

SPECIAL VS. NORMAL MYCENAEAN REVISITED¹

Risch (1966) originally proposed, and it is now generally accepted, that it is possible to distinguish two dialects of Mycenaean in the tablets from Pylos, so-called *mycénien normal* and *mycénien spécial*. The theory has since evolved such that evidence for *mycénien spécial* features is posited at other sites, especially Knossos, and Risch's three original diagnostic features have been increased to five. As listed by Palaima (1998-1999) they are:

FEATURE 1.

Mycénien normal has athematic dative singular in *-e = /-ei/*, the inherited PIE dative singular morph; *mycénien spécial* has *-i = /-i/*, the locative singular morph which has replaced the inherited dative morph as it has in the classical dialects. (= Thompson 1996-1997, Isogloss II.)

FEATURE 2.

Mycénien normal has an *o* reflex of syllabic nasals in the environment of labial consonants; *mycénien spécial* has *a*. (= Thompson 1996-1997, Isogloss I.)

FEATURE 3.

In certain words *mycénien normal* has an *i* vocalism where *mycénien spécial* has *e* in the environment of a labial consonant: *a-ti-mi-to*, /Artimitos/ (*normal*) vs. *a-te-mi-to*, /Artemitos/ (*spécial*), 'Artemis (gen. sg.)'. (= Thompson 1996-1997, Isogloss III.)

FEATURE 4.

The cluster **-ti-* assibilates to */-si-/* in *mycénien normal* but remains unassibilated */-ti-/* in *mycénien spécial*. (= Thompson 1996-1997, Isogloss IV.)

FEATURE 5.

Metathesis in sequences of liquid + vowel, such that *mycénien normal* has spellings such as *to-no*, /thornos/ while *mycénien spécial* has *to-ro-no*, /thronos/, 'chair'.

¹ I am indebted to Prof. J. T. Killen for his comments on this paper.

The following bibliographical abbreviations are used:

DELG = P. Chantraine, *Dictionnaire étymologique de la langue grecque*. Paris: Klincksieck. 1968-1980.

D.Mic. = F. Aura Jorro, *Diccionario Micénico*. 2 vols. Diccionario Griego-Español, Anejos 1 and 2. Madrid: Consejo Superior de Investigaciones Científicas. 1985-1993.

MGL = A. Morpurgo Davies, *Mycenaeae graecitatis lexicon*. Roma: Edizioni dell'Ateneo. 1963.

MT IV = Jean-Pierre Olivier, *The Mycenae Tablets IV*. Leiden: E. J. Brill. 1969.

TITHEMY = José L. Melena and Jean-Pierre Olivier, *TITHEMY. The Tablets and Nodules in Linear B from Tiryns, Thebes and Mycenae*. Suplementos a *Minos* 12. Salamanca: Ediciones Universidad de Salamanca. 1991.

Thompson 1996-1997, p. 313 notes that in its behaviour with respect to FEATURES 1 and 2, it is *mycénien spécial* which looks like a 'normal' dialect while *mycénien normal* looks idiosyncratic; and on the basis of the distribution of *spécial* vs. *normal* treatments of FEATURES 1 and 2 in the documents, concludes that far from there being two distinct dialects at Pylos, the one Pylian dialect is undergoing processes of linguistic change. On this analysis, the *normal* behaviours are the old, unchanged forms, the *spécial* behaviours the new, changed forms; and the pattern of old vs. new forms is characteristic of linguistic changes spreading by lexical diffusion.

Palaima (1998-1999, esp. p. 211, n. 25) makes two complaints: (i) in coming to this conclusion I considered only FEATURES 1 and 2, while I dismissed FEATURES 3 and 4 as 'phantoms', and ignored FEATURE 5 altogether; and (ii) I defined 'normal' as looking like historical Attic-Ionic. The present paper is intended as an answer to those criticisms.

1. FEATURE 3: e vs. i

FEATURE 3 describes the fluctuation of spelling between *e* and *i* in a highly restricted group of words; this is taken to reflect directly a difference of vocalism /e/ in *mycénien spécial* vs. /i/ in *mycénien normal*. The identification of this FEATURE as a diagnostic isogloss dates back to Risch (1966). The observation made by Ventris and Chadwick (1956, p. 76) and confirmed in a thorough investigation by Hester (1958), that the evidence is limited to proper names and to words which lack Greek etymologies, has largely been ignored, and has certainly not stopped Woodard (1986) from seeing evidence of *mycénien spécial* variants of this FEATURE at Knossos. The FEATURE can be restated formally as:

FEATURE 3 (reformulated).

Mycénien normal has a lexically restricted development whereby [e] raises to [i] in a labial environment; *mycénien spécial* (like the classical dialects generally) lacks this development. Formally, in *mycénien normal*:

$$e > i / \left\{ \begin{array}{l} \text{--- [+labial]} \\ \text{[+labial] ---} \end{array} \right\} \text{ (with lexical restrictions)}$$

Suspicion should instantly be aroused by the lexical restriction imposed on this sound change. A simple glance at the pages of *D.Mic.* reveals that the raising of *e > i* in a labial environment is not a general feature of Mycenaean, and could only be a general feature of *mycénien normal* if all instances of unraised *e* in labial environments were forms from the allegedly substandard variety *mycénien spécial*. This is absurd at first thought, and even more so when the data themselves are considered. In the corpus there are over 700 distinct sign groups, each attested one or more times, which contain *e* in a labial environment.² They

² 'Sign groups' does not equate to 'lexemes', since many of these will be different forms of the same lexeme.

are attested at all sites, including Knossos, where the evidence for the existence of *mycénien spécial* features is doubtful at best. The only way to preserve this FEATURE, then, is to impose the lexical restriction. But sound laws do not have such restrictions; and this particular restriction simply states that the words which are affected are those which are affected, without trying to isolate any common phonological feature which makes them susceptible to the change, or any common morphological feature which might account for analogical change. The one feature that affected lexemes do turn out to have in common is that they all lack convincing Greek etymologies.

The forms which are alleged to provide evidence for this FEATURE can be classified as cases where (i) there is fluctuation between *e* and *i* in the same word in Mycenaean itself; or where (ii) Mycenaean has *i* where we expect to find *e*; or where (iii) Mycenaean has *e* where we expect to find *i*. In addition, the word *i-qa* is sometimes cited as an example of a fourth class, where (iv) etymologically we expect *e* but find *i* even in classical Greek.

1.1 Mycenaean *e* ~ Mycenaean *i*

Here the *i* forms would be regular outcomes of *mycénien normal* raising, the *e* forms unraised in *mycénien spécial*.

a₃-ki-wa-to KN Uf 987 (ms. 123)

vs.

a₃-ke-wa-to KN Db 1295; Dv 1190 (both ms. 117)

Anthroponyms; the former is found on a land tenure record, the latter on a pair of sheep records. If the same individual is meant by both names, this may be an instance of the operation of FEATURE 3; but the man of Db 1295 is at a place *ru-ki-to*, the man of Dv 1190 at *ra-to*, and *a₃-ki-wa-to* of Uf 987 is at *ti-ri-to*. It is thus very likely that they are all three different individuals. The assignment of phonetic values to sign groups representing proper names is always etymological, of course; these have been etymologised as /Aigiwastos/ (Georgiev 1955b, s.v.; Landau 1958, p. 36, 161 n.1, 169-70) and /Aigeiwastos/ (Landau 1958, p. 35, 170), in which case the difference would be morphological rather than phonological. /Aigei-/ looks like the old dative ending (always in *-e* = /-ei/ in C-stems at Knossos), while /Aigi-/ looks like a compositional vowel (see Meißner and Tribulato 2002, p. 321; it is surely not the new dative–locative ending /-i/, which is otherwise unknown at Knossos;³ and while a dative is semantically plausible in this formation, ‘who delights *in* goats’, it will not explain the same vocalism in, for example, *a₃-ki-pa-ta*, /Aigi-pa(s)tās/ *vel sim.*, ‘goatherd’).

³ Pace Woodard 1986; see Killen 1992a for arguments against the interpretation of forms in *-i* at Knossos as C-stem datives.

a-ki-wa-ta KN As(2) 1516.6 (ms. 101); B(5) 801.3 (ms. 104)

vs.

a-ke-wa-ta PY Jn 431.17 (S310–H2)

a-ke-wa-to PY An 661.11 (S657–H1)

Anthroponyms. Only an example of FEATURE 3 if the *a-ki-* ~ *a-ke-* element represents the same morph. Since the same individuals cannot be referred to in all three instances, we cannot confirm that this is the case.

qa-mi-si-jo KN Sc 135 (ms. «124»)

vs.

qa-me-si-jo KN As 1516.5 (ms. 101)

Anthroponyms. *qa-mi-si-jo* is plausibly /K^wamisios/ based on an ethnic (cf. the Messenian river Πάμισος). Only an example of FEATURE 3 if the names are the same, and since it is not clear that the same individual is being referred to, this cannot be confirmed.

a-ti-mi-te PY Un 219.5 (H15)

vs.

a-te-mi-to PY Es 650.5 (H11: *te* over [[*t̥i*]])

Generally accepted as the dative and genitive respectively of the theonym */Artimis, Artemis/. It is disappointing that the name is only found twice, since we do not know which variant was the more common. The name has no convincing Greek etymology (*DELG*, s.v. Ἄρτεμις), and may well be an import from Asia Minor (Wilamowitz-Moellendorff 1931-1932: p. 1, 324; Nilsson 1941-1950: p. 1, 451). In Es 650 the deliberate correction of a *mycénien normal* form into a *spécial* one goes against the assumed prestige gradient.

i-pa-sa-na-ti PY Eo 247.4 (S149–H41: *i* over [[*e*]]); Eb 1350.A (S149–H41)

vs.

e-pa-sa-na-ti PY En 74.13 (S74–H1); Ep 212.5 (S74–H1)

Anthroponyms. Very probably all four instances refer to the same woman. In En 74.13 *e-pa-sa-na-ti* is a *te-o-jo do-e-ra* holding an *o-na-to* measured at GRA T 2; in Eo 247.4 *i-pa-sa-na-ti* is also a *te-o-jo do-e-ra* holding an *o-na-to* of the same size *pa-ro a₃-ti-jo-qe*. In Ep 212.5 *e-pa-sa-na-ti*, still a *te-o-jo do-e-ra*, holds a *ke-ke-me-na ko-to-na pa-ro da-mo*; in Eb 1350.A *i-pa-sa-na-ti* holds a plot of unknown size *pa-ro da-mo*. Seemingly a genuine instance of FEATURE 3, then, and an important one for the two-dialect hypothesis, since different scribes show the different treatments. It is probably a name of non-Greek origin (Hester 1958, p. 31, 35), possibly connected with the Phrygian toponym Ἰψος (with *e-pa-sa-na-ti* an ethnic based on a toponym **Epsāna*, itself derived from an ethnic in *-ānes*: Ruijgh 1972, p. 103).

ti-mi-to a-ke-e PY Cn 600.7.8.11–15 (S4–H21); Jn 829.13 (S310–H2); Ma 123.1 (S90–H2); Na 361 (S106–H1)

ti-mi-to a-ke-i PY An 661.10 (S657–H1)

ti-mi-ti-ja PY Aq 64.6 (S64–H21); Jo 438.24 (Ci); Vn 493.2 (Ci)

vs.

]te-mi-ti-ja PY On 300.10 (S300-Cii)
te-mi-ti-jo PY Ac 1278 (S1272-Ciii)

Toponyms and an ethnic. *ti-mi-to a-ke-e* is the name of one of the ‘towns’ of the Further Province of Pylos, in these forms in the dative-locative. It is generally etymologised in the nominative as /T^himistos ankos/, where /T^himistos/ is the genitive of the classical Θέμις displaying *mycénien normal i* vocalism, and /ankos/ is an *s*-stem neuter meaning ‘valley’. *ti-mi-ti-ja* is the name of the region surrounding this ‘town’, /T^himistiā/, a derivative of /T^himis/ in /-iā/. On PY On 300 the name of the region appears as *te-mi-ti-ja*. Despite the lacuna immediately before it, the identification of the word is fairly certain: it occurs in a list of *ko-re-te-re* of towns in the Further Province. *te-mi-ti-jo* is an ethnic.

Θέμις has no clear etymology. From the point of view of semantics, a connection with the root *d^heH₁- (cf. τίθημι) is plausible, but there are then problems with the inflexion in /-st-/. One possibility is a compound of t^hemi- with some form of the root *steH₂- (cf. ἵσταμι: Schulze 1966, p. 81; Fränkel 1913, p. 22; Ruipérez 1960, pp. 99-123). If the interpretation of the Mycenaean form is correct, it disproves Frisk’s (1950) explanation of the /-st-/ declension as arising relatively late under the influence of anthroponyms such as Θεμιστοκλῆς, which contain a superlative form. Also problematic is the explanation of Danielsson (1888, p. 51) and Benveniste (1935, p. 34, 81), who see an original neuter */t^hemi, t^hemitos/ which is transferred into the *s*-stem neuters (whence θέμις ἐστί) and then remodelled by blending of the two stems; yet as Chantraine (*DELG*, s.v. θέμις) objects, the neuter use of θέμις appears to be secondary, by analogy with δέον etc.

More recently, Palaima (2000, p. 14) has advanced the plausible theory that *ti-mi-to-* is /Tirmint^hōn/, ‘terebinth tree (gen. pl.)’, and *te-mi-ti-ja*, *ti-mi-ti-ja* /Termint^hiā, Tirmint^hiā/, all connected with classical τέρμινθος, a non-Greek word.

1.2 Mycenaean *i* ~ classical *e*

Here *i* would be the regular outcome of *mycénien normal* raising, the *e* unraised in *mycénien spécial* and in standard Greek (where it is not necessarily a survival from *mycénien spécial*).

di-pa KN K(1) 740.2 (ms. 102?), 875.1.2.3.4.5 (ms. 102)
PY Ta 641.2.2.2.3.3 (S641-H2)

Generally interpreted /dipas/ = classical δέπας, ‘cup’ (Ventris and Chadwick 1956, p. 390). Chantraine (*DELG*, s.v. δέπας) and Palmer (1980, p. 40) both see this as a loanword, possibly from Luwian, where the rebus ideogram for *tipas*, *tepas*, ‘heaven’, resembles a cup.

1.3 *Mycenaean e ~ classical i*

Here the *e* forms would be unraised in *mycénien spécial*; the *i* forms would presumably be survivals from *mycénien normal*, although the raised *normal* form happens to be unattested in Mycenaean.

<i>ku-te-so</i>	PY Ta 707.3 (S641–H2)
<i>ku-te-se-jo</i>	PY Ta 707.2, 708.1.2.3, 713.1 (all S641–H2)
<i>ku-te-se-ja</i>	PY Ta 713.3, 715.1 (both S641–H2)
<i>ku-te-ta-jo</i>	PY Ta 707.1a (S642–H2) ⁴

Generally interpreted as /kutesos/ = classical κύτισος, ‘bastard ebony’, and its derived adjectives. Chantraine (*DELG*, s.v. κύτισος) sees an African loanword. It is especially difficult to see κύτισος as a survival of a *mycénien normal* raised form since there is no conditioning labial.

<i>me-tu-ra</i>	PY Ae 8, 72, 264 (all S8–H42)
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Possibly /metula/ = classical μίτυλος, ‘hornless cattle’ (Ventrìs and Chadwick 1956, p. 169, 400); but the context is very obscure, and other interpretations are possible, e.g. /met^hurā/, ‘wine jar’ (Gallavotti 1956, p. 65).

<i>qe-to</i>	PY Ta 641.2 (S641–H2) MY Ue 611.4 (ms. 60)
<i>qe-ti-ja</i>	MY Ue 611.3 (ms. 60)

Because it appears in conjunction with types of VESSEL ideograms, *qe-to* has generally, but mistakenly, been identified with classical πίθος ‘storage jar’ (so Bennett, *apud* Ventrìs and Chadwick 1956, p. 407). But the standard etymology of πίθος is < **b^hid^h*- (via **p^hit^h*- > *pit^h*- by Grassmann’s Law: *DELG*, s.v. πίθος). An etymon starting with a labiovelar would result in classical *τίθος.

1.4 *Mycenaean i-qa, classical ἵππος*

Here the *i* vocalism is common to the Greek dialects of the classical period (ἵππος, Doric ἵκκος). The IE languages (L. *equus*, Skt. *ásva-* etc.) point to an etymon **H₁ekwos*. The /i/ of Greek is thus mysterious; but it is not the only phonological problem which this word exhibits.

The -ππ- or -κκ- of Greek is often assumed to be the normal treatment of **-kw-*—so Buck 1933, pp. 127–128, for example— but the only evidence is this word.⁵ The Mycenaean spelling of /kw/ as -q- instead of regular -kV-wV- is unusual. Sihler (1995, p. 160) wonders whether monomorphemic /-kw-/ was treated

⁴ If a scribal error for *ku-te-se-jo*, with Ventrìs and Chadwick (1956, p. 399); but Ruijgh (1967, p. 217 and n. 30) sees an adjective of material derived from a hypothetical **ku-te-ta*.

⁵ Sihler (1995, p. 160) mentions also Boe. πᾶμα ‘possession’, epigraphically attested as ταππαματα ‘possessions’, θιοππαστος ‘belonging to the god (?)’, supposedly cognate with Ved. -*sṵātrá-*. An etymon **k^weH₂* would account for all of the forms. As Sihler notes, the meaning of the Ved. word, which is used only of soma, is unknown, so the alleged connection between the forms is extremely uncertain.

differently (whether phonetically or graphically) from /-k\$w-/ across a morpheme boundary. The /h/ of the classical form is also unexplained.

If we could legitimately posit a regular Mycenaean (or *mycénien normal*) raising of $e > i$ before a labial then the classical i vocalism could potentially be explained as a survival of *mycénien normal* /hikwos/, as Mallory and Adams (1997, p. 274) suggest. We would have to assume a development whereby $k > k^w$ / — w in order to bring the e into a labial environment, of course, although this would have to be restricted to those cases where no morpheme boundary intervened.

On balance it seems more likely to be a borrowing from another (admittedly unattested) IE language.

1.5 Analysis

No sound law can be formulated to describe the raising of $e > i$ in *mycénien normal* which underlies FEATURE 3. This fact alone should be sufficient reason to raise suspicion.

When we look at the words which attest FEATURE 3 the situation rapidly deteriorates. It is pointless speculating about anthroponyms unless we know that exactly the same forms are involved, and we have no way of knowing this unless the same individuals are certainly referred to. The connection between πίθος and *qe-to* is spurious. To explain μίτυλος, κύτισος and ἵππος as survivals of *mycénien normal* forms into all dialects of the classical period is stretching plausibility. This is especially so in the case of ἵππος, which has multiple phonological anomalies, only one of which, the i vocalism, would be thereby explained; far better to see Greek ἵππος as a loanword from another IE language. It is not clear that μίτυλος and *me-tu-ra* are connected, and κύτισος lacks the labial environment required to condition raising in *mycénien normal* according to FEATURE 3.

We are left, then, with a rump of proper names which alternate in Mycenaean: /Artemis/ ~ /Artimis/; *e-pa-sa-na-ti* ~ *i-pa-sa-na-ti*; *te-mi-* ~ *ti-mi-*; and two loanwords where the vocalism alternates between Mycenaean and classical Greek: *di-pa* ~ δέπας; *ku-te-so* ~ κύτισος. None of the proper names has a Greek etymology, and two of them, Artemis and *e-pa-sa-na-ti*, are very probably foreign, as is *te-mi-* ~ *ti-mi-* if Palaima (2000, p. 14) is correct. The evidence for FEATURE 3 is rapidly evaporating. It is even further diminished by the correction of *mycénien normal a-ti-mi-to* into *spécial a-te-mi-to* against the supposed prestige gradient in PY Es 650.

Given the restriction of the alternation to non-Greek words, it is best explained as an attempt to write a non-Greek vowel mid-way between /e/ and /i/, perhaps [ɛ̃]. The scribes are aware that it is neither /e/ nor /i/, but are not sure which vowel it most closely approximates to, and therefore which sign best represents it. The correction of *e-pa-sa-na-ti* to *i-pa-sa-na-ti* in PY Eo 247, and of *a-ti-mi-to* into *a-te-mi-to* in Es 650 reflects this uncertainty. The same vowel

need not be involved in all cases. *di-pa* is always written with *i*, for example, so perhaps the foreign vowel was significantly closer to Mycenaean /i/ than /e/; classical δέπας could have been borrowed at a different period, when either the Greek or the foreign vowel (or both) had changed quality. Similar considerations apply to *ku-te-so* ~ κύτισος.

If the alternation underlying FEATURE 3 is caused by uncertainty over how to represent a non-Greek vowel, it is in no sense an isogloss which can divide two Greek dialects. FEATURE 3 is therefore irrelevant for the two-dialect hypothesis. It is a phantom.

Also irrelevant is Palaima's observation (1998-1999, p. 211, n. 26) that Arcado-Cypriot has an 'i- treatment of e- in lexemes like ἐν.' The Arcado-Cypriot raising of *e* > *i* is triggered by a nasal, not a labial, environment. Mycenaean lacks this development.

2 FEATURE 4: Nonassibilation

FEATURE 4, originally proposed by Nagy (1968), concerns the lack of assibilation of the sequence /ti/ to /si/ in *mycénien spécial*. Further data supporting the existence of FEATURE 4, and thus of *mycénien spécial*, at Knossos were added by Woodard (1986). Assibilation versus its lack is generally held to be a core diagnostic isogloss separating East and West Greek (e.g. Chadwick 1976, pp. 104f), and accordingly Chadwick (1976) proposed that nonassibiling *mycénien spécial* be identified as proto-Doric.

In reality, the position of the dialects with respect to the change /ti/ > /si/ is not so clear, many words showing unassibilated /ti/ even in so-called assibiling varieties, many showing /si/ even in so-called nonassibiling varieties. Schwyzer (1959, p. 270) assumed that West Greek originally preserved /ti/ across the board, claiming that 'σῆ ist in *geschichtlicher Zeit* aus in die τῆ-Dialekte gekommen' (my emphasis). He isolated phonetic conditioning factors for assibilation in East Greek, such that /ti/ is preserved word-initially and after /s/; word-finally the usual outcome is /si/; word-internally /si/ is less frequent, but it is more frequent before vowels than before consonants. Assibilation would therefore be an East Greek sound change which was retarded in certain phonetic environments and which failed to run to completion, leaving a residue of unassibilated forms.

Such a view, however, fails to take account of the fact that the distribution of /si/ vs. /ti/ forms seems to show morphological as well as phonetic conditioning. In addition to its phonetically-conditioned preservation word-initially and after /s/, /ti/ is retained before the feminine suffix -ιδ-, the adjectival suffix -ικό- and the verbal suffix -ίζω, and in the dative singular of C-stem nouns with stems in -τ. By contrast assibilation is usual, even in West Greek, in most nouns in */-tis/, and most adjectives in -λος and nouns in -ία built to stems in -τ (but not all — there are some 150 forms in -τιλος, and some 180 in -τία)⁶; and it is hard to see

⁶ Source: Perseus Project dictionary lookup tool (URL: <<http://perseus.mpiwg-berlin.mpg.de/cgi-bin/resolveform>>, consulted 21 July, 2003). These figures are approximate, but discount forms in -στίλος and -στία.

these as relatively late intrusions into West Greek. Furthermore, even in East Greek, and even within the categories already mentioned, there are exceptions. The */-tis/ nouns μῆτις and μάντις, for example, never show assibilation; nor ἀντί or ἔτι. In fact, the forms in which /si/ is characteristic of East Greek and /ti/ of West Greek are limited to (i) the 3rd person singular and plural endings (East Greek δίδωσι vs. West Greek δίδωτι, etc.); (ii) the lexeme εἴκοσι vs. *ἑίκατι*, ‘twenty’, and the ‘hundreds’ suffix -κόσιοι vs. -κάτιοι; (iii) isolated forms Ἄρτεμίσιος vs. Ἄρταμίτιος, Ἄφροδίσιος vs. Ἄφροδίτιος. This has the look of a sound change which has been obscured by analogical levelling to the point where the conditioning factors are beyond recovery, but clearly it is simplistic to say that East Greek assibilates while West Greek does not, except perhaps in the three categories mentioned.

Furthermore, assibilation is largely restricted to original */ti/ sequences. Original */di/ is never assibilated. In the classical dialects, original */t^{hi}/ becomes /si/ only in ethnic adjectives built to non-Greek toponyms in -νθος, and even here -νθιος is often retained by analogy with the toponym. Mycenaean *ko-ru-si-jo* must be added to this list, but this too is built to a non-Greek noun, /korus, koruthos/. Since the sequence /t^{hi}/ does not assibilate in native Greek words, Sihler (1995, p. 150) makes the appealing suggestion that the adjectives in /s/ were borrowed in that form, rather than showing a native Greek phonological development. If so, nonassibilated forms such as Κορίνθιος are possibly to be explained as internal formations built from the toponym plus the Greek adjectival suffix -ιος.

2.1 *The evidence for nonassibilation*

The following are the forms which exhibit nonassibilation. Forms in which assibilation is not expected (such as original /sti/ sequences) are not included unless there is some doubt. Sign groups which lack a plausible Greek interpretation are omitted.

a-e-ti-to PY Fr 1200 (S1203–Cii)

Adjective /aertiton/, ‘not dyed with ἔρτις’ (cf. ἔρτις· κρημνός, Hsch., where κρημνός = κριμνός, ‘purple dye’). Assibilation before a consonant in medial position is not regular. The declensional type and etymology of ἔρτις are not known.

a-ke-ti-jo PY An 209.3 (S172–H1)

Anthroponym, plausibly /Akestios/ *vel sim.*, in which case assibilation is not expected.

a-ki-ti-to PY Na 406.B (S106–H1), 926 (S106–H1)

Adjective /aktiton/, ‘uncultivated’. Assibilation in medial preconsonantal position is not regular, and may be prevented in this particular case by analogy with the unprefixated forms of the root (/ktiensi/ etc. for which see below). It may also be that /kti/, like /sti/, is a sequence which does not undergo assibilation.

a-pa-i-ti-jo KN L 588.1 (ms. uncl.)

Anthroponym, plausibly /Ap^haistios/ *vel sim.*, in which case assibilation is not expected.

a-re-su-ti-jo MY Au 609 v.3 (ms. 57)

Anthroponym, plausibly /Aleisunt^hios/ *vel sim.*, built as an ethnic from a toponym */Aleisunt^hos/ (for which, cf. Ἀλεῖσιον). Assibilation of /t^hi/ is not expected.

a-sa-ti-ja PY Mn 162.4 (S90–H1)

a-si-ja-ti-ja PY Ae 134 (S8–H42); Cn 4.1 (S4–H21), 254.1–10 (S4–H21), 1197.1 (S131–H1); Jn 750.1 (S310–H2), 829.16 (S310–H2); On 300.11 (S300–Cii); Xa 639 (Ciii)

The name of a place in the Further Province of Pylos. Possibly /Asiatiā/, denoting ‘region of the /Asiatai/, inhabitants of /Asia/’ (Deroy 1968, pp. 68f); or a non-Greek toponym plus the suffix /iā/.

a-ti-ja-wo PY An 654.2 (S657–H1); Jn 845.12 (S310–H2)

Anthroponym, probably a hypocoristic /Antiāwōn/ *vel sim.* The preposition ἀντί does not assibilate in any dialect.

a-ti-jo KN As (2) 1516.14 (ms. 101); Dv 1470 (ms. 117)

Anthroponym. If a hypocoristic /Antiōn/ *vel sim.*, an example of regular nonassibilation of /anti/; if /Ant^hiōn/ *vel sim.*, an example of regular nonassibilation of /t^hi/.

a-ti-ke-ne-ja MY Oe 110.2 (ms. 51)

Anthroponym. If /Antigeneia/, an example of regular nonassibilation of /anti/.

a-ti-mi-te PY Un 219.5 (H15)

a-[[t̃i]]-mi-to PY Es 650.5 (H11)

Forms of the name of the goddess /Artemis, Artemis/. Assibilation is not regular in preconsonantal medial position, and if, as seems likely, this is a non-Greek name whose vowel is not identical to native /i/, it need not be expected in any case.

a-ti-pa-mo KN Od (1) 562.1 (ms. 103)

PY Jn 320.6 (S310–H2), 750.4 (S310–H2)

Anthroponym. If /Antip^hāmos/ *vel sim.*, an example of regular nonassibilation of /anti/.

a-wo-ti-jo KN Dd 1157.B (ms. 117)

Anthroponym, plausibly /Awōtiōn/ *vel sim.*, cf. Homeric ἄωτος, ‘finest of its kind’.

a₃-ku-pi-ti-jo KN Db 1105.B (ms. 117)

Anthroponym, probably /Aiguptios/, ‘the Egyptian’, formally an ethnic built to the toponym /Aiguptos/; cf. the Homeric anthroponym Αἰγύπτιος (*Od.* 2.15).

Adjectives in /-ios/ built to stems in /t/ normally undergo assibilation in all dialects, but an assibilated form of this adjective, *Αἰγύψιος, is not known in any dialect.

- a₃-ti-jo-qe* PY Eo 247.2–7 (H41)
a₃-ti-jo-qa PY Eb 156.2 (H41), 846.A (H41); En 74.11.12 (S74–H1);
 Eo 247.1 (H41); Ep 301.2 (S74–H1)

Forms of the anthroponym /Ait^hiok^ws/, ‘Ethiopian’ or ‘dark faced’, and thus examples of the regular nonassibilation of /t^hi/.

- da-]*22-ti[* KN X 5784 (ms. uncl.)
*da-*22-ti-ja* KN G 820.3 (ms. uncl.); Lc (1) 7901 (ms. 103); V (5) 756.B
 (ms. 125), (5) 1002.B (ms. 125); Xe 544.b (ms. 103)
*da-*22-ti-jo* KN E (2) 669.2 (ms. 103); Mc 1508.B (ms. 132?)

Ethnics built to the toponym *da-*22-to*. Adjectives in /-ios/ built to stems in /t/ normally undergo assibilation in all dialects, but no corresponding assibilated form of this word is attested.

- do-ti-ja* KN Ap 618.1 (ms. 103), 629.2 (ms. 103); Ce 139.2 (ms. «124»); C (3) 979 (ms. 109); Da 1132.b (ms. 117), 1299.b (ms. 117); Db 1302.B (ms. 117), 1304.B (ms. 117), 1305.B (ms. 117), 1367.B (ms. 117); 1426.B (ms. 117); Dc 1303.B (ms. 117); Dd 1300.B (ms. 117), 1306.B (ms. 117); De 1301.B (ms. 117), 1307.B (ms. 117), 1510.B (ms. 117), 5018.B (ms. 117); Df 1360.B (ms. 117); Dm 1181.B (ms. 117); Dn 1200.1 (ms. 117); Dv 1308.B (ms. 117), 1309.B (ms. 117), 1479 (ms. 117), 9599.B (ms. 117?); E 1569.1 (—); Le 641.3 (ms. 103); L (4) 475 (ms. 208), (4) 484 (ms. 208), 520.1 (—); X 5887.2b (ms. 103)
do-ti-jo KN B (3) 7035 (ms. 106); Dl (1) 7134.A (—); V (4) 653.1 (ms. 103).

A toponym, perhaps /Dōtiā/, and ethnics derived from it; cf. the Thessalian Δῶπιον πεδῖον.

- e-ti-me-de-i* PY Fn 324.1 (S324–Ciii)
e-ti-ra-wo PY Cn 131.10 (S131–H1), 655.9 (S719–H1); Sa 1264 (H26:
e-ti-ra-wo-jo)

Case forms of anthroponyms, plausibly /Ertimēdēs/ and /Ertilāwōn/ *vel sim.* respectively. If so, they are τερψίμβροτος type compounds, where assibilation in the first member is expected in all dialects.

- e-ti-we* PY Fr 343.a (S343–H4), 1211 (S343–H4), 1224.a (S1202–H2)

An adjective describing oil, probably /ertiwen/, ‘dyed with ἔρτις, purple-dyed’. See above under *a-e-ti-to[*.

- ka-ma-ti-jo-jo* TH Z 850 (ms. uncl.)

Anthroponym in the genitive case, possibly /K^hamantioio/, formally perhaps a patronymic built to the anthroponym *ka-ma-to*, /K^hamantos/.

ka-pa-ti-ja PY Eb 338.A (S149–H41); Ep 704.7 (S74–H1), 539.9 (S74–H1);
Un 443.3 (S6–H6)

Feminine anthroponym. In form, seemingly an ethnic /Karpāt^hiā/ from a toponym */Karpāt^hos/ (Ventris and Chadwick 1953, p. 101; 1956, p. 419). The assibilated variant *ka-pa-si-ja*, /Karpasiā/ is found at PY Vn 851.12 (H12). Since */t^hi/ does not regularly undergo assibilation, it may be that /Karpāt^hiā/ is the expected Greek form derived from the toponym + /iā/, while *ka-pa-si-ja* reflects a non-Greek formation —there is no evidence that the two spellings refer to the same individual.

ke-ti-ro KN Da 1323.B (ms. 117); U (1) 172 (ms. «124»); Xd 7813 (ms.
«124»)
PY Jn 415.3 (S310–H2)

Anthroponym, perhaps /Kertilos/, a hypocoristic of /Kertilāwos/ *vel sim.*, or /Kestilos/, a hypocoristic of /Kestilāwos/ *vel sim.* If the latter, this is an example of expected nonassibilation of /sti/; if the former, it is an example of lack of expected assibilation in the first member of a τερψίμβροτος compound.

ki-ti-je-si PY Na 520.B (S106–H1)

Verbal form /ktiensi/, 3rd pl. from */kteimi/, related to classical κτίζω, with a meaning akin to ‘cultivate’. Other forms of the same verb (e.g. pres. pass. ppl. /ktimenā/) and derivatives (e.g. nomen agentis /ktitās/) are common, especially in the E– series at Pylos. The ending clearly shows assibilation from inherited */-enti/, while /kti/ in the root has not assibilated, either in Mycenaean or in the classical forms of the verb. Either /ti/ preceded by /k/ in word-initial position counts as word initial /ti/ (which does not assibilate) —and then compounds such as /aktiton/, see above, and class. ἀποκτίζω, are protected by analogy with the simplex form— or else the sequence /kti/, even medially (at least when tautosyllabic), like the sequence /sti/, is not subject to assibilation.

ko-ni-ti-ja-ja PY Vn 879.2 (Cii)

A term denoting building materials, perhaps formally an adjective in /-aio-/ built to a noun in /-tio-/ or /-tiā/ (Lejeune, 1958, p. 268). A noun in /-tiā-/ would be expected to have undergone assibilation, but in the absence of a convincing phonetic interpretation, speculation is pointless.

ku-ta-ti-jo, -ja KN As 1516.12 (ms. 101: *ku-]ta-ti-jo*); Ga 419.1.2b (ms. 136),
673.1 (ms. 136); G 820.3 (ms. uncl.); Wb 5662 (ms. uncl.); X
7897 (ms. uncl.), 7894 (ms. uncl.: *]ta-ti-jo*)

Ethnic adjective based on the toponym *ku-ta-(i-)to*, /Kutaiton/. An assibilated form *ku-ta-si-jo* is used as an anthroponym on Da 1394 and Dv 1237 (both ms. 117), and devoid of context on X 7891 (ms. 118).

ma-ti-jo KN D 1024.1 (ms. uncl.)

ma-ti-ko KN Vc (1) <295> (ms. «124»?; *]ma-ti-ko*); V (6) 831.4 (ms.
203); X 5074 (ms. uncl.)

Anthroponyms, possibly /Mantios/, /Mantikos/, connected with the noun μάντις, ‘seer’, which fails to show assibilation in any dialect.

me-ri-ti-jo PY Wr 1360.β–γ (Ciii)

Adjective describing wine, /melitios/, ‘honeyed’. *Pace* Chadwick 1976, pp. 113f., there is no evidence that classical μελίτινος is a replacement for an earlier *μελίσιος —indeed the unassibilated form μελίτιον is attested in the Hesychian gloss μελίτιον· πόμα τι Σκυθικὸν μέλιτος ἐψομένου σὺν ὕδατι καὶ πόα τινί. Assibilated forms of the root are, by contrast, unknown.

me-ta-ki-ti-ta PY An 610.3.5.9.10.14.15 (S1–H1)

Noun /metaktitās/, built to the stem of the verb κτίζω, albeit of uncertain meaning. For the nonassibilation of the sequence /kti-/, see above under *a-ki-ti-ta* and *ki-ti-je-si*.

me-ti-ja-no PY Ub 1318.3 (H32); Vn 1191.1 (Ciii: *me-ti-ja-no-ro*)

Forms of an anthroponym. If /Mēstiānōr/, ‘adviser of men’, assibilation is not expected. If /Mētiānōr/, ‘tricker of men’, this is an example of a τερψίμβροτος compound with unassibilated first member.

mi-ra-ti-ja, -a-o PY Aa 798 (S240–H1), 1180 (S240–H1); Ab 382.B (S186–H21: *mi-ra-ti-ra* in error), 573.B (S186–H21); Ad 380 (S290–H23), 689 (S290–H23).

Generally interpreted /milātiā/, ethnic derived from the toponym *Milātos*, either Μίλατος on Crete, or Μίλητος in Asia Minor. No corresponding assibilated form is attested.

mu-ti-ri PY Ep 212.6 (S74–H1)

Feminine anthroponym, possibly /Murtilis/, connected with μύρτος, ‘myrtle’. Both assibilated and nonassibilated forms are attested in alphabetic Greek. This is not a morphological category in which assibilation is regular.

mu-ti-ri-ko PY Cn 1287.6 (H31)

Anthroponym, possibly /Murtiliskos/, connected with μύρτος, ‘myrtle’, for which see *mu-ti-ri* above.

na-pu-ti-jo KN Db 1232.B (ms. 117)
PY Jn 845.11 (S310–H2)

Anthroponym, possibly /Nāputios/, ‘dumb’, for which cf. Homeric νηπύτιος. The etymology is unclear. A connection with ἠπύω seems reasonable (*DELG*, s.v. νήπιος), but then the origin of the /t/ is obscure. Specht (*KZ* 56, 1928–9, pp. 122f.) sees a cognate of the Lithuanian diminutive suffix *-utis*, but in any event it is unlikely that we are faced with one of the morphological categories in which assibilation is expected, viz. an adjective in /-ios/ built to a stem in /t/. Certainly, the word does not show assibilation in alphabetic Greek.

o-ni-ti-ja-pi PY Ta 707.1 (S641–H2)

Adjective in the instr. pl. fem. describing *o-pi-ke-re-mi-ni-ja-pi*, /ornit^{hi}āp^{hi}/, ‘(decorated) with birds’; an example of expected nonassibilation of the sequence /t^{hi}/.

o-pi-ti-ni-ja-ta PY Eb 472.A (H41), 477.A (H41)

Designation of a person, perhaps /opit^hiniatās/, ‘shore-dweller’, or some other derivative of θίς, θινός, ‘seashore’. If so, an example of expected nonassibilation of /t^hi/.

o-ro-ti-jo PY An 724.10 (S657–H1)

Anthroponym, perhaps formally an ethnic /Olont^hios/ based on a toponym */Olont^hos/ = class. Ὀλυνθος. If so, an example of expected nonassibilation of /t^hi/.

o-ti-na-wo PY Cn 285.14 (S131–H1)

Anthroponym, probably /Ortināwos/, ‘rouser of ships’; for the first element cf. Homeric Ὀρτίλοχος and Ὀρσίλοχος. A τερψίμβροτος compound with unassibilated first member.

po-i-ti-jo KN Da 1314.b (ms. 117)

Anthroponym, perhaps /Phoitios/ *vel sim.*, for which cf. the toponym Φοιτία. If so, an example of nonassibilation, but the spelling -o-i of the diphthong /oi/ is difficult, and the interpretation is ultimately etymological.

po-ti-ja-ke-e PY An 298.2 (S298–H3), 610.11 (S1–H1)

po-]ti-a-ke-ṣi PY An 1281.9 (H12)

Forms of a toponym, the second member of which looks to be the same as that in *ti-mi-to a-ke-e*. The first element is more troublesome. It could be the preposition /poti/; Homeric ποτί provides a parallel, and although there it is often assumed to be an Aeolism, Arcado-Cypriot πος looks like an apocopated form of assibilated */poti/.

po-ti-ro KN V (5) 756.A (ms. 125), (5) 1002.A (ms. 125), (5) 1003.A (ms. 125), (5) 1004.A (ms. 125), (5) 1005.A (ms. 125), (5) 1043.A (ms. 125), (5) 1583.A (ms. 125), (5) 7577.A (ms. 125), (5) 7964 (ms. 125)

Designation of a person, perhaps /pontilos/, ‘sailor’, built to the noun /pontos/, ‘sea’, with the suffix /-ilo/ seen in classical ναυτίλος and ποικίλος. The noun /pontos/ does not seem to undergo assibilation in alphabetic Greek derivatives in /-i-/, even in categories which normally trigger it (hence πόντιος etc.), nor does the suffix -ίλος seem to trigger assibilation.

ra-su-ti-jo KN L (9) 761 (ms. 213)

Anthroponym, formally an ethnic adjective, probably /Lasunt^hios/, built to the toponym *ra-su-to*; an example of expected nonassibilation of /t^hi/.

ra-ti-jo KN B (5) 802.1 (ms. 104); E (2) 668.2 (ms. 103)

Anthroponym, possibly formally an ethnic /Lātios/ *vel sim.*, built to the toponym *ra-to* (for which cf. the Cretan toponym Λατώ). Assibilation is expected in an adjective in /-ios/.

ra-u-ra-ti-ja PY On 300.9 (S300-Cii)

ra-u-ra-ti-jo PY Ad 664 (H23)

- ra-wa-ra-ti-ja* PY An 830.11 (S615–H1)
ra-wa-ra-ti-jo PY Cn 45.1.2.3.4.8.9.12 (S4–H21)

Forms of an ethnic adjective built to the toponym *ra-wa-ra-ta* / *ra-wa-ra-ta*₂, probably /Laurant^hios/. Assibilation is not expected.

- ra-wo-ti-jo* KN Ce 61.3 (ms. 124); Vc (1) 203 (ms. «124» s)

Anthroponym, possibly /Lāwost^hios/, hypocoristic of */Lāwost^henēs/. Assibilation is not expected.

- ru-ki-ti-jo* KN C 902.8 (ms. 201); E 668.1 (ms. 103), 670.2 (ms. 103),
 749.2 (ms. 136); Ga(2) 415 (ms. 136); Og 833.6 (ms. uncl.);
 Xd 168.2 (ms. «124»); X 37 (ms. uncl.)
ru-ki-ti-ja KN Ln 1568.1b (ms. 103), Xd 314 (ms. «124»?)

Ethnic adjective based on the toponym *ru-ki-to*, common in the D–, Fh, V and X series; cf. Homeric Λύκτος, *Il.* 2.647 (Ventris and Chadwick 1953, 89, 91). If /Luktios/, assibilation might not be expected in the sequence /kti/ (see above under *a-ki-ti-ta* and *ki-ti-je-si*), but the spelling with *-ki-to* is difficult to reconcile with the Homeric name. Chadwick suggested that the spelling with *ki* rather than *ko* has been influenced by the ethnic, or could ‘indicate an obscure vowel in the non-Greek form of the name’ (Ventris and Chadwick 1972, p. 581). Woodard (1986, p. 64) engages in speculation about a post-Mycenaean syncope from an original **Lukitos*. Ruijgh (1967, p. 180, n. 413) has suggested *Lukistos*, which would fit the spelling and explain the lack of assibilation in the ethnic, but is ultimately etymological.

- sa-ma-ti-ja* KN Ap 639.8 (ms. 103)

Feminine anthroponym. If /Sarmatiā/ *vel sim.* assibilation would be expected, if /Samant^hiā/ *vel sim.* (ethnic from */Samant^hos/) it would not. Any interpretation is etymological.

- ta-ti-qa-we-u* PY An 724.8 (S657–H1)
ta-ti-qa-we-wo PY An 654.11 (S657–H1)

The name of the commander of an *o-ka*, possibly /Statig^woweus/, corresponding to a classical name in ΣΤΑσι- (Georgiev 1955, *s.v.*). Α τερψίμβροτος compound with unassibilated first member.

-]te-mi-ti-ja PY On 300.10 (S300–Cii)
 te-mi-ti-jo PY Ac 1278 (S1272–Ciii)
 ti-mi-ti-ja PY Aq 64.6 (S64–H21); Jo 438.24 (Ci); Vn 493.2 (Ci)

The name of the region of **ti-mi-to a-ko*, and an ethnic adjective built to it. Assibilation is not expected, whether the underlying form is /T^hemistiā/ etc. (connected with θέμις; so the *communis opinio*) or /Termint^hiā/ (connected with τέρμινθος, ‘terebinth tree’; so Palaima, 2000, p. 14).

- ti-nwa-ti-ja-o* PY Ad 684 (S290–H23)
ti-nwa-ti PY La 633 (S622)
ti-wa-ti-ja KN Ap 618.2 (ms. 103)

ti-nwa-ti-ja-o is an ethnic adjective formed from a hypothetical toponym **ti-nwa-to* (Lejeune 1958, p. 300); *ti-wa-ti-ja* is possibly an alternative spelling of the same name (*MGL*, s.v.; Doria 1965, p. 179, 250). Assibilated forms *ti-nwa-si-jo* and *ti-nwa-si-ja* are found at PY Jo 438.21 (Ci), Ea 810 (S28–H43), Fn 324.12 (S328–Ciii) and PY Aa 699 (S240–H1), Ab 190.B (S186–H21) respectively.

ti-ri-ti-jo, -ja KN Ga (2) 428.b (ms. 136?); E 749.3 (ms. 136); Og 833.3 (ms. uncl.); X 1385 (ms. uncl.)

Ethnic adjective derived from the toponym *ti-ri-to*, which is well attested in the D– series and elsewhere, and is generally interpreted *Trit(t)ōn*, cf. the river Τρίτων and the toponym Τρίττα· οὕτως ἡ Κνωσσὸς ὠνομάζετο, Hsch.

to-ti-ja MY Fo 101.3 (ms. 53)

Feminine anthroponym, possibly /Stortiā/, connected with στρατός. Assibilation might be expected, but notice that classical στρατία remains unassibilated.

tu-ti-je-u PY Cn 4.6 (S4–H21)

tu-ti-je-u is the name of a man associated with OVIS+TA at *ne-do-wo-te*. Assibilated *tu-si-je-u* is the name of a man in *ke-wo-no-jo o-ka* at PY An 519.7 (S657–H1). There is no evidence to suggest that they both refer to the same individual.

]wa-ti-ro PY Jn 431.24 (S310–H2)

Anthroponym, if complete possibly /Wastilos/, a hypocoristic of */Wastilāwos/ *vel sim*. Assibilation is not expected in the sequence /sti/.

wa-ti-ko-ro PY Jn 725.8 (S310–H2)

Anthroponym, possibly /Wastik^horos/ *vel sim*. Assibilation is not expected in the sequence /sti/.

wo-ro-ti-ja PY Es 728.1 (S644–H1)

wo-ro-ti-ja-o PY Es 644.7 (S644–H1), 650.7 (H11)

Anthroponym, possibly /Wrot^hiās/, connected with ῥόθος, ‘roar of the waves’. Assibilation of /t^hi/ is not expected.

wo-ti-jo KN Dv 5302 (ms. 117: *]wo-ti-jo*)

PY An 340.8 (S129–H22); Jn 832.5 (S310–H2)

Anthroponym, possibly /Wort^hios/, a metathesised form of the preceding. Assibilation of /t^hi/ is not expected.

2.2 Analysis

The status of nonassibilation as a diagnostic isogloss dividing East Greek and West Greek varieties is restricted to three categories: (i) the 3rd sg. and pl. verbal morphs /-si, -nsi/ vs. /-ti, -nti/; (ii) εἴκοσι vs. ἑκατὶ and the ‘hundreds’ morph -κόσιοι vs. -κάτιοι; (iii) the isolated forms Ἀφροδίσιος, Ἀρτεμίσιος vs. Ἀφροδίτιος, Ἀρταμίτιος. Mycenaean consistently shows assibilation in the

verbal endings, and we lack evidence from the other two categories. According to all the evidence which we possess, Mycenaean is a dialect of the ‘assibilating’ East Greek type.

Outside the three categories mentioned, assibilation vs. its absence is not a diagnostic feature of dialect. Assibilation is *usual*, for example, in all dialects (even so-called ‘nonassibilating’ West Greek varieties) in adjectives in /-ios/ built to stems in /-t/; but the example of Πόντιος shows that it is not *uniform* even in the so-called ‘assibilating’ East Greek varieties. On the other hand feminine nouns in -ιδ- built to stems in -τ regularly do not show assibilation in any dialect.

It rather looks as if assibilation of */ti/ was a pan-Greek sound change which failed to run to completion and has subsequently been subjected to massive analogical levelling. If analogical pressure had protected some forms during the original operation of the sound change, this may be the cause of its premature arrest. I assume, then, that it is not the operation or lack of operation of assibilation which divides East and West Greek, but rather the subsequent pattern of levelling. Indeed, I rather suspect that assibilation could have been a Common Greek development; and I further assume that assibilation had ceased to operate as a phonological process by the time of the tablets. At this point some derivational categories are no longer felt to involve forms in /t/ at all, and so have morphologically conditioned ‘assibilation’ (so, for example, feminine action nouns are always built with the suffix -σις, never *-τις; and τερψίμβροτος compounds are always built to a first-member form in -σ-).

If so, there are likely to be four sources of unassibilated /-ti-/ in Mycenaean: (i) new formations built in the period after assibilation has ceased to operate, in categories which do not now have morphologically conditioned /-s-/; (ii) forms borrowed from non-Greek sources which were never subject to assibilation, or from other dialects which show a different pattern of analogical restoration or retention of /-ti-/; (iii) linguistically conservative, isolated formations; (iv) derived forms in which /-ti-/ has been restored or protected by analogy with a base form which was never subject to assibilation.

Only five vocabulary items manifest nonassibilation in Mycenaean. Four of these, *e-ti-we* (and *a-e-ti-to*), *a-ki-ti-to* (and *ki-ti-je-si* etc.), *me-ri-ti-jo* and *po-ti-ro*, fail to show assibilation in later, alphabetic Greek.

Later ἔρτις is known only from a gloss, its stem type is unknown, and it lacks a Greek etymology.

The sequence /kti/ in /a-ktiton/, κτίζω etc. seems to be one which, like /sti/, is not subject to assibilation.

/melitios/ is comparable to later μελίτινος, μελίτιον. The root μελιτ- appears to be one which does not assibilate even in East Greek.

/pontilos/ is comprised of a root which never assibilates in later Greek (πόντιος, not reflexes of *πόνσιος, even though /-ios/ adjectives regularly show assibilation) and a suffix which never triggers assibilation (ναυτίλος not *ναυσίλος).

The fifth vocabulary item, *ko-ni-ti-ja-ja*, has no definite phonetic interpretation. It may contain /sti/ or /t^{hi}/, neither of which is expected to assibilate. Speculation is pointless.

None of these words, then, can be used to demonstrate the existence of a nonassibilating second dialect of Mycenaean. All of the remaining instances of unassibilated /ti/ are in toponyms, ethnics and anthroponyms. Some of these certainly, and others possibly, are built to stems which fail to undergo assibilation even in later East Greek dialects –/Aiguptios/, Αἰγύπτιος certainly, and /Mantios/, μάντις possibly.

In many cases the underlying phonetic form cannot be determined with certainty, so the presence of /sti/ or /t^{hi}/ cannot be ruled out. Others, such as *mi-ra-ti-ja*, are reasonably clearly forms in which, all other things being equal, assibilation would be expected. But outside the three diagnostic assibilating categories mentioned, assibilation is not uniform, even in East Greek varieties. Furthermore, the three classes of words involved are most likely to fall into the four sources of nonassibilation listed above. Ethnics may well refer to persons from regions where assibilation failed to operate or was differently levelled. Ethnics in /-ios/ built to toponyms in /-t/ are likely to be subject to preservation or restoration of /-t-/ by analogy with the unassibilated toponym (contrast the use of *ku-ta-ti-jo* as an ethnic but *ku-ta-si-jo* as an anthroponym —has the ethnic been protected but the anthroponym not?). Some personal names and toponyms, though certainly not all of them, may likewise refer to persons from and places in nonassibilating (or differently levelling) regions. Anthroponyms and toponyms are also categories in which isolated linguistic conservatism will be found.

Particularly instructive is the case of the seven personal names which are *τερψίμβροτος* compounds or hypocoristics of *τερψίμβροτος* compounds, and which fail to show assibilation. In later Greek, this has become a category which is synchronically built to a first member in /si/, not /ti/. Mycenaean does indeed have assibilated formations, e.g. *ma-na-si-we-ko*, /Mnāsi-wergos/, ‘mindful of his work’. This particular fluctuation might be taken as evidence against the suggestion that assibilation had ceased to operate by the time of the documents; indeed, as evidence that assibilation is a currently operative process, and that the unassibilated *τερψίμβροτος* forms have yet to undergo it. Homer, however, provides a possible parallel: at *Il.* 5.547 we find an unassibilated Ὀρτίλοχος as the grandfather of an assibilated Ὀρσίλοχος at *Il.* 5.549. I am minded to follow Meißner and Tribulato (2002, p. 306) in seeing the unassibilated forms as examples of (possibly rural) archaism. This is, potentially, a sign that the period of operation of assibilation may have been within a couple of generations before the time of the tablets, or that in some categories the levelling operations are ongoing. At any rate, the presence of nonassibilation in the names of persons mentioned by the scribes is not evidence of the presence of a nonassibilating dialect among the scribes.

A further interesting form is *po-ti-ja-ke-e*, if the first member is the preposition /poti/ or /porti/. Homeric ποτί is generally held to be an Aeolism (in

alphabetic Greek the form is restricted to West Greek, Thessalian and Boeotian), but Arcado-Cypriot πος suggests the existence of a pre-assibilation East Greek form */poti/ (post-assibilation */posi/). If *po-ti-ja-ke-e* contains /poti-/, then, it need not be evidence of West Greek or Aeolic speakers in the Messenian plain in the second millennium. It may be just another instance of (rural) archaism.

3 FEATURE 5: Metathesis and anaptyxis

Palaima (1998-1999, p. 208) comments:

In his update, Risch himself [1979, pp. 98-99] ... used the presence or absence of forms displaying liquid metathesis as an analytical tool for testing the degree to which individual scribes were normal or special. He considered spellings such as *to-no* (thornos) to be normal and spellings such as *to-ro-no* (thronos) to be special.

He goes on to formally codify this diagnostic as FEATURE 5:

FEATURE 5 (Palaima's formulation).

Spelling *to-no* (*thornos*) (normal) vs. *to-ro-no* (*thronos*) (special).

In fact, the suggestion that spelling alternations of this sort might be diagnostic tests of *mycénien normal* vs. *mycénien spécial* was tentatively made in Risch's original paper (1966, p. 156):

... il existe encore d' autre différences entre la main 1 et la main 41 ... Pour désigner la même personne, la main 41 écrit *o-pe-te-re-u* Eb 294.1, une forme qui se retrouve Ea 805 (main 43), tandis que la main 1 écrit *o-pe-to-re-u* Ep 704.1. Le *o* entre *t* et *r* de la dernière forme doit probablement être interprété comme voyelle d'appui qui est développée de (*ope*)*treus*, écrit *o-pe-te-re-u*. Ce développement est sans doute comparable à la métathèse de *xuntroqa* (ξυν-τροπά ou ξυν-στροφά?), écrit *ku-su-to-ro-qa* Ec 411.1 (main 41) et Er 880.8 (main 24), à *xuntorqa*, écrit *ku-su-to-qa* Eb 847.2 (main 1). Il me semble probable que la même voyelle d'appui apparaît dans le toponyme *u-po-ra-ki-ri-ja* Cn 45.4 ss. (main 21), c.-à-d. *uporakrija* (vel *sim.*), à côté de *u-pa-ra-ki-ri-ja* An 298.1 (main 3), c.-à-d. *uprakrija*.

Risch's original suggestion, then, is rather different from Palaima's formulation in that anaptyxis is posited as a characteristic of *mycénien normal* vs. absence of anaptyxis in *mycénien spécial*. Metathesis of liquid + vowel sequences is cited as a comparable feature. Risch says the same thing in his later paper (1979, pp. 98-99), this time noting that liquid metathesis is attested in later Greek dialects (Hom. καρδίη ~ καρδίη) as well as other languages; and 'für eine Dialektklassifizierung eignet sie sich nur selten.'

I shall return to the status of liquid metathesis as a diagnostic later; for the moment, FEATURE 5 can be reformulated:

FEATURE 5 (reformulated).

(i) *Mycénien normal* has vowel epenthesis in some *Cr* clusters (there is no evidence for *Cl* clusters), *mycénien spécial* does not; (ii) comparably, *mycénien normal* has a metathesis *ro* > *or*, *mycénien spécial* does not.

3.1 Evidence of metathesis in reflexes of *r̥

The reflexes of *r̥ provide a fertile ground for looking for examples of liquid metathesis. In a labial environment, at least, the standard (thus, presumably, *mycénien normal*) reflex appears to be /or/, but there are occasional examples of (presumably *spécial*) /ro/. We might choose to argue that /or/ is the metathesised development, while /ro/ is the unmetathesised *spécial* form. Although a priori there is no reason to prefer this explanation to the contrary one, viz. that /or/ is the unmetathesised form and /ro/ the result of metathesis, the evidence of *to-pe-za* and *qe-to-ro-po-pi*, below, could be used in argument.

qe-to-ro-po-pi PY Ae 27, 134, 489 (all S8–H42)

The instrumental plural of a word meaning ‘four footed [sc. animals]’, it could represent either /k^wetro-popp^hi/ or /k^wetoro-popp^hi/. O’Neil (1969, p. 38) interprets it as the latter, seeing in /or/ a reflex of *r̥, followed by the compositional vowel. Against this view may be objected (i) the paucity of evidence in favour of the existence of a compositional vowel /o/ in Mycenaean;⁷ and (ii) the unexplained loss of the /w/ before a vowel—we should expect either *qe-to-wo-ro-po-pi* /k^wetworopp^hi/, or, perhaps, /k^wes(s)oropp^hi/ (for which development, see Shipp’s comments (1969, p. 18) on *Myc. to-pe-za*).

It is better to see /k^wetro-popp^hi/, where the sequence /ro/ is the reflex of *r̥. The regular outcome of *r̥ in labial environments at least, is /or/; but /k^wetro-/, we might argue, cannot be the result of metathesis of /k^wetor-/, since the loss of the -w- would be unexplained prevocally—we would expect */k^wetw̥r̥-/ > */k^wetwor-/ > */k^wessor-/. Perhaps, then, /k^wetro-/ is evidence that the initial outcome of *r̥ (in a labial environment) was /ro/ allowing for interconsonantal loss of /w/ in this word, and that /or/, in those words which show it, is a result of later metathesis. (Of course, we could argue instead that /or/ was the initial outcome, and the metathesis to /ro/ happened sufficiently early to cause loss of -w- before *tw > ss.)

to-pe-za PY Ta *passim* (S641, H2)
KN V 280.5 (ms. «124»)

The ‘table’ word, generally accepted as /torpeza/. The variation in vocalism with classical τράπεζα is strongly suggestive of a reflex of *r̥. The standard etymology (*DELG*, s.v. τράπεζα) sees a compound */k^wetw̥r̥-ped-ya/, ‘four footed’, or rather, to explain the loss of the first syllable, ø-grade in both parts of the numeral, */k^wtw̥r̥-ped-ya/. If correct, the initial outcome of *r̥ would have to be /ro/ in order to trigger loss of /-w-/ in interconsonantal position, or else we would expect */tworpeza/ > */s(s)orpeza/⁸ (Shipp, 1969, pp. 18f.). Attested *to-pe-za* would then be a metathesised form.

⁷ For full discussion, see Meißner and Tribulato 2002, pp. 320–23. The most plausible compositional vowel which can be posited for Mycenaean is /-i/, in forms such as *a₃-ki-pa-ta*.

⁸ Cf. *tweysō > G. σείω, ‘brandish’; from the same root, Ved. *tvis*, ‘be stirred up’.

hide on PY Ub 1318.7, seemingly built to the nominative stem rather than the oblique stem.⁹ If /wronēyā/ does contain a /ro/ reflex of *r_o, this again might be seen as evidence of lack of metathesis in *mycénien spécial*.

ma-to-ro-pu-ro PY Cn 595.5 (S4–H21)

vs.

ma-to-pu-ro PY Mn 1412.4 (S1412–H14)

Toponyms, probably /mātropulos/¹⁰ and /mātorpulos/ respectively. Heubeck (1972, p. 60) saw this alternation as evidence that /r/ had survived into Mycenaean, with -ro- and -o-r- as different graphic devices for writing /mātrpulos/, but if so, it is surprising that we do not see more fluctuation of this sort. Alternatively we might explain *ma-to-ro-pu-ro* as unmetathesised *mycénien spécial*, *ma-to-pu-ro* as metathesised *mycénien normal*. However, since both words are *hapax*, I see little *a priori* argument against Lang's emendation (1961, p. 161) of Mn 1412.4 to *ma-to-<ro->pu-ro*. (Or, on the other hand, against emending Cn 595.5 to *ma-to-{ro-}pu-ro*.)

wo-ze PY Ea 309 (S28–H43); Eb 152.A (S149–H41: [wo-ze]!), 338.B (S74–H1: o-wo-ze = /ou worzei/); Ep 539.7 (S74–H1), 613.4 (S74–H1), 704.7 (S74–H1)

wo-ze-e PY Ep 704.7 (S74–H1)

wo-ze-qe PY Eb 156.1a (S149–H41), 839.B (S149–H41); Ep 613.3.6.7 .9.13 (S74–H1)

wo-zo PY Eb 862.B (S149–H41)

wo-zo-e PY Eb 338.B (S149–H41: error for *wo-ze-e*, /worzehen/)

wo-zo-me-na KN So (2) 4438 (ms. 131)

wo-zo-me-no KN So (2) 4433.b (ms. 131)

wo-zo-te PY Ed 236.2 (S74–H1); Ep 539.5 (S74–H1)

Forms of the verb /worzei/, 'works' (3rd sg. pres. indic.), /worzehen/ (infinitive), /worzei-k^we/ (3rd sg. pres. indic. + 'and'), /worzōn/ (pres. ppl. act.), /worzomenā/ (pres. ppl. pass., fem. nom. sg.), /worzomenō/ (pres. ppl. pass., fem. nom. dual), /worzontes/ (pres. ppl. act., masc. nom. pl.). Compare classical ῥέζω,

⁹ I am implicitly rejecting García-Ramón's (1985, p. 208) account of classical (F)αρήν, (F)αρνός. He argues that class. (F)αρήν is not for */wrēn/ by analogy with (F)αρνός < */wrnós/, which would give *(F)ρανός. Instead, he argues that */wr(H₁)ēn/ > */w^orēn/ > /warēn/, (F)αρήν by a regular anaptyctic development, and the /-ar-/ vocalism spreads from there to the rest of the paradigm. The Mycenaean anthroponym *wa-ni-ko*, /warniskos/ is then built to this regularised *warn-* oblique stem. It is difficult to reconcile such a view with *wo-ro-ne-ja*, surely /wronēyā/ < */wrneyā/, when we would expect */warneyā/ according to García-Ramón's account. Further, if *we-re-ne-ja* is /wrēneyā/, this strongly argues for a Mycenaean nominative */wrēn/, not García-Ramón's predicted */warēn/. A nominative */wrēn/ would also help to explain the vocalism /wro-/ rather than expected */wor-/ in /wronēyā/. I must also, therefore, reject the interpretation of *wa-ni-ko* as /warniskos/. Such an interpretation is, in any case, purely etymological.

¹⁰ I reject /mātorpulos/ for the same reasons as /k^wetoropp^{hi}/.

ἔρδω. Standardly assumed to be from an etymon **/wrg-yō/*, with **r̥ > /or/*; the *e*-vocalism of the classical forms is by analogy with the etymological *e*-grade in (F)ἔργον. Morpurgo Davies (1968, p. 804) has objected that the *ø*-grade of this root is not actually attested elsewhere in Greek, but notes also that the objection is a minor one. An *o*-grade in a verb in */-yō/* would be unparalleled.

Risch (1979, p. 111) includes these words in his table of *spécial vs. normal* forms as showing *mycénien normal* liquid metathesis. We can assume this only if **r̥* standardly gives */ro/*, such that */or/* must be the result of metathesis.

If *to-pe-za*, */torpeza/* and *to-mi-ka*, */tormiska/* contain reflexes of **/k^w(e)twr-/*, they argue in favour of an original outcome **r̥ > /-ro-/* to account for loss of the *-w-*, followed by general metathesis to */-or-/*. But it seems unlikely that */torpeza/* is connected with ‘four’, and the interpretation of *to-mi-ka* as */tormiska/* is not guaranteed; compare, for example, Ventris and Chadwick’s (1956, p. 410) suggestion of a connection with θῶμιγξ, ‘cord, string’. Given that in the majority of cases **r̥ > /-or-/* (in a labial environment, at least), it seems bold to assume **r̥ > /-ro-/ > /-or-/* on the basis of this pair of words. We see the outcome */-ro-/* only in *qe-to-ro-po-pi*, */k^wetropopp^{hi}/*, *wo-ro-ne-ja*, */wroneya/* and *ma-to-ro-pu-ro*, */mātropulos/*. The syllabification of */wroneya/* could easily be influenced by that of the base noun, **/wrēn/*, which has *e*-grade; compare the alternate form */wrēneya/*. */k^wetropopp^{hi}/* and */mātropulos/* are both compounds, and I wonder whether *-ro-* is metathesised from */-or-/* under the influence of compounds whose second element begins with a vowel, such as *qe-to-ro-we*, */k^wetrōwēs/* ‘having four handles’, where the sequence */-rV-/* is regular. The existence of *ma-to-pu-ro*, */mātorpulos/* alongside */mātropulos/*, unless it is an error, might suggest that this analogical metathesis was current at the time of the tablets. Loss of */-w-/* in */k^wetropopp^{hi}/*, however, might suggest an earlier date, although there is no reason why both words should be affected at the same time —metathesis is a notoriously irregular type of sound change.

Given that the */-ro-/* forms are open to these types of explanation, I see very little reason to argue that the */-or-/* forms are the result of metathesis from original */-ro-/*. Consequently I find no evidence for FEATURE 5 in this group of words.

3.2 Evidence of metathesis from other sources

to-no PY Ta 707.1.2 (S641–H2)

vs.

to-ro-no-wo-ko KN As 1517.11 (ms. 102?)

to-no is */t^hornos/* ‘chair’, *to-ro-no-wo-ko* is */t^hrono-worgoi/*, ‘chair makers’. The gloss θόρναξ· ὑποπόδιον (Hsch.) attests a similar phenomenon in Cypriot. O’Neil (1969, p. 42) interprets */t^hornos/* as the *ø*-grade of θρόνος, with */or/ < *r̥* in the former, and, I assume, *o*-grade in the latter.

Chantraine (*DELG*, s.v. θρόνος) sees in θρόνος a suffix *-όνος* which combines with *ø*-grade roots; for θρόνος the root is **/d^her-/*, ‘bear, support’ (Skt.

dadhāra; Gk. ἐν-θρ-εῖν· φυλάσσειν, Hsch.). He sees the same suffix in κλόνος, ‘tumult’ (cf. κέλομαι, ‘exhort’ for the root) and χρόνος. Myc. *to-no* is then a form ‘avec métathèse’. Yet the suffix is based on the evidence of just these three words, and its force is opaque: on the basis of θρόνος it could form instrument nouns, but not in κλόνος; and the root of which χρόνος is the \emptyset -grade is otherwise unattested.

It is difficult to see classical θρόνος, Myc. /t^hrono-/ as containing anything other than the *o*-grade of something: of what is another matter entirely. There is no real reason to suppose that Myc. /t^hornos/ contains a \emptyset -grade. Perhaps, then, this is an example of metathesis in *mycénien normal* (*to-no*) and its absence in *mycénien spécial* (*to-ro-no*). But notice that the unmetathesised form is found at Knossos.

ku-su-to-ro-qa KN B(2) 817 (ms. 137)
PY Ed 411.1 (S149–H41); Er 880.8 (S312–H24)

Apparently with a meaning ‘sum’ *vel sim*. A compound of the preposition /ksun-/ with a second element /strok^{whā}/ (στρέφω), /trok^{wā}/ (τρέπω) or /trok^{whā}/ (τρέφω). On Ed 847.2 *ku-su-to-qa* is in *rasura*. A deverbal noun in \bar{a} presupposes an *o*-grade root (cf. classic συστροφή with the same sense), and so once again this looks like a potential case of unmetathesised *spécial ku-su-to-ro-qa*, but notice once again that the supposed form is found at Knossos.

to-ro-qa KN Fh 358 (ms. 141), 376 (ms. 141??:]-ro-qa), 5446.2 (ms. 141)
to-qa KN Fh 339, 8299 (both ms. 141)

All are found in the same context, followed by the OLE, ‘oil’, ideogram and numerals with or without metrograms. A number of the forms in parallel positions on other tablets of the same series are allatives of toponyms (*47-*so-de*, Fh 351 *et al.*; *e-ra-de*, Fh 357.2), others are datives of anthroponyms (*ma-ro-ne*, Fh 347; *do-re-we*, Fh 342) and of appellativa (*de-u-jo-i*, Fh 352). It therefore seems that they denote recipients of disbursements of oil. Melena’s interpretation (1975, p. 58) /trk^{wā}/, ‘oil press’ is probably thus to be rejected.

Godart (1968, p. 603) and Heubeck (1972, p. 65) see anthroponyms; Heubeck sees the fluctuation of spelling as evidence of the survival of /r/ into Mycenaean, on the grounds that ‘it is less cogent to suppose ... an error [of spelling]’ in a man’s name, by which *to-qa* stands for *to-<ro->qa*. I cannot see why spelling errors should be any less likely in names than in other words. Moreover, if the word is an anthroponym, there is no evidence that the same individual is being represented by both spellings —nor that it contains a \emptyset -grade root with *r̥.

Comparison with *zo-a*, /zohā/, ‘for boiling’, in parallel position on other Fh tablets has prompted the suggestion that it might be a term denoting the type of oil, perhaps /trok^{wā}/ (τρέπω), ‘to be stirred up’, or /trok^{whā}/ (τρέφω), ‘for food’. It might also be an appellativum built to one of the same roots, denoting a technician in the oil industry (Godart 1969, pp. 53ff.). All of these would suggest a deverbal noun in the *o*-grade.

If this is an example of *normal* (*to-qa*) vs. *spécial* (*to-ro-qa*) alternation, note that both variants occur in one hand and at Knossos.

e-u-to-ro-qa PY Jn 478.10 (S310–H2)

An anthroponym; if this is to be interpreted as /eu-trok^{w(h)}os/, with the *communis opinio*, it is likely to be an *o*-grade in a deverbal agent noun. It would also show the alleged *spécial* form without metathesis.

to-ro-qa-jo-me-no PY Eq 213.1 (S74–H1)

/trok^weyomenos/, middle pres. ppl. of a causative-iterative in /-éyō/ built to the root of classical τρέπω, in which an *o*-grade is expected. This would be an unmetathesised *spécial* form.

po-ro-po-i MY Oi 701.4 (ms. 63)

vs.

po-po-i MY Oi 702.3 (ms. 64)

A dative plural denoting the recipients of quantities of the commodity represented by ideogram *190. *po-ro-po-i* is plausibly interpreted as /propoihi/ ‘augurs’ (cf. Cretan πρέπος· τέρας, θεοπρόπος). Olivier (*MT* IV, p. 22) saw *po-po-i* as either a graphical variant, or an error for *po<-ro>-po-i*. Melena and Olivier (*TITHEMY*, *ad loc.*) print the same possibilities in their apparatus. If the interpretation of *po-ro-po-i* is correct, we would expect an *o*-grade in an agent noun built from a verb (τρέπω), and it might then be an unmetathesised *spécial* form while *po-po-i*, if /porpoihi/ rather than an error, might show *normal* metathesis.

wo-do-we PY Fr 1203 (S1203–Cii), 1204 (S343–H4), 1207.1 (H41), 1208 (S1203–Cii: *wo-]dō-we*), 1238 (S1202–H2), 1223.2 (H44: *]wo-do-we-qa*)

wo-de-wi-jo KN Fp (1) 16.1 (ms. 138), (1) 48.1 (ms. 138); Ga 953.1 (ms. 219: *wo-de-wi-jo-jo*); V (2) 280.1 (ms. «124»)

wo-di-jo KN V (2) 60.1a (ms. 124)
PY Jn 601.2 (S310–H2)

wo-di-je-ja KN Ap 639.3 (ms. 103)
PY Ub 1318.3 (S1318–H32); Vn 1191.1 (Ciii)
MY V 659.1 (ms. 61)

wo-do KN V (1) 7049 (ms. «124»); Xd 282 (ms. «124»)

wo-do-we is an adjective applied to OLE, ‘oil’, generally interpreted as /wordowen/, ‘rose-scented’, for which compare *Il.* 23.186, ῥοδόεντι ἐλαίῳ. *wo-de-wi-jo*, /Wordēwios/ is a month name. *wo-di-jo*, *wo-di-je-ja* and *wo-do* are anthroponyms, possibly /Wordios/, /Wordieia/ and /Wordiōn/. Given the classical form (F)ῥόδος, this is plausibly an instance of *mycénien normal* metathesis; but variation of this kind is perhaps not unexpected in a word which is probably a borrowing from an Iranian language (*DELG*, s.v. ῥόδος).

wo-ro-ki-jo-ne-jo PY Er 312.7 (S312–H24); Un 718.11 (S312–H24)

An adjective applied to plots of land, *ka-ma*, /kamas/, ‘plot’, in Un 718 and *e-re-mo*, /erēmos/ or /erēmon/, ‘uncultivated/uninhabited plot’, in Er 312. Risch (1979, p. 111) includes it in his list of *spécial* forms without metathesis.

It may be built from a noun **/wrogiōn/ vel sim.*, ‘officiating priest’, itself derived from **/wrogia/ = (F)ῥογία*, ‘religious rites’. If so, the IE comparanda (Av. *varəzem*, Gmc. *werc* etc.) point to a vocalism **w^e/o_rg-*. We would surely be dealing here with a derivative from an *o*-grade *nomen actionis* **worgā*. If so, the vocalism of **/wrogia/* is, from a comparative point of view, metathesised. Metathesis is not uncommon in formations from this root in Greek —compare, for example, *ἔρδω* vs. *ῥεζω*, in both which the *e*-vocalism must be secondary. If therefore the interpretation as */wrogiōneyo-/* is correct, it is doubtful whether it should be counted as the same phenomenon as the other examples of *or~ro* metathesis.

Furthermore Killen (1983, p. 83; 1987, p. 176) has argued that the form in question is likely to be a possessive adjective built to a man’s name, **/Wroikiōn/ vel sim.*, for which cf. the name *Ῥοικός*, attested on Samos. If so, it is not relevant to the present discussion.

Other than *wo-ro-ki-jo-ne-jo*, there does seem to be a metathesis */ro-/ > /or-/* in these words, all of which (perhaps excepting the loanword **/wordos/* and its derivatives) probably contain *o*-grades. However, there is no evidence to suggest that such a metathesis is “normal” and that its absence is “special”. On the contrary, the operation of the metathesis seems to be limited to the words */t^hornos/*, */tork^{wā}/*, *po-po-i* (which is *hapax*, and may be an error), and the loanword **/wordos/* and its derivatives.

Metathesis of a liquid and a neighbouring short vowel is cross-linguistically very common, and notoriously irregular (Hock, 1991, p. 35, 110–111, 632–633). Compare, for example OE *bridd* > ME *bird*, OE *pridde* > ME *third* alongside OE *prysce* > ME *thrush*, OE *bricg* > ME *bridge*. Indeed, since this metathesis had begun to operate prior to Old English, OE frequently had doublets, such as *pridde* ~ *pirde*. We should not be surprised, therefore, if the same metathesis in Mycenaean operates erratically, even to the point of causing doublets in the same hand, such as */tork^{wā}/* ~ */trok^{wā}/*. Certainly there is no reason to see this as evidence of dialect diversity —and the existence of a doublet in the same hand probably argues against such an interpretation.

3.3 Anaptyxis

A man *o-pe-te-re-u*, perhaps */Opetreus/* is recorded on PY Ea 805 (S28–H43) as holding a parcel of land of size GRA 2, *e-ne-ka*, *a-no-qa-si-ja*. The same name recurs on Eb 294.1 (S149–H41) qualified by the term *qe-ja-me-no*, holding a *ke-ke-me-na* plot of size GRA 2 T 5. In Ep 704.1 (S74–H1) a variant *o-pe-to-re-u* occurs qualified by *qe-ja-me-no*, holding a *ke-ke-me-na* plot of size GRA 2 T 5. The term *qe-ja-me-no* is found nowhere else. Evidently *o-pe-te-re-u* of Eb 294.1 and *o-pe-to-re-u* of Ep 704.1 are the same individual recorded in connexion with the same plot of land. Killen (1992, pp. 379f.) has suggested that all three references are to the same individual, and that we have records of two different parcels of land which he holds */heneka anork^{wh}asiās/*, ‘in compensation for

manslaughter' and /k^weiamenos/, 'having been compensated [sc. for manslaughter]' or 'having taken compensation [sc. for manslaughter]'.

Risch (1966, p. 156; 1979, p. 98) understands *o-pe-to-re-u* as /Opetoreus/, arising by anaptyxis from *o-pe-te-re-u*, /Opetreus/. Even if this explanation for the spelling difference is correct, it is obviously not evidence for the existence of vowel epenthesis in *Cr* or *tr* clusters in one dialect of Mycenaean generally. There is no mileage in linking epenthesis to /ro/ > /or/ metathesis as a strategy for avoiding *CrV* sequences in *mycénien normal*, say; if *mycénien normal* did try to avoid *CrV*, we would expect /ro/ > /or/ metathesis to be much more regular than it is, since metathesis tends to be regular when it operates for structural reasons such as this (Hock 1991, pp. 115f.).

The complex toponym *ra-wa-ra-ta₂ u-pa-ra-ki-ri-ja* is found in PY An 298.1 (S298–H3). A toponym *u-po-ra-ki-ri-ja* is found in PY Cn 45.4.5.6.7.11 parallel to *pu-ro ra-wa-ra-ti-jo*. The association with *ra-wa-ra-ta₂* and *ra-wa-ra-ti-jo*, probably /Laurant^hia/ and /Laurant^hios/, suggests that *u-pa-ra-ki-ri-ja* and *u-po-ra-ki-ri-ja* are the same place, and thus spelling variants of one another.

Risch (1966, p. 156) sees *u-pa-ra-ki-ri-ja* as /Hupr-akria/ and *u-po-ra-ki-ri-ja* as /Hupor-akria/ with an anaptyctic vowel. This fits the spellings perfectly, but is an entirely ad hoc explanation. If anaptyxis were the correct explanation, we would expect to see it more often and more regularly, since anaptyxis is a change which conforms to the Regularity Hypothesis.

Ruijgh (1967, p. 175) explains /Huporakria/ as arising from /Huparakria/ by regressive dissimilation. This, again, is an ad hoc explanation; but it has the advantage over Risch's anaptyxis in that dissimilation of non-glottal features tends to be an irregular process. Its absence elsewhere is therefore not so problematic.

Heubeck (1972, p. 66) suggests that both spellings reflect a phonetic form /Hupr̥-akriā/, in which the graphic sequences *Ca-rV* and *Co-rV* are attempts to write a preserved syllabic liquid, as are *Ca* and *Co* in other words containing *r̥. García-Ramón (1985) rightly argues that the distribution of spellings among scribes does not support such an interpretation. Moreover, if *u-po-* / *u-pa-* reflects original */hupr̥-/, it is either being treated as an independent word (because word-internally we would not expect a prevocalic liquid to vocalize), or the syllabic liquid is introduced in prevocalic position by analogy with independent */hupr̥/. Either way, original word-final *r̥ and secondary prevocalic *r̥ seem to become /ar/ in the common Greek (i.e. pre-Mycenaean) period. There is therefore little possibility of this word containing a preserved *r̥, even if Heubeck is correct in seeing it elsewhere.

Hajnal (1997, pp. 142-155) suggests two different hypotheses. According to the first, /Hup^o/_arakria/ is in origin a univerbation of original */Hupr̥#akria/. /hupar-/ is the expected outcome of */hupr̥/ as an independent word, and is of pre-Mycenaean date. (For Hajnal, /-ar#/ is a secondary development which arises by a complex series of phonological and analogical developments; but it seems easier to assume a common Greek development *r̥ > ar / —#.) /hupor-/ shows the expected Mycenaean development *r̥ > or / [+labial, + cons.] — [+cons.].

Since the liquid occurs prevocally, this must show the analogical influence of compounds of */hupr/ in which the second member starts with a consonant, rather than being the regular outcome of a byform */hupr-akria/.

Now, if */Hupr#akria/ > */Hupar#akria/ > */Huparakria/ → /Huporakria/ by analogy with compounds in /hupor-C-/ < */hupr-C-/, */hupr-/ must have survived as a compositional form alongside independent /hupar/ until after the break-up of the dialects, in order for /hupor-C-/ compounds to arise. As Hajnal notes, however, no trace of it is found anywhere else, which is a particular problem if /hupor-C-/ compounds are to be sufficiently common to cause analogical replacement of /hupar-/. In any event, if /hupar-V-/ were replaced by a reflex of compositional /hupr-/, it is perhaps more likely that it would have been replaced by the prevocalic form, /hupr-/, giving /Huprakria/, graphically *u-pa-ra-ki-ri-ja*. Nor does this hypothesis explain why H3 has /huparakria/ but H21 has /huporakria/.

Hajnal's alternative hypothesis is that /Huporakria/ is a replacement for /Huparakria/ (< */Hupar#akria/ < */Hupr#akria/) by a widespread process of replacement of /ar/ by /or/ as a 'Hypermykenismus', a process which he considers to be responsible also for the existence of *o*-vocalism reflexes of *r̥ in nonlabial environments. He gives the example of the anthroponyms *to-si-ta*, /Thorsitās/ (PY Cn 719.2) alongside *ta-su*, /Tharsus/ (KN Ln 1568.2b) with expected *r̥ > ar / [-labial, +cons.] — [+cons.].¹¹

The evidence of this "hypermycenaean" replacement is not secure, however. It is, for example, far from clear that the regular outcome of *r̥ in a nonlabial environment is with *a*- rather than *o*-vocalism. García-Ramón (1985) has made a convincing case for regular *o*-vocalism in all word-internal, preconsonantal environments, with *a*-vocalism arising by morphologically conditioned anaptyxis. If so, then /Thorsitās/ would be the regular outcome of */Thrsitās/ (in which the \emptyset -grade is analogical), and *ta-su*, if /Tharsus/, would be anomalous. It goes without saying that the interpretation /Tharsus/ is entirely etymological; it could just as easily be a name of a type in *-u* which is rare at Pylos and common at Knossos, most examples of which are evidently non-Greek. While the regular outcome of *r̥ in nonlabial environments is, rightly, still the matter of some debate, it is clear that the distribution of *a*- and *o*-vocalisms does not form conclusive evidence for the widespread replacement of /ar/ by /or/.

Both *o-pe-to-re-u* and *u-pa-ra-ki-ri-ja* are hapax legomena, while the other variants, *o-pe-te-re-u* and *u-po-ra-ki-ri-ja* are attested more than once. The possibility must be entertained, therefore, that *o-pe-to-re-u* and *u-pa-ra-ki-ri-ja* are simply errors for intended *o-pe-te-re-u*, /Opetreus/, and *u-po-ra-ki-ri-ja*, /Huporakria/. If so, we are faced with the problem of explaining the formation of /Huporakria/.

¹¹ This example is slightly complicated, since we would expect /Thorsitās/ to be built to the full grade root of the *s*-stem neuter *θέρσος, and thus have *e*-grade, */Thersitās/, Homeric Θερσίτης. I assume, however, that Mycenaean has generalised the etymological \emptyset -grade of the adjective (classical θρασύς / θαρσύς), as has classical θράσος / θάρσος, and that the "hypermycenaean" replacement is of */Tharsitās/ rather than of */Thersitās/.

I do not believe that invoking a reflex of $*r̥$ is satisfactory. As noted above, if the name starts as a univerbation, we would expect the word final treatment, $*/hupar-/$, and analogical replacement by $/or/$, either under the influence of hypothetical $*/hupr̥-C-/$ compounds, or as a “hypermycenaeanism”, seems implausible. On the other hand, if the name starts as a true compound, $*/Hupr-akria/$, there is no reason for the liquid to vocalise, and, again, analogical introduction of $/or/$ under the influence of $*/hupr̥-C-/$ compounds seems implausible. There is in fact a larger problem: there is no evidence for the existence of a \emptyset -grade form $*/hupr̥/$ at all, beyond Hajnal’s wish to see in *u-pa-ra-ki-ri-ja* the independent form $/hupar/ < */hupr̥\#/$. The common Greek — indeed, common IE— form seems rather to be from $*/(s)upér/$; Pamphylian $\upsilon\pi\alpha\rho$ (Brixhe 1976, No. 3, 1.2; the inscription does not indicate aspiration on this word, although it does elsewhere) is best seen as showing a phonetic development whereby $e > a / -r$ (Brixhe 1976, p. 12). This, of course, explains the absence of traces of compounds in $*/hupr̥-C-/$.

If the inherited form is $/huper/$, the o -vocalism of $/Huporakria/$ is problematic. A “hypermycenaean” replacement of $/ar/$ by $/or/$ might have had some plausibility, but the replacement of an e -grade by $/or/$ does not —and $/T^h\text{orsitās}/$ for expected $*/T^h\text{ersitās}/$ does not provide a parallel, since this is instead the generalisation of the \emptyset -grade by analogy with the adjective $*/t^h\text{rsús}/$. Conceivably $/hupor/$ is an o -grade ablaut variant; but it is not attested elsewhere. Perhaps we might explain the $/o/$ as influenced by the vocalism of other prepositions/adverbials such as $/paro/$ and especially $/hupo/$.

Much of this is highly speculative, and it may be very far from the mark. Further attestations of *o-pe-to-re-u* and *u-pa-ra-ki-ri-ja* would probably scotch the idea that they are simple errors. Other explanations are certainly possible. Is it the case, for example, that $/Opetoreus/$ and $/Opetreus/$ are different (regional? social?) variations of the same name —compare the spellings $\langle\text{Thomson, Tomson}\rangle = [t\text{om.s}\text{ən}]$ alongside $\langle\text{Thompson}\rangle = [t\text{om.s}\text{ən}]$ or $[t\text{omp.s}\text{ən}]$ with an epenthetic $[p]$. This need prove nothing about the varieties of Mycenaean spoken by the scribes in question — $/Opetoreus/$ might have been the pronunciation used by the individual himself, for example, alongside more standard $/Opetreus/$ (or *vice versa*). Likewise, is $/Huparakria/$ perhaps the local, Hyparakrian pronunciation of the name?

However all of that may be, there is evidently no reason to suppose that these two words show traces of a process of anaptyxis which characterises *mycénien normal*; and it would seem incredibly rash to do so.

4 Conclusion

FEATURE 3 involves a sound law which is impossible to formulate in accordance with the Regularity Hypothesis. Its operation is restricted to words which lack convincing Greek etymologies, several of which are evidently loanwords; and it is probably better explained as a consequence of the adoption and adaptation of non-Greek phonological elements.

As regards FEATURE 4, the status of nonassibilation as a diagnostic has been greatly exaggerated. None of the Mycenaean unassibilated forms belongs to one of the three categories in which nonassibilation can be used to separate West from East Greek. The five sets of vocabulary items which exhibit nonassibilation either lack Greek etymologies, or are built to stems which do not undergo assibilation or to suffixes which do not trigger it in later Greek, even in so-called assibilating East Greek dialects. The remaining forms are all personal or place names and their derivatives, all of which may have been subject to analogical pressure or conservatism, and none of which can be adduced as evidence of a second, nonassibilating dialect spoken by the palace scribes.

FEATURE 5 is really an amalgamation of three unrelated phenomena, (i) the metathesis of /ro/ to /or/; (ii) the spelling alternation *o-pe-te-re-u* ~ *o-pe-to-re-u*; (iii) the spelling alternation *u-po-ra-ki-ri-ja* ~ *u-pa-ra-ki-ri-ja*. The liquid metathesis is restricted to a handful of words, and so does not provide evidence of dialect diversity —certainly not that *mycénien normal* underwent metathesis of /ro/ generally. Furthermore, metathesis of a liquid and neighbouring short vowel is cross-linguistically common, and usually highly irregular. The two spelling alternations are not related to liquid metathesis, and probably not related to each other. There is no compelling evidence that they involve anaptyxis, and they may well just be spelling errors, although other explanations are possible. In any case, two isolated spelling alternations can scarcely be used to postulate a general development.

FEATURES 3 and 4, then, are entirely illusory. The liquid metathesis component of FEATURE 5 does seem to be real, but it is a linguistically common, random development and is not a diagnostic of dialect diversity. Only FEATURES 1 and 2 therefore remain. But as Thompson 1996–1997 demonstrates, the distribution of forms affected by FEATURES 1 and 2 more closely resembles that associated with a morphological and a phonological change in progress than with dialect diversity. FEATURE 1, in particular, seems to have been a process which affected all of the Greek dialects. The tablets therefore preserve traces of two progressing changes by which Mycenaean is evolving from a more ‘idiosyncratic’ into a more ‘normal’ dialect; and *pace* Palaima (1998–1999, p. 211), by ‘normal’ I do not necessarily mean ‘like historical Attic-Ionic’—no historical Greek dialect preserves either a C-stem dative singular in /-ei/, or *o*-vocalism reflexes of syllabic nasals.

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