Mycenaean words related to τρέπω and στρέφω
A story of conflation

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Abstract

This paper deals with the Mycenaean representatives of three IE verbal roots: *$terk^u$-* 'twist', *$trep$-* 'turn' and *$streg^{uh}$-* 'turn, rotate'. Mycenaean data show that the derivatives of *$terk^u$-* were still differentiated before the loss of labiovelar stops in post-Mycenaean times and that the verb στρέφω 'turn, twist, rotate' stems from *$streg^{uh}$-*. Semantic interference among these roots is already underway in the Mycenaean period, anticipating the convergence of *$terk^u$-* with *$trep$-* and *$streg^{uh}$-* in the first millennium.

Keywords

Mycenaean Greek – Ancient Greek etymology – conflation (phonological and semantic)

Introduction

The Mycenaean lexicon has been a very important source for Greek etymology. Some conspicuous cases are *e-ne-ka* ἕνεκα 'on account of', which invalidated the traditional etymology supposing a wāw after the nasal on the basis of Hom. εἵνεκα; *qa-si-re-u* 'foreman', which imposes the existence of an initial labiovelar stop for the Prehellenic word βασιλεύς (meaning 'king' in the first

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millennium); or *a-to-po-qo* 'baker', which confirms the etymological relation of ἀρτοκόπος with **pekʷ-* 'ripen', cf. πέσσω 'make ripe, cook', πέπων 'ripe', in spite of the metathesis of π … κ.

The same can be said of τρέπω 'turn' and στρέφω 'turn, twist, rotate', whose Mycenaean representatives exhibit a labiovelar stop that imposes a relation of τρέπω with **terkʷ-* and a root **stregʷʰ-* instead of **strebʰ-* for στρέφω. As will be seen below, the situation is a bit complex, and the first problem is posited by the indeterminacy of Linear B, which does not differentiate voiced, voiceless, and aspirated stops (*qa* = *gʷă̆*, *kʷă̆* or *kʷʰă̆*). The second issue is the ascription of τρέπω to **trep-* without a final labiovelar. Thirdly, the vocalisation of Mycenaean representatives can conceal an *o*-grade *or* / *ro* or even a zero grade *r̥*.

The purpose of this paper is to show that the affinities between three verbal roots, **trep-*, **terkʷ-* and **stregʷʰ-*, gave rise to a conflation and reduction into two Greek verbs, τρέπω and στρέφω. This process was on-going in the Mycenaean period and was completed after the loss of labiovelar stops.

Etymological proposals regarding τρέπω and στρέφω

The verbs τρέπω and στρέφω have similar meanings, yet their roots are clearly different.

Τρέπω 'turn' is a verb with a certain IE origin. Etymological dictionaries connect it to **trep-* 'turn', see *GEW*, *DELG* and *EDG*, and include Mycenaean *to-ro-qe-jo-me-no* in the discussion (see below), although the Mycenaean participle contains a labiovelar stop. This labiovelar precludes its relation to **trep-*, even though it may have evolved into labial in post-Mycenaean Greek (*kʷ* > *p*, cf. ἕπομαι 'follow' < **sekʷ-*).

Another possibility is to derive τρέπω from **terkʷ-* 'twist'. In spite of the fact that **trep-* has adequate parallels for τρέπω in other languages, cf. Hitt. *terepp-ᶻⁱ* 'plough', Skt. *trapate* 'feels ashamed, becomes timid' (like Greek ἐντρέπομαι 'turn about, feel shame'), Lat. *trepit* = *vertit* 'he/she turns' (only in Fest. p. 367 Müll.), this option would solve the problem posed by Myc. *to-ro-qe-jo-me-no*. However, this derivation supposes an alternative vocalisation after the resonant.[1] In this respect, the words derived from **terkʷ-* found in other lan-

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1   The same is applicable to ἀτρεκής 'exact, precise', which has been considered a compound of privative ἀ- + *s*-stem τρέκος < **terkʷ-*. Furthermore, the velar is incompatible with this root (*kʷ* > *k*?), as it is in the case of ἄτρακτος 'spindle, arrow', another word that has been connected to

guages only attest to vocalisation before the resonant; cf. Alb. *tjerr*, aor. *torra* 'turn', Hitt. *tarukzi, tarkuanzi* 'dance', Lat. *torqueō* 'turn, twist', Skt. *niṣ-ṭarkyà-* 'that can be unscrewed', *tarku-* 'spindle', *tarkayati* 'consider', Toch. B *tärk-* 'twist around, work (wood)'. Even if Schwebeablaut cannot be completely discarded, i.e., $*terk^u$-/$*trek^u$-, this pattern can mostly be explained through phonological processes (Ozoliņš 2015), as this paper attempts to do while incorporating a semantic analysis.

The case of στρέφω 'turn, twist, rotate' is even more complicated, since there is no other IE language which exhibits derivatives from the same root. Two possibilities can be envisaged: $*streb^h$- or $*streg^{uh}$-. The first one, accepted by *LIV*², is based on the comparison with forms like στραβός 'squinting', στρεβλός 'twisted, crooked' and στρόμβος 'top, whirlwind, trumpet-shell, snail', which may represent a vulgar expressive variant without aspiration (*GEW* II 806–807), although these forms point, rather, to a Prehellenic origin (*EGD* 1412–1414). Nevertheless, Mycenaean forms like *su-to-ro-qa* = Att.-Ion. συστροφή 'collection, gathering' evince a final labiovelar stop (*DELG* 1064). In this regard, *to-ro-qe-jo-me-no* could also belong here, and so the problem posed by its labiovelar would be solved. As argued below, the semantics of the Mycenaean participle do not fit this root, yet it must be highlighted that *LIV*³ has corrected $*streb^h$- into $*streg^{uh}$- including the Mycenaean participle and the forms of the στρόμβος type, whose nasalisation is explained as a remnant of a nasal infix present stem $*str̥-né-g^{uh}$-/$str̥-n-g^{uh}$-.

Mycenaean representatives of τρέπω and στρέφω

There are quite a number of Mycenaean words belonging to the roots being studied, $*trep$-, $*terk^u$-, $*streg^{uh}$-. Some are easily ascribable, but most of them can be related to more than one of the roots at issue.

The clearest representative of $*trep$- might be *te-re-pa-to* (KN Fp 14.1b). This word is fairly controversial; see *DMic.* I 302 on *jo-te-re-pa-to*. However, the context and the fact that it is preceded by the proclitic particle *jo-* assure its verbal nature:[2]

$*terk^u$-. For the etymological problems posed by these two words, see *EDG* 164 & 165. In turn, Nikolaev (2015) has proposed interpreting the compound adjective ἀτερπνός 'sleepless' as a derivative of $*terk^u$- (plus either "α-copulativum" or "α-intensivum") whose original meaning would be 'with much turning around'.

2   This particle is the instrumental case of the relative pronoun and is used to introduce headings that constitute relative clauses without antecedent. The particle refers to the manner in

a-ma-ko-to , 'me-no' / jo-te-re-pa-to , // e-ke-se-si V 1 OLE

The line is introduced by a temporal specification, *a-ma-ko-to me-no* 'in the month of Amaktos',[3] and ends with a dative plural, *e-ke-se-si*,[4] who receive an amount of oil. The verb form has a middle ending *-to* and the *a* of the penultimate syllable might indicate that it is an alpha-thematic aorist. Its interpretation must remain obscure, but the relation to **trep-* is supported by the general context in which the tablet stands, as well as by the impossibility to connect the Mycenaean form with other verbal roots attested in Greek.

First of all, proposals that connect *te-re-pa-to* with θεράπων 'attendant, servant' (Milani 1965: 426), τέρπομαι 'delight oneself' (*Docs.* 307), τραπέω 'tread (olives)' (Taillardat 1984: 368–370) or τρέφω 'feed' (Kamerbeek 1956: 338) must be rejected. The first word, θεράπων 'attendant, servant', has an opaque origin and is possibly an Anatolian loanword (*EDG* 541; Jiménez 2008: 11). There is only one possible verb form related to this term in Ancient Greek, Myc. *te-ra-pi-ke* (PY Eb 842.B, Ep 613.8), an iterative 3. sg. present. Note that the primary verb should be **θεράπω* (*te-ra-p*) rather than **θερέπω* (*te-re-p*); compare θεραπεύω 'serve, care for', a denominative in -εύω. A connection with τέρπομαι 'delight oneself' does not befit an oil offering and would contradict the Linear B spelling rules, according to which resonants are graphically omitted before a following consonant (*te-p*). A connection with τραπέω 'tread' supposes a different ablaut (*ta-ra-p*) and a Mycenaean alpha-thematic aorist related to a contract present (*ta-ra-pe-*) instead of the expected sigmatic aorist (*ta-ra-pe-sa-*), while τρέφω 'feed' does not fit in the general context of the Fp series.

The connection of *te-re-pa-to* with τρέπω is not without problems either. From a morphological perspective, this verb only has a root aorist ἔτραπον and a sigmatic aorist ἔτρεψα. Alpha-thematic aorists are very rare,[5] so it is tempting

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which the event takes place as developed in the following lines. There are very few exceptions to the pattern *jo/o-* + verb form; cf. *jo-a-mi-ni-so-de* (KN Og 4467.1; *jo-* + place name) and *o-a-po-te* (KN Le 641.1; *o-* + man's name). On this particle, see Thompson (2002–2003) and Jiménez (2016: 132–135).

3   The interpretation of *a-ma-ko-to* is controversial (*DMic.* I 53) but the fact that it is followed by the temporal genitive *me-no* = Att.-Ion. μηνός assures its status as a month name. On the syntax of temporal expressions involving month names in Mycenaean, see Jiménez (2013). Note that this type of temporal specification is frequent in the Fp series, while the absence of toponymic specifications indicates that the oil deliveries recorded were made in Knossos itself.

4   The interpretation of this word is highly controversial (*DMic.* I 212), the only clear point being its athematic dative plural desinence *-si*.

5   Cf. Chantraine (1961: 165); Sihler (1995: 562–563).

to reconstruct a form *te-re-pa⟨-sa⟩-to* τρέψα(ν)το without augment supposing a scribal error. Nevertheless, scribal errors must be called upon only when other possibilities can be discarded, and in this case nothing precludes that *te-re-pa-to* stands for a Mycenaean form unknown in the first millennium. Furthermore, a passive meaning is expected given that the sentence has no explicit subject.[6] A passive meaning is possible with the thematic aorist ἐτραπόμην, yet it is not with the sigmatic aorist ἐτρεψάμην.[7] It is true that passive meaning is known with an alpha-thematic aorist like ἀπεκτάμην 'I was killed' (Hom. *Il.* 15.437, etc.), though an alpha-thematic aorist *τρέπα(ν)το would be a Mycenaean hapax and its passive meaning cannot be assured at all.

Despite the morphological difficulties posed by the connection of *te-re-pa-to* with τρέπω, it still remains the best option from an etymological and a semantic perspective. Fp tablets record oil offerings with a religious background. In this context, the use of τρέπω might be expected with the sense of directing the oil to the divinities mentioned, the *e-ke-se-si* and the recipients which appear in the second line of the tablet, *qe-ra-si-ja* '(for) Therasia' and *pa-si-te-o-i* '(for) all the gods'. Note that τρέπω is not construed with the dative case and that this construction is proper to ἐπιτρέπω with the sense of entrusting something to someone; regardless, the construction of the verb with a dative of interest is always possible. Finally, middle inflection is difficult to account for, since τρέπομαι basically means 'turn oneself', i.e., the verb is intransitive when used in the middle voice. To keep the transitive construction (the quantities of oil would be the object of *te-re-pa-to*), one can attribute the middle inflection to the religious context: this middle might imply that the subject is making an oil offering in his own interest; cf. θύειν 'offer sacrifice (in someone else's interest)': θύεσθαι 'offer sacrifice (in one's own interest)' (Wackernagel 1920: 126; Ruijgh 2004: 25–26). An intransitive middle would also be possible if the quantities of oil were syntactically unrelated to *te-re-pa-to*. In any event, there is no explicit subject on the tablet, although the use of a third person verb form without subject is known in Mycenaean texts; see Jiménez (2016: 149–152). The main difficulty with this interpretation is that this employment of τρέπομαι with a religious nuance, whether transitive or intransitive, would be a Mycenaean specialisation unknown in the first millennium.

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6 Meriggi (1954: 25) proposed reading (ἐ)τράπετο 'zugewandt wurde'.

7 Both thematic ἐτραπόμην and sigmatic ἐτρεψάμην have reflexive meaning, though only ἐτραπόμην can be passive. The former aorist is probably older than the latter (Allan 2003: 153 n. 277), which is only attested twice in Homer; cf. *Od.* 1.422, 18.305 (τρεψάμενοι).

All in all, the only thing that can be said is that the best way of interpreting *te-re-pa-to* is in connection with **trep-*, even though we cannot be certain about this etymology.

Two derivatives from **streg^{uh}-* are *ku-su-to-ro-qa* (KN Bg 817, PY Ed 411.1, Er 880.8, TH Av 101.6a, Fq 187.4, 214.14, 229.14, 252.6, 254.15, 269.7, 276.10, 277.4, 306.4, 359.3, 362.1, 394.1) and *to-ro-qo* (KN Od 563.1). The former is used to introduce totals and is the equivalent of Att.-Ion. συστροφή 'collection, gathering'.[8] The latter appears in a tablet with an uncertain interpretation:

> .1 ri-jo-ni-jo , / e-ze-to , to-ro-qo
> .2 a-to-mo-na , / su-mo-no-qe LANA 14

The tablet records a consignment of wool. The first word is an adjective derived from the place name *ri-jo-no* (KN Ap 629.1, 5876.2, C 902.7, D- *passim*). Apparently, it qualifies *to-ro-qo* as a toponymic specification. The last two words are coordinated by *-qe* (= τε) and most probably are two women's names. The most controversial word is *e-ze-to*, which could be a verb form related to *o-ze-to* (PY Vn 130.1); *o-ze-to* can be interpreted as containing the particle *o-* (a variant of *jo-*, see above) and a verb form that has been equated with γέντο, a 3. sg. aorist meaning 'he/she grasped, took'.[9] If this equation is correct, *e-ze-to* would be the same form with augment, although an augmented *ἔγεντο is unattested in the first millennium. In any case, the context calls for the interpretation of *to-ro-qo* as στρόφος 'twisted band, cord'. The attempts to connect this word to **terk^{u}-* (see *DMic.* II 367) are much less felicitous, first, because there is no semantic match in the first millennium pointing to this root, and second, because the *ro* vocalisation is more compatible with **streg^{uh}-*.

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8   The possible relation of *ku-su-to-ro-qa* with τρέπω is discarded by Duhoux (2013: 66) on semantic grounds. He also stresses the fact that a compound *συν-τροπή remains unattested in Greek.

9   This form is only found in the *Iliad* and can be explained as an athematic aorist of the IE root **gem-* (*LIV*² 186). Note that this interpretation supposes the palatalisation of *ge* into *ze*, which is possible in Mycenaean (Risch & Hajnal 2006: 255–256; Bernabé & Luján 2006: 118–120), although Méndez (1991–1993) attributes it to a preceding sibilant rather than to the *e*. Méndez's hypothesis implies *e-ze-to* = ἔσχετο, which is less felicitous from a semantic perspective ('hold for him/herself', 'was held'). Ultimately, the interpretation of *-ze-to* in PY Vn 130.1 as an athematic middle root aorist or present ζέστο/ζέστοι of ζέω 'boil' proposed by Melena (2014b: 218) poses insurmountable morphological problems, since there are no parallels either in Greek or in other IE languages for such athematic formations within the paradigm of this verbal root (see *LIV*² 312–313 on **ịes-*).

The rest of Mycenaean words that may be related to the roots being analysed are even more difficult to ascribe. All of them exhibit an *o*-grade but can be divided into two groups depending on the vocalisation before or after the resonant.

Those vocalised in *or* are *to-qi-de* 'spiral' and its derivatives *to-qi-de-ja*, *to-qi-de-we-sa*,[10] as well as *-to-qo* '(wine) press' vel sim. in the sequence *jo-e-ke-to-qo*. The first noteworthy detail is that this type of vocalisation is proper to **terkᵘ̯-*. Forms belonging to **stregᵘʰ-* only exhibit vocalisation after the sonorant, at least in the first millennium. It is also feasible to see in these forms a zero grade with a typical Mycenaean vocalisation in the vicinity of a labial stop (Risch & Hajnal 2006: 204; Bernabé & Luján 2006: 129); cf. *to-pe-za* τόρπεζα = Att.-Ion. τράπεζα. However, this last possibility is less felicitous from a morphological perspective, since the words in question are best explained as *o*-grade formations.

The noun *to-qi-de* refers to a decorative motif on tables and stools recorded in the Pylian Ta series, which always depends on a verbal adjective or participle: *a-ja-me-no* (Ta 721.1.2), *qe-qi-no-me-na* (Ta 713.1.2) and *qe-qi-no-to* (Ta 642.3).[11] It is inflected in the instrumental dative singular (Waanders 2008: 805). The adjectives *to-qi-de-ja* (Ta 709.1, 715.3) and *to-qi-de-we-sa* (Ta 711.3) are derivatives of this noun with the suffixes **-ei̯o/eh₂-* and **-u̯ent-* respectively. They appear in the same series qualifying feminine nouns: *pi-je-ra₃* 'boiling pans', *to-pe-zo* '(two) tables', *qe-ra-na* 'pitcher, ewer'. The group formed by *to-qi-de* and its derivatives is generally ascribed to **terkᵘ̯-* (*DMic.* II 364). As explained by *Docs.* 336, these words refer to spirals, a typical motif in Mycenaean decoration. In the first millennium, the word meaning spiral is ἕλιξ, κος, from a very different root, while similar derivatives of **stregᵘʰ-* and **trep-* have different meanings; cf. στροφίς 'band' and τρόπις 'ship's keel'. Note that these derivatives make an *o*-grade more plausible than a zero grade for the Mycenaean term, even though τρόπις has a different suffix *-i-* (Chantraine 1979: 112). In this regard, the suffix *-id-* of *to-qi-de* is not incompatible with an *o*-grade (Balles & Lühr 2008: 215–216) and both suffixes tend to be confounded (Chantraine 1979: 336).

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10   The man's name *to-qi-da-so* (PY Fn 324.23) is most probably a Prehellenic name in -(σ)σος unrelated to *to-qi-de*.

11   On the interpretation and meaning of the perfect participle *qe-qi-no-me-na* and the verbal adjective *qe-qi-no-to*, see García-Ramón (1999a). On the meaning of the perfect participle *a-ja-me-na*, see García-Ramón (1995), whose etymological proposal entails psilosis (< **seh₂i̯-* 'bind, attach') despite the aspirate of *o-pi-i-ja-* /opihiā/ (KN Sd *passim* and Sf 4428.a), another Mycenaean representative of the root **seh₂i̯-*. The underlying verb **αἶμι* 'inlay' might be an Anatolian loanword (Jiménez 2008: 8–9).

The sequence *jo-e-ke-to-qo* contains three words: the particle *jo-* (see n. 2), the verb form *e-ke* equivalent to ἔχει 'he/she/it has', and *to-qo*, a noun. It appears in KN Gv 863, a 'palm-leaf' tablet lacking right and left edges and related to grape vines:

.1] q̣ạ-ra , / jo-e-ke-to-qo , wo-na-si , ṣị[
.2] we-je-we   *174 420   *su* ARB   104[

The first line begins with a place name *qa-ra* well known in the Knossian tablets (KN Am 819.B, D- *passim*, L 473.B, Og 1804.b, Pp 495, Uf *passim*, V 865.3–5, X 44.B, 5722). Two of the preserved words refer to grape vines: *wo-na-si* 'in the vineyards' (cf. Hsch. οἰνάδες· ἀμπελώδεις τόποι) and *we-je-we* 'grape vine plants', Hsch. υἱήν· τὴν ἄμπελον. ἢ υἱόν (cf. υἱόν· ἀναδενδράδα), more precisely vine plants trained to climb fig trees referred to by *su* ARB (Ruipérez & Melena 1990: 155–156; Palmer 1995: 277). This led Milani (1965: 427) to interpret *to-qo* as an action noun meaning '(wine) pressing',[12] an appropriate meaning for **terkᵘ-*; cf. Lat. *torcular*, *torculum* '(wine, oil) press'. This interpretation entails a paroxytone noun τόρκʷος, but it is also possible to set forth an oxytone agent noun τορκʷός meaning 'press'. There is some evidence for the Mycenaean word in the first millennium: ἐλαιοτρόπιον 'olive-press' (*Gp.* 6.1.6; BCH 26: 182, Syria III AD), ἐλαιοτροπικός 'for pressing olives' (*I. Mylasa* nº 206.3, II–I BC; in the expression ἐλαιοτροπικὰ ἄρμενα 'implements for pressing olives'), οἰνοτροπικοί 'wine-blenders' (Gal. 8.768), οἰνοτρόποι 'turning water into wine' (Lyc. 580), an epithet attributed to the daughters of Anius, grandson of Staphylus (son of Dionysus and Ariadne), τροπήϊον 'press' (Hippon. 57). Other proposals are more remote, e.g., that of Chadwick (1996: 280) equating *-to-qo* with τόπος 'place, region, space' (τόπος < **tep-* 'to hit, stick, smear', see EGD 1494), or that of Melena (2014a: 39): /hō(s) hekʰei torkʷos/ 'the "circuit" (?) is as follows in vineyards', which implies *-to-qo* = τρόπος 'turn, direction, way'. Note that Lejeune (1976: 200 n. 29) has suggested that *-to-qo* might be a man's name and the subject of *e-ke*. Such a name could be related to **terkᵘ-*, but it must be stressed that ṣị[might also be the beginning of a man's name and the subject of the verb.

The forms vocalised in *ro* can also be explained as *o*-grade formations. There are two examples: *to-ro-qe-jo-me-no* 'making a tour of inspection' and *e-to-ro-qa-ta* 'twisted leather thongs (with which the oar was fastened to the thole)'. Their vocalisation is not consistent with **terku-*, although ascription to **stregᵘʰ-* is less felicitous from a semantic perspective and they cannot be ascribed to **trep-* due to their labiovelar.

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12   'ὃ ἔχει *τόρπωι « ciò ha per la pigiatura »'.

The middle participle *to-ro-qe-jo-me-no* appears in the heading of PY Eq 213, a tablet recording arable lands from different districts:

.1 o-wi-de , a-ko-so-ta , to-ro-qe-jo-me-no , a-ro-u-ra , a_2-ri-sa ,

The line is introduced by the particle *o-*, a lenited form of *jo-* with initial aspiration (see n. 2), followed by the aorist *wi-de* '(he) saw' (= Hom. (ϝ)ἴδε), whose subject, *a-ko-so-ta*, is an important officer of the Pylian administration. The object of *wi-de* is *a-ro-u-ra* 'arable lands' (= acc. pl. ἄρουρας), the lands inspected by *a-ko-so-ta*. The interpretation of a_2-ri-sa is highly controversial, but unnecessary in order to understand the line. The participle *to-ro-qe-jo-me-no* is a circumstantial participle agreeing with *a-ko-so-ta*. It has been related both to τρέπω (*Docs.* 269; etc.) and στρέφω (Palmer 1963: 218 & 459), as well as distinguished from those two verbs (Meissner 2001: 35). From a morphological perspective, it can be considered an iterative-causative formation with *o*-grade and *-$e\dot{i}e/o$- suffix or a denominative with *-$\dot{i}e/o$- suffix. A final possibility is to observe in *to-ro-qe-jo-me-no* a frequentative in $\bar{o}$-grade (Palmer 1963: 218), despite the fact that these frequentatives are typically contract verbs in -άω (Hock 1971: 309–310). What we find in the first millennium is a Homeric iterative-causative τροπέω attested only once: *Il.* 18.224 ἵπποι ἂψ ὄχεα τρόπεον 'the horses turned their cars backward'. Apart from that, we find compound denominatives like ἀλλοιοτροπέω 'change colour', αὐτοτροπέω 'be like oneself, i.e., unique', κακοτροπέω 'become malignant', and, in fact, Tucker (1991: 131) considers τροπέω a denominative, as well as παρατροπέω 'lead astray, mislead' and περιτροπέω 'turn from all sides to a centre'. In the case of στρέφω, there are also compound denominatives in *o*-grade, as well as a simple verb στροφέω 'cause the colic' (Ar. *Pax* 175), a derivative of στρόφος 'twisting of the bowels', which makes no sense in the Mycenaean context. Finally, there are frequentatives from both roots, τρωπάω 'turn, change', στρωφάω 'turn constantly, keep turning', and even στρωφέομαι, a secondary form in -έω attested in Aret. *CD* 1.4. All these verbs are attested in the active voice, but the frequentatives in $\bar{o}$-grade are also attested in the middle voice, τρωπάομαι 'turn about', στρωφάομαι 'roam about, wander'. From a semantic standpoint, the Mycenaean participle is most probably an iterative-causative equivalent to τροπέω. The middle voice can be explained as a reflexive middle indicating that causer and causee are coreferential (Jiménez 2006: 137):[13]

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13   The Mycenaean iterative-causative implies that the causer makes the causee turn (himself), i.e., τρέπεσθαι, which is a body motion middle (Allan 2003: 76–77).

I cause you to turn → I cause myself to turn

On the other hand, the participle is probably related to *$terk^u$- in view of its labiovelar stop and despite the vocalisation after the resonant. Its meaning is very specific and is related to the activity of inspection, so that it is usually translated as 'making a tour of inspection'. This specialised meaning was lost in the first millennium, though it is somehow consistent with some meanings of τρέπω in the middle and passive voices like 'turn in a certain direction' (Hom. *Od.* 15.80 τραφθῆναι ἀν' Ἑλλάδα 'roam up and down Greece'; Hdt. 2.3.1 ἐς Θήβας … ἐτραπόμην 'I went to Thebes'), 'betake oneself' (Hom. *Il.* 3.422 ἐπὶ ἔργα τράποντο 'they turned to their tasks'; Th. 1.5.1 ἐτράποντο πρὸς λῃστείαν 'they turned to piracy'), 'be turned or look in a certain direction' (Hdt. 1.84.3 πρὸς τοῦ Τμώλου τετραμμένον '(the side of a city) which faces towards Tmolus').

The word *e-to-ro-qa-ta* (KN Oa 878.2, U 736.2) has been interpreted as /*entrok^wta*/, /*entrok^wātai*/ or even /*entrok^wtai*/ (Leukart 1994: 92), with the meaning 'twisted leather thongs (with which the oar was fastened to the thole)'. It would be a derivative of *$terk^u$- in zero grade, either a nominalised verbal adjective in *-*tó*-, an agent noun in *-*tās*, or a noun formed of the verbal adjective with an *-*ās* suffix found in other tool names. Nevertheless, the first millennium evidence points to an *o*-grade formation; cf. τροπός (Hom. *Od.* 4.782, 8.53) and τροπωτήρ (Ar. *Ach.* 549, Th. 2.93), which have the same meaning as the Mycenaean term, as well as the corresponding verbs ἐντροπόω (Hsch., Agath. 5.22.2) and τροπόω (Aesch. *Pers.* 376), which mean 'fasten the oars with thongs'. The Mycenaean term might be a denominative from ἐντροπή, i.e., either an agent noun /*entrok^wā́tai*/ or even a nominalised verbal adjective /*entrok^wātá*/ with a secondary extension of the *o*-grade (Chantraine 1979: 305), and the vocalisation after the resonant would, indeed, be the result of an interference of *$terk^u$- with *$trep$-. Be that as it may, García-Ramón (2000: 166–167) interprets *e-to-ro-qa-ta* as a man's name /*Est^hlo-(k)k^wā(s)tās*/, a compound of ἐσθλός and πάομαι; see also Ruijgh (1967: 123 n. 259). In fact, it is possible to interpret *e-to-ro-qa-ta* as two different words in Oa 878, a tablet recording cloth, and in U 736, where *na-u-do-mo* ναυδόμοι 'ship builders' are mentioned. It should be noted that the logogram **181* that follows *e-to-ro-qa-ta* in U 736.2 has the form of a loop.

Finally, there is one term exhibiting both possibilities, vocalisation in *or* and *ro*: *to-qa* / *to-ro-qa* (KN Fh 339, 391, 8299 / 358, 376, 5446.2, 5497). The fact that all the tablets in which it appears are written by the same scribe (identified as scribal hand 141) has led some scholars to propose that they represent two different words, as accepted in *DMic.* II 363 & 366. However, both forms seem to be variants of a single word that alternates with another term, *zo-a*, to indicate two different ways of processing oil, twisting or *to-qa* / *to-ro-qa* and boiling or

zo-a.[14] If this interpretation is correct, both *to-qa* / *to-ro-qa* and *zo-a* represent *o*-grade action nouns (Chantraine 1979: 18–26). The alternation of the former might be explained as the result of a zero grade (Risch & Hajnal 2006: 204–205; Bernabé & Luján 2006: 129), which is also known in this type of action noun as a secondary extension of the present stem vocalism. However, the first millennium bearers of this term are *o*-grade derivatives; cf. τροπή 'turn, turning' and στροφή 'turning, revolving, circling'. The first of the words at issue, *zo-a*, derives from ζέω, while *to-qa* and *to-ro-qa* are derivatives of **terk*ʷ-, or, less likely, derivatives of **streg*ʷʰ- in view of the *or* vocalisation of *to-qa*, which is unknown in the derivatives of στρέφω. On the etymology of this term, see Ruijgh (1968: 705–707). Nevertheless, the exact meaning of these nouns is uncertain. They probably refer to the industrial use of oil in perfume manufacturing, *zo-a* to boiling the oil in the process called hot enfleurage or maceration; cf. PY Un 267.3–4 *a-re-pa-te ze-so-me-no* ἀλειφάτει ζεσσομένωι 'for the ointment that is going to be boiled', *to-qa* / *to-ro-qa* to stirring the oil in cold enfleurage[15] (cf. Dsc. 1.46 οἰνάνθην τὴν ἐκ σταφυλῆς εὐώδη μαράνας βάλε εἰς ὀμφάκινον ἔλαιον καὶ κίνει μεταστρέφων (underlining mine; note the semantic proximity of στρέφω to **terk*ʷ-) 'after drying the aromatic inflorescence of the grape vine, place it into oil of unripe olives and stir turning it upside down' (translation by Beck 2005)). On the techniques used to make perfume in antiquity, see Brun (2000: 278–282), Riddle (1985: 91), and Shelmerdine (1985: 11–16).[16]

A case of conflation

The meaning of the roots at issue is very similar: *trep- means 'turn (in a certain direction)', **terk*ʷ- means 'twist' and, by specialization, 'spin' (Mallory &

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14   There are two other processes, *po-ro-ko-wa* and *e-pi-ko-wa*, which apply to small secondary quantities of oil; see Melena (1983: 111–112) and *DMic.* I 225 & II 148. Both *po-ro-ko-wa* and *e-pi-ko-wa* are action nouns deriving from χέ(ϝ)ω 'pour'.

15   Enfleurage is the process of capturing the fragrant compounds of plants by using odorless fats. It can involve either boiling or cold steeping.

16   Ruijgh (1968) was the first to identify *to-qa* / *to-ro-qa* with the production of perfume by stirring the mix of cold oil and fragrance. Nevertheless, stirring is not necessary in cold enfleurage; cf. Erard-Cerceau (1990), who prefers to understand *to-qa* / *to-ro-qa* as equivalent to τροφή, thus referring to oil produced for cooking. The problem is that τρέφω belongs to a verbal root *dʰrebʰ- 'condense, curdle' without labiovelar stop (*LIV*² 153–154). Finally, Melena (1983: 107 and 111 n. 78) mentions the possible connection of *to-qa* / *to-ro-qa* with *to-ro-qo*, though both terms probably belong to different roots (see above).

Adams 1997: 572; Mallory & Adams 2006: 234, 237), *$streg^{uh}$- means 'turn around, rotate'.[17] Phonetically, they are also similar, especially after the elimination of labiovelar stops in post-Mycenaean times.[18] As the result of this elimination, *$trep$- and *$terk^u$- converged in τρέπω and $streg^{uh}$- evolved into στρέφω. Only one Cypriot derivative of *$terk^u$- remained differentiated: Hsch. εὐτρόσσεσθαι· ἐπιστρέφεσθαι. Πάφιοι (εὐ-τρόσσεσθαι represents a zero-grade *$-ie/o$- present *trk^u-$ié/ó$- according to Egetmeyer 2010: 464 and means 'turn to / towards'). Given that labiovelar stops were still distinguished in Mycenaean, one can wonder at what stage of their evolution these roots were in Mycenaean times. In my opinion, Mycenaean data show that *$trep$- and *$terk^u$- were still differentiated, though interference between them and with *$streg^{uh}$- were already at play.

Conflation is a term mainly used in Cognitive Linguistics to define the convergence of two different meanings in the same word (Talmy 1985 & 1991). Furthermore, it is employed to describe the coinage of new lexical entries in creole languages from merging two words belonging to the super- and substrate languages (Kihm 1989). It can also be found in historical linguistics, especially with reference to morphological processes in which two originally distinct morphs merge into one (Tanaka 2011). In Indo-European studies, morphological conflation is usually called syncretism (Hock 1991: 183–187; Baerman et al. 2005).

What I am calling conflation in this paper is a mix of phonological convergence and semantic interference. Phonological convergence or phonological merger (Sihler 2000: 44) is a relatively frequent phenomenon, for instance, in the evolution from PIE to the daughter languages. The PIE roots *h_1nek- 'to reach' and *h_2nek- 'to take' are an example of this. The outcome of h_1 and h_2 is the same in many cases, so both roots were traditionally referred to as a single one *$Hnek$-, since they are difficult to distinguish in the daughter languages; see Ozoliņš (2015: 30–39). In fact, both roots apparently merged in some languages; cf. Ved. $naś$- 'reach, obtain', Av. $năs$- 'reach, attain' ($nās$- is also used as the suppletive aorist of bar- 'bear, carry'), Lat. $nancīscor$ 'get, obtain' (García-Ramón 1999b). In the case being studied, one can speak of contamination (Hock 1991:

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17 According to Ruijgh (1968: 706–707), τρέπω designates a change of direction, while στρέφω designates a circular motion. Furthermore, he considers that τρέπω stems from *$terk^u$-/ *$trek^u$-, rather than from *$trep$-, and that, in Mycenaean, it preserved the meaning of turning around which is customary of στρέφω in the first millennium.

18 As one reviewer points out, *$streg^{uh}$- has an initial sibilant that makes it fairly distinguishable from *$trep$- and *$terk^u$-. However, the initial sibilant is not so distinctive in Ancient Greek, since roots beginning with a consonant can alternate forms with and without it, the so-called s-mobile or s-movable (Giannakis 2015); cf. σκίδναμαι, κίδναμαι 'spread over', στέγος, τέγος 'roof, house', στέρφος, τέρφος 'skin', etc.

197–199; Sihler 2000: 83), i.e., the influence that words belonging to the same semantic group may have on each other. Examples can be easily multiplied; see, for instance, Sp. *sin en cambio*, an adversative connector used in informal Spanish and resulting from the contamination of *sin embargo* with *en cambio*, the normative forms, or Engl. *irregardless*, resulting from *irrespective* and *regardless*. Another example is Ved. nom. pl. *dvā́ras*, acc. pl. *dúras* from PIE **dʰu̯or-* 'door', where the initial dental stop should have been aspirated, namely **dhvār-*, *dhur-*; the absence of aspiration is attributed to the analogy with *dva-* 'two', which is supported by the fact that the Vedic word is a *plurale tantum* (the doors referred to by this word had two leaves); cf. *EWAia* I: 764–765. In the case discussed here, the most striking fact is the semantic contamination of **terkᵘ-* by two other roots, namely **trep-* and **stregᵘʰ-*. The three roots at issue had similar meanings, so semantic interference is easy to understand, and, in Classical Greek, τρέπω and στρέφω still have a partial semantic overlap; cf. Hom. *Il.* 8.432 πάλιν τρέπε ἵππους 'she turned back her horses' vs. 8.168 μερμήριξεν ἵππους στρέψαι 'he was in doubt whether he should wheel his horses' and Th. 2.84.3 κατέστησαν ἐς ἀλκὴν μηδένα τρέπεσθαι αὐτῶν 'they prevented all of them from turning and resisting' vs. E. *Andr.* 1149 στρατὸν στρέψας πρὸς ἀλκήν 'turning the army toward resistance'. Contamination and phonological merger of *kᵘ* with *p* brought about the elimination of **terkᵘ-*, since it became a 'clashing' homonym (Hock 1991: 297–298) with **trep-* and **terp-*; cf. τέρπω 'delight, gladden'. The meanings corresponding to **terkᵘ-* were then reassigned either to τρέπω or to στρέφω depending on the type of twist denoted. The Mycenaean situation was intermediate between the contamination of **terkᵘ-* with **trep-* and **stregᵘʰ-* and its eventual elimination after the loss of labiovelar stops.

Some of the Mycenaean forms discussed above are easily ascribed to the roots at issue: *te-re-pa-to* to **trep-*, even if the interpretation of this verb form is far from certain; *su-to-ro-qa* 'sum, total' and *to-ro-qo* 'cord' to **stregᵘʰ-*; *to-qi-de* 'spiral', *to-qi-de-ja*, *to-qi-de-we-sa*, adjectives related to *to-qi-de*, and *to-qo* '(wine) press' to **terkᵘ-*. Other forms belonging to **terkᵘ-* exhibit an unexpected vocalisation. This could be attributed either to Schwebeablaut or to metathesis (Lejeune 1972: 142); however, I believe it is better accounted for as part of the convergence process that affected the roots under consideration. This is the case of *o*-grade derivatives from **terkᵘ-* but with vocalisation after the resonant, like *to-ro-qe-jo-me-no*, a participle of an iterative-causative verb continued by Hom. τροπέω '(make) turn', and *e-to-ro-qa-ta*, if the Mycenaean antecedent of Hom. τροπός and Att. τροπωτήρ 'twisted leather thong, with which the oar was fastened to the thole' is a denominative formation from ἐντροπή. This vocalisation can be easily explained by contamination with **trep-* and **stregᵘʰ-*. This interference can also account for the reason why *to-qi-de* is semantically

continued by forms of στρέφω in the first millennium; cf. στροφάς, άδος 'turning around, revolving, circling', στροφίς, ίδος 'band', στρόφιγξ, ιγγος 'pivot, axle', while *to-qo* is comparable to derivatives of τρέπω.

Finally, the beginnings of the conflation of *terkᵘ-* with τρέπω and στρέφω would be best seen in alternating forms like *to-qa* / *to-ro-qa*. The first one, *to-qa*, an *o*-grade action noun in *-eh₂*, is expected, while the vocalisation of *to-ro-qa* is proper to *trep-* and *stregᵘʰ-*. The alternation *or* / *ro* is known in Mycenaean in the vocalisation of zero grade ̥r; cf. *to-no* 'seat, throne' / *to-ro-no-wo-ko* 'makers of seats / thrones' (PY Ta 707.1.2, 708.1.2, 714.1 / KN As 1517.11), Mycenaean representatives of θρόνος (< *dʰ̥rnó-*). However, *to-qa* / *to-ro-qa* can hardly be a zero-grade action noun; cf. τροπή, στροφή as well as *zo-a*, *po-ro-ko-wa*, and *e-pi-ko-wa* in the same series. Again, contamination with *trep-* and *stregᵘʰ-* is a nice explanation for the confusion of the two vocalisations by the same Knossian scribe 141. As a matter of fact, cold enfleurage, the process alluded by the Mycenaean term, was described in the first millennium by resorting to the verb στρέφω.

Conclusions

Mycenaean Greek preserves a series of forms deriving from the root *terkᵘ-* which remain differentiated: *to-qi-de*, *to-qi-de-ja*, *to-qi-de-we-sa* and *to-qo*. After the loss of labiovelar stops in post-Mycenaean Greek, these forms were confused with derivatives of τρέπω and στρέφω. Furthermore, Mycenaean demonstrates that στρέφω stems from a root with labiovelar *stregᵘʰ-*; cf. *su-to-ro-qa* and *to-ro-qo*. The semantic proximity of *terkᵘ-* to *stregᵘʰ-* and *trep-* can explain *o*-grade forms such as *to-ro-qe-jo-me-no*, possibly also *e-to-ro-qa-ta*, with a *ro* vocalisation that is unknown in the derivatives of *terkᵘ-* documented in other languages. This suggests that the process of conflation of *terkᵘ-* with the other two roots had begun before the loss of labiovelars, as alternating *to-qa* / *to-ro-qa* seems to indicate.

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