). No NT form is listed in C, but ‘two’ can be found in NT texts (δι in Dict § 9 ii; ‘dio in Samp § 26.) Of the two forms, ‘dio is emphatic (Pernot 1934, 183); the unmarked form is δι. There are only two instances in PT of AG /d/ > /d/: dúo > ‘dio, and ἐνδύμα > ‘oduma ‘clothes’ (Costakis 1951, 163). All forms cognate.

13. big  |  μέγας  |  μεγάλος  |  ατσ  |  ατσ  |  μεγάλε

MG me’yalos is a morphological levelling of AG mégas, megálou. C places a’tfe only in S, but it is used abundantly in Houpis’ (K) writings. Kisilier (2017, 125) records a’tse for Melana. Tk a’tfe < AG ἀδρός hadrós ‘stout, fully grown’ (C); /dr/> /t/ by §3.2.3.1.a. NT, ST forms non-cognate; PT form borrowed.

14. long  |  δολικός  |  μακρός  |  μακρός  |  μακρός  |  ma’kri(e)

While dolikόs is a good Homeric word, by Classical times makrós predominates: in Plato there are 7 instances of the dolikό stem and 5 of the adjective itself, while there are 94 instances of the adjective makrós, 33 of its comparative and superlative degrees, and 11 other instances of the stem in compounds. This pattern persists in other Attic authors: there are 35 instances of the adjective makrόs in Aristophanes, and 31 in Thucydides, but none in either of dolikόs.

MG ma’kris < EMG mak’rys is morphologically remodelled after pak’ús > pa’xis ‘fat’, bat’ús > va’θίς ‘deep’ (Andriotis 1990 [1983]). ST mak’zu < *mak’rju < *mak’ry is consistent with EMG mak’rys. NT ma’kri(e) DH. NT, PT, ST forms cognate.

15. small  |  μικρός  |  μικρός  |  μικρός  |  μικρός  |  μικρέ

Tk mi’etsi < EMG mi’tsos ‘small’ (cf. Cypriot mi’tsos, Cretan mi’tkos) < D μικκός mikkós, according to Andriotis (1974 §4048; the etymology goes back to Hatzidakis); it still seems safe to treat mikkós as cognate to AG μικρός mikrós. Pernot (1934, 177), on the other hand, considers this implausible, since it would necessitate the palatal stem ending spreading from the feminine to the masculine and neuter forms; he favours viewing mi’tsos as originally a baby-talk form (*mi’tsos en grec commun est un caritatif et vient, je crois, de mikk’ros par une imitation
de la phonétique enfantine.”) Pernot also claims *mɪtsi* is a loan, since the native equivalent of MG /ts/ is /tʃ/ (EMG *angyˈlista* ‘small crooked thing’) > MG *glɪtsa, ST anɡraˈɪtsa* ‘shepherd’s stick’); but the evidence for Pernot’s claim is weak, and at any rate /ts/ is not a cluster of any great antiquity in Greek. Of course, if the baby-talk form was independently innovated in Tk, then the sound correspondence need not obtain, but it is worth noting that standard MG does not have palatoalveolars like Tk. All forms (for want of better evidence) considered cognate.

MT *atˈọpo* < AG * ánθρωπος* *ántrɔ̄pos* (MG *anˈthropos*); AG /tʃ/ > Tk /tʃ/ follows by rule §3.2.3.1.a. Although the adjective *ántʃiko* *andʒiˈko* ‘male, man’s’ < AG *ánθρικός* *andrikόs* exists in ST, the original word for ‘man’, preserved in MG, has been displaced by the word for ‘person’; this development is paralleled in Cypriot. The two reflexes of *ántʰropos* in MT, *ˈathropo* and *atˈọpo*, have become semantically differentiated in ST, with *ˈathropo* meaning ‘person’ and *atˈọpo* meaning ‘man, husband’. While *ˈathropo* is used in ST to denote ‘man’ (επεράτε *eνα *ˈathropo* τόσι δύ* γουνάιτε epeˈrate *eṇa *ˈathropo te di γουˈneka ‘one man and two women went past’: C), this appears to be a marginal development; the unmarked term for ‘man’ in ST is *atˈọpo*. According to Pernot (1934, 163), *ˈathropo* is an MG loan:


In the NT texts I have, there is one instance of ‘man’—*atˈọpo* in Samp §29 (K): πότε να μόλωι οι άτσοίποι! *pote na moloi i aˈtsiˈpi* ‘when were the men going to come!’ Houpis uses *a(n)*θρωπο for ‘person’ and *atˈọpo* for ‘husband’ (*Thus* 60), but never uses the word for ‘man’. Though a sample size of one is slim, one could conclude that in NT as in ST, *ˈathropo* has only occupied the first stage of the cline *person > man > husband*. Since in PT *ˈathropo* is known to also mean ‘husband’, it seems reasonable that it would also mean ‘man’, given the same cline.

Recent data points to *atˈọpo* being used for both ‘person’ and ‘man’: Vyatkina (2015, cited in Kassian 2018) records *atˈọpo* for ‘person’ in Prastos and Melana, and *ˈathropo* only in Tyros, while Kisilier (2017, 129) records *atˈọpo* for ‘person’ in Prastos, Tiros, Melana, and Vaskina, and *ˈanθρωπο* in Tyros and Kastanitsa. If Pernot was correct about the semantic distinction made between the MG and the indigenous form, it was a distinction that did not persist; the indigenous form has picked up both meanings again latterly (as was likely the case before Tk borrowed the form from MG).

In the PT texts I have access to, there is one instance of *άντροι* *andri*’ *men* (*Dict* 11 ii (V) ἀμα σ’ βαλέκαμ’ ού, εμεῖν’, οι άντροι, όσοι *τα ἐτ’ ζώα* *ama s valekam ’uo, e’min, i ‘andri, ‘osi
19. fish  ιχθύς ikhθús | ψάρι psarí | ψάρ(ι) psar(í) | ψάρ(φ) psar(φ) | ψάρι psari

‘psari is derived from the διμ. ὄψαριον opsarión of ὄψον ópsion ‘snack’. Kislièr (2017, 128) records the variants ‘psariyí (Melana), ‘psarí (Melana), ‘psara (K). All forms cognate.

20. bird  όρνις órnis | πουλί pu'li | πουλί pu'li | πουλί pu'li | πουλί pu'li

‘pu’li is the διμ. (pu’lion) of a Latin borrowing (pullus). All forms borrowed, given that the MG word is borrowed.

21. dog  κύων κύων | σκύλος ‘skilos | κούε ‘kue | κούε ‘kue | στόύλε ‘stule | στούλε ‘stule

MT ‘kue < AG κύων κύων ‘dog’; after considerable discussion, Pernot (1934, 112–113) cannot justify the /e/ ending of ‘kue, as the expected reflex would be *’kuu > *’ku (cf. gερν > ’yera ‘old man’). The form as it stands suggests a morphological remodelling to *’ko > *’kuer, as Hatzidakis (1990 [1907], 585) had suggested; but there is no preceding coronal or front vowel to justify raising /o/ to /e/.

MG ‘skilos < AG σκύλας skúlaks ‘puppy’. Pernot (1934, 380) identifies Leonidio ‘stile (palatalising /k/) as meaning ‘whelp’, and describes it as “d’importation récente.” Words derived from ‘stile are attested in C only for PT; their MT counterparts are derived from ‘kue, e. g. Η στούλενγο ‘to become angry as a dog’ vs. ST κουνένγο ‘to become angry as a dog’ (M, T), ‘to idle’ (P). (The verb is unknown in NT: Pernot 1934, 354). Furthermore, there are 12 instances of ‘kue in the main ST texts — Samp, Dict, and Har — with no instances of ‘stile; so ‘kue remains the basic term for ‘dog’ in MT. All the same, the MG term has made its presence known, and indeed the only forms for ‘female dog’ Costakis knew were based on it (‘tila, ‘steia), while Deffner’s κουνάρα ku’nara ‘female dog, peevish woman’ was to Costakis only an augmentative. NT, ST forms non-cognate; PT borrowed from MG.

22. louse  ϕθείρ phθeír | ψείρα ‘psira | ψείρα ‘psira | ψείρα ‘psira | ψείρα ‘psira

For ‘psira instead of the expected reflex ‘ftira, Hatzidakis (1989 [1905], 172) sees the influence of ‘psilos ‘flea’; ‘ftira is attested in Cyprus, Southern Italy and the Pontus. All forms cognate.

23. tree  δέντρον déndron | δέντρο ‘dendro | δέντρο ‘dendro | δέντρο ‘dendro | δέντρο ‘dendro

ST δενδζι’ko < AG δενδρίκον dendrikón ‘tree-like (neut)’; cf. EMG ονικόν oni’kon ‘donkey’ < AG ὄνικον onikón ‘donkey-like (neut)’. Kislièr (2017, 126) adds ‘dendri for Melana (which would be the MG equivalent of ‘dendzi). All forms cognate.
24. *seed*  

| σπόρος spóros | σπέρμα σφέρμα | σπόρος ’sporos | σπόρε ’spore, πουρε ’p’ure, Πράμα σπερμά | σπόρε ’spore |

Of the two AG words, *spóros* refers primarily to the act of sowing; the two terms, however, are clearly cognate. In Plato, *σφέρμα* is clearly the dominant term: there are 27 instances of the word, as against 1 of *spóros*.

ST *’p’ure* is cognate with MG *’sporos* < AG σπόρος spóros; the process /sp/ > /p/ word-initially is regular in Tsakonian, and there are only a couple of cases where a word-initial /sp/ can be ruled out as being a later development — most notably the word for ash, σποια spo’ia (but also ποια p’o’ia in Leonidio). Tentatively, the NT and PT forms should be treated therefore as loans, displacing earlier *’p’ure* (cf. the cognate word ‘sow’: PT σπείρω spireō, NT σπειρω ’spiru, ST πείρου ’piru.) ST *’p’rama* ‘seed; sperm; silkworm egg’ < *’sparma* (cf. AG σπέρμα σφέρμα ‘seed; sperm’). Kisilier (2017, 128) adds *’piratsi* (Melana) as a cognate of *’p’rama*; but this is clearly the Tk counterpart of MG *spi’raki* (dim) ‘pimple; seed’ < AG *spyro’s*.

It is impossible to tell which of the three ST forms is basic; the evidence of *’pira* strongly suggests *’spori* is a recent loan — and indeed, the examples given in C suggest the primary meaning of *’spori* in ST is ‘the act or season of sowing’, with its cognate *’p’ure* used to mean ‘seed’, ‘shoot’, or ‘pimple’. There is only one instance of any of these words in the available ST texts, *’p’rama*, in the meaning ‘silkworm egg’ (Samp §17). Haralambopoulos (1980) cites *’p’rama* frequently in his phonetic study; but that is because it forms a neat minimal pair with τράμα *’p’rama* ‘thing’. At any rate, all three ST words are cognate with *’sporos*; since *’spori* is unlikely to be the ST basic term, ST is considered not to have borrowed its term.

25. *leaf*  

| φύλλον p’óllon | φύλλο filo | φύλλε ’fili | φύλλε ’fili |

The unpalatalised /l/ in ST *’fili* points to *’file*, preventing the palatalisation. Kisilier (2017, 127) records the MG-looking forms *’filo* (Prastos), *’fio* (Melana) alongside *’fili* (including in K). All forms cognate.

26. *root*  

| ρίζα ρίζα | ρίζα ’rizza | δίντα ’jinda | δίντα ’jinda | ρίζα ’rizza |

ST *’jinda* < *’riza*; for consonants, see §3.2.1.4, §3.2.2.2. NT οίντα DH (without diacritics). Kisilier (2017, 127) records *’rize* (Melana), *’riza* (Kastanitsa) alongside *’jinda*.

27. *bark*  

| φλούδος p’loúos | φλούδα ’fluða | φλούδα ’fluða, φρούλα ’frula | φρούλα ’frua |

MG *’fluða* < φλούδον φλυδίον < p’loúdion, dim. of φλούς p’loúos ‘reed’. PT *’petsi* ‘bark’ < *’skin’. PT normally drops /l/ before back vowels. Kisilier (2017, 127) records only *’fruða* in Vaskina, and *’fluða* in Prastos, Vaskina and Kastanitsa; as often is the case, the forms he records as currently in use are far closer to MG.

28. *skin*  

| δέρμα dérma | δέρμα ’derma | πετσί ’petsi, τοπέ τ’sepa | πετσί ’petsi, τομάζ το’mazi, τόπε τ’sepa |

Tk *’petsi* < EMG πετσίν πετ’σιν, dim. of Italian *pezzo*. Both *’pettsi* and *’tomari* are also extant in MG; the latter as ‘hide’ (a meaning also suggested by C’s examples: το τομάζ ἕνι θέντα ἄκισμα to to’mazi ‘eni θ’enda ’akisma ‘the hide needs salting’; θα ντι μπάλου το τομάζ θα ντι ’mbalu
to to'maζi ‘I’ll skin you alive!’). It seems pe'tsi was the normal MG word, before it was displaced by the reintroduction of ἀγρίμι < AG δέρμα δέρμα through Puristic Greek.

'teepa is given in C with the second meaning ‘skin’, and Deffner (1923) defines it as ‘human skin’. Deffner gives the fanciful derivation < AG sképe: ‘covering’, but Pernot (1934, 376) objects that that would give *stsepa or *s:epa. The primary meaning ‘milk skin’, and the metaphorical meaning ‘shame’, Pernot concludes, make it clear that these are merely cognate to MG *tsipa ‘milk skin, (fig.) shame’ < Bulgarian tsipa ‘membrane, film’, with ‘human skin’ a secondary development within Tsakonian. Kisilier (2017, 127) records *derma in Prastos and *zerma in K, and *petsi in Melana; he further records *mazi in Tiros and Vaskina, and speculates it is derived from MG mu’lari ‘mule’ (though it is tempting to see a reanalysis of to'maζi as to'mazi, with to the definite article). All forms borrowed, given that both *tsipa and *petsi are themselves loanwords in MG.

<table>
<thead>
<tr>
<th>29. flesh</th>
<th>κρέας krέας</th>
<th>κρέας’ kreas</th>
<th>κρίε krie</th>
<th>κρίε krie</th>
<th>κρέα krea V, κρίε krie</th>
</tr>
</thead>
</table>

In MG kreas means ‘meat’, while sarka (perpetuated through ecclesiastical usage) means ‘flesh’ as opposed to ‘soul’; both are used for human flesh. The ‘meat’ definition has been assumed. NT krie unlisted in C, but given as declension paradigm in Costakis (1951, 75). krie has been morphologically remodelled from *kreas (a restricted declension paradigm) to *kreo (/o/ to /e/ by §3.2.3.2., /e/ to /i/ by §3.2.3.7). There are only two instances of the word in the PT corpus (Samp §35); both are krie. Since furthermore C claims krea is limited to Vatka, the PT form is considered here to be krie. All forms cognate.

<table>
<thead>
<tr>
<th>30. blood</th>
<th>αίμα haîma</th>
<th>αίμα’ ema</th>
<th>αίμα’ ema</th>
<th>αίμα’ ema</th>
<th>αίμα’ ema</th>
</tr>
</thead>
<tbody>
<tr>
<td>31. bone</td>
<td>ὀστέον ostéon</td>
<td>κόκκαλο’ kokalo</td>
<td>κόκκαλε’ kokale</td>
<td>κόκκαλε’ kokale</td>
<td>κόκκαλε’ kokale</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>32. grease</th>
<th>λίπος lipo, λίπος’ lipo, ἀλαορφή aloīpʰ:;</th>
<th>ξίντζι’ ksindzi</th>
<th>ξίντζι’ ksindzi</th>
<th>λίπος’ lipo</th>
</tr>
</thead>
</table>

Of the two terms given for AG, aloīpʰ: is a nominalisation of ἀλείφω aleίpʰ: ‘to smear’, and refers generally to anything smeared, including ointment, unguent, and varnish. Of the two terms given for MG, lipos corresponds more generally to ‘fat’, and is probably a Puristic reimportation into MG, while kśniği refers specifically to cooking fat. A grey area both for cooking fat / grese — although MT ‘ksindzi has no such restriction: ὀλον ξίντζι ἐκ έντεν ο βούλε π’ εὐθύμησε ὀλω ςκίνδζι εκί enendi o ‘vule pʰ ε’θικαμε ‘that rooster we slaughtered was all fat’. MG kśniği < Latin axungia; the presence of initial /ks/ in ST ‘ksindzi and the absence of /u/ strongly suggests this is a loan from MG, and not an independent reflex of axungia, despite the normal palatalisation of the velar. NT ξίντζι. DH. Kisilier (2017, 126) records only the more MG-like kśnigi, kśniği.

<table>
<thead>
<tr>
<th>33. egg</th>
<th>ωῶν ωːion</th>
<th>αβγό av’go</th>
<th>αβ(ou)/ιγό av(u/i)’go</th>
<th>αβουγό avu’go</th>
<th>αβ(ou)γό av(u)’go</th>
</tr>
</thead>
</table>

Ά augo, corresponding to MG auogo (mistakenly swapped with the Tk form?) Kisilier (2017, 129) records MG av’go for NT, and avu’go for ST. According to Hatzidakis (1990 [1907], 322), το av’ya ‘the eggs’ < *tav’a < *tau’a < *ta o’a < AG τά ωːion. Tk forms involve epenthesis on a form which does not fit with Tk phonology, and the dissimilation *tav’ya (which is not fully explained by Hatzidakis) is unlikely to have been independently arrived at in Tk, particularly as the hiatus consonants there are /z/ and /v/ (§3.2.3.5). There is no u’vo stem in Tk which might point to an independent survival of ωːion; the form οὐγια οὐγια [ˈyuˈja] ‘selvedge’, present in both Tk
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and MG, has been traced to *iá by Deffner and Andriotis (citing Koraes); the Turkish oya 'fringe' is more obvious, as Pernot (1934, 364) points out, although oya itself has been traced by Koukoules (cited in Andriotis 1990 [1983]) back to EMG ούια 'iá. At any rate, 'iya too is a MG phenomenon, and whether it has anything to do with *iá or not, it does not represent an independent Tk survival. All forms borrowed from MG.

| 34. horn | κέρας κέρας | κέρατο 'kerato | τάδερατε 'tecerate | τάδερατε 'tecerate | τάδερατε 'tecerate |
| 35. tail | ουρά ουρά | νουρά ν'αρ | νουρά ν'αρ | νουρά ν'αρ | νουρά ν'αρ |
| 36. feather | πτερόν pterón | φτερό 'te're | φτερέ 'te're | φτερέ 'te're | φτερέ 'te're |
| 37. hair | θρίκ ρίκς, κόμη | μαλλία ma'lia, τρίχα 'trixa | τάχια 'faxa | τάχια 'faxa | τρίχα 'trixa, μαλλία ma'lia |

MG *kerato < AG κέρας, κέρατο κέρας, κέρατο. Kisilier (2017, 128) adds *tēpi (Vaskina), etymology unknown. According to Deffner, *tfoxane < AG τρώξανον τρόξ ανον 'twig', τρώξανα traúksana 'dry chips'; ST *tfoxane means both 'horn' and 'twig', and Pernot (1934, 380) mentions a similar polysemy for French le bois. It is difficult to tell whether *tfoxane or *tecerate is the older form in ST. *teera preserves the AG nominative κέρας κέρας, and displays the normal palatalisation of /k/, while *tecerate, like MG *kerato, has been morphologically regularised: *tecerate < *'kerato; but this does not mean *tecerate is a loan from MG. *teera has been semantically expanded to include 'carob' (parallel to MG χιλοκέρατο ksilo*kerato 'wood-horn = carob') and a legume disease. Pernot (1934, 71) glosses the plural *tecerate as MG χαρούπια 'carobs'; this implies strongly that 'carob' is the primary meaning of ST *tecerate.

*tfoxane also means 'twig' — and the etymology suggests this to be the original meaning. Both terms show up in Melana proverbs: *teera in φάε νι εκιού να μπάλερε το τάδερα *fiae ni e'kju na 'mbalere to *teera 'you should eat it, so you can get the horn out', and *tfoxane in κα τα δώχανε σ εμποίηθερε κα τεε *tfoxane s em'bitere 'you did it well and horns (i. e. not at all well)'. *tecerate has given rise to τάδερατα *teera'ta 'cuckold' (cf. Italian cornuto), also present in MG (κερατάς kera'tas), and the words for 'carob tree, carob leaf', and 'small carob'; *tfoxane has given rise to τάδοχάνε τό'xani 'small horn', and τάδοχα(ο)νία tadowa(ο)nia 'big-horned'. The fact that *tfoxane has been more lexically productive than *tecerate suggests that it is the ST basic term; furthermore, there are two instances of *tfoxane in ST texts (Samp §7, §10), but none of *tecerate. We have no evidence to suggest *tfoxane is also used in NT. ST form not cognate; NT, PT forms cognate.

Tk nu'ra < EMG nu'ra < AG oυρά ουρά; by metanalysis. This process can be seen at work in Pernot's (1934, 25) transcription of a story by Costakis: there are 6 instances of 'tail'; one is the nominative a nu'ra, but the other five are accusatives with a preceding /n/: tan ura 'the tail', mitc̄an ura 'small tail'. NT voura DH. Kisilier (2017, 129) records MG 'ura alongside nu'ra; he also records nurale in Prastos. NT, PT, ST forms cognate.

Of the AG terms, *triks refers to both single hairs and (in the plural) hair on the head; kóme: refers only to the hair on the head, and is described by Woodhouse (1979 [1932]) as occurring in Plato but rare in other Attic prose. Text counts are ambivalent on this: there are 5 plural instances of *triks in Aristophanes against 7 of kóme:; but 11 plural instances of *triks in Plato against 3 of kóme:. MG 'trixa < AG θρίς, τριχός *triks, trikó's.
Kisilier (2017, 126) records ‘*tsixe, *tsixα for Melana. MG ma’lja, plural of μαλλί ma’li ‘hair, wool’ < μαλλίον ma’lion < mallion, διμ. of μαλλός mallós ‘flock of wool’. Of the two MG words, ma’lja refers to the hair on one’s head (French chevelure), while ‘*trixa refers to individual hairs. While derivatives of the singular of ma’lja, μαλλί ma’li, exist in Tk (μαλλίακου ma’lía ‘grow hair’, μαλλιαρέ ma’lare ‘hairy’), ma’lja according to C exists only in PT, and even there predominantly refers to wool. (Kisilier, 2017, 112 also records it in K, under recent MG influence.)

The examples given in C for *‘tsixa indicate that it has been extended to cover chevelure: κόψε τού τύχα ντι, π’ εξακάι τάσ’ τουρ εψού ντι ‘kopse tu’lisha ndi, ph’ e’zakai tas tur ep’su ndi ‘cut your (hair), which has gone into your eyes’; του τύχε ντι ν’ άγκαι τα πουλία τυ ‘lisha ndi s’ anagia ta pu’ilia ‘the birds have taken your (trixa) away’ (said to a bald man, glossed in MG as ma’lja). See also the example given in the definition in C of πλεξίδα ple’ksida ‘braid of hair’: Ν πλέχα μα τα μαλλία μ’ πλεξούδε ‘plexa ma ta ma’lia m plek’sude, M ‘eni préga tou τóixhe (PL) μ’ πλεξούδε ‘epi’preya tu’lisha mi plek’side ‘I am braiding my hair into tresses’.

The conclusion seems to be that ‘*lisha covers the function of both ma’lja and ‘*trixa in MT, with ma’lja either reintroduced into PT from MG, or more likely constituting a PT archaism. This is because of the archaic stress in ma’lja < EMG μαλλία ma’lia, as opposed to MG [ma’lā]; the retention of word-final /ia/ is characteristic of other archaic dialects, such as Maniot and Old Athenian, but not of Thracian, the MG dialect PT was in contact with. In the context of the word-list, the chevelure definition seems to be what is intended; therefore NT and ST must count as non-cognate, and PT as cognate, although not borrowed.

PT tse’fala < MG κεφαλά κεφ’αλά, augmentative of κεφάλι; the final vowel and gender change implies κεφάλι is the etymon for all variants of ‘head’ other than tse’fali (C). ST tsu’fα < *tsu’fa < NT tsu’fα, as ST drops /l/ before back vowels. For /ts/ instead of /tc/ before a front vowel, see discussion on rule §3.2.3.3.a; Deffner recorded the form as ST τζουφάλα NT τζουφάλα tsu’fα, and Pernot (1934, 114) recorded tsju’fα in Tiros; Kisilier (2017, 126) records tsu’fα, tsu’fα in Tiros. Pernot (1934, 112) believes this is related to the occasional development in Tk of AG /i/> /ui/, comparing it to Southern Italian Greek ciofi/ali /tso’fali/. All forms cognate.

MT avu’tana< a avu’tana ‘the ear’ < *a vu’a’tana < *vu’a’tani < *wu’ata + νι ‘it’< D oúata oúata ‘ears’ (C). The derivation C gives is somewhat stretched (particularly with the suffixing of νι), but the relation between avu’tana and oúata seems plausible enough. MG aftfι < AG ωτίον o’tion, διμ. of oùc oús ‘ear’, through tά o’tia ‘the ears’ > tautia > taftia > ta aftfia [taftja] (Hatzidakis 1990, 1907), 321–322); the word is cognate with D oúata (cf. AG plural oúta o’ta.) All forms cognate.

Of the two AG forms, op’t’almós is barely predominant over ómma: there are 72 instances of op’t’almós in Plato as against 58 of ómma, and 82 of the op’t’alm stem against 60 of the ómma stem. Adding Aristophanes and Thucydides, this becomes 93 instances of the word op’t’almós (and 112 of the stem) against 70 of the word ómma (72 of the stem). The two forms are ultimately cognate, both derived from PIE *ouk ‘see’; ómma< op (reflex of *okw) + ma ‘nominaliser’, and op’t’almós< PIE *okuph- with ‘expressive aspiration’ of the expected /pt/ to /pʰt/ (so Pokorny).
Ç epsile; the form εψίλλε ep'i'le is also given for NT in Scutt (1913–14, 27) and Costakis' (1951, 32, 45) NT grammar, and is recorded for K by Kislier (2017, 126), but is not recorded in C. The palatalisation is consistent with NT (§3.2.4.5). MG 'mατι< AG όματιον ommatión, dim. of ómma. Tk psi'le < D ὀπτίλος op'tílos 'eye'. As Pernot (1934, 74) notes, the form op'tílos 'escaped' the older palatalisation /ti/> [tj] > [ci], undergoing instead the later palatalisation /ti/> /tsi/. The initial vowel is dropped in the citation form through hiatus: nominative o ps'i'le, accusative ton ep'si'le (Pernot 1934, 171). In C, initial /e/ is only listed for accusative forms, where it is for the most part optional. D op'tílos is cognate with ómma (and indeed op'tívalmóς), being derived from *oky-. All forms cognate.

41. nose  ὀνυχος ρύγκος | μύτη 'miti | ὀφύκο 'fûko | μύτη 'miti

No AG etymon for 'miti < EMG 'mytis (AG *műtis) has been convincingly identified, but it appears to be cognate to such words as μυκτήρ muktî'r 'nostril, nose, snout' and μύξα mûksa 'mucus'. ST 'fûkço< AG ρυγκος ρύγκος snout, beak'. Consonants by §3.2.2.2, §3.2.3.1.c. NT σουκο DH (no diacritics indicated). Kislier (2017, 128) gives the variant 'sukço for Melana. ST form non-cognate; PT form borrowed.

42. mouth  στώμα stôma | στώμα 'stoma | τούμα 'tûma | τούμα 'tuma | στώμα 'stoma, | τόμα 'toma

There are two possible derivations for Tk 'Þtûma. The first is from AG stôma 'mouth'; /st/> /tʰ/ is normal for Tk, but one would have to explain /o/ > /u/, which occurs sporadically in Tk. The second is D τούμα tou'ma 'mouth' (C), presumably cognate with stôma 'mouth'. This does explain /u/; now it is the change /t/> /tʰ/ which would have to be explained. As Mirambel (1960, 58) points out, /t/> /tʰ/ is characteristic only of PT, and not of MT (§3.2.3.6); so stôma is the least problematic etymon. (It is possible, as Pernot (1934, 127) hints, that Hesychius' tou'ma is in fact Proto-Tsakonian 'Þtûma, in which the aspiration of /st/ has already taken place.) All forms cognate.

43. tooth  όδος odoús | δόντι 'dondi | όντα 'onda | όντα 'onda | δόντα 'onda

MG 'ðondi < όδοντον o'dondion < odóntion, dim. of odoús, ódontos. The MT forms presumably by *o'donta > *o'onda > 'onda. All forms cognate.

44. tongue  γλώσσα gló:ssa | γλώσσα γλôsa | γφούσσα γρûsa | γφούσσα γρûsa | γλώσσα γλôsa

NT γρûsa unattested in C but used abundantly by Houpis (in the meaning 'language', at least.) All forms cognate.

45. claw  όνυχων onûks | νύχη 'nixi | νύχη 'nixi | νύχη 'nixi | νύχη 'nixi

MG 'nixi < όνυχον o'nyxion < onûkê'ion, dim. of ónûks. The failure of /u/ to retain its archaic pronunciation in Tsakonian (*'nuxi) in a context where this normally occurs (cf. AG núks, nuktós> 'nuita 'night') renders these forms suspect.

46. foot  πούς poûs | πόδι 'podi | ποῦα 'pua | ποûa 'pua | pa ra, òa ra 'a

MG 'podi < πόδιον pódion, dim. of póûs, ποδός poûs, podós. ST 'pua < *'poda < EMG pódas podas; intervocalic /o/ regularly drops out in Tk. C lists the dim. pói pui for NT (cognate with MG 'podi, although the latter has lost its dimutive force), but does not list 'pua; however, 'pua is used by Houpis (Thus 24). /o/> /u/ is conditioned by the preceding labial. All forms cognate.
47. knee | γόνυ γόνυ | γόνατο γόνατο | γόνατε γόνατε | γούνα γούνα | γόνατε γόνατε

ST ‘yuna is a back-formation from ‘yunata ‘knees’; this back-formation is also present in other dialects of Greek (Hatzidakis 1990 [1907], 15). /o/> /u/ is conditioned by the preceding velar. Kisilier (2017, 127) records only ‘yonata for Prastos and yona’tε for Melana and Kastanitsa. All forms cognate.

48. hand | χέρι χέρι | χέρα χέρα | χέρα χέρα | χέρα χέρα | χέρα χέρα

MG uses a diminutive. All forms cognate.

49. belly | γούνα γούνα | κοιλία κοιλία | φούκα φούκα | φούκα φούκα | φούκα φούκα

Of the AG terms, gastér is etymologically primary, while koilia literally means ‘hollow’. The terms are fairly evenly matched in Attic: 7 instances of koilia in Plato against 5 of gastér; but including Aristophanes and Thucydides, 18 of koila against 26 of gastér. (Counting stems, there are 19 instances of the koili stem — unlike MG, koil itself cannot mean ‘belly’—against 43 of gastér.)

Ç fivqa. Kisilier (2017, 126) records fuka for K. Tk ‘fuka < D φύσκα pʰũska: ‘belly; and the large intestine’; IG φύσκη pʰũskē: ‘large intestine; blister’. (Liddell-Scott-Jones Lexicon considers the use of D pʰũska: to mean ‘pot-belly’ “probably a nick-name.”) Note that φοῦσκα-fuska, a reflex of pʰũskē:, is extant in both Tk and MG with the meaning ‘bubble; cyst; blister’. Presumably, the latter form became differentiated from the earlier within Tk as was the case with ἀτφορο ‘husband’ and ἀθρόπο ‘man; person’. No forms cognate.

50. neck | τράχηλος τράχηλος | λαιμός λαιμός | λαμά λαμά | λαμά λαμά | λαμά λαμά

MG le’mos < AG λαιμός laimós ‘throat, gullet’. All forms cognate.

51. breasts | στήθος στήθος, μαστός μαστός, στέρνον στέρνον, κόλπος κόλπος | στήθη στήθη, βυζά βυζά | στήθη στήθη, βούζια βούζια | στήθη στήθη, βούζια βούζια | αστήθα αστήθα, βουζιά βουζιά

Of the AG terms, sté:thos and stérnon refer to the breast or chest, mastós specifically to a woman’s breast, and kólpos to a bosom or lap. Of the two MG terms, stíthos corresponds to ‘breast’, while vižja specifically refers to a woman’s or female animal’s breasts; while it is now marked as vulgar in MG, it appears to be the basic vernacular term corresponding to ‘breasts’.

Kisilier (2017, 126) adds ma’stari for Melana. Of the Tk terms, ‘stithi seems to be a recent loan. Its normal reflex would have been *[cʰiθe], although the Tk singular stíthi is a back-formation from the EMG plural stíthη stíthi. Nevertheless, the plural is characteristically MG, not Tk, and Pernot (1934, 173) concludes on that basis that the form is “probablement un emprunt.” Given that vižja has been chosen as the basic term, all forms are cognate. The NT and PT forms display AG /u/ > MG /i/; however, Tk itself is inconsistent in retaining AG /u/, so the NT form need not be a loan. NT ‘stithi: Thus 65 (referring to man’s breast).

52. heart | καρδία καρδία | καρδία καρδία | καρδία καρδία | καρδία καρδία | καρδία καρδία

Scutt (1913–14, 27) gives the form καρδία kor’dia once, but four instances of καρδία kar’dia. Normally AG /rd/ goes to /nd/ in Tk (§3.2.3.1.g); furthermore, /ð/ does palatalise into /v/ in Tk, although there are not many examples of this. On the other hand, the failure of -ia to reduce to yod indicates this is not a recent loan. All forms cognate.
53. **liver** | ἡπαρ **κη]** par | συκώτι si'koti | ὀκώκα ſkoki | ὀκώκα ſkoki | συκώτι si'koti

The post-classical forms are derived from the collocation ἡπαρ συκωτόν ἰνο 'livered liver', in the same way as the equivalent Latin collocation *icur ficitum* gave rise to the Romance words for 'liver'. The ST form is the normal Tk reflex of *si'koti* (§3.2.3.8); the PT form seems to have been reborrowed from MG. NT σκώκι DH; no diacritics indicated, though the pronunciation 'skoki' may be possible under MG influence. Kisilier (2017, 128) gives *fi'koki* for Prastos and Kastanitsa, *si'koki* for Melana, *'skoki* for Tiros and Vaskina. All forms cognate.

54. **drink** | πίνω πίνο | πίνω 'pino | πίνου 'pino | κίνου 'kinu | πίνο 'pino

The ST form is the normal Tk reflex of *pino*; the palatalisation of /pi/ does not seem to have taken place in NT, so the NT and PT forms have not necessarily been reborrowed from MG. On the other hand, -*inu* verbs in Tsakonian are generally recent loans; Pernot (1934, 272) suspects the Tsakonian form was originally *'piu*, through analogical remodelling which had eliminated the -*inu* verb class, and that *'kinu* is a more recent, phonologically assimilated importation from MG. All forms cognate.

55. **eat** | έσθιο est'iο | τρώω 'troo | τάγου 'tju | τάγου 'tju | τρώ(γ/χ)ω 'tro(γ/χ)ο

Ἀ παρ 'that you eat' (suppletive aorist, Tk 'faere, MG fas). MG *tRO(y)O < AG τΡΩ<Ο τΡΟ:GO: 'to chew'; the verb is already used in its new meaning in the Gospel of Matthew. ST /tʃ/ is the normal MT reflex of *tr/ (§3.2.3.1.a); however, the process does not seem to operate in PT, which consistently retains AG /tr/. Since Ç records 'three' (MG τΡΙΑ, ST τΘΙΑ) as trWYA, this is probably an archaism, rather than a loan from MG. NT /tʃ/ e. g. Houpis (1992, 12): Εινι τουουντα σανε; 'ini 'tʃunda sa'ne 'do they eat hay?' Kisilier (2017, 126) records the variant *'tʃu* for Tiros, Vaskina and Kastanitsa. All forms cognate.

56. **bite** | δακνω δάκνω: | δαγκόνο δα'gonο | δαγκόνου δα'gonu S | κατοίνου ka'cinu | δαγκόνο δα'gono V, γατοίνου ga'cinu

NT, V δα'gono is explicitly annotated by C as an MG loan. Kisilier (2017, 127) records ta'tsinu for K. According to Pernot (1934, 350), the metathesis /tsak/ > /kats/ is commonplace; as an etymology, Pernot (1934, 252) suggests MT κατοίνου 'break' < SMG τσακώνο *smash* < possibly EMG τσακίνο 'pen-knife'. He derives Deffner's ka'tsinu by metathesis from τσακίνον *tsa'kinon*, a variant of MG τσακίζο *tsa'kizo* 'break'. However, the /tc/ of ST PT point to *ka'kinon* not *ka'tsinon*—"ce qui complique le question." What seems to have taken place is that the metathesis form *ka'tsinu* (which may indeed still have been extant in Deffner's time) was influenced by its still current etymon, which would have been palatalised to *tsa'cinu*. Alternatively, *ka'tsinu* may have been reanalysed to *ka'kinu* [ka'cinu] as a sort of assimilation, given that /ts/ is not a very common etymological phoneme in Tk.

Elsewhere, Pernot (1934, 350) suggests ka'cinu < δάκνω: via consonant metathesis; that account is not much more convincing.

Liosis (pers. comm.), in his contribution to the *Cognacy in Basic Lexicon* project at the Max Planck Institute, Jena, has tentatively proposed *καταδάκνω *kata-dak-no: 'to bite down' > *ka-dak-in* (remodeled present) > *ka-ak-inu* (§3.2.3.4) > *kakino > katecino.

Since H is the reference dialect for PT and da'gono is unattested there, the PT form is non-cognate; the NT form is borrowed from MG. If we accept Liosis’ etymology over Pernot’s more problematic derivations, ST is cognate.
According to C, MT 'niu < AG vō o no: 'perceive'. But this verb already has the reflex ST vō o no' u, PT vō vō no' yō 'feel, understand, remember', which is cognate with MG vō vō no'o (high register) and vō vō no' ya (colloquial), and which is a much better semantic and phonetic match for AG no: . (no' u may well be an MG loan.) Pernot (1934, 277) points out a suitable cognate for 'niu would be MG vō vō thō ni'o bo fe'el < vō vō no'n o (morphologically remodelled) < εννοia 'enia 'care, meaning'; however, the obvious reflexes in Tsakonian would have been *ni'azu > *nandu. (The verb ending thu in Tk, as discussed for 'burn', is problematic.) What Pernot considers likeliest is that ni'o no > *'nuk'u, e'nuka 'I feel / hear, I felt / heard' was influenced by its semantic match o'ru, o'raka 'I see, I saw', giving the aorist e'naka, which corresponds to the present tense 'niu (the aorist suffix 'jaka corresponds to the present 'iu.) In ST, a'ku is present in the imperative áko 'aku, áko 'ako. NT, ST forms non-cognate; PT form borrowed.

Of the AG terms, oída is originally the perfective of the verb *eîdoi/eîdo eidô: ~ wido: 'to see', which survived into Classical Greek only in the aorist eîdoi eîdon (so still in MG: eîda 'ida.) This form clearly predominates in AG: for the first person present indicative, Plato uses oída 139 times, epistamai 30 times, and gignô: skô: 10 times; Aristophanes uses oída 28 times, epistamai 6 times, and gignô: skô: once. EMG ηεύρω i'ksevρ ( < ? AG ηεύρω ekseuvρ: 'find out') > MG 'ksero.

While 'ksero is clearly the unmarked form for 'know' in Tk (26 instances in Samp, Dict and Har, and the reduced form óga 'oksα for 'I don't know' in ST), it is just as clearly borrowed from MG, since /ts/ is the native reflex of AG /ks/. NT 'ξэpу DH. All forms borrowed from MG.

Å tjupse 'sleep!' ( = kjuipse). Of the AG terms, kat'euð: is clearly predominant. Plato uses kat'euð: 32 times against koinô: mai 11 times and heûd: 6 times, while Aristophanes uses kat'euð: 32 times, koinô: mai twice and heûd: 4 times. MG kî'mame < AG kou'mai koinô: mai.

ST 'kjufu' 'sleep; lie' < AG κύπτω káipto: 'to stoop'; the verb also turns up in Corsican Maniot (Pernot 1934, 285). Tk ka'sti(k)u 'I sit; I sleep (present) < kou'ska ka'ska 'I sat; I slept (aorist) < AG kathîξo kat'îza: 'I sit'. The texts show 'kjufu to be the unmarked form in ST: 9 instances in Dict, Samp and Har, with none of 'kasu. Scutt (1913–14, 18) records the form ηουφτά tjuf'ta for Leonidio, and Pernot (1934, 351) also reports [tvuf] for Costakis. This would normally indicate
an etymon of τύπτω túptɔ: (which in AG means ‘to strike’, and which in fact has the Tk reflex ‘tifu ‘to push’), but it seems that, since [v] and [c] were in free variation at the time, the process [v] > [c] could be reversed.

NT form only attested in passive past participle in C. Houpis uses pra’yjazu (Mal §25; Thus 36), also attested for NT by Scutt (1913–14, 27); Pernot (1934, 351) also noted that his Kastanitiot consultant used pra’yjazu instead of ‘kjufu. ‘kjufu does in fact turn up in NT (Costakis 1951: 141; Mal §8 kouψψμο ‘kjupsimo ‘lying down’), but ‘sleep’ is overwhelmingly rendered as pra’yjazu (9 instances in the corpus, as against 2 of ‘kjufu.) NT pra’yjazu, PT pla’yjazo ‘to lie down; to sleep’ < MG pla’yjazo ‘to lie down’ < AG πλάγιος plágios ‘sideways’. ka’sio – ka’siko is the only stem used in PT for ‘sleep’ (13 instances); a rather neat instance of ambiguity is given in Samp §12v: Μα’αργατινά κασσήγκοντε τανι το τάκι, ο γέρο με τα γαρία, τία το καβύ καπότα τανι, το παλικάρ με αργατηνά ka’singonde tani sto’dzaki, ο’γερο με τα γραία, τεε κε ταν’yi κασ’ota tani, to pali’kar ‘one evening the old man and the old woman sat by the fireplace, and the lad slept, the young man’. No forms cognate.

61. die ἀποθνήσκω apo’thēniskɔ: pεθαίνω pethaino pενάκου pe’naku ɹ pεθαίνω pethaino pe’naku

MT pe’naku/u < *peθ’nas’kon (θν/ > /n/ characteristic of Tk avoidance of clusters; see Pernot 1934, 257) < *pet’nás’kɔ:n < AG ἀποθνήσκω apo’thēniskɔ: ‘die’. While there is a temptation to see in the /a/ of *peθ’nas’kon a Doricism, by equivalence with AG /e:/, Pernot considers it more probable this is an analogical development from the past stem *peθan- < apeθan-. MG, PT peθeνo < EMG ἀπεθάνον apeθanɔn, aorist of apo’thēniskɔ. The /e/ in pe’naku/u seems likewise to point to influence from the aorist stem, and quite possibly from MG. NT pe’naku/u: Thus 74. NT, ST form cognate; PT form borrowed.

62. kill ἀποκτείνω apokteinɔ: σκοτώνω skotônɔ σκοτούνου skotônou σκοτώνω skotônɔ σκοτόνω skotônɔ sko’tunu

MG sko’tuno < AG σκοτώ skotɔ: ‘to darken’. A more archaic verb exists in θύου ‘θιυ ‘to slaughter’ < AG θύω túwɔ: ‘to offer a burnt sacrifice; to kill’, but this is restricted to killing animals, and sko’tuno is used to denote killing either animals or humans. In the ST corpus, there are 7 instances of sko’tunu (5 with human victims) against 7 of ‘θιυ (6 with animal victims); for NT, 30 instances of sko’tunu (5 with animal victims) as against 2 of ‘θιυ (1 with a human victim).

Tk /sk/> /kʰ/ has not taken place; the regular process AG /ɔ:/ > Tk /u/ has taken place; but this occurs in a suspsect context. Pernot (1934, 272) considers the -’unu present modern, displacing earlier -’ukʰu. Several verbs admit both possibilities; the absence of an -’ukʰu variant, like ka’ifunu, “dénote un emprunt particulièrement récent.” Indeed, Pernot (1934, 258) found -’ukʰu was still productive in rendering newly borrowed MG -’ono verbs: e. g. learned MG δίκε’ono > dite’ekʰu ‘to justify’. Since MG does not distinguish between /o/ and /ɔ:/, -’ukʰu is not in fact inconsistent with sko’tunu being recently borrowed from MG; /ɔ://> /u/ need not be an archaism at all. The -’ukʰu suffix seems to have arisen by analogy with the aorist suffix ‘uka (corresponding to MG -osa), and the -’ikʰu class of verbs. As Pernot (1934, 273) finds, -’unu is newer than -’ukʰu, but both are present for this verb (sko’tunu, sko’tukʰu), so this verb has been in the language for a reasonable amount of time. Indeed, -’unu has been so recently imported in the language that it has yet to spread to the subjunctive progressive of sko’tunu, which is only sko’tukʰu. In C, however, the sko’tukʰu stem is only listed for the passive participle skot’u/kʰumene. NT sko’tunu: Thus 64. Kislier (2017, 129) records ko’tukʰu for K. All forms borrowed.
The primary meaning of *pléx*: is ‘to float’. MG *kolimb’bo* < AG κολυμβηλάω *kolumbás*: ‘to dive’. MT *preu*, PT *pi’levno* ‘float, swim’ < AG *pléx*; the PT form has been morphologically remodelled to a different conjugation. Costakis (1951, 51) gives the ST form *a’pleu* as a counterexample to /pl/ > /pr/; this is not mentioned in C. ST *ku’wmbižu* < EMG κολυμβίζω *kolim’vizo* < AG κολυμβάω *kolumbá*; Deffner gives the form κολυμβηλάω *kolumbál*.* The fact that ST retains the AG /u/ suggests that ST did not necessarily borrow the form from MG; however, Modern Laconian Greek also pronounced the noun for ‘swim’ as *ku’lumbi* (Newton 1972, 23, cited from Koukoules 1908), making a loan much likelier. C (I:xii) explicitly gives Tk κουλιύμπι *ku’lumbi* < *ku’wmbižu* as older than the MG loan μπάνιο *bagno* < *Italian* bagno, and απλέμα *’aplema* < *pléx*: as older than *ku’lumbi*.

There are no instances of ‘swim’ in the available ST or NT texts, so one cannot establish which is the unmarked variant from textual frequency. All other things being equal, the deviant form *preu* must be assumed to be the original Tk form; as a result, no forms are counted as cognate.

According to Deffner, *ane’muk’u* < *άνεμώ* *anemó*: cognate to *άνεμος* *ánemos*: ‘wind’; cf. AG άνεμίζομαι *anemízomai* ‘to be driven by the wind’; άνεμωύμαι *anemoúmai* (the passive counterpart of *anemó*: ‘to be filled with wind; to be inflated, swollen’. There are two instances of ST *pe’to* outside C: Har p. 145 *arxíjne na rái petaláðe ena yiíre petínte* ‘she started seeing butterflies all around flying’, and Ikonomu’s 1870 poem *The Sparrow* (cited in Lekos 1984 [1920], 94): *petaúnta phóyr’ éxátevse; pe’tunda p’ur e’zatere* ‘how did you go flying?’ No NT form is given by C; Houpis uses *ane’muk’u* exclusively (Mal §3; §17), although the definition in C of *ane’muk’u* gives examples only of MG *pe’to* in its other meaning, ‘throw’ (also present for *ane’muk’u* in Houpis), and *ane’muk’u* is used only in the sense ‘throw’ in ST texts (22 instances in Dicht, Samp and Har.) This means that both NT and MG have the same polysemy for *pe’to* and *ane’muk’u* respectively: both ‘fly’ and ‘throw’.

Now, it seems this polysemy is accidental for MG: while clearly *pe’to* < AG πέτωμαι *pétomai* ‘fly’, Andriotis (1990 [1983]) quotes Hatzidakis’ (1989 [1905], 413) derivation from AG πετάννυμι *petánnumi* ‘open, spread out, unfold’; specifically for the meaning ‘throw’, he adds Menardos’ derivation from ἀπότασσω *apóttaso*: ‘range apart; depart from’, presumably via the aorist ἀπέτασον *apétašon* (cf. the aorist of *pe’to*, πέταξα *petaksa*.)

One suspects, therefore, that a similar case to *’athropo* ~ *’atfopo* ‘person; man’ has taken place: either *pe’to* was borrowed into ST to disambiguate *ane’muk’u*, or *ane’muk’u* was extended to the meaning ‘fly’ from the meaning ‘throw’ in NT, as a calque of MG *pe’to*. Although in the case of *’atfopo* NT was more conservative than ST in retaining it in the meaning ‘man’ when MG *’athropo* was introduced, in general NT has been more subject to MG influence than ST, and it is improbable that an accidental polysemy in MG would be echoed by the same polysemy in an unrelated Tsakonian word. There is a possibility that the polysemy is not accidental, with ‘throw’ taken as the causative version of ‘fly’; even so, however, it is difficult to see why the same causative would occur in NT if not under MG influence. Thus, NT *ane’muk’u* ‘fly’ is a calque of MG *pe’to*, while ST and PT here have cognates.
65. walk

<table>
<thead>
<tr>
<th>AG: περιπατέω, περπατέω</th>
<th>SMG: περπατάω, περπατάω</th>
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<td>καθετέω</td>
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έρχομαι

τρέχω, τρέχοντα 'τρέχοντα S, περπατοῦν' |

έρχομαι

τρέχου 'τρέχοντα, τόξου 'τόξον' |

τρέχον 'τρέχον' |

τρέχον 'τρέχον' |

Τι: Τιχαουμένε ('walking', but given as verb). Of the AG terms, the primary meaning of πατέω: is ‘to tread, to step on’ (περιπατέω: adds the preposition peri ‘around’), while βαδίζω: also means ‘to go slowly, to pace’; both βάινω: and βαδίζω: have been extended in meaning to ‘to go’, a meaning βινω: tends to acquire in compounds (e. g. ἐξβαινω ekβαινω: ‘to get out’ > MG βγαίνω ‘γενο). βάινω: refers to motion only in its present stem: its perfect aspect denotes standing. The text counts strongly suggest βαδίζω: was the basic form for ‘walk’ in AG: in Plato, there are 17 instances each of the verbs βαδίζω and βαίνω: against 7 of περιπατέω:, while in Aristophanes there are no less than 89 instances of βαδίζω: against 2 of βάινο: and 4 of περιπατέο:.

MG περπατάω < AG περιπατέω περιπατέο:; while βαδίζω: > να’δίζω also survives in MG, there is no doubt that περπατάω is the basic term, with να’δίζω meaning ‘to pace, to walk slowly’. τρέχω is SMG for ‘to run’. τ'φαυ 'to walk; to run' is the regular reflex of D τράχω τράχο: ‘to go’, cognate to AG τρέχο τρέκλο: (> τρέχο) ‘to run’. No instances of τ’φαυ ‘to walk’ have turned up in the Tk texts I have. No cognate of περπατάω is listed in C, but the verb is used by Houpis (Mal §3, §17).

66. come

<table>
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<tr>
<th>AG: ερχόμενο, ερχόμαι</th>
<th>SMG: ερχόμενο, ερχόμαι</th>
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<td>καθηθμαι</td>
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καθηθμαι 'καθηθομαι (κασίμαι) ka'simīne). NT ka'simīne only attested in past participle form; its palatalisation is characteristic of NT (§3.2.4.5). Tk ka'si(k)u 'I sit; I sleep (present)’ < κασίμαι ka'simain 'I sit; I slept (aorist)’ < AG καθηθμαι ka'θimene: ‘I seat’ (with /θ/>/s/: §3.2.1.1) < κατά κατά ‘down’ + ἡμεῖς ἤτοις: ‘to seat’. Tk ka'tsenu has the aorist eka'tsaka and the imperative katsa (Pernot 1934, 268); these are comparable with the MG aorist ekatsa, imperative katse, and it seems the present stem has been remodelled after the aorist. The MG aorist ekatsa < e'katsa < *'eka'tsā < e'ka'tsā (Hatzidakis 1990 [1907], 156); Tk does not have a -sa aorist (as shown by the fact that the Tk aorist eka'tsaka adds ka on to the MG stem), so one would reasonably consider ka'tsenu an importation. MG 'ka'theme < AG καθηθμαι ka'θē:ma: 'I sit’ < κατά κατά ‘down’ + ἦμαν ἡμεῖς to sit’.

Alongside ka'si(k)u, Tsakonian also has the form ka'thēi(n)u 'to place'; while C derives this from kat'ēzido:, Defnner and Pernot (1934, 279) consider it likelier that the aspirated stop reflects a cluster formed by apocope from κατά κατά ‘down’ + ἕρημα ἐτε:ka ‘I placed’. Since the aorist of ka'si is ka'sika rather than *kasi'aka — even though the ika aorist is characteristic of transitives rather than intransitives — and ka'si is defective, Pernot considers ka'si to have been influenced by its transitive equivalent ka'thēnīu.

Of the two ST forms, it seems ka'tsenu means ‘sit down’ (εκατσάκα κοντά ταν κάρα να οδοιποτού eka'tsaka konda t'an i'kara na fonis'tu 'I sat (aorist) near the fire to warm myself': C)
and ka’siu ‘be seated’ (έκι κασήμενε γάμου τῷ ὁκι νιου ‘eki ka’simene xamou te ’oki nu ‘he sat (progressive) on the ground and didn’t speak’: C). (The two notions are distinguished only by aspect in MG.) The other meanings of ka’siu are ‘dwell, stay, settle into some place, be occupied with, be idle, rest, sediment, stay awake, set (of sun or stars), go to bed, sleep’, while ka’tsenu also means ‘settle into its place, set (of sun or stars), go to bed, get stunted, wait’. The dichotomy is largely borne out in the corpus: in the ST corpus, 9 of 14 instances of ka’tsenu are inceptive, while the remaining 5 are to do with the meaning ‘stay’, which also occurs with the MG aorist ‘ekatsa. For ka’siu, 15 instances are progressive and 3 inceptive — the spread to inceptive implies ka’siu is the unmarked term. In NT, 12 instances of ka’tsenu are inceptive, with one doubtful and one instance progressive and meaning ‘stay’; there are 7 instances of ka’siu, all progressive.

ka’tsenu does not seem to be present in PT: ka’sio is used in both the inceptive (19 instances in the corpus) and progressive meanings (36 instances), while there are only two instances of a kats stem, which may well have been borrowed from MG. All forms cognate.

MG ksa’plono < AG ἔξαπλῶ ἐξαπλῆς ‘to spread out’. According to C, none of the terms for ‘sleep’ which etymologically may have once meant ‘lie down’ — pra’yiazu < ‘sideways’, ka’siu < ‘sit’, kjufu < ‘stoop’ — have that meaning in current Tk. Both the NT and ST forms tsa’plunu, tsa’pruku, are regular reflexes of the EMG form. (Kisilier 2017, 112 also reports the more MG-like forms ksa’pruku in Tyros, ksa’pluku in K.) The alternation of older -’uku and newer -’unu as verb endings in Tsakonian has already been commented on for ‘kill’; the ST form is quite regular, while the NT form is characteristically much closer to MG. The alternative word ‘yiru has as its primary meaning ‘lean’, as does its MG cognate ‘yerno; it occurs once in the NT corpus as against pra’yiazu occurring twice (the latter possibly under MG influence); from the example (“lay down on the bed and went to sleep”), ‘yiru probably corresponds to MG ‘yerno, which is inceptive rather than stative. NT ‘yiru: Scutt (1913–14, 27). All forms cognate.

In MG, στέκω ste’ko is a less frequent variant of ‘ste’kome; the form is ultimately a back-formation from the AG aorist ἔστηκα heste:ka, and occurs already in the Septuagint (1st century BC) and the New Testament. The form looks like a recent importation; a verb does exist with /st/ > /t/, as expected for Tk, but this is the inceptive ‘t’enu ‘to stand up, to awake’, attested by Ç (ezamu ‘stand up!’; interpreted by Pernot (1934, 503) as et’a ‘tanu, or possibly et’a ‘tane ‘tanu ‘he stood up.’) This form points to a proto-form *stenon, and the variant ‘t’enu reported by Pernot (1934, 380), to *stezon; this indicates the morphology of this verb has been extensively remodelled. All forms borrowed.

Apparently, MT ‘diu < AG δίω dido:, with elision of intervocalic /ð/ (§3.2.3.4)—something Pernot (1934, 276) attributes to dissimilation. MG ‘dino is an analogical back-formation from the aorist form of the verb. All forms cognate; PT borrowed.
The AG forms are a complex interlocking of four verbs — the three cited, and *εἶπον εἶπον, surviving only in the aorist εἶπον εἶπον. These verbs fill in each others' conjugations; the imperfective of πάσκει: is matched with the aorist of πέ:μι, and the aorist εἶπον substantially replaces the aorist of λέγο:; λέγο is dominant in the present tense: in the first person singular, Plato uses λέγο: 496 times against πέ:μι 166 times (Aristophanes: λέγο: 44 times, πέ:μι 20 times, πάσκει: once), and in the third person singular, λέγει λέγει 260 times against ϕέ πέ:i 44 times (Aristophanes: λέγει 47 times, πέ:i once). In the aorist, εἶπον has an appreciable presence (third person singular: 29 instances of εἶπε(ν) εἶπε(ν) in Aristophanes, 26 in Thucydides, 118 in Plato), but πέ:μι is dominant (16 instances of ἔφη ἐπέ: in Aristophanes, 56 in Thucydides, no less than 2103 in Plato), while λέγο: is hardly in the running (3 instances of ἐλεξε ἐλεκέσε in Aristophanes, 8 in Thucydides, 1 in Plato).

ST α'υ < NT λα'λο < AG λαλέω λαλέω: ‘utter’; λαλό is also the unmarked term for ‘say’ in Cypriot. PT μουσί(κ)ο < AG μουθέω μουθέων: ‘say’ and / or D μοουσίδει mousíđdei ‘speak (3SG)’; Costakis (1951, 191) gives this as an example of a PT archaisms. The glosses of μουσί(κ)ο in C point more towards ‘speak’ than ‘say’ (INTR). The aorist of la'lu, ST ε'peka PT 'peka, is the same stem as the aorist of MG λεο, 'ipa, and is the reflex of AG εἶπον. Alongside it, the aorist of λαλέω: survives: ST a'λίte PT la'λίκα. For aorist stems, where the conjugation of la'lo has been contaminated by 'leo in PT, the 'peka stem outnumbers the (v)a'ika (< la'lo) stem in the PT corpus by 168 to 54, with four instances of μουσί(κ)ο. For present stems, where the verbs la'lo and 'leo are distinct, 'leo outnumbers la'lo 74 to 1. Although there is clearly still usage of la'lo in the present (e.g. C's example βα'ήο τ'ιο Θε'ό σχόρε'α να'ίο τ'ιο θ'ε'o σξ'ο'ρε's 'I tell you God have mercy'), 'leo has clearly become the dominant form in NT. NT, ST non-cognate; PT borrowed.

All forms cognate.

No etymological derivation given by C, although the etymon AG αστρον 'star' (> MG 'astro') is obvious. Given the attested phonetic correspondences of Tk, the probable pathway is AG ἀστρα ἀστρα ‘stars’ > 'astri 'star' (back-formation; recorded by Kisilier 2017, 126 for Tiros and Melana) > *'astri > 'at' (which Kisilier 2017, 125 also records in Tiros). *'astri > 'at' (recorded in Kisilier 2017, 126 for Tiros and Melana) > 'af' in [asci]. The change /fi/ > [ci] is odd, but has a parallel in Costakis’ pronunciation of the reflex of *'a'stritis 'asp (vipera ammodytes)', noted by Pernot (1934, 327): both [af't[a] “avec un premier /ʃ/ plus sifflant que le second”, and [af't[e]ta], where [v] was in free variation with [c]. It seems that, as a dissimilation, /ʃ/ was resolved to underlying /ʃt/ through the lenition of the second /ʃt/; /ʃt/ then immediately
went on its way to palatalising into [jc]. *"astrī > 'afī (cf. MG στριβω 'strivo > ST δούφου 'fufu, NT στριβων 'fufulo 'twist'.)

No PT form of 'astre' is given in C, although PT has the dīm. αστρούλι as'truli, and the derived form αστροφεντζία astrose'dzia 'starry night'; PT 'asteri < AG dīm. αστέριον astéron < ἀστρον, also present in MG. C claims 'asteri is an MG loan; although this may be the case for its ST cognate αστέρι a'stezi, there is no obvious cause for doing so for PT. All forms cognate.

75. water

| ōδωρ ὕδατος | νερό | νερό | νερό | νερό |

Č iy-w 'cold water', narwu 'water' — narwu is ne’ro, and there is no reason to suppose this to have been part of Tk at the time. Vi (travel journal: Famerie 2007, 237) πῶ 'io. MT 'io < AG ōδωρ ὕδατος 'water'. Although intervocalic /ð/ drops out frequently in Tk (see ‘foot’), Pernot (1934, 174) considers a direct transition unlikely, since AG /s:/ > Tk /u/; he instead postulates the process 'io < */iwo < back-formation from plural Tk 'ivata < EMG *γυδατα < AG ὕδατα húdata, plural of ὕδατος. The existence of */iwo is confirmed by the dīm. βατσούλι va'tsuai. MG form already present (as ne:xrón) in 2nd century BC. Hatzidakis’ thesis that the initial vowel of 'io fails to be /u/ because the word was borrowed through the Church is unlikely. While the ancient word has survived in Peloponnesian Greek, interestingly, it has survived with the /u/ vowel: ουδάτα 'urine' (Andriotis 1974 §6166). NT, ST forms non-cognate; PT form borrowed.

76. rain

| ύδωρ θεάτος | βροχή vroxi | βροχή vro xi | βρέχο vreko | βροχή vro xa |

The ST form has changed gender from feminine to masculine; C believes it is patterned after masculine 'iτε 'sun'. Deffner reports the form vro’xi for Leonidio; the word was unknown to Costakis (1934, 334). The PT form vro’xa seems to be the native Tk reflex of IG βροχή brokê: (§3.2.1.3); with the exception of the words for ‘mother’ and ‘daughter’, feminines ending in /i/ in Tsakonian are all recent importations into the language from MG (Pernot 1934, 169; Costakis 1951, 72 says outright that vro’xi is a loan.) The ancient Greek word has survived in */ye'tia/ → [ju’cia] ‘wet weather’. ST, PT forms cognate; NT form cognate and borrowed.

77. stone

| λίθος litos | πετάρα petra | πέτσε petse | πέτσε petse | πέτρα petra |

MG 'petra 'stone' < AG πέτρα pétra 'rock'. The MT form displays the normal MT process /tr/ > /tʃ/ (§3.2.3.1.a), although its gender has switched to masculine from feminine; C adduces an instance of a masculine form πετρα πέτροι in Strabo. As already mentioned, /tr/ > /tʃ/ does not occur in PT; we have no way of telling whether PT 'petra is an archaism or a loan from MG, but presume the former. Kisiiller (2017, 127) records the variants petfi (Tiros), petse, petsune (Melana), petfune (Prastos, Tiros). All forms cognate.

78. sand

| χόμος χόμος | χόμος χόμος | χόμος χόμος | χόμος χόμος | χόμο χόμο |

All forms cognate.

79. earth

| γη γε, χθών kʰtʰ̂ŏn | γη γι, χώμα xoma | γη γι, χώμα xoma, χώμα | (i)γη (i)γι, γης xis, χ(ό/ο)μα | (i)γης (i)γις, αναγις χ(ό/ο)μα, χόμο xoma |

MG 'xoma < AG χώμα kʰó:ma ‘earth thrown up, mound’. Two forms are involved here: yi ‘ground’ and ‘xoma ‘dirt’ (although it has also acquired the meaning ‘ground’, absent in MG: Μ καλέ χώμα kal le xoma ‘good ground’, T έμε παλέγγουντε με τα χώματα e me palen’gunde me ta xomata ‘we busy ourselves with the land’ — cf. H με τα γης πολεμιο me ta yis polemo ‘I busy myself with the land.’) The form yis seems to have taken over from yi in vernacular MG, with yi reinstated by Puristic Greek.
From an inspection of the examples given by C, the dominant form in ST is i'yi; however both Kisilier (2017) and Kassian (2018) take the main form to be 'xoma. Pernot (1934, 172) considers i'yi a loan from MG ("un emprunt aux dialectes voisins"), and it is true that i'yi does not fit the Tk native declension patterns; it is known that Doric had γά: for IG γή γέ:. NT γή DH; this seems a straightforward loan from MG. As for 'xoma, the form 'xuma is clearly the native form (§3.2.2.3), with 'xoma a loan from MG. All forms borrowed from MG.

80. cloud | νέφος νέβος, νεφέλη νεβρέλε: | σύννεφο 'siνefο | σύννεφο 'siνefο | σύννεφο 'siνefο | σύννεφο 'siνefο |

NT 'siynefo in Houpis (e. g. Mal §23). In other dialects which have retained AG /u/ (IG /y/) as /u/ (Maniot, Old Athenian), this word occurs as suyne'fia, which is consistent with the word's etymology (< AG συν σύν 'with' + νέφος νέβος 'cloud'). Note that all words inheriting the AG sun- prefix in ST have /i/ rather than the archaic /u/ (Pernot 1934, 110). All forms cognate.

81. smoke | καπνός καπνός | καπνός καπ'νος | καπ(ι)νέ kar(i)ne | καπ(ι)νέ kar(i)ne | καπ(ι)νέ kar(i)ne |

Vi καπνε' kap'ne. The Tk epenthesis is characteristic of its treatment of such clusters; cf. AG δείπνον deίpnon 'dinner' > ST δείπ(ι)νε deip(i)ne 'dinner after a funeral'. All forms cognate.

82. fire | πῦρ πῦρ | φωτιά fo'ṭia | κάρα 'kara | (ι)κάρα (ι)κ'αρα | φωτιά fo'ṭia |

MG fo'tja < φωτιά p'otía < AG φως, φωτός p'hós, p'ophós 'light'. MT 'k'ara < AG ἕσχαρα esk'ára: 'hearth; coal-pan' (C; Pernot 1934, 170), which survives as MG σχαρά 'grill'. Costakis (1951, 61) compares it to Hesychius ἐκχαρέων ekk'éra:ν 'of the kitchens'; indeed, he quotes Hatzidakis on this point, who goes so far as to say "this, too, is a sure piece of evidence for the descent of Tsakonian from the Laconian dialect." It may well be that ekk'éra:ν reflects Proto-Tsakonian: κχ could be an attempt to render aspiration at a time χ was already fricated (this is in fact how modern Tsakonians write /k3/), and the semantics is consistent with the meaning of eskára: The PT form is not necessarily a loan: it retains archaic stress compared to MG, and it has a cognate in MT φκία frkia 'light'; treating it as a loan, however, is the simplest explanation for the form. NT 'k'ara: Thus 66.

AG πῦρ survives as ST 'piζί, kir, kizi 'fire; intense heat': the proverbial expression εξάκαϊ κνρ Κυζίου όλοι ε'ζακαι kir ki'ζiu 'olí 'they all went to the Fire of the Lord (=Hell)' strongly suggests that this word was reintroduced into Tsakonian through the Church; at any rate, it is clearly not the unmarked expression for 'fire'. NT, ST forms non-cognate; PT form borrowed.

83. ash | σπόδος spodós, τέφρα τέρ'ra: | στάχτη 'staxti | σποίλα spo'íla | σποία spo'ía | στάχτη 'staxti, στάχτη 'staxti |

The textual evidence weakly suggests τέφρα: was used more widely than spodós: there are three instances of τέφρα: in Aristophanes and one in Plato, but none in either of spodós.

MG 'staxti < AG στακτή staktē: 'dripping'. ST spo'ía < NT spo'ila (§3.2.4.1) < *σποδίλα spo'díla < AG σποδός spodós (cf. AG σποδία spodia 'heap of ash'). NT spo'ila: Thus 36, corroborated in Kisilier (2017, 127); the form as given is as would be phonologically expected, and the form spo'ila is also given in Oikonomou (1870). Oikonomou also gives po'ila and p'h'oiα, with the latter the expected reflex of spodia. There is no obvious channel for spo'ia to have been borrowed into Tk from MG; it is likely that the regular p'h'oiα was in use in the 19th century alongside the unexpected archaism spo'ia, and that spo'ia eventually displaced p'h'oiα because its sp- made it look like MG — not because it actually matched anything in MG. ST σκόνι 'skoni 'ashes; powder
δρόμος, στράτα, ἐρυθρός καί ὁ indu, δαίσου ὀστράτα σβουνό αʹλεκα, εʹνεκα, δαίσου βουνό aʹleθα, eʹneθα, αʹλεθα, ἐρυθρός ὁ

MT ὀδεσυ < AG δαίσο δαίς: 'to burn'; Hesychius attests the use of this verb in Laconian. A problem here is the emergence of /s/; this has led Defner to postulate *δεθον, with /θ/ subsequently going to /s/ (§3.2.1.1). There are only three verbs in Tsakonian ending in -su (*aʹleθον > aʹlesu 'to grind', *γνεθον > 'nesu 'to spin', ὀδεσυ), and Pernot (1934, 134) considers it likeliest that in all three cases, the present stem /s/ originates by analogical extension from the aorist stem (έ:lesa, éne:sa, édaisa); ironically, the Tk aorists of all three have now dropped their /s/ (aʹleka, eʹneka, eʹdaka), as the aorist suffix ka has spread in the dialect at the expense of sa (Pernot 1934, 250).

C gives no etymology for PT κσαλίγγο; although the first syllable suggests the MG prefix ξε- + α- kse α- 'un-; exhaustively' (cf. Η ξαλλάξω κσαλάζο 'change clothes' < kse + αλλάξω a'lasso; but also Η ξαλλόνω κσαλίνο 'get untied' < kse + λόνω lino). AG λιγνύς lignús 'smoke' is suggestive — then again, so is Turkish alaz 'flame'. At any rate, this is clearly not a loan from MG. Liosis (pers. comm.), in his contribution to the Cognacy in Basic Lexicon project at the Max Planck Institute, Jena, has proposed AG εξαναλίσκω eksanalisko: 'to consume', with -ingo the PT counterpart to the productive verb suffix NT ST -indu, MG -izo; the cognate kat-analaisko had already acquired the sense 'to burn, to destroy' in Mediaeval Greek. He admits εξαλείψω eksalei̇ps: as another possible etymon. No forms cognate.

Vi πορεία poʹria, noting the survival of the archaic word poʹria < AG pořeia 'journey, march', where other Greek dialects used στράτα < Italian strada. The term strata is extant in MG, but is not the most common current expression. A semantic swap seems to have taken place: C glosses Tk ὀρόμος as MG poʹria 'journey, march', and Tk poʹria as MG ὀρόμος 'way, path'. Furthermore, AG δρόμος drómos primarily means 'race', and only secondarily 'running track'. 'sirma < AG σύρμα 'something trailed along'. Of the sundry synonyms given, poʹrias is clearly predominant in ST: there are 12 instances in Dict, Samp and Har, and no other word is present. ST form non-cognate.

MG vuʹno < AG βουνός bounós 'hill'. Kisilier (2017, 126) records the cognate vuʹne in Prastos, and 'sina in Melana. MT 'fina < D θić, θινός tís,tיןós 'bank, sandy hill; strand, highlands' (C, after Deville and Hatzidakis). Scutt (1912–13, 151), after Defner, speculates it might be a reflex of AG ρίς, πινός tís, tínós 'nose'. Although /θ/ tends to go to /s/ in Tk, not /ʃ/ (§3.2.1.1), Pernot (1934, 374) is inclined to accept θις as the etymon, having heard from a Katsanitsiot the form tóo 'sina' on the mountain'. Kisilier (2017, 111) proposes MG orína 'mountainous. neut. pl' as the etymon; the aphaeresis of orína > rína would explain the initial /ʃ/ by §3.2.1.2, but the accent shift is not explained, and I do not consider this development likely. NT, ST forms non-cognate; PT form borrowed.

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AG is notorious for the difficulties in matching its colour vocabulary to that of modern languages. There were four AG terms for red: erut'rós seems to have been unmarked, while φοίνικις pʰoʰiːni plais corresponded to dark red, and πορφύρεος pʰorfυɾi eːɾeːs to light red (although ancient enumerations of the colours of the rainbow (Maxwell-Stuart 1981, 163–169) tended to eschew erut'rós in favour of pʰorfυɾi eːɾeːs and, in particular, φοίνικις). In Old Greek, erut'rós is less used: Homer uses erut'rós 11 times, pʰorfυɾi eːɾeːs 36 times and φοίνικις 25 times. By Classical times, erut'rós was dominant: Plato uses it 5 times, against pʰorfυɾi eːɾeːs 3 times and φοίνικις none. (Aristophanes uses only erut'rós, 3 times).

The fourth AG term is the term that survived into the modern language: MG κόκκινος < AG κόκκινος kʰoːkki nas 'scarlet' < κόκκος kʰoːkoς 'scarletberry'. The regular reflex of this in Tk would be *kʰoːkτʰiːn; the process /kʰi/> /tsi/ does exist in Tk (§3.2.3.3.a), but seems to be late, and does not explain the accent shift. Pernot (1934, 72) believes this indicates the presence of adjectival formant -*ti'nɔs>-*tsi'n, a metanalysis of AG / MG adjectival formant -iːνɔs ~ iːnɔs, also present in kʰiːsiti'sine 'barley (ADJ)' (MG κριθα'ɾeːniɔs, tʃi'ɾiːtsi'n 'made of hair' (MG ɾ̤oːkʃeːɾiɔs tɾiː'ɾeːniɔs). Kisilier (2017, 127) records the variant kʰoːtsi'n in Tiros and Kastanitsa. All forms cognate.

88. green χλωρός kʰλɔːrɔs | πράσινος 'prasinos | πράσινε 'prasein | πράσινε 'praseine | πράσινε 'praseine

The denotation of kʰλɔːrɔs is light green and yellow; it is the colour of young grass, honey, and sand. Dictionaries tend to ascribe pale green, bluish-green, and gray to γλαυκός glaukoς; in his monograph, however, Maxwell-Stuart (1981) argues for light blue as the primary denotation. Dark green seems to have been covered by κυανοῦς kuanoûs, which was primarily dark blue, and by the surviving colour term, which appears to have been secondary in AG: MG 'prasinos < AG πράσινος prasinos 'leek-coloured'. Kisilier (2017, 126) records 'prafine' in K. All forms cognate.

89. yellow χλωρός kʰλɔːrɔs, ξανθός kʰsantɔs, όχρος oːkʰrɔs | κίτρινος kʰiːtɾiːnɔs | τοί(τ)ρ̣ένε 'ṭei(t)ṛeːṇe | τότζινε 'totsịṇe | τότρινε 'totsrịṇe

kʰλɔːrɔs has already been seen; kʰsantɔs is defined as 'golden-yellow, pale yellow; red-yellow', and its major denotation (which has survived into MG) is 'blond'. Yellow was probably also covered by oːkʰrɔs 'pale'.

MG 'kʰiːtɾịnɔs < AG κίτρινος kʰiːtɾịnɔs 'citrus-coloured' < Latin citrus. The normal reflex in ST would have been 'tʃiːtɾịṇe or 'tʃiːtsi'ṇe, depending on the order in which rules §3.2.3.1.a and §3.2.4.3 are applied. Presumably, as the NT form hints, the second /t/ dropped out, either in manner dissimilation from the first affricate, or because the resulting /tʃ/ affricate would be problematic (/dʒ/ would be unacceptable in Tsakonian unless prenasalised.) Kisilier (2017, 126) records only the more MG-like 'tʃiːtsi'ṇe. All forms borrowed, given that the MG word itself is a loanword.

90. white λευκός leukós | άσπρος 'aspros | λεκό le'ko | λεκό le'ko | άσπρε 'aspre

Vi λευκό le'ko, recording it as a noteworthy archaism contrasted with MG άσπρος. (It has been revived since in Puristic, mostly with figurative meanings calquing French blanc in the sense 'blank'.) MT le'ko < AG λευκός leukós 'white'; MG 'aspros < Latin asper. To explain the fact that the reflex is le'ko rather than the expected le'kɔ, Pernot (1934, 20) formulates a rule that fortitioned v drops out in Tsakonian, corroborated by *eurịskɔn → e'rexu 'to find'. Kisilier (2017, 125) records the K form as 'astre, indicating a more recent MG loan. NT, ST forms non-cognate; PT form borrowed.
91. black | μέλας | μαύρος 'mauros' | κουβάνε 'kuvane' | μαύρε 'maure', κουβάνε 'kuvane' | μαύρε 'maure'  

MG 'mauros' < AG μαύρος 'dark'. MT κουβάνε < AG κουάνος 'dark blue'; with /v/ interpolated (§3.2.3.5). Hesychius attests the meaning 'black' for this word (κουάνα kuaná) in Laconian. NT κουβάνε only listed for S, but used abundantly by Houpis (e.g. Mal §23). A perusal of MT texts and of the lexical productivity of the two words leave no doubt that κουβάνε remains the unmarked MT form; there are 5 instances in Samp, Dict and Har of κουβάνε, and none of 'maure'. NT, ST forms non-cognate; PT form borrowed.

92. night | νύξ | νύχτα 'nixta' | νιούτα 'nouta' | νιούτα 'nouta' | νιούτα 'nouta'  

Tk 'nouta' < EMG νύκτα 'nykta' < AG νύξ, νυκτός νύξ, νυκτός 'night'; AG /kt/ > Tk /kʰ/ by §3.2.3.1.e, and D /u/> /ju/ by §3.2.2.1; PT /ju/> /u/ by §3.2.4.6. NT 'nouta': Thus 28. All forms cognate.

93. hot | θερμός | ζεστός 'zes'tos' | θερμύθ ωδόμιστε 'omi'ste | θερμύθ ωδόμιστε 'omi'ste | θερμός ζεστά 'zestá'  

Ç 'swmu 'dinner', Α schomo 'cooked food' (a secondary meaning fo'mo has acquired in Tk). θερμός, fo'mo are glossed by C as 'very hot, boiling', and the texts suggest ωδόμιστε is the unmarked term. MG ζεστός < AG ζεστός ζεστός 'boiling'. ST fo'mo < *θρεμό < NT θερ'ό < AG θερμός 'ermós' hot' (See Pernot 1934, 19 for the metathesis; initial /θ/ > /ʃ/ by §3.2.3.1.a.) ST ωδόμιστε (past participle) < δούμισθε fo'nixu 'to heat' < NT δομισθε fo'nixu (§3.2.4.2) < *θρε'mizu < AG θερμίζω 'ermízo: 'heat'. NT ωδόμιστε: Thus 36. MG θερμός θερ'mos was reintroduced into the language through Puristic Greek; there is no reason to think that NT θερ'mos is a loan, since initial /θ/ is frequently retained in Tk in words which cannot have been borrowed from MG.

Liosis (pers. comm.), in his contribution to the Cognacy in Basic Lexicon project at the Max Planck Institute, Jena, adds lexu'te as the ST form for 'hot', as opposed to 'warm'; this is a verbal adjective corresponding to the verb λεχουτέ lexu'te 'to pour boiling liquid on something', which Andriotis (1974, 353) derives from AG λεχώ lekhî: 'new mother'. (Deffner 1923 instead glosses the verb as 'to warm someone by putting them to bed', which explains the etymology, but it is not clear whether this is a gloss or etymologising; Deffner’s exclamation “that explains everything” makes it suspect.) NT, ST forms non-cognate (though they use the same concept as MG: ‘boiling’); PT form borrowed.

94. cold | ψυχρός psu:k'ros | κρύος 'krios' | ψουχρέ psu'xre | κρυ'are kza'ne, ψουχρέ psu'xre | κρυ'are kria'ne, κρ(α/ε)νέ kr(a/e)ne  

ST kza'ne < PT kria'ne < EMG krios + a'nos 'adjectival ending'. MT psu'xre < AG ψυχρός psu:k'ros 'cold'; this term survives in MG as psi'xros, but is a reimportation from Puristic Greek in meanings other than 'chilly', and is not the unmarked term for 'cold'. There are no instances of the adjective in the main ST texts, although there is one instance each in Samp of the nouns κζάδε kζάδε (§11) and ψύχρα ψιξρα (§23 = Dict §8ii) (which looks like an MG loan, notwithstanding the fact that ψιξρα is attested throughout Tsakonia). With regard to the nouns, Pernot (1934, 382) notes that Costakis used both ψιξρα and ψυξρα — but the first only jokingly (“en plaisantant”); while his Kastanitsiot consultant used kξάδα. This suggests a split between NT and ST; but there is not enough other evidence to support it. PT /æ/ by §3.2.4.7.
psu'xre is slightly more productive than kza'ne: it gives rise to MT ψούχρα ~ Tk ψύχρα 'psuxra ~ 'psixra 'cold (n.)', Tk ψούχρα ψυχ'ρα 'coldly', and ST ψυχούργιαν ψυρ'φενυ 'ψυχούργιαν psux'fenu 'to make cold; to grow cold; to disappoint'. By contrast, kza'ne generates ST κξάδα 'kxada ~ ST, PT κρυάδα κρι'άδα ~ PT κράδα κρεάδα ~ PT κριάδα 'kritsa ~ Stroŋgi̯le san to pe'poni 'and they have a capon round as a melon').)

αίνου ιν'νούρτζ καλέ ~ καλέ στρογιμάτε πλήρη αινούργιε

psu'xre also records...

he also records "he also records..."

59. full | πλήρης πλέ:ς | γεμάτος γεμ:άτος | γοιμάτε γιο:μάτε | γοιμάτε γιο:μάτε | γοιμάτε γιο:μάτε

MG γεμάτος < AG γέμω γέμω: 'to be full'.
yo'matos [jo'matos] is a widespread variant of γεμάτος [je'matos] in MG; /e/> /o/ backed because of the following labial (Andriotis 1990 [1983]), subsequent to the palatalisation of /γ/. Kisilier (2017, 128) gives je'mate (Prastos), jo'mate (Tiros, Vaskina), jomak'u (Vaskina); he adds fulari'ste (Melana) < MG fu'laro 'to pad', and xo'dre (Prastos) xon'dre (K) < AG k'ondrós 'coarse' MG xon'dros 'thick, fat'. All forms cognate.

60. new | καινός καινός, νέος νέος | καινούργιος κε'νυργιος | τάινούργιε τσυ'νυργιε S | τάινόυργιε τσυ'νυργιε | τάινούργιε τσυ'νυργιε

Of the AG terms, kainós also means 'fresh', while néos also means 'young'. To eliminate the 'young' reading, neuter (=inanimate) singular instances of the two adjective were counted in Plato: there are 36 instances of νέον νέον against 9 of καινόν kainón. (For the masculine singular, there are 47 instances of néos against only 1 of kainós.)

Pernot (1934, 377) reports that Costakis used both tei'nurtei and tei'nrutei; so the metathesis was synchronically current. ST tei(r)rnutei leads back to *ki'rnuki (metathesis) < *ki'nurki, so that the /γ/ cluster must have undergone fortition (Pernot 1934, 377). Deffner gives the form τα'νούρτζε tei'nurte, whose /e/ ending arises by influence from the ending of MG ke'nuryios. An NT form for 'new' is only given for S by C; I have found no instances of 'new' in Houpis' writings. MG makes a semantic distinction between ke'nuryios (< AG καινός kainós 'new' + έργον 'work'), and νέος 'neos (< AG νέος νέος 'new; young'): the former relates to things (cf. English brand-new), and the latter to abstractions, as well as meaning 'young'. The distinction is not made in Tk, where νέο 'neos means exclusively 'young' (notwithstanding that Kisilier 2017, 128 gives 'neo as his gloss of 'new'). All forms cognate.

61. good | άγαθός αγατός | καλός κα'λος | καλέ κα'λε | καλέ κα'λε | καλέ κα'λε

ka'los < AG καλός kalós 'beautiful, noble'. All forms cognate.

62. round | στρογγύλος στρογγύλος | στρογγύλος στρογγι'λος | στρογγίλε στροντζ'ιλε | στρογγίλε στροντζ'ιλε | στρογγίλε στροντζ'ιλε

Phonologically, this form is suspect because it does not reduce the /tr/ cluster to /tʃ/, as is normal in MT; the expected reflexes are NT */ʃfondzi'le* and ST */fondzi'le*. strondzi'le has reduced MG /gi/ [ji] to /dzi/, as is regular in Tk; so the form has undergone some assimilation — but this only highlights the fact that */y/ here becomes /i/, which once more indicates that this is an MG loan. So all forms have been borrowed from MG, even though this is known to be an old form (Oikonomu 1888, 40): ἐξονυν τὸ ἔνα καπόνι στροντζι'λε 'οἀν τὸ πεπόνι ἑξανε te 'ena ka'pɔni strondzi'le san te pe'poni 'and they have a capon round as a melon.') Kisilier (2017, 127) records strondzi'le (Prastos, Tiros, Melana, Vaskina), strodzi'le (Tiros, Melana) and strongi'le (Vaskina); he also records xo'dre < AG k'ondrós 'coarse', MG xon'dros 'thick' for K.
Tk tse’re < AG ξηρός kseːrós ‘dry’; AG /ks/> Tk /ts/ (§3.2.3.1.d). The shortening of /ɛː/ in both MG and Tk is suspect. It is true, however, as Costakis (1951, 35) notes, that there are sporadic instances where /ɛː/ > Tk /e/ but MG /i/: AG πληρόω pleːrōː > MG πληρώνα pli’rōno Tk πλερούκ ple’ruku ‘to pay’, AG τήγανον té:gonon > MG τηγάνι ti’γani Tk τέγανε teγane ‘frying pan’, AG χαμηλός kʰameːlόs > MG χαμηλός xami’lòs Tk χαμελέ xame’le ‘low’.

MG differentiates between ‘dry’ as in ‘dried up’ and ‘dry’ as in ‘not wet’; the latter is stɛ’γνος < AG stegános ‘air-tight’, and Kisilier (2017, 129) takes that as the basic form, giving its Tk equivalent as stɛ’γνε. (He also adds psa’xne for Prastos < MG psa’xnos ‘fleshy’.) All forms cognate.

Vi ονόμα onuma. NT ‘ονομα: Thus 74. /o/> /u/ under the influence of following labial. Kisilier (2017, 127) records ‘ονομα only in Vaskina; in Prastos, Tiros, Melana and Kastanitsa he records ‘ονομα. All forms cognate.

6. Other Lexicostatistical accounts

This paper was first drafted in 1996. Since then, three lexicostatistical accounts of Tsakonian have appeared:

- Blažek (2010) is a list of Swadesh-100 word lists for Greek; it includes Attic Greek, Modern Demotic, and Southern Tsakonian. The primary source it uses is Deffner (1923), mainly because Blažek feels Deffner reflects Tsakonian more accurately before the mass influence of Modern Greek.

- Kassian (2018) is a list of Swadesh-110 word lists for Greek; it includes Ancient Greek (Ionic: Herodotus and Attic: Plato), Modern Demotic, Southern Tsakonian, Pharasa Greek, and Aravan Cappadocian Greek. The primary source it uses is Deffner (1923), with secondary reference to Costakis (1951, 1986); Kassian objects to Costakis for his prescriptive tendencies. Kassian also uses Swadesh word lists recorded in situ in Prastos, Tyros, Melana and Kastanitsa in Vyatkina (2015).

- Kisilier (2017) concludes with a Swadesh-110 word list for Tsakonian, based on his own fieldwork.

The reliance of both Blažek and Kassian on Deffner over Costakis is in my opinion a mistake; Kassian’s engagement with contemporary field work is welcome, but given language attrition, checking against corpora is also necessary. (It is true, as Liosis (2007) points out, that Houpis’ grammar is that of a terminal speaker, and the reliability of his corpus is compromised; unfortunately his is the only comprehensive corpus available for NT).

Both Blažek and Kassian are affiliated with Sergei A. Starostin’s programme of rehabilitating glottochronology (“recalibrated glottochronology”: Starostin 1999). As part of that approach, it is critical for them to isolate loanwords from cognates, since Starostin’s methodology discounts loanwords as compromising the stability of the core vocabulary set. In that regard, it has to be said, glottochronologists are fortunate that the radical changes in Tsakonian phonotactics allow most loanwords to be identified readily.

Kassian’s (2018, 11) conclusion is that there are too many loanwords in Tsakonian for it to be of much use: “Because of its mixed nature, the Tsakonian wordlist can hardly be used for lexicostatistic phylogeny of Ancient Greek dialects, not to mention for calibration of glottochronological formulae”. On the other hand, Blažek uses the 63.4% non-borrowed cognates between Attic and Tsakonian to argue for a divergence date of 1725 BC, close to the estimated date
of 1900 BC for the divergence of Northwest and Southeast Greek. He discards the estimate of 300 AD for a Tsakonian / Modern Greek divergence, based on 78.2 % non-borrowed cognates, as ahistorical, contaminated by the strong influence from Modern Greek (that even eliminating clear loanwords does not address).10

It is worthwhile to compare the findings of Blažek, Kassian and this paper with regard to which forms are cognate (C), which are borrowings (B), and which are not cognate (N) between Southern Tsakonian and Modern Greek (I am ignoring the very recent MG loans Kassian notes from the 2010s wordlists in Vyatkina 2015, and which Kisilier 2017 also notes). Of the non-cognates, N* indicates the Tsakonian forms which are cognate with the main Attic form, N# Tsakonian forms which are cognate with other Attic forms, and N† Tsakonian forms with direct Doric antecedents.

Table 1. Lexicostatistical Comparison of Blažek, Kassian and Nicholas

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<th>Blažek</th>
<th>Kassian</th>
<th>Nicholas</th>
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<td>1</td>
<td>I</td>
<td>C</td>
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<td>2</td>
<td>Thou</td>
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<td>C</td>
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<td>3</td>
<td>We</td>
<td>C (unaware of the problem raised by the difference between Doric-looking oblique and Koine-looking nominative)</td>
<td>C (does not comment on the problem raised by the difference between Doric-looking oblique and Koine-looking nominative)</td>
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<td>4</td>
<td>This</td>
<td>N (unaware that ende-pronouns are cognate with MG af'tos, whether following Pernot’s etymology, Deffner’s, or Tsitzilis’)</td>
<td>C (allows Pernot’s derivation, but considers etymology unclear)</td>
</tr>
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<td>5</td>
<td>That</td>
<td>C (takes on face value that e’tine is derived from Doric tênos, unaware of the resulting phonological difficulty)</td>
<td>N (allows Pernot’s phonological concerns)</td>
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<td>6</td>
<td>Who</td>
<td>C (unaware of the phonological difficulty of ‘pier)</td>
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<td>8</td>
<td>Not</td>
<td>C (unaware that MG dén is marginal in Tsakonian, or that MG ‘oxi ‘no; non-’ is not a proper rendering of ‘not’</td>
<td>N</td>
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10 Amusingly, even Starostin’s recalibrated glottochronology takes no account of standard deviation (which to his credit Swadesh 1955 had). Starostin (1999, 10) derives a modified rate of decay of \( \lambda = 0.05 \) on the Swadesh-100 list once loanwords are accounted for; he bases this on seven languages, which give a sample standard deviation of \( s = 0.01278 \), for use in the glottochronological formula for two languages (where \( c \) is the proportion of cognate words, and the value is in millennia):

\[
\frac{\ln c}{\sqrt{-2\lambda \sqrt{c}}}
\]

\( \lambda = 0.05, c = 0.782 \) in Starostin’s revised glottochronological formula gives 1667 years, so (from a date of 1986) 319 AD. But a 95 % confidence interval is associated with three standard deviations (3\( \sigma \)) either side of the mean value; using the actual mean \( \lambda = 0.04625 \) and \( s \) (as an estimate of \( \sigma \)) = 0.01278 gives us a 95 % confidence range for \( \lambda \) between 0.00791 and 0.08459, namely a mean value of 1734 years, but a range between 1282 and 4193 years (so nominally 252 AD, but 95 % confidence for anywhere from 704 AD to 2207 BC.) Starostin’s (1999, 11) claim that “the value for \( \lambda \) is stable and varies only slightly between 0.04 and 0.06”, is, regrettably, risible: the difference between 0.04 and 0.06 is one of 50 % (and English in the sample set has a value of \( \lambda = 0.08 \)); and the relation of \( \lambda \) to time elapsed is \( \frac{1}{\sqrt{\lambda}} \), which shoots up as \( \lambda \) approaches 0. (Hence the small difference between 252 AD and 704 AD, but the massive difference between 252 AD and 2207 BC.)
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<th>Kassian</th>
<th>Nicholas</th>
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<td>9</td>
<td>All</td>
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<td>21</td>
<td>Dog</td>
<td>C (assumes ky:ɔ:n had genuinely survived in MG; the survival is Puristic, and rare at that)</td>
<td>N</td>
</tr>
<tr>
<td>22</td>
<td>Louse</td>
<td>C</td>
<td>B (not so named in list of loanwords at Kassian 2018:11, but clearly considered a loanword in detailed discussion, Kassian 2018:99)</td>
</tr>
<tr>
<td>23</td>
<td>Tree</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>24</td>
<td>Seed</td>
<td>N (different derivational suffix of MG &quot;sporos vs ST &quot;pʰrama&quot;)</td>
<td>C</td>
</tr>
<tr>
<td>25</td>
<td>Leaf</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>26</td>
<td>Root</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>27</td>
<td>Bark</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>28</td>
<td>Skin</td>
<td>C (assumes to:mari is the basic term, unaware of pe’tsi or t’sepa)</td>
<td>N (accepts Deffner’s Hellenic etymology of t’sepa)</td>
</tr>
<tr>
<td>29</td>
<td>Flesh</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>30</td>
<td>Blood</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>31</td>
<td>Bone</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>32</td>
<td>Grease</td>
<td>C (assumes the basic form is non-borrowed paxos, but that is the state of someone being fat; Kassian 2018 concurs)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Blažek</td>
<td>Kassian</td>
<td>Nicholas</td>
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<tr>
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</tr>
<tr>
<td>33</td>
<td>Egg</td>
<td>C (unaware that *avu'yo is unlikely to be an old form in ST)</td>
<td>B</td>
</tr>
<tr>
<td>34</td>
<td>Horn</td>
<td>C (assumes *t'cerate is the basic term in ST, and did not even list *t'foxane; we have seen the decision is difficult)</td>
<td>B (assumes *t'cerate is the basic term in ST, did not even list *t'foxane)</td>
</tr>
<tr>
<td>35</td>
<td>Tail</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>36</td>
<td>Feather</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>37</td>
<td>Hair</td>
<td>C (assumes *trixa is the basic form in MG)</td>
<td>N</td>
</tr>
<tr>
<td>38</td>
<td>Head</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>39</td>
<td>Ear</td>
<td>C</td>
<td>C (because “the starting points in Tsakonian and Demotic are different”, considers ST form influenced by rather than directly borrowed from MG)</td>
</tr>
<tr>
<td>40</td>
<td>Eye</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>41</td>
<td>Nose</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>42</td>
<td>Mouth</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>43</td>
<td>Tooth</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>44</td>
<td>Tongue</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>45</td>
<td>Claw</td>
<td>C (did not suspect the phonology was borrowed)</td>
<td>B</td>
</tr>
<tr>
<td>46</td>
<td>Foot</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>47</td>
<td>Knee</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>48</td>
<td>Hand</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>49</td>
<td>Belly</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>50</td>
<td>Neck</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>51</td>
<td>Breasts</td>
<td>C</td>
<td>C (takes *stiθi as the basic term; surprisingly for Kassian, does not note the phonological difficulty, which means that not only *stiθos but *stiθi must be recent loans)</td>
</tr>
<tr>
<td>52</td>
<td>Heart</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>53</td>
<td>Liver</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>54</td>
<td>Drink</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>55</td>
<td>Eat</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>56</td>
<td>Bite</td>
<td>N (assumes not cognate, since they look so different)</td>
<td>C (accepts Pernot’s derivation from *dákno:)</td>
</tr>
<tr>
<td></td>
<td>Blažek</td>
<td>Kassian</td>
<td>Nicholas</td>
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<tr>
<td>---</td>
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<td>---------</td>
<td>----------</td>
</tr>
<tr>
<td>57</td>
<td>See N</td>
<td>N</td>
<td>N*</td>
</tr>
<tr>
<td>58</td>
<td>Hear N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>59</td>
<td>Know C (unaware of the phonological difficulty of ‘kseru’)</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>60</td>
<td>Sleep N</td>
<td>N</td>
<td>N#</td>
</tr>
<tr>
<td>61</td>
<td>Die C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>62</td>
<td>Kill C (unaware of the phonological difficulty of sko’tunu)</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>63</td>
<td>Swim C (assumes kuüum’bu is the basic term, unaware of ‘preu’)</td>
<td>N</td>
<td>N#</td>
</tr>
<tr>
<td>64</td>
<td>Fly C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>65</td>
<td>Walk N</td>
<td>N (considers ‘engu ‘go’ &lt; AG èrk’omai ‘come’ the basic form, glossing ‘go’ rather than ‘walk’. Does not acknowledge the form ‘ţfaxu ‘walk’)</td>
<td>N#</td>
</tr>
<tr>
<td>66</td>
<td>Come N</td>
<td>N</td>
<td>N#</td>
</tr>
<tr>
<td>67</td>
<td>Sit C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>68</td>
<td>Lie N (posits the basic term in ST is ‘vanu ‘to set’)</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>69</td>
<td>Stand C (unaware of the phonological difficulty of ‘steku’)</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>70</td>
<td>Give C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>71</td>
<td>Say C (assumes MG ‘lalo is the basic term)</td>
<td>N (Kassian 2018:11 lists only the aorist suppletive stem pe- as borrowed from MG)</td>
<td>N#</td>
</tr>
<tr>
<td>72</td>
<td>Sun C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>73</td>
<td>Moon C</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>74</td>
<td>Star C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>75</td>
<td>Water N</td>
<td>N</td>
<td>N*</td>
</tr>
<tr>
<td>76</td>
<td>Rain C</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>77</td>
<td>Stone C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>78</td>
<td>Sand C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>79</td>
<td>Earth C (takes ‘xoma rather than i’yi as the basic form)</td>
<td>B (takes ‘xoma rather than i’yi as the basic form)</td>
<td>B</td>
</tr>
<tr>
<td>80</td>
<td>Cloud C</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>81</td>
<td>Smoke C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>82</td>
<td>Fire N</td>
<td>N</td>
<td>N#</td>
</tr>
<tr>
<td></td>
<td>Blažek</td>
<td>Kassian</td>
<td>Nicholas</td>
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<tr>
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<td>----------</td>
</tr>
<tr>
<td>83</td>
<td>Ash</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>84</td>
<td>Burn</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>85</td>
<td>Path</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>86</td>
<td>Mountain</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>87</td>
<td>Red</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>88</td>
<td>Green</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>89</td>
<td>Yellow</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>90</td>
<td>White</td>
<td>C (assumes <em>lefkos</em> has genuinely survived in MG; recalls that Villoison expressed surprise at its survival in Tsakonian)</td>
<td>N</td>
</tr>
<tr>
<td>91</td>
<td>Black</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>92</td>
<td>Night</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>93</td>
<td>Hot</td>
<td>C (assumes <em>θer'mos</em> is the basic term in MG)</td>
<td>N (has difficulty finding expressions for ‘warm’, which he takes as the base concept, as opposed to ‘hot’)</td>
</tr>
<tr>
<td>94</td>
<td>Cold</td>
<td>C (assumes <em>psix'ros</em> had survived in MG: it is secondary term)</td>
<td>N</td>
</tr>
<tr>
<td>95</td>
<td>Full</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>96</td>
<td>New</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>97</td>
<td>Good</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>98</td>
<td>Round</td>
<td>C (unaware of the phonological difficulty of <em>strondzile</em>)</td>
<td>C (exceptionally, unaware of the phonological difficulty of <em>strondzile</em>)</td>
</tr>
<tr>
<td>99</td>
<td>Dry</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>100</td>
<td>Name</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Non- Borrowed</td>
<td>97</td>
<td>72</td>
<td>86</td>
</tr>
</tbody>
</table>

| Cognate Non-Borrowed | 76 (78.4%) | 45 (62.5%) | 59 (68.6%) |

Blažek is not a Hellenist, let alone a Tsakonologist, and it shows: he is often naïve about assuming Puristic cognates of ST were genuine survivals; he does not try to establish which among multiple alternatives is the basic term and allows any match among synonyms; and he is unfamiliar with Tsakonian phonology and its diagnostic value. In the case of ‘seed’, he has decided to discount the cognate pair for having different derivational suffixes; but the same objection could be raised for ‘eye’ or ‘tree’, and has not been.

Although Kassian has not used the range of sources this paper has, he is meticulous about trying to work out which terms are basic, and his conclusions are mostly the same as this paper’s. Kassian is if anything even more strict than I have been about considering terms to be MG loans,
and on inspection it is clear his criterion has been to consider a term a loan from MG if it is a post-
Koine innovation in MG, even when those innovations are still cognate, as with ‘bark’ (AG pʰloitós; 
ST ‘frua’ < MG ‘fluđa’ < back formation of ‘fluđion’ < DIM. of pʰloitós), or ‘long’ (AG makróς, 
MG changed declension ma’kris < *ma’krys, ST matching declension ma’kru). That is a methodo-
dological difference, and it is consistent with regarding Tsakonian as a Doric variant with heavy 
MG colouring; Pernot’s contrary approach, of regarding Tsakonian as a Modern Greek variant 
with a Doric core,11 has less difficulty in admitting phonologically native forms like ts’a’pruk‘u ‘lie’ 
or ‘j/koki ‘liver’ as Tsakonian cognates of ksa’plono and si’koti, rather than as early loans. Kassian 
also makes some different interpretations of basic terms (‘warm’ vs ‘hot’, ‘go’ vs ‘walk’).

The massive disparity in cognate proportions between the three approaches point to the methodological challenges around lexicostatistics — all the more pronounced in the differ-
ent results I obtain from Kassian, although we are in basic agreement about both the data and most etymologies.

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xxi, 411 p. (In Modern Greek)


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of Philosophy]. Appendix. No. 30). (In Modern Greek)

(In German)

11Kisilier (2017) takes a similar approach, arguing for example that in its loanwords, Tsakonian is indistinguishable 
from Modern Greek.


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