

Mycenaean o- is accusative; jo- is nominative*

By PHILOMEN PROBERT, Oxford

Abstract: This paper argues that the distinction between introductory *o-* and *jo-* in Mycenaean correlates with text structure. In a tablet introduced by *o-*, the level of structure immediately dependent on the main heading gives information about the object of the verb in the heading. In a text introduced by *jo-*, the same level of structure gives information about the subject of the verb. It is argued that *o-* represents the accusative singular neuter of the relative pronoun while *jo-* represents its nominative plural masculine. Possible explanations for the different orthographies are suggested.

1. Introduction

The Mycenaean elements *jo-* and *o-*, appearing prefixed to a word and usually at the very beginning of a tablet or set of tablets, are now normally considered either graphic or phonological variants of one another.¹ They have been variously interpreted

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¹ See Aura Jorro (1985–93, s.vv. *jo-*, *o-*), with bibliography. Differently, Gallavotti (1956*a*: 5–9; 1956*b*: 72, 74–5, 81–2) takes *o-* as the demonstrative pronoun from **so-* but *jo-* as the relative pronoun from **jo-*. Later, Gallavotti (1960: 279–80) takes *o-* and *jo-* (his *o₁-*) to be graphic variants but with the

as a pronoun or adverb with relative or demonstrative meaning,² or as a conjunction.³ Etymologically, *jo-* is likely to be built on the stem of the relative pronoun **jo-*.⁴ If *o-* is indeed a graphic

possibility of some secondary differentiation by scribes, e.g. into demonstrative versus relative (confusion between the stems **so-* and **jo-* having occurred, *ex hypothesi*, already in Mycenaean times), or adverb versus pronoun, or singular versus plural. Ruijgh (1962: 65, s.v. *jo*, 69, s.v. *o-*; 1967: 65 with n. 83) allows for the possibility of a difference between *o-* and *jo-*, *jo-* being a relative adverb or (in 1962) relative pronoun, while *o-* would be a demonstrative or relative adverb or (in 1962) relative pronoun. Similarly Panagl (1979: 318–19) allows that *o-* and *jo-* may be orthographic variants or represent the demonstrative and relative stem respectively; synchronically he regards both as translatable by ‘thus’. According to Luria (1964: 49–50), *jo-* and *o-* are semantically indistinguishable but not necessarily identical in origin.

² The view that *o-/jo-* represents an adverb meaning ‘how’ has most recently been defended by Thompson (2002–3[2006]). For an adverb meaning ‘thus’, see e.g. *Docs*²: 563, s.v. *o-*. For a relative pronoun, see Mühlestein (1956: 19 n. 2); Heubeck (1976: 98). Risch (1968) argued more specifically in favour of an accusative singular neuter of the relative pronoun; cf. Ruipérez (1997: 529). For a demonstrative adverb or pronoun due to contamination between demonstrative and relative stems, see Milani (1965: 424–30).

³ Watkins (1962 : 114 n. 4; 1963: 19–21; 1964: 1040); Dunkel (1982/83: 183–4); cf. Aura Jorro (1985–93, s. vv. *jo-*, *o-*). A similar view is that of Bader (1973[1975]: 96; 1975; 1974[1976]: 175), who calls *o-/jo-* a ‘particule d’énumération’ and compares for the function e.g. the Hittite sentence-initial conjunction *nu* (1973[1975]: 96). Cf. Lejeune (1976: 200; 1979: 208), and for objections see Thompson (2002–3[2006]: 320). For different interpretations from all those just mentioned see Gallavotti (1972: 32), suggesting that *o-/jo-* is a conjunction introducing reported speech with the verb of speaking understood (*ō* = *ōti*); Duhoux (1973[1975]: 160–1), favouring an emphatic particle; and Hooker (1968: 72–8), favouring a non-Greek particle of unknown function.

⁴ Some early discussions contemplate the possibility that signs of the *j*-series had come to represent *hV-* when used word-initially, and to alternate in this use with simple vowel signs (and with *a*₂). If so, it would be possible to see *o-/jo-* as built on the demonstrative stem **so-*. Ruijgh (1967: 64 n. 82) counters that there is no clear or likely example of a sign of the *j*-series used to represent an *h* known to come from **s* (cf. Bader 1975: 75; Thompson 2002–3[2006]: 324), but this view may well need to be modified in the light of *a-ro₂-jo* on KN So 4437+5127, since the most straightforward interpretation of this form is as genitive singular from **arjosos*, which should have given *arjohos*! (see Willi 2009, and cf. the bibliography at Aura Jorro 1985–93, s.v. *a-ro₂-a*). Nevertheless, it remains true that the vast majority of examples of word-initial and word-internal *j*-series signs occur where there was either an etymological **j* or the glide *j* between *i* and another vowel. Interpretations of *o-/jo-* as an adverb meaning ‘thus’ face the difficulty that Greek does not generally form demonstratives on the relative stem **jo-*: see Morpurgo Davies (1985: 103–4); Thompson (2002–3[2006]: 320).





or phonological variant of *jo-*, it follows that *o-* is also built on the stem of the relative pronoun. There is further evidence to show that, although signs of the *j*-series clearly were used for some instances of etymological *i-*, etymological *i-* could also be left unrepresented in Mycenaean.⁵ Most importantly as far as the stem of the relative pronoun is concerned, the Mycenaean form of ὄτε 'when' < **jo-te* is now attested four times, always as *o-te* (PY Ta 711.1 = example (10) below; TH Fq 126.1; TH Fq 130.1; TH Fq 254[+]255.1).

The purpose of this paper is to show that the attestations of *jo-* and *o-* suggest a syntactic difference between the two, consistent with both *jo-* and *o-* being forms of the relative pronoun but requiring the writing *jo-* to be used consistently for a nominative form, probably always nominative plural masculine, while *o-* is used consistently for an accusative form, probably always accusative singular neuter.

It will be helpful to begin by outlining the argument on the basis of some invented English examples.

2. Outline of the argument

jo- and *o-* normally open the main heading to a tablet or set of tablets. After the main heading, there may be a series of lines of text each ending in an ideogram and an indication of quantity (or just an indication of quantity):

- (1) *o-* the cooks put into apple pie:
- | | | |
|--------|---|------|
| Flour |  | 100g |
| Butter |  | 50g |
| Apples |  | 6 |
| Sugar |  | 50g |

⁵ Instances in which etymological **i* becomes alphabetic Greek ζ and is reflected in Mycenaean with a sign of the *z*-series are not, of course, at issue here.

Alternatively, there may be a subheading and then a series of lines ending in an ideogram and an indication of quantity (or just an indication of quantity), and then another subheading, and so on:


(2) *o-* the cooks put into apple pie:

For the pastry:

Flour  100g

Butter  50g





For the filling:





Apples  6

Sugar  50g

Alternatively again, there may be merely a series of ideograms each followed by an indication of quantity:





(3) *o-* the cooks put into apple pie:





 100g  50g  6  50g

What will be crucial for the following discussion, in addition to the main heading, is what appears at the level of structure immediately below the main heading. In example (1) above, this is 'Flour', 'Butter', 'Apples', and 'Sugar'; in example (2), 'For the pastry' and 'For the filling'; in example (3), , , , and . In texts with *o-*, we shall see that at this level we are given information, or further information, about the object of the verb in the main heading. In most cases it is impossible to see the same entries as giving information about the subject of the verb. Thus, in the invented examples above, the materials used for apple pie – coreferential with the direct object or implied direct object of 'put' – are either detailed directly at the level immediately below the main heading, or are divided into sub-categories at this level ('(ingredients) for the pastry' and '(ingredients) for the filling'). None of the entries in question gives further information about the subject of the verb in the heading – we do not find out anything about who 'the cooks' are or categories into which 'the cooks' might be divided.





As a consequence, it is possible to take *o-* in such texts as an accusative form of the relative pronoun, so that the heading corresponds semantically to an English free relative clause introduced by ‘what’:⁶

(1.i) What the cooks put into apple pie: (2.i) What the cooks put into apple pie:

Flour		100g
Butter		50g
Apples		6
Sugar		50g

For the pastry:		
Flour		100g
Butter		50g
For the filling:		
Apples		6
Sugar		50g

(3.i) What the cooks put into apple pie:

	100g		50g		6		50g
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Relative clauses with no explicit domain noun or (in traditional terms) antecedent ($\delta/\acute{\alpha}$ τιθέασιν οἱ ὄψοποιοὶ εἰς μήλων πλακοῦντα), and often translatable with English free relative clauses, are common from the earliest stages of alphabetic Greek and are paralleled in other Indo-European languages. Early Greek examples include $\eta\acute{o}\varsigma$ δ'ἄ<ν> τῶδε πίεσι : ποτήρι[ο] ‘whoever drinks from this cup’ (SEG XIV 604 = ‘Nestor’s Cup’, 8th century BC); $\eta\acute{o}\varsigma$ νῦν ὀρχεστῶν πάντων ἀταλότατα παίζειι ‘he who now plays most daintily of all the dancers’ (IG I Suppl. 492a = ‘Dipylon Oenochoe’, 8th century BC), (κ)ῶτι κοσμησιε ‘(and) what he enacts’ (Bile 1988, no. 2; Dreros, late seventh or early sixth century BC), and numerous Homeric examples (e.g. οἱ (δ') ἔχον Ὀρμένιον ‘(those) who held Ormenion’ (*Il.* 2. 734)). Where the relative pronoun represents the direct object of the verb in the relative clause and refers to objects rather than people, a neuter singular or plural accusative is expected, as illustrated by κατέβαλεν οὖν ὃ ἔλαβεν ὡς ἕτερον

⁶ I do not wish to imply that the correct syntactic analysis of a Mycenaean heading is necessarily the same as that of an English free relative clause (which is itself controversial), although I do take the Mycenaean headings to be in some sense free relative clauses.





ληψόμενος ‘so he put down what he had taken in order to take another one’ (X., *Cyr.* 2. 2. 4) and ἐπαναπλεύσας δ’ εἰς Κνίδον καὶ διαθέμενος ᾧ ἔλαβεν ‘having sailed back to Cnidos and sold what he had taken’ (X., *HG* 4. 8. 24). The relative clause ὃ ἔλαβεν in the first of these examples refers to a single piece of meat, while ᾧ ἔλαβεν in the second refers to numerous pieces of booty. However, singular ὃ may also be used in a collective sense to refer to more than one item, as in the following passage from Diogenes Laertius (quoting or paraphrasing Aristotle), where the content of the relative clause with singular ὃ is further specified as λογίζεσθαι καὶ ὑπονοεῖν (or perhaps ‘such things as λογίζεσθαι and ὑπονοεῖν’, if the addition <οἶον> is accepted):

ἡ δύναμις διαιρεῖται εἰς τέτταρα εἴδη ἔν μὲν ὃ δυνάμεθα τῇ διανοίᾳ, <οἶον> λογίζεσθαι καὶ ὑπονοεῖν· ἕτερον δὲ τῷ σώματι, οἶον πορεύεσθαι καὶ διδόναι καὶ λαμβάνειν καὶ τὰ τοιαῦτα· ‘power is divided into four kinds: one is what we can do with thought, <such as?> reckoning and surmising; the second is (what we can do) with the body, such as moving and giving and taking and such things.’ (D. L. 3. 97 (ed. M. Marcovich) = Aristotle fr. 114 Rose)

Greek also has relative clauses with a domain noun or antecedent internal to (often referred to as ‘incorporated into’) the relative clause; examples include ὅσοι θεοὶ εἰς ἔν Ὀλύμπῳ ‘as many gods as are on Olympus’ (*Il.* 1. 566); ὃν δ’ αὖ δήμου ἄνδρα ἴδοι βοόωντα τ’ ἐφεύροι ‘whatever man of the people he saw and found crying’ (*Il.* 2. 198); ὃ (γὰρ) ἡμεῖς ἔχομεν φύσει ἀγαθόν ‘(for) what natural advantages we have’ (Th. 1. 121. 4, with singular ὃ... φύσει ἀγαθόν referring to several distinct advantages).⁷ Such relative clauses should also be usable as headings to lists:⁸

⁷ Syntactically the relative pronoun and the domain noun together form the relativised constituent, even though this constituent can be, and often is, discontinuous in Greek. Evidence comes particularly from Classical Greek, in which ‘case attraction’ of the relative pronoun can occur. An internal domain

(4) What stuff/ingredients (i.e. the stuff/ingredients which) the cooks put into apple pie:

Flour		100g
Butter		50g
Apples		6
Sugar		50g

In such instances the relative pronoun agrees in number and gender, as well as in case, with the internal domain noun. We shall see one example (on PY Nn 228 = example (15)) of *o-* in a context analogous to that of ‘what’ in example (4):⁹ the entries at the level below the main heading again specify or give information about the object of the verb in the heading, but this time a lexical expression referring to the object also occurs in the heading itself. Again we may take this *o-* as an accusative form of the relative pronoun.

Sentences with *jo-* differ from those with *o-* in that the entries at the level of structure immediately below the main heading





noun always takes the same case as the relative pronoun, whether or not the relative pronoun displays case attraction; this necessary agreement between relative pronoun and domain noun would be difficult to understand unless they formed a constituent. Although the clearest evidence comes from case attraction, which is probably an innovation of the fifth century BC, it is likely that an internal domain noun formed a constituent with the relative pronoun from the earliest stages of Greek and indeed in Indo-European. (Note for example that in Hittite, relative clauses with an internal domain noun have the domain noun adjacent to the relative pronoun in the vast majority of instances, whatever the syntactic position relativised and regardless of the usual Hittite preference for SOV order.) These relative clauses are thus only slightly different syntactically from those with no expressed domain noun at all, since no extra syntactic constituent is involved. In a superficial sense, however, these relative clauses clearly include a domain noun belonging to the relative clause itself, and it is thus convenient to distinguish them from other Greek relative clauses by describing them as having an internal domain noun.

⁸ For a similar use of a relative clause in the heading to a list (but this time with an external domain noun), cf. IG I³ 279, col. II, lines 89–92 (= IG I³ 278, col. VI, lines 18–21): πόλεις ἧς οἱ ἰδιῶται ἐνέγραψαν φόρον φέρον ‘cities which private citizens registered to pay tribute’ (433/2 BC).

⁹ Again I do not wish to suggest that the syntactic structure exactly parallels that of English ‘what stuff/ingredients the cooks put into apple pie’. Furthermore, I take the Greek structure to be a relative clause (meaning ‘the stuff/ingredients which ...’), not an interrogative clause.





specify or give further information about the subject of the verb in the main heading. In most cases, it is not possible to take these entries as also giving information about the object of the verb. Thus, we do not find clear examples of texts of the following form:

**(5) jo-* the cooks put into apple pie:

Flour		100g
Butter		50g
Apples		6
Sugar		50g





The following text, on the other hand, illustrates a possible structure for a text with *jo-*:

(6) *jo-* contribute apples for apple pie:

Eteocles		2
Polyneices		4
Oedipus		6
Antigone		5

This time *jo-* can be read as a nominative form of the relative pronoun, not as an accusative form:

(6.i) (The people) who contribute apples for apple pie:

Eteocles		2
Polyneices		4
Oedipus		6
Antigone		5

In Greek we would probably expect a nominative plural form here (οἱ διδύασι μήλα εἰς μήλων πλακοῦντα), as normally found in free relative clauses referring generally to a set of male humans, or to some male and some female humans (cf. again οἱ (δ') ἔχον Ὀρμένιον 'those who held Ormenion', *Il.* 2. 734, and many similar examples from the Catalogue of Ships and Catalogue of Trojan allies).

Two of the clear examples of texts with *jo-* have an expression corresponding to the subject of the verb mentioned explicitly in the heading (PY Cn 608 = example (27); PY Jn 829 = example (24)):

(7) *jo-* people contribute apples for apple pie:

Eteocles	⊖	2
Polyneices	⊖	4
Oedipus	⊖	6
Antigone	⊖	5

Again such sentences may be read as relative clauses with a nominative plural form of the relative pronoun and an internal domain noun (οἱ ἄνθρωποι διδόασι μήλα εἰς μήλων πλακοῦντα; cf. again ὅσοι θεοί εἰς ἔν Ὀλύμπῳ ‘as many gods as are on Olympus’, *Il.* 1. 566).

We now turn to the genuine Mycenaean texts with *o-* and then to those with *jo-*. In both groups there are some texts whose general content and structure is well understood, even if in some cases there are words or other details that are still unclear or debatable. In a smaller number of texts, the difficulties mean that there is no certainty about the relationship between the verb in the heading and the next level of structure. Furthermore, it is not always clear whether *o-* or *jo-* should be taken as a segmentable element at all. These more problematic texts will be mentioned in sections 3.1 (those with *o-*) and 4.1 (those with *jo-*), but it is the clear examples that really support the argument just outlined.

3. Attestations of *o-* in clear contexts

There are nine examples of *o-* in reasonably clear contexts. In what follows, each text is quoted with the material at the level of structure immediately below the main heading underlined. There follows a translation of the whole or part of the text, where a reasonably uncontroversial one is possible, and some comments.

(8) PY Eq 213:

- .1 *o-wi-de* , *a-ko-so-ta* , *to-ro-qe-jo-me-no* , *a-ro-u-ra* , *a₂-ri-sa* ,
 .2 *a-ke-re-wa* , *o-ro-jo* , *to-so-de* , *pe-mo* GRA 8
 .3 *o-da-a₂* , *e-ri-no-wo-to* , *o-ro-jo* , *to-so-de* , *pe-mo* GRA 20
 .4 *o-da-a₂* , *ko-tu-wo* , *o-ro-jo* , *to-so-de* , *pe-mo* GRA 20
 .5 *o-da-a₂* , *po-ti-ni-ja-we-jo-jo* , *o-te-pe-o-jo* , *o-ro-jo* , *to-so-de* , *pe-mo* GRA 6
 .6 *o-da-a₂* , *ko-no* , *o-ro-jo* , *to-so* , *pe-mo* GRA 40
 .7 *vacat*

‘*o- A-ko-so-ta* saw while touring the fields *a₂-ri-sa*¹⁰:...’.

It is clear that *A-ko-so-ta* is the subject of *wi-de* and is not referred to again in the lines that follow. Instead, these lines (however exactly they are to be interpreted) enumerate things he saw at various places on his inspection tour. Thus these lines expand on the object of *wi-de*, not the subject, and the heading may be read ὁ φίδε *A-ko-so-ta*...: ‘What *A-ko-so-ta* saw...’.¹¹

(9) PY Pn 30:

- | | | | |
|----|--|---------------|--|
| .1 | <i>o-de-ka-sa-to</i> , <i>a-ko-so-ta</i> | | ‘ <i>o- A-ko-so-ta</i> received: |
| .2 | <u><i>si-ma-ko</i></u> | *169 23 o 10[| <i>Si-ma-ko</i> beds(?) 23 o 10[|
| .3 | <u><i>ke-ka-to</i></u> | *169 26 o 9 | <i>Ke-ka-to</i> beds(?) 26 o 9 |
| .4 | <u><i>ru-ko</i></u> | *169 13 o[| <i>Ruko</i> beds(?) 13 o[’ ¹² |

The subject of the verb *de-ka-sa-to* δέξατο is the man’s name *A-ko-so-ta*. The list at the level below this heading consists of names of men other than *A-ko-so-ta*, so it is clear that it does not

¹⁰ The meaning of *a₂-ri-sa* remains obscure; suggestions include a participle in the nom. sg. masc., with *A-ko-so-ta* as subject, or an adjective in the acc. pl. fem., agreeing with *a-ro-u-ra* (for these and other possibilities see Aura Jorro 1985–93, s.v. *a₂-ri-sa*). It is unlikely that this word affects the overall structure of the text in ways that are of issue here, since it is clear in any case what the verb of the heading is, who its subject is, and how the entries following the heading relate to this verb.

¹¹ For this interpretation of this text see also Wathélet (1970: 131 n. 7).

¹² The ideogram *169 is taken to refer to beds, to stools, or to beds in some contexts and stools in others; the distinctive shape of the ideogram on PY Pn 30 may represent a different object from the one intended in the Pylos Pa series. For discussion see Manessy-Guiton and Weill (1976); Vandenaabee and Olivier (1979: 172–6); Vandenaabee (1982: 29–32).

expand on the subject of *de-ka-sa-to*. It can, however, be understood as giving information about the object of the verb:

' <i>o-</i> <i>A-ko-so-ta</i> received:	
From <i>Si-ma-ko</i> :	beds(?) 23 o 10[
From <i>Ke-ka-to</i> :	beds(?) 26 o 9
From <i>Ruko</i> :	beds(?) 13 o['

o- may once again be interpreted as accusative ὄ, so that *o-de-ka-sa-to*, *a-ko-so-ta* would be ὄ δέξατο *A-ko-so-ta* 'What *A-ko-so-ta* received?.'

(10) PY Ta 711:

- .1 *o-wi-de*, *pu₂-ke-qi-ri*, *o-te*, *wa-na-ka*, *te-ke*, *au-ke-wa*, *da-mo-ko-ro*
 .2 *qe-ra-na*, *wa-na-se-wi-ja*, *qo-u-ka-ra*, *ko-ki-re-ja* *204^{VAS} | *qe-ra-na*,
a-mo-te-wi-ja, *ko-ro-no-we-sa*
 .3 *qe-ra-na*, *wa-na-se-wi-ja*, *ku-na-ja*, *qo-u-ka-ra*, *to-qi-de-we-sa* *204^{VAS} |

'*o-* *Pu₂-ke-qi-ri* saw when the *wanaks* made *Au-ke-wa dāmokoros*:...'

The main heading is followed by a list of vessels (and other items, on further Ta tablets) seen by *Pu₂-ke-qi-ri* on the occasion mentioned. *Pu₂-ke-qi-ri* himself, the subject of *wi-de*, does not reappear and no further information about him is given. At the level below the main heading, the object and not the subject of *wi-de* is thus expanded on, and *o-* can be taken as an accusative form of the relative pronoun: ὄ φίδε *Pu₂-ke-qi-ri* ὄτε φάναξ θῆκεν *Au-ge-wa* δαμοκόρον:

(11) PY Un 267:

- .1 *o-do-ke*, *a-ko-so-ta*
 .2 *tu-we-ta*, *a-re-pa-zo-o*
 .3 *tu-we-a*, *a-re-pa-te* [[, *ze-so-me*]
 .4 *ze-so-me-no* [[ko]
 .5 *ko-ri-a₂-da-na* AROM 6
 .6 *ku-pa-ro₂* AROM 6 *157 | 6
 .7 *KAPO* 2 T 5 *VIN* 20 *ME* 2
 .8 *LANA* 2 *VIN* 2
 .9–11 *vacant*

The main heading covers lines 1–4; it is usually read *o-* δῶκε(ν) *A-ko-so-ta* Θυέστα ἀλειφαζῶ θύφεα ἀλειφάτει ζεσομένῳ, and Ventris and Chadwick translate ‘Thus *A(r)xotas* gave spices to Thuestas the unguent-boiler, for unguent which is to be boiled’ (*Docs*¹: 224). The first part of this, ‘*o-* *A.* gave spices/aromatics to Thuestas the unguent-boiler’, is unproblematic, and the aromatic substances listed at the level below this main heading expand on the object of *do-ke*, while the subject *A-ko-so-ta* is not mentioned again and no further information about him is given.

Ventris and Chadwick (*Docs*¹: 224) note that their translation of lines 3–4 involves a rare use of the dative to denote purpose. For this they compare Ἡρακλείοις γοναῖς ‘for the begetting of Herakles’ at Pindar, *I.* 7. 7, but they also suggest that *ze-so-me-no* might be taken as a true middle (rather than a middle with passive sense) with *Thuestāi* as its subject:¹³ ‘Thus *A.* gave to *T.*, who is to boil spices in unguent’.¹⁴ Under their interpretation of

¹³ Morphologically, either a true middle or a future middle with passive sense is possible for Mycenaean (for the latter see George 2005: 12–13). The difficulty, of course, is whether one should expect the middle voice here. One might think in terms of the especially Homeric use of the middle for the exercise of a function proper to a particular person (even for somebody else’s benefit), as at *Od.* 17. 331–2, where a δαιτρός ‘carver/apportioner’ is said to be κρέα πολλὰ δαιόμενος μνηστῆρσι ‘apportioning many pieces of meat to the suitors’ (see Kühner and Gerth 1898: 109–10). Since Thuestās is an ἀλειφαζῶς ‘unguent boiler’, boiling unguent is certainly the exercise of his proper professional function (from which he also derives benefit, since he is supported by the palace in return for his work: see Shelmerdine 1985: 41–3). (It is less likely that ζέω simply had a future of middle form, since the verb does not fit well semantically with other Greek verbs with middle futures; see Rijksbaron 2002: 156.)

¹⁴ It is worth asking whether ‘to boil spices in unguent’ can be a description of a process whose end product is unguent. However, *a-re-pa* is likely to refer to oil destined to be used as ointment, whether or not aromatic substances have already been added (see Shelmerdine 1985: 31–2, 34–5). One might compare the use of the word ἔλαιον ‘olive oil’ in the discussion of perfume manufacture at Dioscorides 1. 42–63: the word is used both for oil as a raw ingredient and for oil that has been treated in various ways, in the latter case sometimes with a participle to specify the treatment (as in τοῦ ... ἡρωματισμένου ἔλαιου ‘the perfumed oil’ at Dioscorides 1. 50. 1; τοῦ ἐστυμμένου ἔλαιου ‘the pre-treated oil’ at 1. 52. 1). Andreas Willi points out to me that if *a-re-pa-te ze-so-me-no* were, after all, a dative expression meaning ‘for

o- as ‘thus’, the object of *dōke* would be *koria(n)dna*, etc., and they point out that word order makes this unlikely. An interpretation of *o-* as an accusative form of the relative pronoun, however, would make the *ō* itself the (relativised) object of *δῶκε* and thus allow the interpretation ‘What *A.* gave to *T.* the unguent-boiler, who is to boil spices/aromatics in unguent:’, without the unlikely separation between verb and object to which Ventris and Chadwick rightly objected.

(12) PY Vn 10:

- .1 *o-di-do-si* , *du-ru-to-mo*
- .2 *a-mo-te-jo-na-de* , *e-pi[.]-ta* 50
- .3 *a-ko-so-ne-qe* 50
- .4 *to-sa-de* , *ro-u-si-jo* , *a-ko-ro* , *a-ko-so-ne*
- .5 100 , *to-sa-de* , *e-pi-[.]-ta* 100

‘*o-* woodcutters give to the chariot workshop:
trees 50; axles 50.
And the Lousian field (contributes) so many:
axles 100, and so many trees: 100.’

The heading *o-di-do-si* , *du-ru-to-mo a-mo-te-jo-na-de* has depending on it the entries *e-pi[.]-ta* and *a-ko-so-ne-qe* in lines 2–3, after which there is a second heading and further entries. The subject of *di-do-si* δίδονσι is *du-ru-to-mo* δρυτόμοι ‘woodcutters’. The entries depending on this heading do not refer again to the woodcutters or provide more information about them but consist of the items they contribute to the chariot workshop. Thus the dependent entries expand on the object of *di-do-si*, and *o-* can be taken as an accusative form of the relative pronoun: *ὃ δίδονσι δρυτόμοι ἀρμοστειωνάδε*: ‘What the woodcutters give to the chariot workshop.’

Under this interpretation, the entries *e-pi[.]-ta* 50 and *a-ko-so-ne-qe* 50 are not syntactically objects of *di-do-si* or in any

unguent which is to be boiled’, the interpretation of *o-* given here would be possible if *tu-we-a a-re-pa-te ze-so-me-no* were understood as a subheading (‘What *A.* gave to Thuestās the unguent-boiler: aromatics for unguent which is to be boiled: coriander 6 units, cyperus 6 units...’).

other way syntactically integrated with the heading. Rather, *o-* is the (relativised) object of *di-do-si*, and what follows is a list introduced by this heading. For this reason, there is no reason to expect the items in the list to appear in the accusative rather than the nominative.¹⁵ Thus there would be an answer to the old problem whether *a-ko-so-ne*, which looks like a nominative plural, is a peculiar accusative plural form instead: *a-ko-so-ne* would be, exactly as it seems, a nominative.¹⁶ The syntactic break between heading and list would be paralleled in lines 4–5, where such a break is indicated not only, again, by the *prima facie* nominative *a-ko-so-ne* but by the lack of gender concord between this form and *to-sa-de* (on which cf. *Docs*¹: 350; Morpurgo 1963, s.v. *a-ko-so-ne*).

¹⁵ One might expect either nominative or accusative to be possible, but it is clear from the appearances of *ti-ri-po* τριπῶς, *ta-ra-nu* θράνυς, and *pi-je-ra*, φιλῆαι in the Pylos Ta tablets that in a similar context the items corresponding to the object of the verb in the heading to the set (*wi-de* at Ta 711.1 = example (10)) are listed in the nominative, not the accusative (cf. Risch 1958: 99; 1986: 69).

¹⁶ Risch (1958) suggested that *a-ko-so-ne* in this text is an accusative plural (at both its occurrences), along with *o-pe-ro-te* at PY An 724.6, *pe-ri-ke* and *pa-ke-te-re* on MY Ue 611, and probably the two occurrences of *sa-pi-de* on MY Ge 602 (= example (26)). Cf. Milani (1966), arguing that *a-ko-so-ne* at PY Vn 10.3, *sa-pi-de* on MY Ge 602, and *we-je-we* at PY Er 880.5 (but the last sign of *we-je-[we* is conjectural: see Bennett and Olivier 1973: 136) are indeed accusative plurals, and that *o-pe-ro-te* at PY An 724.6, and *pe-ri-ke* and *pa-ke-te-re* on MY Ue 611, are possible but less certain accusative plurals; Bartoněk (2003: 227) inclines towards *a-ko-so-ne* at PY Vn 10.3 as accusative and allows the possibility for *o-pe-ro-te*; Hajnal (1995: 27) allows the possibility at least for *o-pe-ro-te*. For (both instances of) *a-ko-so-ne* in our text as nominative, see however Vilborg (1960: 80, 83) and especially Ruijgh (1967: 109 n. 53, 348 n. 55). At PY An 724.6 it is more likely that the construction is different from that at line 3, where accusative *o-pe-ro-ta* appears (so Ruijgh 1967: 320 n. 134; cf. Vilborg 1960: 80; *Docs*²: 431), while in the list on MY Ue 611 it is more likely that there is some alternation between nominative and accusative (so *Docs*²: 496; Hajnal 1995: 27; for a probable parallel for alternation between nominative and accusative in listed items cf. IC IV 75, col. B, with Guarducci, IC IV, p. 175) or that the apparent accusative *ka-ra-te-ra* is in fact some kind of nominative (see *Docs*¹: 331; Palmer 1963: 425 s.v. *ka-ra-te-ra*). On MY Ge 602 the men's names in the nominative need not form clauses (for each of which the verb would have to be understood from the heading) with the lists of items owed by those men.

On the interpretation suggested there would be a lack of parallelism in number between *o-* of line 1 (*ex hypothesi* a singular) and the plural *to-sa-(de)* in line 4. There is, however, no particular reason to expect a consistent choice of summarising neuter singular or summarising neuter plural, especially when different pronouns are involved. If Mycenaeans preferred a summarising neuter singular of the relative pronoun (as would appear to follow from the argument presented here), it does not follow that the same choice was made for a summarising neuter demonstrative pronoun. One might compare expressions such as τί δὴ ταῦτ' ἐστὶ; 'So what (sg.) do these things (pl.) amount to?' (D. 23. 38), where the neuter singular of the interrogative pronoun is chosen to stand for Demosthenes' interpretation of a law, while the neuter plural of the demonstrative is chosen to stand for the law itself. Neither the law nor Demosthenes' interpretation of it appears inherently to consist of more separable elements than the other.

(13) KN Le 641 + *frr.*:

- .1 o-a-po-te, de-ka-sa-to, a-re-i-jo, o-u-qe-po[
 .2 pa-i-ti-ja, 'pe' TELA+TE 2 mi TELA¹+TE 14 da-wi-ja, pe TELA^x+ TE 1[
 .3 do-ti-ja mi TELA+TE 6 qa-mi-ja TELA¹+TE 1[
 .4 ko-no-so, / te-pe-ja 'mi' TELA+TE 3 tu-ni-ja TELA¹+TE 1 [
 .5-6 vacant [] vacant]

a-po-te in the main heading either represents ἄπωθεν 'from afar' (or the same adverb in some related meaning) or is a personal name.¹⁷ Under the first interpretation *a-re-i-jo* is a personal name and subject of *de-ka-sa-to*, while under the second it is taken as a patronymic adjective dependent on *a-po-te*.¹⁸ Thus the preserved part of the first line is to be understood either as 'o- Areios received from 'afar', and...not...' or 'o- *A-po-te* son of Ares received, and...not...'. The entries at the level below the

¹⁷ For *a-po-te* as a personal name see KN Od(1) 562.3; *Docs*²: 486. For the reading ἄπωθεν see *Docs*¹: 317; Thompson (2002–3[2006]: 323 n. 9, 330).

¹⁸ But the word order appears contorted if *A-re-i-jo* is a patronymic adjective: so *Docs*²: 486; Thompson (2002–3[2006]: 330).

The *son* of Perimedes *took*... of Psolion, this year *o-* he *took*:
twelve x.

Poikiloq^hs the...: one pair.

§2 And the holders of land as follows:

Etawoneus this year *o-* *took*: one pair, six x.

A-qi-zo-we this year *o-* *took*: one pair, x x.

Ne-qe-u son of Etewoklewes this year *o-* *took*: one pair, x x.

Me-wi Eruthras at Metapa of *Ki-e-u* this year *o-* *took*: one pair,
x x.’

(trans. *Docs*¹: 176, adapted)

o-a-ke-re-se in this text alternates with unprefixes *a-ke-re-se* (= ἄγρησε ‘(he) took’ or ἄγρησει ‘he will take’), making it certain that *o-* is a segmentable element.¹⁹ This is the only clear example of a tablet in which *o-* occurs other than at the very beginning of the tablet. The unbroken lines suggest strongly that *o-* only occurs at the end of a line followed by *ZE* 1 *171 plus numeral or simply *171 plus numeral, not at the end of a line followed only by *ZE* 1 (see Palmer 1963: 143; Chadwick 1970: 101–2). Lines 3 and 4, the two complete lines with *ZE* 1 but no *171, also have the negative *o-u-qe*, which does not occur in any of the lines with *o-a-ke-re-se*. Instead of *o-a-ke-re-se*, lines 3 and 4 have the unprefixes form *a-ke-re-se*. *a-ke-re-se* also occurs in line 7, which ends with *o-a-ke-re-se*: thus although *a-ke-re-se* seems to have been repeatable in this line, the line contains only one *o-*.²⁰

The entries *ZE* 1 *171 3 etc. following the instances of *o-a-ke-re-se* clearly specify what was taken – they expand on the object of *a-ke-re-se*. An interpretation with *o-* as accusative ὄ yields the relative clause ὄ ἄγρησε ‘what he took:’ (or ὄ ἄγρησει ‘what he will take:’);²¹ lines 2, 5, 6, 7, 13, 14, 15, 16

¹⁹ For a different interpretation from the one assumed here (with *to-to* = ‘every year’), see Lejeune (1979).

²⁰ Alternatively, the unprefixes instance of *a-ke-re-se* is an error (so *Docs*²: 423 (as a possibility); Lejeune 1979: 208 n. 8).

²¹ For discussion of the more precise meaning of the verb here, see Thompson (2002–3[2006]: 333).

can then be taken as follows (for each instance of ‘took’, understand ‘took’/‘will take’):

- .2 [So-and-so] the share-holder, this year, what he took: one pair, three x.
- .5 Klumenos the share-holder, *mayor* of *I-te-re-wa*, this year, what he took: six x.
- .6 Perimos the *mayor* of *Thimistia*, this year, what he took: one pair, three x.
- .7 The *son* of Perimedes *took*... of Psolion, this year, what he *took*: twelve x.
- .13 Etawoneus, this year, what he took: one pair, six x.
- .14 *A-qi-zo-we*, this year, what he took: one pair, x x.
- .15 *Ne-qe-u*, son of Etewoklewes, this year, what he took: one pair, x x.
- .16 *Me-wi* Eruthras at Metapa of *Ki-e-u*, this year, what he took: one pair, x x.

The first example of *a-ke-re-se* in line 7 is not prefixed by *o-* because it does not introduce the specification of what was taken (or will be taken): in this position what is required is merely ‘he took/will take’, not ‘what he took/will take.’ In lines 3 and 4, with negative *o-u-qe*, the entries *ZE 1* indicate, presumably, that one ‘pair’ per line is accounted for by the relevant person’s not taking anything. Each person who takes something likewise takes one ‘pair’, with the exceptions of the people mentioned in lines 5 and 7; for these lines Thompson (2002–3[2006]: 333) suggests on epigraphic grounds that the scribe has omitted the *ZE 1* for lack of space but intends *ZE 1* to be understood. The quantities of the commodity *171 taken by different people clearly differ, however, and the lack of the ideogram *171 in lines 3 and 4 (where there is no question of lack of space) suggests that no specific quantity of this commodity is being accounted for as not taken. Thus the people mentioned in lines 3 and 4 simply took (or will take) nothing; this automatically means that one ‘pair’ is accounted for on each of these lines, but nothing can be said about the amount of *171. The lack of a relative clause in these lines becomes understandable from the scribe’s need to say not ‘what he did/will not take’ but merely ‘he did/will not take (anything)’:

- .3 *Ka-do-wo* the share-holder, and he did/will not take (anything): one pair.
- .4 Luros the share-holder, and he did/will not take (anything): one pair.

Thompson (2002–3[2006]: 334) points out that the presence of *-qe* ‘and’ in the negative *o-u-qe* of lines 3 and 4 suggests that a new clause begins after the introductory nominative of rubric, and that the structure of the lines with *o-a-ke-re-se* would well parallel that of lines 3 and 4 with *o-u-qe* if indeed the *o-* of *o-a-ke-re-se* also begins a new clause.

(15) PY Nn 228:

- .1 o-o-pe-ro-si , ri-no , o-pe-ro
 .2 u-ka-jo , SA 20 ro-o-wa , SA 35
 .3 pu₂-ra₂-a-ke-re-u , SA 10 ke-i-ja-ka-ra-na
 .4 SA 5 di-wi-ja-ta , SA 60
 .5 a-pi-no-e-wi-jo SA 28
 .6 po-ra-pi , SA 10 e-na-po-ro , SA 33
 .7 te-tu-ru-we SA 38
 .8–15. vacant

o-o-pe-ro-si , *ri-no* is to be read *o-* ὀφείλονσι λίνον ‘*o-* they owe flax’ (see *Docs*¹: 297; Palmer 1963: 310; Aura Jorro 1985–93, s.v. *ri-no*). *o-pe-ro* appears to be an additional indication of a deficit. The items listed at the level below this heading consist of places in the instrumental case. Since one could understand either ‘(people) at/from *U-ka-jo*’, ‘(people) at/from *Ro-o-wa*’, etc., or ‘(flax) at/from *U-ka-jo*’, ‘(flax) at/from *Ro-o-wa*’, etc., the list here could be interpreted as expanding either on the subject or on the object of *o-pe-ro-si*.

If *o-* here is taken as an accusative form of the relative pronoun, the relative clause has an internal domain noun *ri-no*. If we take the word for ‘flax’ to have been neuter as in classical Greek, we may read *o-o-pe-ro-si* , *ri-no* as a relative clause with internal domain noun, ὃ ὀφείλονσι λίνον ‘What flax they owe:’. This text is thus compatible with the hypothesis proposed here, although nothing about the text itself would prevent the first line from being read with a nominative form of the relative pronoun instead (οἱ ὀφείλονσι λίνον ‘people who owe flax’).

(16) PY An 657:

- .1 o-u-ru-to , o-pi-a₂-ra , e-pi-ko-wo ,
 .2 ma-re-wo , o-ka , o-wi-to-no ,
 .3 a-pe-ri-ta-wo , o-re-ta , e-te-wa , ko-ki-jo ,
 .4 su-we-ro-wi-jo , o-wi-ti-ni-jo , o-ka-ra₃ VIR 50
 .5 *vacat*
 .6 ne-da-wa-ta-o , o-ka , e-ke-me-de ,
 .7 a-pi-je-ta , ma-ra-te-u , ta-ni-ko ,
 .8 a₂-ru-wo-te , ke-ki-de , ku-pa-ri-si-jo VIR 20
 .9 *vacat*
 .10 a₃-ta-re-u-si , ku-pa-ri-si-jo , ke-ki-de VIR 10
 .11 me-ta-qe , pe-i , e-qe-ta , ke-ki-jo ,
 .12 a-e-ri-qo-ta , e-ra-po , ri-me-ne ,
 .13 { a o-wi-
 { o-ka-ra , -to-no VIR 30 ke-ki-de-qe , a-pu₂-ka-ne ,
 .14 { VIR 20 me-ta-qe , pe-i , a₃-ko-ta , e-qe-ta ,
 { .15 *vacat*

The main heading here is taken to mean ‘*o-* the watchers are watching the coast’ (see Palmer 1963: 147; *Docs*¹: 189; Bartoňek 2003: 506), with *o-u-ru-to* read as *o-wruntoi* and usually connected to ῥύομαι ‘guard’. On other tablets beginning with *o-* followed by a verb, however, the verb is followed immediately by its subject if there is an expressed subject, never by an object (or part of the object) and then the subject in that order. One might wonder, therefore, whether *o-pi-a₂-ra* should be read as ὀπί ἄλα ‘over the coast’,²² so that the verb *u-ru-to* would be separated from its subject *e-pi-ko-wo* ‘watchers’ only by this prepositional expression, not by an object.²³ The heading would

²² For the lack of word-divider, cf. *o-pi-me-ne* ὀπί μήνηι ‘per month’ occurring five times on PY An 7 + Fn 1427 (see Melena 1996–97[1998]: 173), and the further possible prepositional expressions *o-pi-e-de-i* (PY An 1281.2) and *e-pi-ke-re* (KN F(2) 851.1a and KN F(2) 852.1): see Killen (1994–95: 333).

²³ Mycenaean *o-pi* and *e-pi* are both continued by first-millennium ἐπί (see Morpurgo Davies 1983); although prepositional *o-pi* is not otherwise attested with the accusative, a use with the accusative would be expected in the light of first-millennium ἐπί plus accusative. For the reference to spatial extension required here, cf. Homeric expressions such as Ἄργεῖοι φεύξονται ἐπ’ εὐρέα νῶτα θαλάσσης; ‘will the Argives flee over the broad back of the

then mean ‘*o-* the watchers are watching over the coast’, or ‘*o-* the watchers over the coast are watching’. Since the prepositional expression would be part of either a verb phrase ‘are watching over the coast’ or a subject expression ‘watchers over the coast’,²⁴ the placement of this expression between *u-ru-to* and *e-pi-ko-wo* would not significantly disrupt the normal verb – subject order.²⁵

At the level immediately below the main heading, we have subheadings of the form ‘*o-ka* of (man’s name)’ or ‘*o-ka* of (man’s name) at (place name)’. *o-ka* is usually taken to refer to a particular contingent of troops (e.g. *ὄρχα ‘command’) or to a particular geographical area (e.g. ὄρχα ‘enclosure’; or again *ὄρχα ‘area commanded’?) under the command of the man named.²⁶ If *o-ka* refers to a contingent of troops, the subheadings *ma-re-wo*, *o-ka*, *o-wi-to-no* and *ne-da-wa-ta-o*, *o-ka* would expand on the subject of *u-ru-to*. If on the other hand *o-ka* refers to a geographical area, these subheadings would expand on the object:

‘*o-* the watchers are watching over the coast (OR *o-* the watchers over the coast are watching):

sea?’ (*Il.* 2. 159); ὄρων ἐπὶ οἴνοπα πόντον ‘looking over the wine-faced sea’ (*Il.* 1. 350).

²⁴ For a parallel prepositional phrase dependent on a noun, cf. Killen’s suggestion (1994–95) that the expression *a-ma e-pi-ke-re* on KN F(2) 851 and KN F(2) 852 + 8071 + *fr.* represents *amā epi khērei* ‘harvest at hand’.

²⁵ One might compare Thompson’s (2002–3[2006]: 329–30) discussion of the position of the allative *a-mi-ni-so-de* ‘to Amnisos’ at KN Og(2) <4467>.1 (= example (25)) and the possible adverb *a-po-te* ‘from afar(?)’ at Kn Le 641.1 (= example (13)). Thompson’s preferred syntactic analysis of these instances cannot be transferred to the heading of PY An 657, since *o-pi-a-ra* does not immediately follow the introductory *o-*, but his alternative suggestion that these adverbial expressions have ‘joined the verb in Comp’ (2002–3[2006]: 330) would be transferrable to our heading.

²⁶ The most obvious reading is perhaps *ὄρχα ‘command’ (cf. Homeric ὄρχαμος ‘leader, chief’), but this does not obviously decide in favour of a contingent rather than an area commanded (cf. ἀρχή in the meaning ‘realm’). The fact that an *o-ka* is said (in some cases) to be located at a place also leaves both possibilities open. It might, however, simplify arrangements for guarding the coast effectively if each coast guard commander were in charge of a fixed section of coast.

Area of Ma-re-wo at (or around?) O-wi-to-no:
A-pe-ri-ta-wo, Orestās, etc.’

In the latter case, *o-* can be taken as accusative ὄ, giving ‘What the watchers are watching over the coast:...’ (or ‘What the watchers over the coast are watching:...’). It is, however, by no means clear whether *o-ka* does refer to a geographical area or to a contingent, so that the relationship between heading and text here is the least clear of those in the texts so far considered.²⁷

3.1 Attestations of *o-* in unclear contexts

In what follows, texts in which an *o-* or possible *o-* appears in an unclear or disputed context are quoted with some comments. No material is underlined here, since the material at the level of structure immediately below the heading often cannot be identified for certain.

(17) KN Wb 8711:

sup. mut.

.1]o-a-pu-[

.2 tu-na-no [
inf. mut.

This broken label probably only ever contained two lines, and]*o-a-pu-ḏo*[is possible in the first line (see *CoMIK* iv: 85); possibly the sequence is to be completed as *o-a-pu-do-si* ‘*o*-contribution’ or *o-a-pu-do-ke* ‘*o*- (he) gave’ (see Aura Jorro 1985–93, s.v. *a-pu-ḏo*[). One should perhaps prefer *o-a-pu-do-ke*, since *o-* is most often attached to a verb. *tu-na-no* refers to a kind of textile (see Aura Jorro 1985–93, s.v.), likely to be the thing given if the first line indeed contains part of the verb ‘to give’.

²⁷ Furthermore, as Wathelet (1968) points out, the connection between (*o-*)*u-ru-to* and ῥύομαι is not without phonological problems; meanwhile his alternative connection with ἐρύω ‘pull’ (and more specifically ‘lever des impôts’: Wathelet 1968: 111) abandons the military view of the *oka* tablets which has been generally accepted. It may be that the correct interpretation of the sequence *o-u-ru-to* has yet to be found.

Thus although certainty is impossible since not enough is preserved, an interpretation of *o-* as accusative *ō* would be easily compatible with what is preserved: 'What (he) gave: ... *tunano...*'.

(18) PY An 37:

- | | | | |
|----|-------------------------|---|-------------------|
| .1 | <i>o-za-mi</i> [| | <i>]e-ne-ka</i> , |
| .2 | <i>pa-ra-we-wo</i> , | [| <i>]jo</i> |
| .3 | <i>a-pi-no-e[-wi-jo</i> | | VIR 2 |
| .4 | <i>e-na[-po-ro</i> | | VIR]1 |
| .5 | <i>vest.</i> [| | |
| | <i>infra mutila</i> | | |

o-za-mi[in the heading to this text has often been taken as *o-* followed by a word beginning with the signs *za-mi-*, which has usually been taken to be a passive form of ζημιόω ('thus they are penalized': Ventris in *Docs*¹: 174; similarly Palmer 1963: 440, but with a suggested meaning '(they are) levied, conscripted'²⁸), or a derived adjective ζῆμιοι, or the occupational name *za-mi-jo* (see again *Docs*¹: 174, with reservations). There is, however, no certainty as to the correct interpretation, or even whether *o-* is a segmentable element here at all (see Risch 1968: 692 n. 25).²⁹

(19) PY Vn 130:

- | | | | | |
|-----|------------------|-----------------------------|--------------------|------------------------------|
| .1 | <i>o-ze-to</i> , | <i>ke-sa-do-ro</i> , | <i>*34-to-pi</i> , | |
| .2 | { | | <i>pa-ro</i> | |
| | { | <i>a-ke-a₂</i> , | <i>me-ta-pa</i> , | <i>pe-ri-te</i> |
| | | | | 1 |
| .3 | | <i>a-pi-no-e-wi-jo</i> , | <i>pa-ro</i> , | <i>e-ru-si-jo</i> |
| | | | | 1 |
| .4 | | <i>a-pi-no-e-wi-jo</i> , | <i>pa-ro</i> , | <i>a₃-ki-e-we</i> |
| | | | | 4 |
| .5 | | <i>e-na-po-ro</i> , | <i>pa-ro</i> , | <i>wa-do-me-no</i> |
| | | | | 9 |
| .6 | | <i>sa-ri-no-te</i> , | <i>pa-ro</i> , | <i>o-wo-to</i> |
| | | | | 5 |
| .7 | | <i>pa-ki-ja-si</i> , | <i>pa-ro</i> , | <i>a-ta-no-re</i> |
| | | | | 4 |
| .8 | | <i>ka-ra-do-ro</i> , | <i>pa-ro</i> , | <i>to-ro-wo</i> |
| | | | | 1 |
| .9 | | <i>pa-ki-ja-si</i> , | <i>pa-ro</i> , | <i>e-ri-we-ro</i> |
| | | | | 3 |
| .10 | | <i>e-wi-te-wi-jo</i> , | <i>pa-ro</i> , | <i>wi-sa-to</i> |
| | | | | 1 |
| .11 | | <i>]m̄e-te-to</i> , | <i>pa-ro</i> , | <i>ko-do</i> |
| | | | | 3 |

²⁸ Cf. also Palmer (1963: 465, s.v. *za-mi-jo*).

²⁹ For further bibliography, see Aura Jorro (1985–93, s.v. *o-za-mi*[).

Without a clear understanding of the heading or the role of ἄγγεα, however, any assessment of the relationship between the heading and the rest of the document must remain tentative.

(20) PY Wa 917:

- .1]o-da-sa-t̥o , a-ko-so[-ta
 .2]e-qe-ta , e-re-u-te-re[

This text is a label for a basket of tablets and is at least substantially complete. *da-sa-to* here is likely to correspond to Homeric δάσσατο, third singular aorist indicative of δατέομαι ‘divide, distribute’ (see Aura Jorro 1985–93, s.v.]o-da-sa-t̥o). The subject is probably *A-ko-so-ta*, especially in view of the parallel headings to PY Eq 213 (= example (8)), PY Pn 30 (= example (9)), and PY Un 267 (= example (11)) (see Deger-Jalkotzy 1978: 73; Killen 2007: 265). If so, the interpretation ὃ δάσ(σ)ατο *A-ko-so-ta*... ‘what *A-ko-so-ta* distributed...’, with accusative ὃ, would be possible.

(21) MY Ui 2:

- .1 a-pu-do-si , po-ro-te-ra *vest.* [
 .2 o-u-te-ra 200 [
 .1: *si* , *po-ro-te* over erasure; [po-~~te~~ 200]; *vest.*: ΛΑΝΑ possible, but !00 not excluded.
 .2: 200 probably complete.

(Text from Shelton 2002–3[2006]: 390)

This text, discovered in 2000, is the earliest Linear B text from the Greek mainland that is both uncontroversial and datable (see Shelton 2002–3[2006]: 391–5). Bartoněk (2003: 531–2) presents an interpretation of this new text due to J. L. Melena:

- .1 *apudosis proterā LANA*
 .2 *(h)ō(s) (h)usterā 200*
 ‘Former payment WOOL [X
 Latter, thus 200 units [’

If the *o-* at the beginning of line 2 is indeed the prefix *o-*, an accusative form of the relative pronoun makes no sense here. On the other hand, we should hesitate to see the prefix *o-* here given that *o-* usually occurs at the beginning of a tablet, and every clear example occurs in a sentence with a predicate, not in front of a noun phrase by itself. Although Shelton (2002–3[2006]: 391) substantially agrees with Melena’s interpretation, he allows that *o-* here may not be the same element as usual *o-*: ‘due to the early date of the record..., it would be possible to propose an old instrumental of the demonstrative theme rather than the relative. If so, this *o-* is to be related to the Mycenaean series *o-a₂*, *o-da-a₂*, *o-de-qa-a₂*, rather than the alternating *o-/jo-*.’ Both Bartoněk (2003: 532) and Shelton (2002–3[2006]: 391 with n. 15) also mention an interpretation due to Y. Duhoux, according to which *o-u-te-ra* would represent **ousterā*, *ex hypothesi* an archaic variant of ὄστέρᾱ with an *o*-grade of the root. John Killen, Torsten Meissner, and Andreas Willi have all suggested that line two begins instead with the abbreviation *o.* = *o-pe-ro* ‘deficit’, and point out that the space after the sign in question is slightly larger than the other spaces within words on this text.³⁰ If so, the text would read ‘Former payment: X units of wool; outstanding: later (payment): 200 units.’ The abbreviation *o.* otherwise occurs before an ideogram, numeral, or further abbreviation, but again the early date of this text makes a different use possible, and *o.* = *o-pe-ro* would make very good sense.

(22) MY Ue 652 + 656:

.1	o-ku-su-wa-si , ko-na ,	GRA[
.2	pe-ru-si-nwa	GRA[
.3	OLIV 5 CYP + KU 5 CYP + O 7 <i>ko</i>	AROM[
{.4A		po-ro[
{.4B	pe-ru-si-nwa NI 36	ni[

→

³⁰ John Killen and Andreas Willi by personal communication. Torsten Meissner in a talk at the symposium *Greek from Alpha to Omega* (Oxford, June 2007).

v.		
.1]	VIN 22
.2]	GRA 3 T 3
		<i>reliqua pars sine regulis</i>

The first sign-group on this text is obscure and has sometimes been read with initial *o-* (see Aura Jorro 1985–93, s.v. *o-ku-su-wa-si*, with bibliography). It is, however, more likely that we do not have *o-* here, since in clear contexts a heading introduced by *o-* is not followed by an ideogram.

4. Attestations of *jo-* in clear contexts

There are five examples of *jo-* in reasonably clear contexts. In all these examples the main heading includes a transitive verb (appearing directly after the *jo-* except in KN Og(2) <4467> = example (25)), and the level below the main heading (underlined) either expands on the subject of this verb or can be taken to do so.

(23) PY Cn 3:

- .1 jo-i-je-si , me-za-na ,
- .2 e-re-u-te-re , di-wi-je-we , qo-o ,
- .3 a₂-ra-tu-a , o-ka-ra₃ , BOS I
- .4 pi-ru-te , ku-re-we , BOS I
- .5 e-na-po-ro , i-wa-si-jo-ta , BOS I
- .6 o-ru-ma-to , u-ru-pi-ja-jo , BOS I
- .7 a₂-ka-a₂-ki-ri-ja-jo , u-ru-pi-ja-jo-jo , BOS I
- .8–9 *vacant*

The interpretation of the first line here is not entirely clear, but *i-je-si* is *hiensi* ‘(they) send’, and the object of this verb is *qo-o* *g^wōn* ‘ox’ (acc. sg.) or *g^wō(n)s* ‘oxen’ (acc. pl.).³¹ *mezana* is

³¹ Most scholars take *qo-o* as an accusative singular or an accusative plural; a genitive plural has also been suggested (for bibliography see Aura Jorro 1985–93, s.v.). The phonologically and morphologically easiest interpretation is as an accusative singular *g^wōn*, which would simply be the regular

taken either as a place name, perhaps indicating direction,³² or as a divine recipient;³³ *e-re-u-te-re di-wi-je-we* is likely to be an immediate (human) recipient in the dative (see Hiller 1981: 102–3 n. 52; Killen 2007: 264–5). Thus the heading is likely to say ‘*jo-* (they) send oxen/an ox to/for *mezana* to *e-re-u-te-re di-wi-je-we*’. At the level below this main heading we then find on each of the following lines a place name followed by a word designating a group of men. At the crucial level we thus find that the subject of *i-je-si* (the senders) but not the object (the ox or oxen) is expanded on. An interpretation of *jo-* as nominative *õ* gives a relative clause with no expressed domain noun: ‘(The people) who send oxen/an ox to/for *mezana* to *e-re-u-te-re di-wi-je-we*’. This interpretation has the advantage that instead of awkwardly lacking an expressed subject, the heading would have *õ* itself as its (relativised) subject.³⁴

continuation of the inherited accusative singular **g^wōm*, and would correspond to Homeric βῶν. An accusative plural *g^wō(n)s*, formed by analogy with *g^wōn*, would be possible (see Ruijgh 1967: 131–2 n. 163; differently Hajnal 1995: 30 n. 24) and indeed the corresponding form βῶς is attested at (Ps.?)-Theocritus 8. 48, but it is not otherwise known in alphabetic Greek (by contrast with nominative singular βῶς, which is more widely attested but again only in Doric). Although both forms are in principle possible for Mycenaean, therefore, the assumption that Mycenaean had an accusative singular *g^wōn* is easier than the assumption that it had an accusative plural *g^wō(n)s*. (Equally, problems of orthography arise if *qo-o* is taken as an accusative plural but the form is taken to be *g^wouns*, or *g^wowos* from **g^wouns*, since the second element of a *u*-diphthong is normally written in Mycenaean, as is an intervocalic *-w-*.) On the interpretation proposed here, an accusative singular would be perfectly possible syntactically, although not demonstrable. For a distributive singular in a relative clause cf. e.g. νῦν δ’ ἄλλους μὲν πάντας ὀρῶ ἐλικώπας Ἀχαιοῦς, οὓς κεν ἔϋ γνοίην καί τ’ οὖνομα μυθησαίμην ‘now I see all the other rolling-eyed Achaeans, whom I could recognise rightly and tell the name of’ (Il. 3. 234–5). For distributive singulars, and the more usual distributive plurals, more generally see Schwyzler and Debrunner (1950: 42).

³² See Aura Jorro (1985–93, s.v. *me-za-na*), with bibliography. If *me-za-na* is a place name, however, it is not clear what case the word would be in: see Ruijgh (1967: 165 n. 343); Risch (1968: 690 n. 13).

³³ See Palmer (1963: 175); Hiller (1981: 102–3).

³⁴ Cf. Hiller’s (1981: 102–3 n. 52) discussion of the lack of obvious subject, and his suggested translation ‘So werden bzw. sollen schicken (als Opfer) für *me-za-na* an den *e-re-u-te-re di-wi-je-we* ein Opferrind (die folgenden Truppeneinheiten).’

(24) PY Jn 829:

- .1 jo-do-so-si , ko-re-te-re , du-ma-te-qe ,
 .2^a { -e-we-qe
 po-ro-ko-re-te-re-qe , ka-ra-wi-po-ro-qe , o-pi-su-ko-qe , o-pi-ka-pe-
 .3 ka-ko , na-wi-jo , pa-ta-jo-i-qe , e-ke-si-qe , a₃-ka-sa-ma
 .4 pi-*82 , ko-re-te , AES M 2 po-ro-ko-re-te AES N 3
 .5 me-ta-pa , ko-re-te AES M 2 po-ro-ko-re-te AES N 3[] *vacat*
 .6 pe-to-no , ko-re-te AES M 2 po-ro-ko-re-te AES N 3
 .7 pa-ki-ja-pi , ko-re-te AES M 2 po-ro-ko-re-te AES N 3
 .8 a-pu₂-we , ko-re-te AES M 2 po-ro-ko-re-te AES N 3
 .9 a-ke-re-wa , ko-re-te AES M 2 po-ro-ko-re-te AES N 3
 .10 ro-u-so , ko-re-te AES M 2 po-ro-ko-re-te AES N 3
 .11 ka-ra-do-ro , ko-re-te AES M 2 po-ro-ko-re-te AES N 3
 .12 ri-ljo , ko-re-te AES M 2 po-ro-ko-re-te AES N 3
 .13 ti-mi-to-a-ke-e , ko-re-te AES M 2 po-ro-ko-re-te AES N 3
 .14 ra-]wa-ra-ta₂ , ko-re-te AES M 2 N 3 po-ro-ko-re-te AES N 3
 .15 sa-]ma-ra , ko-re-te AES M 3 N 3 po-ro-ko-re-te N 3
 .16 a-si-ja-ti-ja , ko-re-te AES M 2 po-ro-ko-re-te N 3
 .17 e-ra-te-re-wa-pi , ko-re-te AES M 2 po-ro-ko-re-te N 3
 .18 za-ma-e-wi-ja , ko-re-te AES M 3 N 3 po-ro-ko-re-te N 3
 .19 e-re-i , ko-re-te AES M 3 N 3 po-ro-ko-re-te N 3
 .20–23 *vacant*

'jo the *ko-re-te-re* and the *du-ma-te* and the *po-ro-ko-re-te-re* and the key-bearer(s) and the *opisūkoi* and the *o-pi-ka-pe-e-we* will give temple bronze as points for javelins and spears:

At *pi-*82, the *ko-re-te*: BRONZE M 2; the *po-ro-ko-re-te*: BRONZE N 3 etc.'

Here each entry at the level below the main heading consists of a place name and the word *ko-re-te*, or of the word *po-ro-ko-re-te* with the place name still understood from the previous entry. (Alternatively, but without substantially affecting the argument, one may understand the place names as one-word subheadings; cf. above under example (19).) Thus the level below the main heading expands on the subject of the verb *do-so-si*.³⁵ Again *jo-*

³⁵ The non-recurrence of *du-ma-te*, key-bearer(s), *opisūkoi*, and *o-pi-ka-pe-e-we* in the remainder of the text is likely to indicate that these people were the ultimate donors of bronze, while the *ko-re-te-re* and *po-ro-ko-re-te-re*

can be taken as nominative plural *oi*, giving a relative clause with the series of conjoined official titles as internal domain noun, semantically equivalent to ‘The *ko-re-te-re*, *du-ma-te*, *po-ro-ko-re-te-re*, *klāwiphoroi*, *opisūkoi*, and *o-pi-ka-pe-e-we* who will give temple bronze as points for javelins and spears:’.

This interpretation of the heading appears to foreground the officials who are to send bronze, although one might have expected the quantities of bronze to be given precedence, especially as officials from all the towns in both provinces of Pylos appear and it is likely to have been known that all the towns were to contribute. But what is given priority in the structure of a list, and in the heading, is not always the most important information. A telephone directory includes a heading ‘Accountants’, followed by a list of accountants in the area covered, and only then their telephone numbers, although the primary function of a telephone directory is to provide telephone numbers. There is, of course, an organisational advantage to the precedence given to accountants, who can be listed in alphabetical order. On PY Jn 829 the towns from each province are likewise listed in a logical and, at least for the first nine towns (representing the Hither Province), an apparently standard order (see Palmer 1963: 75–6); the structure of the text thus makes it easy to locate the entry for a particular town. The heading explains the relationship between the officials from each town and the quantities of bronze, and does so in a way that reflects the structure of the list, not necessarily the most important information.

were responsible for collecting it. Palaima (2004: 291) suggests that the scribe took special pains, after erasure, to group the word *ko-re-te-re* in line 1 with *du-ma-te-qe*, and to group *po-ro-ko-re-te-re-qe* in line 2 with *ka-ra-wi-po-ro-qe*, *o-pi-su-ko-qe*, and *o-pi-ka-pe-e-we-qe*, as if the *ko-re-te* in each place interacted with the *du-ma(-te)*, while the *po-ro-ko-re-te* in each place interacted with key-bearer(s), *opisūkoi*, and *o-pi-ka-pe-e-we*.

(25) KN Og(2) <4467>:

- .1 jo-a-mi-ni-so-de , di-do-
 .2 ku-pe-se-ro M 30 me-to-re M [
 .3 ne-ri-wa-to M 15 pi-ri]

'jo give...to Amnisos:

Kupselos: M 30; me-to-re: M...
 ne-ri-wa-to: M 15; pi-ri...'

Part of the main heading is lost, but *di-do-* is likely to have been *di-do-[si didonsi* '(they) give' (see Aura Jorro 1985–93, s.v. *di-do-*). Each entry at the level below this main heading consists of a man's name. The quantities M 30 etc. then refer to some commodity measured in weight and presumably specified in the main heading. Clearly the men are the senders of the commodity, so that the level below the main heading expands on the subject of *di-do-[si*, and *jo-* may be taken as nominative plural οἱ: οἱ Ἀμνισόνδε δίδονσι: '(The people) who give...to Amnisos'.

(26) MY Ge 602:

- .0 vacat [] vacat
 .1 jo-o-po-ro , a-ro-ῃ[] si-mi-jo / pe-se-ro [/ sa-sa-ma]
 .2 pu₂-ke / ma-ra-tu-wo Z 1 [] vacat
 .3 pe-ke-u / ku-mi-no-jo[ma-ra-]tu-wo V 1 sa-sa-ma Z 2 sa-pi-de '6'
 { .4A e-ru-ta-ra[sa-]sa-ma V 1
 .4B ka-e-se-we / ka-na-ko [] ῃma-ra-tu-wo V 1 sa-pi-de 6
 { .5A e-ru-ta-ra []!
 .5B ke-po / ka-na-ko M [] ῃ 1 mi-ta , PE 2 ko-no-a-po-te-[,]
 { .6A] vac. [] 2
 .6B] vest. [] ῃ 1 DE 1 *155^{VA}[] vacat
 .7 inf. mut. [] vacat []

The main heading is partly damaged but a likely restoration is *jo-o-po-ro* , *a-ro-ῃ*[*do-*] *si-mi-jo* = *jo* ὄφλον / ὠφλον ἄρωμα δόσμιον 'jo- owed spice as a result of a *δόσμός' (see Aura Jorro 1985–93, s.vv. *do-si-mi-jo-qe* and *o-pe-ro-si*, with bibliography). At the level below this main heading, we have sub-

headings consisting of men's names.³⁶ These are the people owing something, while the commodities owed are mentioned at the next level down. Thus the level below the main heading expands on the subject of *o-po-ro*, and an interpretation of *jo-* as nominative plural of *o-* is plausible:

'(People) who owed spice...:

Pe-se-ro:

[[sesame]]

Pu₂-ke:

fennel seed Z 1[

Pe-ke-u:

cumin []

fennel seed V 1

sesame Z 2

boxes 6

etc.'

(27) PY Cn 608:

.1	jo-a-se-so-si , si-a ₂ -ro		'jo- local inhabitants will fatten pigs:
.2	o-pi-da-mi-jo		
.3	<u>pi-*82</u>	SUS+SI 3	At Pi-*82: 3 pigs.
.4	<u>me-ta-pa</u>	SUS+SI 3	At Me-ta-pa: 3 pigs.
.5	<u>pe-to-no</u>	SUS+SI 6	At Pe-to-no: 6 pigs.
.6	<u>pa-ki-ja-si</u>	SUS+SI 2	At Pakijanes: 2 pigs.
.7	<u>a-pu₂-we</u>	SUS+SI 2	At A-pu ₂ : 2 pigs.
.8	<u>a-ke-re-wa</u>	SUS+SI 2	At A-ke-re-wa: 2 pigs.
.9	<u>e-ra-te-i</u>	SUS+SI 3	At E-ra-to: 3 pigs.
.10	<u>ka-ra-do-ro</u>	SUS+SI 2	At Ka-ra-do-ro: 2 pigs.
.11	<u>ri-jo</u>	SUS+SI 2	At Ri-jo: 2 pigs.'

At the level below the main heading we have place names in the locative. One could understand either '(people) at Pi-*82',

³⁶ The man's name *Pe-se-ro* on line 1 needs to be taken as a nominative forming the first subheading after the main heading (see Killen 1983: 223). The scribe wrote *sa-sa-ma* after this name and then erased it because of a realisation or new information that *Pe-se-ro* had paid off his debt. *Ka-e-se-we* in line 4B is in the dative where a nominative is expected (especially as *Pe-ke-u* is clearly nominative); this is usually taken as either an error (for a reason for such an error, see Killen 1983: 225) or a change of construction (see Aura Jorro 1985–93, s.v. *ka-e-se-u*, with bibliography).

‘(people) at Me-ta-pa’, etc., or ‘(pigs) at Pi-*82’, ‘(pigs) at Me-ta-pa’, etc. In other words, it would be possible to understand this level as expanding on either the subject or the object of the verb *a-se-so-si*. The composition of this text is thus compatible with an interpretation of *jo-* as nominative plural οἱ, giving a relative clause with internal domain noun (meaning ‘The local inhabitants who will fatten pigs:’), although this text also would not prevent *jo-* from being taken as accusative plural (‘The pigs which the local inhabitants will fatten:’). Since the places listed constitute all nine towns of the Hither Province of Pylos, one might expect the numbers of pigs to be the most important information, but again the structure of a list and the choice of heading does not necessarily give precedence to the most important information (see above, under example (24)).

4.2 Attestations of *jo-* in unclear contexts:

(28) MY Ue 661:

- .1 *jo-po-ro-te-ke* *190 100 *155^{PLAS}+NI 15
- .2 *248 5
- .3 *vacat*

po-ro-te-ke is normally interpreted as an unaugmented aorist πρόθηκε. Chadwick (*Docs*²: 573) translates *jo-po-ro-te-ke*, with a question mark, as ‘Thus he set out’, but suggests that ‘The absence of a subject makes this obscure and doubtful’. Killen (1992: 376) argues for *po-ro-te-ke* as πρόθηκε ‘he served (as food)’, on the basis of an interpretation of *190 in the context of the Thebes Wu sealings as a foodstuff required for banqueting. Furthermore, he points out that the absence of an expressed subject is paralleled at Mycenae at MY Oi.703.3, and that MY Ue 661 comes from the West House, which has yielded other records concerned with food and rationing. If this interpretation of *po-ro-te-ke* were confirmed, this tablet would not support the distribution of *o-* and *jo-* argued for here.

open the possibility that *e-ke-to-qo* or even *jo-e-ke-to-qo* is one word, but no obvious reading has emerged.

5. Conclusions

Although there are only five examples of *jo-* in clear contexts, the contrast between the relationship between heading and next level down in the texts with *o-* and in those with *jo-* looks unlikely to be accidental. What is crucial is not only that *o-* can be understood as an accusative and that *jo-* can be understood as a nominative, but that in most texts *o-* cannot be understood as a nominative, while all five examples of *jo-* in clear contexts can be understood as nominatives and are (except in PY Cn 608 = example (27)) more difficult to understand as accusatives.

I suggested in section 1 that this distinction is compatible with *jo-* and *o-* both being forms of the relative pronoun, but with *jo-* being used consistently for a nominative form and *o-* consistently for an accusative form. There may be other possible interpretations of the data; for example, one might reconsider the view that *o-* is built on the demonstrative stem **so-* while *jo-* is built on the relative stem **jo-* (Gallavotti 1956a: 5–9; 1956b: 72, 74–5, 81–2; cf. the views of Ruijgh and Panagl mentioned in note 1). However, it is unlikely that the persistent apparently accusatorial position of *o-* reflects an accusative singular neuter demonstrative form ('This *Pu₂-ke-qi-ri* saw...', etc.), since there is no other evidence for an analogical **so(d)* or **ho(d)* in Greek instead of *to(d)*. Moreover, the observations made here do not alter the value of Risch's (1968: 695) arguments against *o-* as a demonstrative. In particular, main clauses are otherwise very rare in Mycenaean as introductions to a tablet or set of tablets, although they are relatively common in other positions; clear and likely demonstratives (*to-so*, *to-sa*, *to-to*, *to-jo*, *to-e*, *to-me*,

vely Lejeune 1976: 200 n. 29). For further literature see Aura Jorro (1985–93, s.v. *jo-e-ke-to-qo*).

to-i) do not otherwise occur in introductory sentences, although they too are frequently attested in other positions.

Furthermore, it is worth returning to the point that the Mycenaean form of $\delta\tau\epsilon$ 'when' is now attested four times, and always as *o-te* (PY Ta 711.1 = example (10); TH Fq 126.1; TH Fq 130.1; TH Fq 254[+]255.1). Four attestations are not sufficient to establish that this word was always written *o-te*, but do provide some suggestion of consistency. Although there remain other probable examples of words in which word-initial *j-* was sometimes written and sometimes not (see below), forms built on the stem of the relative pronoun might have come to be written conventionally with or without *j-*, perhaps especially if word-initial $*j-$ had in fact become *h-* by the time of the tablets (so that signs of the *j*-series used word-initially were archaic spellings).

Andreas Willi suggests to me that one might go further and try to explain why the new spelling *o-* was adopted for some forms but not others. In *o-te*, no graphic ambiguity resulted from adopting the new spelling, but masculine forms of the relative pronoun might have retained the spelling with *jo-* in order to avoid graphic confusion, at least in the nominative singular, with the demonstrative pronoun *ho* < $*so$. We do not know whether the Mycenaean nominative plural masculine form of the demonstrative was *hoi* or the more conservative *toi* found in Homer (beside *oi*) as well as in most West Greek dialects and Boeotian. If the form was *hoi*, the problem of graphic ambiguity would have arisen directly for the nominative plural masculine of the relative pronoun, as for the nominative singular. If on the other hand the form was *toi*, one might still envisage that the masculine forms in general retained the older spelling with *jo* under the influence of the nominative singular. Retention of the older spelling with *jo-* in the masculine forms need not have implicated the neuter of the relative pronoun, where there was no possibility of graphic confusion with the neuter of the demon-

strative at any point in the paradigm.³⁹ If scribes happily adopted the new spelling for neuter forms of the relative pronoun, a graphic distinction between masculine and neuter relative pronoun forms would have arisen and might have been a welcome side benefit.

An alternative might be that word-initial **j-* had disappeared in some environments but not others by the time of the tablets; if *jo-* represents *oĩ* but *o-* represents *õ*, one might think in terms of an assimilatory retention of **j-* in the vicinity of *-i-*.⁴⁰ The latter would account also for consistent *o-te*, for *jõ-qi* at PY Un 1314.2, which is taken to be an indefinite relative equivalent to later *õτi*, and for *o-qe* at PY Cn 4.10, which has been interpreted as equivalent to *õç τε* (but see Aura Jorro 1985–93, s.v., with bibliography). Such a hypothesis would, however, not be compatible with the equations *ja-ke-te-re = a-ke-te-re = a₂-ke-te-re* and *ja-sa-ro = a-sa-ro*, and thus the more likely hypothesis is perhaps that of different conventional spellings for different forms, with the new spelling prevailing especially where no serious graphic confusion would result.

To return to firmer territory, and to sum up, the distribution of *o-* and *jo-* we have seen suggests that *o-* and *jo-* are different case-forms of something which has cases, i.e. a pronoun rather than an adverb, conjunction, or particle. Given the clear etymology of *jo-*, and the difficulty of taking *o-* as a demonstrative or as otherwise completely unrelated to *jo-*, the most economical hypothesis is that *o-* and *jo-* are indeed different case-forms of

³⁹ Potential confusion with *masculine* forms of the demonstrative pronoun would, of course, have been introduced by the writing of *õ* as *o-*, but is less likely to have caused reluctance to use the new spelling for *õ*, since the form would have had to be misinterpreted as *masculine* instead of *neuter* as well as *demonstrative* instead of *relative*. Context will have provided fewer opportunities for genuine confusion here. Willi (2009) argues much more generally that the retention and non-retention of spellings with *j*-signs was influenced by the possibilities for graphic confusion.

⁴⁰ One might compare the apparently earlier disappearance of word-initial *y* before monophthongal *o*-vowels than before *oi-*, although the phonetic details are hardly perspicuous (see Chantraine 1988: 123–6; Lejeune 1972: 174–6). I am very grateful to Martin West for drawing my attention to this comparison.

the relative pronoun. Further characteristics of the tablets concerned, and of the paradigm of the relative pronoun (which makes it unlikely that *o-* ever represents a neuter accusative plural form), suggest that the forms represent different numbers and genders as well as cases: that *o-* is an accusative singular neuter form while *jo-* is a nominative plural masculine form. If so, then whatever the reason for the different writings of these forms, we may at least say that relative clauses as such are attested in Mycenaean.

Thompson (2002–3[2006]) has recently discussed in detail the syntax of Mycenaean clauses with *o-/jo-*, concluding *inter alia* that *o-/jo-* is (in generative terms) an element fronted by *wh*-movement. Although I have argued that *o-/jo-* is the relative pronoun rather than an adverb built on the same stem, Thompson's syntactic analysis would, I think, be compatible with the interpretation of *o-/jo-* presented here – which likewise makes it an element fronted by *wh*-movement⁴¹ – as well as an interpretation as an adverb built on the relative stem. Thompson's demonstration that it is both possible and desirable to analyse *o-* or *jo-* as an element fronted by *wh*-movement thus provides a necessary counterpart to the current argument; conversely, if *jo-* and *o-* have indeed been shown to be forms of the relative pronoun this provides independent support for Thompson's analysis of *o-/jo-* clauses as *wh*-movement constructions.

⁴¹ At least in the first millenium BC, it is likely that Greek relative clauses with no expressed domain noun, and those with an internal domain noun, are *wh*-movement constructions, since Greek allows a preposition belonging to such a relative clause to be fronted along with the relative pronoun: ἐγὼ δὲ οἶόν τε ἐγίγνετο λέξω, καὶ ἄφ' ὧν ἂν τις σκοπῶν, εἴ ποτε καὶ αὐθις ἐπιπέσοι, μάλιστ' ἂν ἔχοι τι προειδῶς μὴ ἀγνοεῖν 'But I shall describe how it progressed, and the evidence from which somebody looking would best be forearmed not to fail to recognise it, if it should ever arise again' (literally 'But I shall describe how it progressed, and from which (PL.) somebody looking would best...') Th. 2. 48. 3).

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