THE I/E ALTERNATION IN MYCENAEAN GREEK

A. It has been observed¹ that certain words in Mycenaean Greek show an alternation of i/e, and that others show e where classical Greek has ι , and vice versa. In attempting to discover the extent and origins of this phenomenon, I propose to make the following distinctions:

Firstly, vocabulary words must be distinguished from proper names: the interpretation of the latter is largely a matter of guesswork, and even when Mycenaean shows forms with both i and e the possibility has to be considered that we are dealing with two different words, as the context cannot help us.

Secondly, in vocabulary words alternations which occur in the root must be distinguished from those which occur in the suffix, as the latter may be due to morphological causes, while the former usually cannot be².

It must be borne in mind throughout that Mycenaean does not normally write diphthongal i^3 , so e may represent ei: also that alternations observable in Mycenaean itself are, *ceteris paribus*, more certain evidence than cases when the alternation is between a Mycenaean and a classical Greek form and depends on our interpretation of the Mycenaean form.

B. Cases where an alternation has been proposed in the roots of vocabulary words are as follows (there is no case where an alternation has been certainly proved by Mycenaean evidence alone):

¹ E. g. «Evidence» Journal of Hell. Studies LXXIII (1953) (= Evid.), p. 00' M. Lejeune, Etudes Mycéniennes (= ML 5), p. 41; J. Chadwick, Trans. Phil. Soc. 1954 (= $\mathcal{FC}3$), p. 4; M. S. Ruipérez, Et. Myc. (= MR 3), p. 119; Ventris and Chadwick, Documents in Mycenaean Greek (= Docs.), p. 76 ff.

² But note the classical Greek alternation \mathfrak{el}/ι shown in *po-se-da-o-ni* PY Un 718, Attic Hodetdõuvl/ *po-si-da-i-jo* PY Tn 316 Attic Hoctdátov or some similar form derived from the adjective, and see I 2 below.

³ V. Georgiev, *Et. Myc.* (*VG* 8) p. 182, thinks diphthongal -i is never written, e. g. *pa-i-to* KN Dm 522+ should be interpreted $\Phi \acute{at} \delta \tau \circ \varsigma$ (from * $\Phi \acute{at} \tau \circ \varsigma$): see also on *-e-jo* below E2.

1. «Horse» words: these normally show *i* (always *i-qi-ja* = $hiqq^{2}ia$ * $i\pi\pi ia$ «chariot», *i-qo* $i\pi\pi\sigma\varsigma$ 'horse'), but proposals have been made to assign certain words which show *e* to this root, e. g.:

e-qe-a-o(-)a-to-mo KN V 56, e-qe-o a-to-mo PY Sn 64: Mühlestein (Museum Helveticum XII, 1955, p. 125 [= HM 2]) compares i-za-a-to-mo PY Fn 50, and interprets as $hiqq^{u}i\bar{a}\bar{o}n \mid hiqq^{u}i$ -arthmoi(i) '(to) the chariot-fitters': Docs. doubts this, suggesting arthmos ('fellowship') of the e.; Ventris (Experimental Myc. Vocabulary [privately circulated]) originally suggested heq^{u} -eon (cf. $\check{e}\tau\eta\varsigma$) as a reading of e-qe-a-o; Ruipérez (Minos IV, 1956, p. 156 [= MR 5]) suggests that e-qe-o is the genitive of heqos 'company'; finally, Georgiev (Second Supplément [= VG 5]) suggests that e-qe-o is an error for e-qe-ta-o. Whether these suggestions are right or not, no confidence can be placed in Mühlestein's interpretation. He is also quoted by Georgiev (Lexique [= VG 3]: this work is referred to when no indication is given) as suggesting Hiqq^uiorwos as a reading of the man's name e-zo-wo PY Cn 599.

Gallavotti (Documenti e struttura del greco nell'età micenea, Roma 1956 = CG 1], p. 62, 90, 142) reads e-qe-ta KN As 821+ (generally accepted as $heq^2 etas$ = ἑπέτης 'follower') as ἵπποτα, e-po PY Vn 493 as ἵππους (other suggestions are ἔπος 'word': S. Ja. Lurja, Vestnik Drevnej Istorii 1955, p. 27 [= SL I]; ἔλφος 'butter' or $\xi p \phi s$ (skin'; $\xi \phi' \phi$), e-go-te PY An 724+ as = Latin eques (Docs.: he q^{u} ontes = $\tilde{e}\pi ov\tau e\varsigma$) and e-ge-si-ja KN Ld 571 + as = Latin equestri (Docs.: he q^{μ} esia 'suitable for the class of hequetai'? Georgiev = $\xi \phi(a)$: all these seem very unlikely to be 'horse' words, and the assignment of them (except e-po) to the root of $\tilde{\epsilon}\pi o\mu\alpha i$ is probably correct. He also suggests that *i-qo-e-qe* KN Gd 0404 + may show both forms of the 'horse' root, or alternatively the second part may be related to ἕπομαι (previously suggested by Palmer). Georgiev suggests a compound such as higg^uo-ipi (cf. ίπος; ίψον δεσμωτήριον Hesych.) which would also show an i/e alternance in the root: but the word remains very obscure and is useless as evidence. It is to be noted that the common Greek form $i\pi\pi\sigma\varsigma$ is anomalous, and it would therefore seem plausible that a Mycenaean i/e alternation should occur in this word (a possible development being *ekwos > *ukwos by assimilation, thence *hukwos > *hikwos > $i\pi\pi\sigma_c$; v. Ambrosini CG I p. 62), but there is no real evidence to show that it does.

2. ' θ éµıç' words: *o-u-ki-te-mi*, *o-u-te-mi* KN V 280 are probably to be read od(χ i) θ éµıç (*VG 3* etc.): more dubious are *ti-mi-to* KN As 821 (gen. *thimistos* = θ éµıστος 'of tribute' ? *Docs.*), *ti-mi-to-go-*] PY An 218 (Georgiev, *Supplément* [= *VG 4*], Ruipérez, *MR 5* p. 152, *themistoq^uolos* = θ eµιστοπόλος), *ti-mi-56* KN Ga 34 (Georgiev, *VG 4*, Θ eµíφαννος), the place-names *te-mi-ti-ja* PY On 300, *ti-miti-ja* PY Jo 438+ (both Θ eµιστία *Docs.*, but Georgiev, *VG 4*, proposes to read for the first *a*]-*te-mi-ti-ja* 'Apτεµίτια) and *ti-mi-to a-ke-e* PY Ma 123, *ti-mi- to ake-i* PY An 661 (so *Docs.*; Bennett, *Pylos Tablets* II, now reads, *pi-82 the/imistos hage(e)i* Palmer *Trans. Phil. Soc.* 1954, p. 48 [= *LP 3*] but Tµíνθος *Voc.* p. 86), and the personal name *ti-mi-za* KN Dk 1076 (Georgiev, *VG* 4 Θεµιστίας disbelieved by Chadwick, *Et. Myc.*, p. 86 [= \mathcal{FC} 7]).

3. The preposition έν: e forms seem certain in e-ne-e-si PY En 609 (eneensi = ἕνεισι «are in» Docs.), e-ne-o KN Uf 625 (ἐνεών 'being in' same), but forms with *in*- (as in Arcado-Cyprian) have been proposed: e. g. *i-na-ma-ta* PY Ma 126 = enammata 'garments' Lurja (SL 1, p. 14), or iv ăµata (sc. πάντα) Sittig as alternative (doubted by *Docs.*); *i-ku-wo-i-ți* KN V 280 *ing^uoiphi* = έγγόως Georgiev, Lejeune (*Revue de Philologie* XXX, 1956, p. 426 [= ML 4]; Gallavotti , CG 1, p. 92, assigns to the 'horse' root, also *Docs.* — or cf. iξός 'waist': compare *e-wiku-wo-te* PY Na 604 *Euinguwontes*? Georgiev, VG 5); cf. also the place-name *i-nani-ja* PY An 18 (*Enarnia* cf. ἀρνός Lurja *loc. cit.*: obviously unverifiable) and the proper name *i-65-ge* PY Jn 725 =*'Ενίπης cf. 'Ενιπεός Georgiev, (VG 5), reading 05 as ni_3 which is disputed. All these cases are dubious.

4.]ra-qe-te-ra PY Va 15: compare perhaps $ra-qi-ti-ra_2$ PY Ab 356 (variously read as partpian, partpian) as suggested by Georgiev (VG 5). The former reading is however uncertain, and a comparison of 35-ka-te-re on the same tablet suggests the second sign may be not qe but ka.

C. Other cases of apparent vowel alternative i/e depend on the interpretation alone: examples of e =Greek ι are:

1. a-pe-re-qo KN U 49 (the new Knossos Tablets reads a-pe-re QO): Georgiev (VG 4) suggests amphileipos.

2. e-pa₂-na-qe PY Ua 158: Georgiev (VG 4) compares ἰβάνη.

3. e-te KN Am 600+: Furumark (*Eranos* LI, 1953, p. 103-120; *ibid*. LII, 1954, p. 18-60, 22 a [= AFI]) suggests žu but there are many alternatives, including his other suggestion žv θ ev, $\eta\lambda\theta$ e (Lurja, *SL I*, p 14), žote (Georgiev).

4. ke-e PY Aa 93+ (place-name Turner): Georgiev suggests Kieç or Kiç.

5. ku-te-so PY Ta 707, ku-te-se-jo PY Ta 713: Ventris (Eranos LIII, 1955, p. 118 [= MV 4]), suggests kutesos (= xúticoc), kuteseiois.

6. Suggestions by Georgiev (VG 3, 4, 5 and Et. Myc. p. 63-67 [= VG 7]; reading 34 and 35 as me_2 , he assigns the following to the root of μ iyvo μ (cf. for all me-ko-ta KN L 469 meisgōta):

a-35-ka KN Le 786+ ameisga

35-ka-te-re PY Va 15 meisgateres (or Megatherses)

34-ke-ja PY Fn 187 meisgeia

34-ke-te-si PY Es 645+ mei(s)ktersi

34-ke-u PY Ta 709 meisgeus

35-ki-no-o PY Vn 46 Meisgi-noos

34-zo KN Px 1253 Meisgön

and the following to the root of µ1006;

a-35-to PY La 626 ameisthos

34-te PY An 218 meisther (= $\mu \iota \sigma \theta \omega \tau \delta \varsigma$)

35-to PY Eb 472 meisthos (or mestor)

34-to-pi PY Vn 130 meisthophi

It is to be noted that as Georgiev's reading of the signs (or sign) 34 and 35 is not generally accepted, the above are subject to a double uncertainty.

7. me-tu-ra PY Ae 264: Docs. compares μίτυλα 'hornless cattle', but Lurja (SL I, p. 22) suggests methoura 'border country'.

8. ne-pa₂-sa-pi KN K 872, nepa₂sata PY Fn 324: Georgiev (VG 4, p. 7) reads

these as $neiq^u saphi$, $neiq^u satas$ (cf. $vi\phi\omega$). It is to be noted that this suggestion, like 2 and 6 above, involves vowel gradation rather than alternation.

9. ouqe KN L 641+ is read by Mühlestein (cited VG 3) as cott and o-qe PY Cn 4 by Ambrosini (Annali della Scuola Normale Superiore di Pisa, XXV, 1956, p. 67) as öτι: there seems no objection to the commonly accepted cotte, öτε.

10. pe-ne-we-ta KN Ld 571+: Chadwick (*Docs.* p. 318) suggests a derivation from $\pi i vo \varsigma$ 'natural grease in wool', but Georgiev pnewonta = $\pi v \acute{\epsilon} o v \tau \alpha$ 'fragrant'.

11. pe-re po-re-na PY Tn 316: Mühlestein's (Olympia in Pylos, p. 7 [= HM]]) suggestion phorīnās 'skins' involves an alternance, though there is no good parallel for Myc. $e = \text{Greek }\bar{\iota}$, but again there are many alternatives (Palmer, Eranos LIII, 1955, p. 10 [= LP 5], 'impurities'; Furumark, AF 1 p. 51, cf. φερνά 'dowry'; Docs. φορήναι 'to carry').

12 qe-to PY Ta 641 + may well be $\pi i\theta oi$ (Bennett) though the etymology is difficult: Ventris has abandoned his alternative suggestion q^{μ} elthos, (Archaeology VII, 1954, p. 18 [= MV2]) 'tribute' in Docs.

13. we-je-ke-e PY Sa 487+: Georgiev (VG 5) suggests weiekee (cf. $\delta\iota\epsilon\chi\eta\varsigma$)? but Lejeune (*Rev. de Philologie* XXIX, 1955, p. 169 [= ML 2]) 'of cedar-wood'.

14. wi-ri-ni-jo etc. KN Sd 0401+, only shows an alternance if FEPLVEÓG 'of wild figwort', as suggested in *Evidence* (p. 100 a): but Palmer's (*Gnomon* XXVI, 1954 [= LP I]) suggestion FPLVÉOG 'of leather' is accepted in *Docs*.

D. Cases of Mycenaean $i = \text{Greek } \varepsilon$ in vocabulary word roots are very rare: I have been able to find only:

1. dipa PY Ta 641+, generally accepted as démac (first suggested by Blegen. 'E φ 'Ap χ . 1953, p. 000): Mühlestein (*Les trépieds de Pylos*, privately circulated [= HM 5]) compares the Arcadian place-name $\Delta i\pi \alpha i\alpha$.

2. $mira_2$ PY Ta 715 may be connected with $\mu\epsilon\lambda(\eta 'ash' (Ventris, MV _4)$ if this is not from * $\mu\epsilon\lambda\epsilon\iotaa$ (Schulze), but also possibly with (σ) $\mu\iota\lambdaa\xi$, (σ) $\mu\iota\lambdao\zeta$ v. *Docs.* p. 342.

E. The cases of apparent vowel alternance in suffixes are easier to classify. I shall deal with: I. dative/locative singulars from consonant stems in -e or -i. 2. the -e-jo / -e-o / -i-jo suffixes. 3. the -ti-ri-ja / -ti-ra₂ suffixes. 4. the -e suffix (= -uc?) 5. the -we-sa / -weta / -wi-ta suffixes. 6. various spellings with -a-e, -a-i. 7. possible cases of vowel dissimilation -e-e > -e-i or -i-e, which may be included under this head as being of morphological origin.

1. Dative/locative singular of consonant stems are normally -e: but stems in I. E. *-s- nearly always show -i (by dissimilation ? v. 6 below), e. g. a-ko-ro-we-i hakhrowei, e-u-me-de-i Edu hoei we-te-i = wetei = etei [but cf. e-re-e PY Jo 438+ with e-re-i PY Jn 829 (locatives of "Edoc Docs.) and ti-mi-to a-ke-e with ti-mi-to a-ke-i (see B2 above)], and in other roots forms with -i are usually preferred at Mycenae (ka-ke-wi MY Oe 121 $\chi \alpha \lambda \pi \beta Fi$, ke-ra-me-wi MY Oe 125 $\chi \epsilon \beta \alpha \mu \beta \beta Fi$ etc.) and sometimes appear elsewhere (po-se-da-o-ni PY Un 718 = Ποσειδῶνι). For discussions on this subject v. Chadwick (\mathcal{FC} 3 p. 10), Risch (*Et. Myc.*, p. 172 [= *ER* 2]), Georgiev (VG 8 p. 181), and *Docs.* p. 85: it is uncertain whether this fluctuation has its origin in the separate I. E. dative (*-*ei*) and locative (-*i*) endings, in phonetic change (Georgiev *loc. cit.* suggests $-ei > \bar{e} > \bar{i}$), or in an *i/e* alternance in Mycenaean Greek. The forms that are found cannot be assigned to separate cases (-*e* dative, *i* locative): for fluctuations in the locative see above, and *po-se-da-o-ni* (*loc. cit.*) is marked as dative by the following *do-so-mo* = $\partial oc\mu \delta c$, cf. *po-se-da-o-ne do-so-mo* PY Es 646.

2. The $-ejo_{1}-eo_{1}-ijo$ suffixes (for discussion v. Chadwick, \mathcal{FC} 3; Lejeune, ML 5, p. 73; Docs. p. 89) may in some cases represent three different classical suffixes (-eloc, -loc; v. Schwyzer, Griechische Grammatik I, p. 465).

In this connection let us state that the symbol -j- in Mycenaean denotes: firstly, a vowel glide which may be written (*i-je-re-u* PY An 218+) or omitted (*i-e-re-u* PY En 74+) (this is its only function after -*i*-); secondly, the second element of an -i diphthong (as presumably always after a, o, e. g. genitive singulars of thematic stems invariably show -o-jo = -oio). Chadwick thinks that the writing of *-e-jo* is paralleled to this latter, and so always interprets it as *-eio*, but I am inclined to think that the situation after e is partly paralleled to that after -i- in view of the apparently random variations here listed. Palmer (LP 3 p. 21) suggests to-ro-ge-jo-me-no PY Eq 213 is a present participle (cf. $\tau po\pi \epsilon \omega$), Furumark (AF I p. 51) that a-re-ja Tn 316 = 'Alta in Arcadia (Docs. compares 'Apya, 'Aperav Schwyzer, Delectus³ 665): if either of these is correct it shows that -e-ja, -e-jo can be -ea-, -eo-. The occasional spelling in -e-i-ja/jo does not help as -a-i-ja/jo, -oija/jo also occur. There seems no ground to assume that the distinction is one between I. E. *y- and *-s- (*ER* 3, p. 253). See Hampe, Glotta XXXV, 1956, p. 290, who has independently come to the same conclusion, and thinks the Homeric parallels (yálxeloc yálxeloc etc.) cited by Chadwick are artificial creations metri gratia.

However, one word frequently shows two or three different forms with no apparent distinction of meaning: for adjectives of material compare:

ka-ke-ja-pi KN Sd 0409, ka-ki-jo KN So 894: both from classical $\chi \alpha \lambda \kappa \omega c$ Docs.; Mühlestein (cited VG 3) compares further ka-za KN M 0452, but Chadwick (FC 7 p. 85) doubts if -kia > -kya > -za. po-ni-ke-a KN X 1017, po-ni-ki-ja KN Sd 0402+: (= $\varphi o t \nu \kappa \alpha a$ 'painted crimson' Docs.).

po-pu-ro₂ KN L 758, po-pu-re-ja KN L 474. (= $\pi o \rho \phi \phi \rho e o c$ Georgiev, Docs.): this assumes that $-ro_2$ can represent -rjo or rio.

wi-ri-ne-jo KN Sd 0415, wi-ri-ne-o KN Sd 0408+, wi-ri-ni-jo KN Sd 0401: v. C 14 above, and for single cases with *i* cf.

ku-ru-so PY Ta 707+ adjective (= $\chi p \circ \sigma \sigma \circ \sigma$ in meaning): Mühlestein (*Et. Myc.*, p. 93 [= *HM* 7]) suggests this is derived from $\chi p \circ \sigma \circ \sigma \circ \sigma \circ \sigma$ and interprets *khrus(s)os*, but *Docs.* p. 345 suggests $\chi p \circ \sigma \circ \sigma \circ \sigma \circ \sigma \circ \sigma \circ \sigma$.

ku-wa-ni-jo PY Ta 714 = xváveoç, implied by Docs. p. 344, and suggested by Gallavotti, La Parola del Passato 52, 1957, p. 13.

qo-wi-ja PY Tn 316+: Georgiev etc. suggest $g^{w}owia = \beta \delta \varepsilon i \alpha$.

Other adjectives of material show consistently -e-jo, e.g. ku-te-se-jo v. C 5 above. The apparent partial substitution of the I. E. *-*iyo* suffix for the -**eyo* suffix is complete in Lesbian and Thessalian: we may have here an intermediate stage,

or this may be in part a general confusion of i and e: this latter seems more likely when confusion occurs in cases other than adjectives of material, though here most examples are very uncertain:

ke-se-nu-wi-ja KN Ld 573, ke-se-ne[we-ja? KN Ld 649, ke-se?]nu-we-jo KN X65 may all be connected with Homeric Euvía / Euvíña (Docs.).

ku-pa-ri-se-ja PY Sa 488 is probably an adjective 'of cypress wood' (*Docs.etc.*), but *ku-pa-ri-si-jo* PY An 657 is probably an ethnic, though Lejeune (*Et. Myc.*, p. 151 [= ML 7]) thinks they may be the same word (ethnic).

po-si-da-e-ja PY Tn 316 (*Ilocidácia Evid.) is a proper name, while po-si-da-i-jo on same tablet is probably a place (Ilocidáciov 'shrine of Poseidon ? v. Docs. p. 288). Adrados however reads po-si-da-e-ja as Ilocidaca (Emerita XXIV, 1956, p. 399.)

qe-ra-si-ja KN Fp 1+: Furumark (AF 1) suggests τερατεία (but Docs. compares θήρη, θηράσια) cf. qe-ro₂ KN K 740+ = q^{2} elyos? cf. τέλεως (Docs. s q^{2} eljō cf. στέλλω? Palmer, Eranos LII, 1955, p. 28 [= LP 6 b] q^{2} elioi cf. φαλόν, φάλαρα).

Still more dubious are single examples which show unexpected suffixes, e. g.:

a]-ko-so-ni-ja KN Pp $_{437} = d\xi$ furumark (cited VG 3).

pa-ke-te-ja PY An 18+: the termination is unexpected if from $\pi \tilde{\eta} \pi \tau \iota \varsigma$, but the word may be an ethnic (*Docs.*).

po-ti-ni-ja-we-jo PY Jn 310+, po-ti-ni-ja-we-i-jo KN X 7742: potniaweios 'subject to the goddess πότνια'? Docs., but *ποτνιαιος would be expected.

suza KN F 741+ may = sukyai < sukiai < ovréat 'fig-trees', but may represent cora 'figs' (v. Palmer BICS II, 1955 [= LP 4] p. 41, \mathcal{FC} 7 p. 85, Docs.). See also proper names (F 1, 17, 18; G 2, 3, 4, 24, 26; H 2, 3, 16, 18, 19, 22, 23, 25-28, 31).

Against the general confusion which the above seems to suggest may be set the many women's occupational names in -i-ja which show no such confusion (*-eja* only from assumed masculines in *-eus*).

3. The -ti-ri-ja | -ti- ra_2 suffix was in Evid. transcribed either - $\tau \mu a$ or $-\tau \epsilon \mu a$, but the former is now accepted by Docs. in all cases, so no question of an alternation arises. *o-ti-ri-ja* PY Aa 313, *o-ti-ra*₂ PY Ab 417 seem unlikely to be connected with *o-te-ra* MY Oe 106 (suggested by Chantraine (*Et. Myc.* [= *PC 4*] p. 99): Georgiev (*VG 4*) reads the last as $*\Omega\tau(\epsilon)i\lambda(\lambda)a$ as -ra is not equivalent to -ri-ja, nor is there any reason to link *a-ke-ti-ra*₂ PY Ab 564+, *a-ke-ti-ri-ja* KN Ai 739+ (root uncertain: for suggestions v. Voc., Chantraine, *PC 4* p. 100) with *a-ke-te-re* PY Jn 832 (*askētēres? Docs.*), a_2 -*ke-te-re* KN V 118 (see below 4) or *ja-ka-te-re* PY Mn 11.

4. Chantraine (loc. cit.) tentatively proposes $\dot{\alpha}$ xeotpic as a reading of a_2 ke-te-re KN V 118, and Georgiev suggests reading the proper names me-za-ne PY Fn 50 as Meccavic, pa-re KN L 469 as $\Phi a \rho i c$ ($\Phi \dot{\alpha} \lambda \eta c$ Docs.): none of these suggestions is put forward with any confidence, and together they cannot establish a probability that the -ic suffix (common in Mycenaean in women's names, e. g. muti-ri PY Ep 212 = Muptulic Docs.) is ever written -e.

5. Adjectives in -we-ta = -FEVTA, -wesa = -FEODA are fairly common in Mycenaean (e. g. to-qi-de-we-sa PY Ta 711, o-da-ku-we-ta KN So 0435): Georgiev proposes to read wa-ra-wi-ta KN So 0443 as $w\bar{a}l(l)\bar{a}winta = *\dot{\eta}\lambda\dot{\eta}$ evta; alternatives are $wl\bar{a}wista$ Lejeune (ML 2 p. 169); cf. \ddot{a} ppacotoc, or a man's name, Docs., and here too a prima facie case does not seem to have been made out. , 6. Spellings with a-e, -a-i: for a general discussion see Lejeune (ML 5 p. 41 ff.): he suggests that -a-e- may represent a i in a-e-se-wa PY Fn 79 (personal name, Aio-?), a-ta-e-nu KN Vd 137, ka-e-sa-me-no PY An 656 (man's name: Georgiev, VG 5, suggests Gawesamenos cf. yalwv), and za-e-to-ro PY An 616 (Mühlestein HM 2 p. 130 = dialtopog 'Truchsesse' etc., Georgiev, VG_{4} , = $\zeta \eta \tau \rho \delta \varsigma$?), but his attempt to show that -a-, -a-e- and -a-i- alternate in na-si-jo KN B 800 (man's name: Georgiev = Nāsios), na-e-si-jo KN V 147+ (also a man's name) and na-ise-wi jo PY In 692 + (ethnic) Georgiev, VG 5 = *Nariolog) is unconvincing as being based entirely on proper names, po-si-da-e-jo-ijo v. E 2 above. Final examples: e-ge-ta-e KN As 821 may be a dual (e-ge-ta-i PY An 607 being a dative plural): Docs. compares we-ka-ta-e KN X 1044, mi-to-we-sa-e KN Sd 0404 (nom. plur. fem.), to-e PY Eb 842 (dat. sing. = $\tau \tilde{\varphi}$? cf. toige PY Na 520 which is probably dative plural: Georgiev (VG 5) suggests to-e is thoen cf. Owood but the cases are so few and so various that the possibility of scribal error (which may of course, be significant in itself) cannot be ruled out.

7. Docs. suggests possible vowel dissimilation in *a-pe-e*[si PY An 614,]*a-pe-e-si* PY Xn 86/*a-pe-i-si* KN Od 666 (*apeensi* = $\check{a}\pi \epsilon \iota \sigma \iota$ 'are away') and *a-pe-e-ke* PY An 724 / *a-pi-e-ke* PY Un 2 ($\check{a}\mu \varphi \iota \check{e}\chi \epsilon \iota$ Furumark, AFI, p. 42) if both = $\check{a}\varphi \acute{e}\eta \kappa \epsilon$ (they may possibly both = $\check{a}\mu\varphi \iota \acute{e}\chi \epsilon \iota$, in which case we would have assimilation in the former). The latter case is too uncertain to be of value as evidence: the former is more plausible, though neither the readings nor the assignment of both verbs to the root «to be» is certain. The spelling *a-pe-i-si* would not be normal either from this root or «to go» and cannot of course represent the Attic spurious diphthong. Cf. also the *-s-* stem datives, for which v. 1 above.

F. There remain the proper names: I shall summarize the various couplings and interpretations without commenting on their plausibilities, which is largely a matter of individual opinion. Cases which show both e and i forms are:

1. a-da-ra-te-ja PY Ab 60 'Adpásteta Voc., cf. a-da-ra-ti-jo PY An 656 perhaps the ethnic derived from it, Docs.

2. ai-ke-wa-to KN Dd 1295- \downarrow , ai-ki-wa-to KN Uf 987— both men's names $d\gamma\chi\iota$ -/ $d\gamma\chi\epsilon$ - Lejeune (*ML* 5; Georgiev, *VG* 4, reads the latter as AiyiFaotoc?) comparing also a-ke-wa-to PY An 661 (*Docs.* 'ApxiFaotoc?), a-ki-wa-ta KN B 80 (Georgiev 'ApxiFaotac) and a-ke-wa-ta PY Jn 431: these last three are also coupled by Meriggi (*Glossario miceneo* [= *PM* 5]).

3. a-ke-re-u PY Cn 441+ compared by Ruipérez (MR 3 p. 117) with a-kire-we PY Fn 79 (dative of 'Aχιλλεύς Voc.: add a-ki-re-u KN Vc 106) and a-ke-re-wa PY Jo 438 'AχιλλῆFa (but Voc. *'AργρῆFa or *AiγελῆFa?; also, Georgiev, (VG 5), 'AγρέFa? v. 14 below.

4. a-te-mi-to PY Es 650, a-ti-mi-te PY Un 219: respectively gen. and dat. of "Aprenic Andrews, cited Docs."

5. de-ko-to PY Cn 600, di-ko-to KN X 57: men's names: comparison in Docs., queried.

6. e-do-me-ne-u PY En 60 man's name (= 'Ιδομενεύς Voc., as Georgiev — or compare "Ιδμων, 'Ιδμονίδης) cf. *i-do-me-ne-ja* PY Ep 212 woman's name ('Ιδομένεια Voc.).

7. *e-pa-sa-na-ti*, *i-pa-sa-na-ti* women's names PY Eo 247, where the former (read by Georgiev as $*E\phi a v \tilde{\eta} \tau \iota \varsigma$) is erased and replaced by the latter.

8. e-te-wa-jo-jo PY Sa 769 compared with e-te-wa-no KN C 913+ (*'Eterávup Georgiev) and e-ti-wo-jo PY Va 15 by Lejeune (*ML 6*) – all men's names. Georgiev (*VG 4*) compares e-te-wa-jo PY Xa 639, e-ti-wa KN Fs 19 (= 'Etérac?) and e-ti-wa-ja KN Ap 639 ('Eotiaiov?).

9. ke-re-te-u PY Ea $304 + \text{man's name (Kpy0e0c I oc.) cf. ke-re-ti-wo PY Na 547 (a derivative? for <math>-\bar{e}wo$?); for suffix cf. pu_2 - ra_2 -a-ki-ri-jo below 14.

10. na-e-si-jo etc. v. above E 6.

11. pa_2 -me-si-jo KN As 1516, pa_2 -mi-si-jo KN Sc 135 (ethnic from Iláµ1500 Palmer, $LP \neq p. 40$) are probably the same name (*Docs.*): Georgiev VG 7 p. 53 also suggests this, or alternatively reads the former as Ilaµµ $\eta\tau$ í $\omega\nu$; he cites further pa 34 so [KN X 328, pa] 34 so KN Dn 1239 (reading 34 as me_2).

12. pe-re-go-ta PY Eb 159+, pe-ri-go-ta-o KN Dn 42+ (men's names) are probably not the same word: Docs. suggests Τηλεφόντης and Περιφοιτας respectively.

13. pe-we-ri-jo KN As 1517 man's name *Πιτέριος Georgiev, comparing pi-weri-ja-ta PY Jn 389 man's name *Πιτεριάτας Voc. pi-we-ri-di MY Oe 103 = *Πιτεριδι.

14. pu_2 - ra_2 -a-ke-re-u PY Un 228, cf. pu_2 - ra_2 -a-ki-ri-jo PY Na 425 (v. kereteu above 9): probably place-name (IIúλia Lejeune, Minos IV, 1956 [= ML 3], Φύλa Palmer, $LP \neq p. 41$) + personal name, in which case cf. a-ke-re-u above 3; Georgiev (VG = 5) however interprets *Φυλααχριοι (ethnic), *Φυλααχρευς (ethnic?) respectively.

15. te-mi-ti-ja etc. v. above B 2.

16. $te-pa_2-ja$ KN Ap 586 woman's name, $ti-pa_2-jo$ KN As 1517 man's name probably different roots: Georgiev suggests $\Theta\eta\beta aia$ and $\Theta\iota\sigma\beta aio\varsigma$ (or $\Sigma\iota\iota\beta aio\varsigma$ *Docs.*) respectively.

17. to-te-ja KN Ak 611 = to-ti-ja MY Fo 101 (women's names) = $\Delta \omega \pi a$ Georgiev (VG 4; with assimilation of initial consonant).

18. we-ra-te-ja KN Ap 618, we-ra-ti-ja KN A 784: the former has been emended to we-ra-ti-ja.

G. Single cases of $e = \text{Greek } \iota \text{ are:}$

1. a-e-se-wa v. above E 6.

2. ai-ki-de-o PY Na 529: man's name dat.: cf. Alylolov? Georgiev (VG 4).

3. a-me-ja-to PY Sa 834+: man's name: cf. 'Αμίαντος 'Αμμέας? Georgiev (VG 5).

4. a-ta-ma-ne-we PY Cn 131: man's name dat. cf. 'Aθαμάνια Georgiev: dat. of a-ta-ma-ne-u PY Cn 655 'Aθαμανεύς Docs.

5. a₂-te-po PY An 519: ^{*}Αντιφος or 'Αρτίπους Mühlestein (cited VG 3); Palmer: man's name.

6. de?]-ke-se-ra-wo KN As 1516: man's name: Δεξίλατος? Docs.

7. de-wi-jo PY An 218+: man's name = $\Delta i Fio \zeta$ Mühlestein (HM 1 p. 3).

8. e-u-we-to nom., e-u-we-to-ro gen. PY Jn 750 = *Edifioτωρ Georgiev (VG 5), Euëtor or Euestor? Docs.

9. *e-zo-wo* v. above B 1.

10. *i-pe-me-de-ja* PY Jn 316: a goddess? cf. Ιφιμήδεια Evid. (not from rīφι), *ipermedeja* Gallavotti (CG 1 p. 146): cf. following.

11. *i-pe-se-wa* PY Gn 1184 man's name dat. = $*'I\psi\iota(\sigma)\sigma\varepsilon\upsilon\alpha(\sigma)$ Georgiev (VG 5), $*'I\psi\varepsilon\sigma$ Docs.

12. kà-e-sa-me-no, v. above E 6.

13. ke-zo PY Cn 328: man's name = $X \notin \omega$? Seorgiev (VG 5).

14. *35-ki-no-o v. above C 6.

15. me-no-e-ja PY Ta 642: Palmer (Minos V, 1957, p. 63) very tentatively compares Μίνως.

16. me-nu-wa KN V 60+ man's name = Μινύας? Docs. Μενύας Georgiev.

17. me-za-ne v. above E 4.

18. *34-zo v. above C 6.

19. neqeu PY Sn 64: man's name Nēqeus (>*Neixeúc >*Nixeúc) ? Voc., but cf. Nýreia Docs.

20. o-pe-pa₂ PY Cn 570: man's name dat. O-pi-qa-i Georgiev (VG 4).

21. pa-de-we PY Un 219: man's name dat. * Mavdirng Georgiev (VG 4).

22. pa-re v. above E 4.

23. pe-re-ta PY Jn 658- \vdash : man's name * $\Phi\iota\lambda$ ήτας or * Φ ερήτας Georgiev (VG 5), Illeíoraς Docs.

24.] pu_2 -re-o KN Sc 243: man's name * $\Phi v \lambda(\lambda) \iota o \zeta$ cf. $\Phi v \lambda e \delta \zeta$ Georgiev.

25. sametijo KN Ap 639: woman's name *Σαμίνθιος Georgiev, but the new Knossos Tablets reads samatijo: v. H 14.

26. sa-pa₂-re-jo KN D 1412----: place-name Squipia? Georgiev (VG 5).

27. se-to-i-ja KN L 654+: place name Σ ireta? Meriggi (PM 5), but $\Sigma\eta$ rola Docs.

28. we-da-ne-we PY Es 646+: man's name dat. cf. idavóc Georgiev (VG 5); cf. also we-u-da-ne-we PY Cn 418.

H. Single cases of $i = \text{Greek } \varepsilon$ are:

1. a-65-ma-na-ke KN Fs 3: dat. of. *'Ανεμάναγις Georgiev $VG \neq$ (reading 65 as ni_0) cf. ἀνώγω or ἄναξ.

2. a-si-ja-ti-ja PY Ae 134+-: place-name, Docs. p. 147 compares "Acea, 'Acea, but Voc. *'Aceavia.

3. di-du-me-o[KN L 588: Διδυμίων or *Διδυμεῖον Sittig (cited VG 3); new Knossos Tablets reads di-du-me-o-[.

4. di-65-pa-ta KN L 1568: man's name? = * $\Delta i \nu \epsilon \pi a \nu \tau a(\varsigma)$ Georgiev (VG 4, reading 65 as ni_2).

5. e-wi-ku-wo-te v. above B 3.

6. *i-ma-di-ja* PY En 816: man's name, * Epuadíac Georgiev (VG 5).

7. i-ma-di-jo PY Cn 436+: man's name *Ερμάδιος Georgiev.

8. i-mi-ri-jo KN Db 1186: man's name 'Iµépioc? Docs.

9. *i-na-ni-ja* v. above B 3.

10. *i-65-qe* v. above B 3.

11. *i-ra-ta* PY En 659+: woman's name? "Epata Georgiev (VG 5).

12. ko-pi-na PY Ep 617: woman's name Κύπεννα? Georgiev, but *Κύφινα Docs.

13. mi-ru-ro KN Ap 482+: man's name Μέρυλλος Georgiev (VG 4).

14. ni-me-ti-jo KN K 815: personal name? Νεμεσιών or Νημέρτιος Georgiev; the new Knossos Tablets reads sa-me-ti-jo: v. above G 25.

15. o-ki-ra PY Cn 285: man's name cf. 'Ωχέλλας Georgiev (VG 4).

16. pa_2 -mi-ja PY Ea 543+ place-name or ethnic: * $\Phi a \rho F \epsilon a$? Georgiev.

17. pa-wi-no KN B 799: man's name Phawinos = φαεννός Georgiev.

18. pi-82 PY Ma 225+: place-name, Φεĩα or Φεαί? Docs., reading 82 as ja₂: Carratelli, Atti e Memorie dell'Accademia Toscana p. 5, suggests Πίσα.

19. pi-ri-u-wo-no KN B 803: man's name = $\Phi \iota \lambda \epsilon \omega v$? Georgiev (VG 4).

20. pi-sa-wa-ta KN B 1055: man's name = *IleioaFarac Georgiev (VG 4).

21. po-mi-ni-jo KN V 503+: man's name = Ποιμένιος, Ποιμέναον Meriggi (PM 5), but Ποιμνίων Georgiev.

22. pu₂tija PY An 656+, putija PY An 340: man's name Πυθέας? Mühlestein, Die oka-Tafeln von Pylos, Basel 1956, p. 13; cf. nos. 2 and 22 above.

23. ge-ri-jo KN Ag 1654: man's name Τήρειος? Meriggi (PM 5), but Θηρίων Georgiev.

24. qi-si-ta KN Dv 1264: man's name *Teisírac Georgiev (VG 4).

25. ra-ni-jo-ne PY An 207 nom. plur. masc.: cf. Λη̃νος λενεών? Georgiev: place-name Docs.

26. re-pi-ri-jo PY Eq 146: man's name Docs., cf. Λέπρεον, Λεπρεύς.

27. *ri-jo-no* KN Ap 629: man's name gen. Λέων or place-name locative Λεώνοι Georgiev.

28. $si-ja-pu_2-ro$ KN As 1516: man's name, * $\Sigma \iota a \varphi \iota \lambda o \zeta$ or * $\Theta \epsilon a \varphi \iota \lambda o \zeta$ Georgiev (VG 4).

29. *ti-mi-za* v. above B 2.

30. ti-ri-jo PY Cn 4 man's name: cf. Σ τειρία (place name) Georgiev (VG 4), but cf. Θριοῦς (place-name) Docs

31. tu-ri-ja-ti PY En 659.5: place-name, Θυρεάτις, Mühlestein (cf. nos. 2 and 22 above).

I. The evidence summarized above permits the following conclusions:

I. The contention¹ that most of the certain examples of Mycenaean $e = \text{Greek } \iota$ are in proper names or words not of Greek origin seems correct as far as roots are concerned, and to apply also to i= Greek ε which is rare: in the roots of I. E. origin for which an alternation has been postulated the evidence is very inconclusive. The fact that in one root (ixxoc) the I. E. position is anomalous, and in another (iv, iv) the Greek dialects differ, is probably largely responsible for the interpretations, which thus lose much of their weight

¹ Docs., p. 76.

as evidence for an alternation: in a third root $(\theta \notin \mu \iota \varsigma)$ Chadwick has suggested to me that the generally accepted assignation to the root **dhē*- 'put, place' may possibly be incorrect, but I find this unconvincing: for the suffix cf. $\delta \circ \nu \alpha \mu \iota \varsigma$.

2. It may be argued from the above that the frequent occurrence of an i/e alternation in I. E. suffixes is probably due to the independent causes discussed above. Risch¹ suggests that the origin is phonetic except in the $-e-jo \mid -e-o \mid -i-jo$ suffixes and the $-e \mid -i$ dativelocatives.

3. If the above statements are correct, it follows that proper names which show an i/e alternation in the root are unlikely to be of I. E. origin: in connection with Georgiev's statement² that 70 °/_o of the proper names in the tablets are of I. E. origin, this throws doubt on many of his own interpretations cited above. These names are too uncertain to allow argument in the opposite direction (i. e. that the appearance of an alternation in proper names of I. E. origin is an argument for its occurrence in vocabulary words): further, it is to be noted that Mycenaean $i = \text{Greek } \varepsilon$ seems as common as e =Greek ι , which is not in accordance whith the pattern of vocabulary words.

4. The fact that many words appear in one form only⁵ is an argument against the general phonetic (or graphic) confusion of i and e suggested by Risch⁴ and Ruipérez⁵: furthermore, even in words of supposedly foreign origin it seems difficult to explain how confusion could occur both ways if these words are all from the same language (for example, if e in that language was a closer vowel than Mycenaean e and was represented in Mycenaean by either e or i, surely i would always appear as i): the possibilities that we have to deal with two languages, or one language which did not distinguish i and e, are purely hypothetical.

5. Notwithstanding this, there are enough certain or almost cer-

- 4 ER 3, p. 253.
- ⁶ MR 4, p. 118.

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¹ Et. Myc. (= ER 3), p. 253.

² VG 8.

³ e. g. *i-qi-ja*, women's occupational names in *-i-ja*, *e-ke*, *e-qe-ta*.

tain cases of an i/e alternation in the roots of words which have no certain I. E. derivation to show that fluctuation does exist and may have an influence on words of I. E. origin: note especially $di-pa = \delta \epsilon \pi \alpha \varsigma$, $ku-te-so = \pi \delta \tau \iota \varsigma \varsigma$, $qe-to = \pi \ell \theta \iota$ and the proper names e-do-me-ne-u/i-do-me-ne-ja, e-pa-sa-na-ti/i-pa-sa-na-ti which are fairly certain because their length reduces the possibilities of coincidence.

It remains to compare various special cases of i/e alternation 6. in classical Greek (as done by Chadwick¹) to see if these provide explanations in whole or in part for the phenomena listed above. Unexplained are the proper names *e-ta-li-o-ne* = $I\delta \alpha \lambda \omega$ and *ke-ti-e* $ve-se = Kiti \tilde{\epsilon}_{Fec}$ on the Idalium bronze², and $\Sigma \epsilon \varkappa \upsilon \omega \upsilon \upsilon \upsilon \upsilon = \Sigma \iota \varkappa \upsilon \omega \upsilon \upsilon \upsilon$ on the tripod-stand, which may be from the same source as some of the Mycenaean examples, Arcado-Cyprian $i\nu =$ others $e\nu$, - $\mu\iota\nu\rho\varsigma =$ -µevoc and similar cases are apparently due solely to the position before a nasal³: even in this position Mycenaean parallels are dubious (v. B₃, E₅, H₂I) and the mediopassive participle invariably shows -me-na, -me-no. Partial parallels are perhaps provided by the Arcadian datives of *-s-stems in $-\iota$ if, as Risch⁴ suggests, these are a «hyperurbanism» - $\varepsilon i > -\varepsilon i$ and thence $> \tilde{i}$ by analogy of the change of *ποιμενει to ποιμένιι: but the accepted explanation is $-\varepsilon i > -i i > i$) for the Mycenaean dative/locatives in -e/i: the Lesbian and Thessalian adjectives of material in - $\iota o \varsigma$ and the change of $-\epsilon - > -\iota$ - before α or o in various dialects, for Mycenaean adjectives of material: and an occasional vowel fluctuation in forming compounds (e. g. 'Apxiλοχος / 'Αρχέλοχος, Τηλίμαχος / Τηλέμαχος) for ai-ke-wa-to etc. F2, de?]ke-se-ra-wo G6, di-65-pa-ta H4. Other cases (e. g. - $\rho\iota$ - > - $\rho\epsilon$ - Lesbian etc., $-\iota \rho - > -\epsilon \rho$ - Elean, $-\iota - -\iota - > -\epsilon - -\iota$ - Attic $\dot{\epsilon} \sigma \tau i \alpha = others i \sigma \tau i \alpha$ etc., and I. E. 'reduced' grades in Aeolic πίσυρες = Attic τέτταρες, Attic πίτνημι) seem totally irrelevant.

³ Examples before other consonants are very uncertain, e. g.: xatélioav Schwyzer 683.4 is a scriptio inversa for -tav as -élecav would not be the Arcadian form: *e-ti-ku-ne* [= *ètixov [=ëtexe, ka-mi [= *iaµita = yaµetá ibid. 685.2 are very dubious interpretations. Pamphilian iç ibid. 686 is from *èvç (also in Cretan) and $\Delta \eta \mu \tau \rho i q$ ibid. is presumably the xoivý confusion of $\eta / \bar{\iota}$.

4 Et. Myc. (= ER 2), p. 172.

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¹ *JC 3*, p. 16.

² Schwyzer, Delectus 679.

7. To summarize: an i/e alternance has been shown to exist in Mycenaean, but it is very tenuous in words of I. E. etymology: when parallels are quotable from classical Greek, these can usually be explained as special cases¹.

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