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A NOTE ON THE VERBAL FORMS IN MYCENAEAN SEALINGS¹

The aim of this article is to bring the evidence of inscribed Mycenaean nodules and labels into the debate about the aspect-tense opposition of the Mycenaean verbal system. After a brief introduction to the Mycenaean language and literacy, the paper reviews all conjugated verbal forms attested in inscribed sealings (nodules and labels), analysing them within the context in which they occur and in relation to the typology of the devices on which they have been inscribed. It then discusses the values of these verbal forms with specific regard to the verbal categories of tense and aspect. The article provides further evidence in support of the traditional model, according to which the Mycenaean verbal system was primarily aspect-based.

Keywords: Mycenaean Greek, nodules, verbal aspect.

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Цель данной статьи — использовать для изучения видовременных оппозиций греческого глагола тексты, сохранившиеся на микенских подвесках-этикетках в виде печатей и небольших трехгранных глиняных призм. В статье приводятся аргументы в поддержку традиционной модели, согласно которой микенская глагольная система была в первую очередь аспектно-ориентированной: подробно рассматриваются личные глагольные формы и уделяется особое внимание видовым и временным значениям глагольных форм.

Ключевые слова: микенский греческий, глиняные подвески, видовая характеристика глагола.

1. Mycenaean Greek was a chancellery language, primarily used for records and inventories of royal palaces and commercial establishments. The language is preserved by inscriptions on clay tablets and a few potteries in so-called Linear B, a highly standardised writing system borrowed and further developed from the Minoan Linear A for administrative purposes. The great majority of the Linear B

¹ This paper is an adaptation of my Bachelor thesis that I defended in Rome (La Sapienza) a decade ago (academic year 2012–2013). It is my pleasure to thank Maria Carmela Benvenuto, Claudia A. Ciancaglini, Valentina Gasbarra, and Eugenio R. Luján for helpful suggestions.

archives from Knossos, Pylos, Thebes, and Mycenae has been found in Mycenaean palaces and neighbouring outbuildings. We have no evidence of literary texts, either in prose or in poetry. No private records or documents related² to scribal training are found (Palaima 1987a; Marazzi 2013a: 4–5). There is very little evidence of private inscriptions painted on vases and cups (Zurbach 2019).

1.1. As far as the verbal system is concerned, it is therefore no surprise that Mycenaean Greek does not attest category values which are instead fully productive in most of the Ancient Greek dialects. Indeed, verbal modes such as the optative and the subjunctive were unnecessary in economic and administrative texts (Rix 1992 § 249; Waanders 2012; García Ramon 2019: 229–233; Barnabé & Luján 2020: 256). We find four tense forms (present, aorist, perfect, and future), two diatheses (active and middle), and one productive mood, the indicative (and, possibly, the injunctive)³. Furthermore, Mycenaean shows only third person forms, both singular and plural. This feature is obviously due to the nature of the documents⁴. Among the non-finite forms of the verb, in Mycenaean the participles (mostly present and perfect) and the infinitive are well attested.

1.2. The Mycenaean verbal system has attracted the attention of many scholars from the field of Greek philology and Indo-European linguistics. In particular, the relationship between the categories of aspect and tense, and the almost complete absence of augmented forms have generated puzzling theories as regards the position of the Mycenaean data within the Greek and Proto-Indo-European verbal

² For the reconstruction of possible administrative subgenres and writing practices on materials other than clay, see Kazansky (2013).

³ For a comprehensive overview of the Mycenaean verbal system, see Bartoněk (2003), García Ramón (2019: 229–233), and Barnabé & Luján (2020: 256–282). It is still a matter of debate whether Mycenaean Greek also attests a few subjunctive and imperative forms (Waanders 2012). Also, some imperfect forms have been proposed. For *te-ko-to-(n)a-pe*, see Barnabé-Luján (2020: 265). As for *a-pi-e-qe*, whose interpretation as an imperfect is commented by Bartoněk as “fraglich” (2003: 340), it may be an unaugmented aorist /amp^hi^{-h}enk^we/ (ἄμφι + ἐννέπω) (cf. García Ramón 2012:435–441). See also Gasbarra (2013: 168–169). On Myc. *e-e-to*, see Hajnal (1990) and García Ramón (2019: 233).

⁴ One can compare the situation we find in Arcado-Cypriot, which is known from glosses and inscriptions (mainly official documents) where only third persons are attested (with rare first persons in context of oaths or exhortations).

morphology (Marazzi 2013b: 302–303; García Ramón 2012; Bernabé, Luján 2020: 256–259; 309–319). Two mutually exclusive main theories can be acknowledged in the literature: (1) the verbal system of Mycenaean was primarily aspect-based; (2) the verbal system of Mycenaean was primarily tense-based.

The latter theory has been outlined by Duhoux in several publications (Duhoux 1987, 1995, 1998, 2000; Duhoux, Dachy 1992). According to this theory, the category of aspect is not a matter of preservation in Mycenaean and Ancient Greek, but rather a matter of innovation. Indeed, Duhoux & Dachy argued that the aspectual oppositions conveyed by the perfective (aorist stem) and the imperfective (present stem) was only in its infancy in Mycenaean. In particular, they claimed that the almost complete absence of aorist participles would be an indication of a verbal system based on the category of tense. According to Duhoux (1998), the development of an aspectual system originated within the perfect, which was deprived of the alleged original intransitive/passive value and embraced an aspectual value, the stative. Then, an original tense opposition between present and preterite (i.e. present vs. aorist) would have further evolved into an aspectual distinction between imperfective and perfective (or durative vs. punctual aspect). Within this development, however, Mycenaean Greek would represent a transition stage, in which only the perfect would have fully developed an aspectual value⁵. As pointed out by Marazzi (2013b: 203), Duhoux's hypothesis is not merely about the aspectual or temporal value to be assigned to the Mycenaean verbal system. Indeed, based on Mycenaean evidence, Duhoux means to reconsider the reconstruction of aspect as a Proto-Indo-European category; accordingly, the aspectual value of the verbal system would be a late development peculiar of a restricted number of Indo-European languages⁶.

1.3 This article does not aim to test this theory from an Indo-European comparative perspective nor is it finalised at reassessing the evidence analysing the contrast between augmented vs.

⁵ According to Duhoux, this innovation started to appear in the «langue familière», marked sociolinguistically as the substandard variant: the new system would have had its origin under the pressure of both diaphasic and diastratic mechanisms (Duhoux 2000:152).

⁶ For criticisms, see García Ramón (2012: 441–448) and Willi (2018: 45 fn. 30 and 392 fn. 97).

unaugmented forms. Its aim is rather more modest: clarifying the possible contribution of Mycenaean forms in nodules and labels for what concerns the reconstruction of the aspect-tense opposition within the verbal system of Mycenaean Greek.

2. In Mycenaean society, a fundamental role in the economical and administrative practices of monitoring the transaction and storage of goods was played by those clay devices generally defined as nodules. The functions of the nodules have been studied in-depth in the last thirty years by leading scholars⁷.

According to Marazzi (2019: 589) two main functions of the nodules can be highlighted. The first function was that of ensuring the correct opening or closing of any object connected to the movement of goods in order to keep a record of the transaction. In this case the nodule was mostly flat-based, affixed directly to the device of the object, and impressed on folded parchment wrapped with fine cord. The second function was that of guaranteeing the correctness of the movement, possibly specifying the sender, the destination, and the entity in charge of its delivery. In this case the nodule does not have a closure function but rather has the function of indicating the correctness of the movement. Nodules of this type are mostly single-hole or two-hole hanging. The typology of the nodules, the layout underlying the drafting of the inscription, and even the spelling conventions of the writing system are strictly finalised and developed for these tasks.

The nodules can be either inscribed or uninscribed. Sealing inscriptions reveal a nearly invariable concern with concrete materials and goods. Indeed, inscribed sealings generally include nouns for goods, but also toponyms, anthroponyms, or nominals in general. A limited groups of sealings, however, bear verbal forms. I have checked all occurrences of Mycenaean verbal forms in this type of document, primarily, though not exclusively, considering the lists compiled by Bartoněk (2003: 306–336) and Waanders (2012: 564–567)⁸.

⁷ See Aravantinos (1990), Palaima (1987b, 1996, 2000a, 2000b), Flouda (2000), Panagiotopoulos (2010), and the fundamental and instructive book chapter by Marazzi (2019).

⁸ Particles and, more generally, nominal forms of verbs have not been considered in this contribution. An example is *e-qi-ti-wo-e* attested once in Th Wu 75 and usually interpreted as a *ptcp.pf.nom.du.-pl.m.*

2.1. Among the nodules found at Knossos the great majority are uninscribed and sealed. The number of inscribed sealings with Linear B is indeed very meagre (about twenty from the Ws series)⁹. Within this small corpus, we find two nodules from Knossos that are not only inscribed and unsealed but, an absolute rarity, they also record a conjugated verb. The verb is the same, i.e. the 3sg.aor.act. *do-ke* /dōke/ of δίδωμι, which occurs in KN Ws 1707 and KN Ws 8493¹⁰.

KN Ws 1707 (unsealed)
 .α]a₃-wo-re-u-
 .2 -si
 .β **do-ke**
 .γ [.]ja-wo-ηε

KN Ws 8493 (unsealed)
 .α se-to-i-ja
 .βa ki-ri-ta-de
 .βb te LANA **do-ke**

In Ws 1707, the form *a₃-wo-re-u-si* /aiwoleusi/ has been interpreted as the dative plural of the ethnic referring to the Aeolians (from **a₃-wo-re-u*, αιολεῦς)¹¹. A possible restoration of [.]ja-wo-ηε is *wi-ja-wo-ne*, which has been interpreted by Olivier (1968: 176) as the dative of a Greek personal name. Hajnal (1995: 284) has instead

^(h)ek^{wh,h}t^hwo^he(s)/ ‘passed away’ of φθίω ~ φθίω (cf. C. J. Ruijgh *apud* Aravantinos 1990; García Ramón 1990).

⁹ According to Flouda (2000: 219), a quantitative analysis of Knossian nodules reveals that only 4% of them are inscribed.

¹⁰ *KT*⁶ classifies these nodules under the Ws series, while they were previously assigned to the Wm series possibly due to the lack of the *sigillum*. As for the Wm series lacking sealing impressions, Killen (2002-2003) suggests that they refer to items in storage at the palace rather than incoming items. The nodules are label-like, lacking the transactional element of a seal impression, and, like the labels, they seem to be purely internal documents. Pluta (2011: 156–157) has tentatively suggested that Ws 1707 and Ws 8493 speak for an early application of writing in Mycenaean sealing practices at Knossos, as they are found in the earliest Knossian archives (RCT and NEP). The hypothesis tentatively put forward by Pluta is that there was no seal recognised as authoritative over such transactions, and only text could provide such authority and documentation. A possible third occurrence of *do-ke* in the nodules from Knossos may be surmised in Kn Ws 8499 (Aravantinos 1990: 156).

¹¹ See recently Melena (2014: 57). The form was read]*ke-wo-re-u-si* by Olivier (1968: 176) and Palaima (1996: 45). Cf. also *Dic.* I 141 with references.

interpreted the word as a nominative and the element *-ne* as an example of *scriptio plena*. As a matter of fact, the presence of two nouns inflected as dative without any subject or seal impression is certainly problematic. Meissner (2008: 516) also agrees that this *wi-ja-wo-ṇe* should be considered as the subject of the sentence.

Ws 8493 is syntactically more regular: *se-to-i-ja* is the nom.sg. of a toponym that occurs frequently in the Linear B corpus from Knossos; this place is particularly involved with the trade of sheep, goats, and textiles (*Dic.* II 288; Owens 1994; Nosch 2011; Melena 2014: 94, 116); *ki-ri-ta-de* is equally a toponym with the allative suffix *-de*; *te* LANA clarifies that the delivered item is a kind of cloth.

The constructions of both nodules have been elucidated by Palaima (1987b), who was able to identify a fixed structure of the elements involved. Indeed, as in the clay tablets, we have a beneficiary (*ki-ri-ta-de*, *a₃-wo-re-u-si*), the names of acting individuals (the toponym *se-to-i-ja*, *wi-ja-wo-ṇe* (?)), the verb *do-ke* and the sent object, which is only attested in KN Ws 8493 as *te* LANA. As is clear, the second argument of the ditransitive verb *do-ke* in KN Ws 1707 was the goods on which the nodule was attached. This further clarifies that the nodules were meant to be read together with the delivering/delivered goods they identify.

2.2. In the transactional vocabulary another frequent verb attested in the Mycenaean corpus is ἀπυδίδομι¹². The 3sg.aor.act. *a-pu-do-ke* occurs only once in the corpus of inscribed nodules from Thebes.

Th Wu 89 (sealed)
 .α *190 *supra sigillum*=D=7
 .β **a-pu-do-ke**
 .γ *vacat*

This nodule differs from those from Knossos in having a *sigillum* and no additional information. The logogram *190 refers to a liquid with salt, possibly brine (Del Frio 2019: 154). The verbal form *a-pu-do-ke* is also attested in the tablet KN Od 681.b and possibly in the label KN Wb 8711.a (*[o-a-pu-ḏo]-ke* ‘What he repaid(?)’) and in KN X 458.a (Hajnal 2004: 163; Bichlmeier 2014: 27). This verbal form contrasts with the very famous augmented 3sg.ind.aor. *a-pe-do-ke*, which occurs once in a Pylos tablet:

¹² On the lexical group of δίδωμι in Mycenaean, see Duhoux (1968).

PY Fr 1184

1. ko-ka-ro **a-pe-do-ke** e-ra₃-wo to-so
2. e-u-me-de-i OLE+WE 18
3. pa-ro i-pe-se-wa ka-ra-ke-we 38
4. *vacat*

“Kōkalos has repaid the following quantity of olive oil to Eumēdēs: 648 litres of oil. From Ipsewas, thirty-eight jars”.

The context of the tablet is clear: a man named Kōkalos rendered (*a-pe-do-ke*) 18 units (648 liters) of olive oil to another individual, named E^(h)umēdēs¹³; then, possibly, another transaction of 38 stirrup jars was delivered by a third man named Ipsewas. The interpretation of *a-pe-do-ke* as an augmented form has not been unanimously accepted, however. Luria (1960) claimed that the form should rather be interpreted as /apesdōke/, which would have an alphabetic Greek equivalent in ἀπέδωκε to ἀπεκίδιδωμι¹⁴. This analysis would imply an unaugmented 3sg.aor. and it would be justified by the fact that there are some other examples in which /s/ is not written at the end of a closed syllable. However, a hypothetical Mycenaean form /apesdōke/ would be difficult to explain for two reasons: on the semantic side, in alphabetic Greek ἀπεκίδιδωμι is barely attested and mostly means ‘to hire, contract’ or ‘give in marriage’; on the formal side, verbal forms with double suffixation (*apo-* (ἀπο-) and *-ek(s)-* (-εκ-)) are not attested in Mycenaean. Moreover, /apesdōke/ would be a *hapax legomenon*, as the verb /apekdidōmi/ is not attested elsewhere and in similar context the verb /apudidōmi/ (and derived words) is generally used. Furthermore, ἀπεκίδιδωμι has no correspondent attestations in Homeric Greek, since the only comparable form is ἔκδοτε, attested once in the Iliad 3.421. In Ancient Greek, the verb ἀπεκίδιδωμι is documented more frequently and productively as from 3rd–2nd centuries B.C. By contrast, the form ἀπέδωκε occurs in the Iliad in the sense of ‘repaid’ (cf. Iliad 4.477–8=17.301–2 οὐδὲ τοκεῦσι / θρέπτρα φίλοις ἀπέδωκε ‘But he did not repay to his dear parents

¹³ It is possible that *e-u^o* does not stand here for a real diphthong but for a disyllabic /e^hu/ from PIE **h₁esu-*.

¹⁴ Luria’s analysis has been positively accepted by Hoenigswald (1964), Schmitt (1967), Hajnal (2004: 163) and judged plausible by Bichlmeier (2014: 28). Petruševski (1968:53–57) explained *a-pe-do-ke* through vowel alternation of /u/ and /e/, which would be a specific feature of Pylos’s dialect. However, Itzès (2004:145–46) has demonstrated that the vocalic alternation /u/ ~ /e/ is not a paradigmatic phenomenon and that Petruševski’s theory is to be rejected.

recompense for the rearing⁷). As a consequence, I would rather agree with García Ramón (2012: 445) that the interpretation of *a-pe-do-ke* as /apesdōke/ «est une explication *ad hoc*, conditionnée par la prévention implicite à admettre que des formes avec ou sans augment puissent coexister et être employées dans des situations identiques [...]». Although I fully agree with García Ramón that sporadic occurrences of the augment are attested, the non-mandatory use of the augment, the problem of the injunctive, and the comparison of augmented and unaugmented aorist forms in Mycenaean are problems still open and difficult to solve¹⁵.

2.3. In the sealed nodules from Thebes we find two further alleged verbal forms in TH Wu 67 and 92:

TH Wu 67 (sealed)

.α OVIS^m supra sigillum O [5]
 .β *po-ro-e-ko-*
 .γ *-to*

TH Wu 92 (sealed)

.α CAP^m supra sigillum O [5]
 .β *po-ro-e-ko-*
 .γ *-to*

Following a suggestion by Piteros, Olivier and Melena (1990: 158–159), the form *po-ro-e-ko-to* is interpreted with hesitation by Bartoněk (2003: 592) and Waanders (2012: 566) as 3sg. (or pl.) aor.mid. /pro^heikto/ (cf. also *Dic.* II 145). The same interpretation is also supported by Palaima (2000a: 261), who translated the form as ‘has brought forth’, and recently by Bichlmeier (2014: 84–86). Conversely, Aravantinos (1990: 154, 159 fn. 59) and de Lamberterie (1990) suggest that the form is actually a verbal adjective /pro^hektos/ ‘superior, of better quality’ (from *po-ro-* πρό and *e-ko-to* to ἔχω, ἔχομαι), similar in formation to Gk. ἀνεκτός ‘bearable, tolerable’ from ἀνέχομαι ‘to tolerate’. This same interpretation has recently been supported by García Ramón (2019: 228). In fact, inasmuch as the term is always attested after the logograms OVIS^m and CAP^m, marked for gender as masculine, and the final ^oto in *po-ro-e-ko-to*

¹⁵ Palmer (1965) and Hoenigswald (1964) have claimed that the absence of the augment in Mycenaean would show that the scribes used a poetic language or at least allowed poetic traits to slip into the administrative language. This claim is highly unlikely. See already the criticism by Lazzeroni (1977). The augment in Mycenaean has been recently treated by Willi (2018: 389–392) and De Decker (2020).

could be masculine as well, the latter hypothesis is preferable in my view: the form should be interpreted as either nom.sg. /pro^hektos/ or nom.pl. /pro^hek^(h)toi/ and should refer to the sheep and goats suitable to be sacrificed¹⁶. Thus, these forms can be eliminated from our list.

2.4. In the Phyllos corpus of labels, we found one further verbal form:

PY Wa 917

.1]]o-**da-sa-tō** a-ko-so[-ta

.2]]e-**qe-ta** e-re-u-te-re[

This is a substantially complete label for a basket containing tablets. The verbal form *-da-sa-to* is likely to correspond to the unaugmented 3sg.aor.mid. δάσσατο of δατέομαι ‘to divide, distribute’, also found in Homeric Greek (*Dic.* II 17; Bernabé & Luján 2020: 271). Following a suggestion by Probert (2008: 150), the former part of the first line may be interpreted as /^ho dassato/¹⁷. *A-ko-so-ta* was a prominent officer of the Pylian administration and is recorded as performing inspections of fields (Palaima 2011: 123). The following *e-qe-ta* is usually transcribed as /^hek^wetās/ (alphabetic Greek ἐπέτας ‘follower’) and may stand in apposition with *a-ko-so-ta*, while *e-re-u-te-re* is to be possibly transcribed as /ereutērei/, dat.sg. of ἐρευτήρ ‘inspector’. A tentative translation of the label is: ‘what the ^heq^weta *Akosota* distributed to the inspector’ (or ‘what *Akosata* distributed to the ^heq^weta, the inspector’).

2.5. Another possible occurrence of a verbal form in another Pylian label for a basket is PY Wa 1271 (sup. mut.] **ra-ke**]). Bartoněk regarded this form as a 3sg.act.or. /lak^{he}/ to λαγγάνω. This is difficult to prove as it is without context. A more plausible analysis has been proposed by Palaima (1996: 40), who suggested that]*ra-ke*[could possibly be read]*je-ke*[which would fit nicely with the common formula *wo-ka we-je-ke* attested in the series of tablets from Room 7 of Pylos (with *we-je-ke* standing for ‘in good condition’ *vel sim*).

2.6. To sum up, we have only five conjugated verbal forms in the inscribed Mycenaean sealings: three are 3sg.aor.act. (*do-ke* x2 and *a-pu-do-ke*) in inscribed nodules; one 3sg.aor.mid. (*-da-sa-to*) and, possibly, another 3sg.aor.act. (*-a-pu-ḡo[-ke*) are found in labels.

¹⁶ See de Lamberterie (1990) for the correct meaning and the parallel use of the verb in Od. 3.8 προῦχοντο ἐκάστοθι ἐννέα ταύρους ‘in each they held nine bulls ready for sacrifice’.

¹⁷ See also Palaima (2011: 110 fn. 137).

All these forms are unaugmented aorist. No present or future forms are recorded. These attestations may bring new evidence for our understanding of the verbal system of Mycenaean Greek within the aspect-tense opposition.

3. As the forward-thinking analysis by Lazzeroni (1977) has showed, the replacement of the category of aspect by the grammatical expression of tense was a late innovation of the Indo-European verbal system. In particular, the gradual grammaticalisation of the so-called “primary endings” and the rise of the augment have played a key-role in the further development of the category of tense¹⁸. According to Lazzeroni, the proliferation of unaugmented aorist forms in Mycenaean (whether injunctive or indicative forms) would be one of the many archaisms preserved by the language and a common denominator that would link Mycenaean Greek with Homeric Greek. As Domenica Romagno (2020: 378) observes: “The acquisition of the morphological expression of tense gave rise to a complex series of changes that obscured the original situation. However, traces of that situation are present in the older stages of the ancient Indo-European languages and did not escape Romano Lazzeroni’s genius: as many of his studies have demonstrated, language change always entails a gradual process in which old and new elements often coexist”.

Crucially, in fact, the main value of the (unaugmented) aorist in Mycenaean shows a functional range firmly within the domain of the aspect. Indeed, what generally matter for the chancellery language of Mycenaean was not to consider the action within a given timeframe: what does matter for the type of language attested in the Mycenaean corpus is to take the action as either concluded or in progress and this is possibly the first reason why the augment is not yet a mandatory marker in Mycenaean. An important clue in support of this analysis is, in my view, behind the few unaugmented aorist forms in inscribed sealings. Taking into account these peculiar attestations, aorists are therefore better understood as having a primarily punctual or non-progressive aspectual value, whose basic meanings appear to be memorative and constative: it functions to mention an action that is felt as bounded and as a reminder that this action has been completed, without necessarily being placed in a near or remote past. Such secondary temporal meanings may depend

¹⁸ Similar reconstructions have been recently proposed by Pooth (2009).

on the context. Strictly speaking, the aorist stem is used in Mycenaean to preserve the memory of a brought action, whose importance is relevant for economic and administrative reasons. The documents accompanied different goods or cargos that were exchanged from a place to another, implying an entity that sends an asset and a second entity that receives it. In addition, another function of the nodules was to simplify the control operations and accounting for goods that were being stored: the inscription imprinted on nodules, on par with the seal, had an accounting function and they served as diversification of containers and received in the case of delivery¹⁹. Taking ‘non-progressive’ (see Pooth’s recent interpretation) as a possible basic meaning, one can easily explain the Mycenaean forms as being the normal ones: the scribes simply stated that an entity had given/paid/distributed a certain amount of goods, serving as receipts of delivered items and goods.

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¹⁹ Cf. Panagiotopoulos (2010: 302): «It is feasible that in most cases the written information on them was meant for the destination of the cargo, in other words, for the palace officials who were responsible for receiving and possibly even opening or unpacking the delivered items. However, some of them seem to have been employed in a different manner, serving as certificates during transport».

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