

Reflexivity and the Middle in Greek*

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Version date: 2023-03-28

*I am grateful to Hannes Fellner, Dieter Gunkel, Götz Keydana and Alexander Nikolaev for providing helpful comments, feedback and corrections.

1 Introduction

1.1 Background

This chapter discusses reflexivity and the middle in Ancient Greek (AG), with a focus on Archaic Greek (ca. 800–500 BCE) and Classical Greek (ca. 500–300 BCE). Ancient Greek was spoken between ca. 1500–300 BCE in today’s Greece and its colonies throughout the Mediterranean and is standardly divided into Mycenaean Greek (ca. 1500–1100 BCE), the “Dark Ages” (1100–800 BCE), Archaic Greek (800–500 BCE), and Classical Greek (500–300 BCE), followed by Hellenistic/Koine Greek (ca. 300 BCE–300 CE) (Joseph 1992; Rau 2010; Ralli 2012). Four main dialect groups are usually distinguished: Achaean/Arcado-Cypriot, Attic-Ionic, Aeolic, and West Greek (e.g., Colvin 2010). Most of the data in this article come from Attic-based Classical Greek (e.g., Thucydides, Xenophon, Euripides) and Ionic (e.g., Herodotus); Homeric Greek is based on an Old Ionic variety heavily mixed with other dialects, especially Aeolic ones.

1.2 Reflexivity, the middle, and the pronominal system of Greek

1.2.1 Reflexive and other middles

Reflexivity is defined here as a property of *reflexive predicates* (“A predicate is *reflexive* iff two of its arguments are coindexed.”, Reinhart & Reuland 1993: 663); the focus in the following is on *direct reflexives*.

Middle or nonactive morphology is defined here as a syncretic type of voice morphology that is cross-linguistically found in a particular set of canonical contexts, in older IE languages and beyond. These contexts have been discussed at length in previous literature (e.g., Klaiman 1991; Kemmer 1993; Embick 1998; Kaufmann 2007; Alexiadou & Doron 2012; Luraghi 2012; Alexiadou, Anagnostopoulou & Schäfer 2015; Grestenberger 2018; Inglese 2020, 2021; Oikonomou & Alexiadou 2022) and are generally agreed to include the following in ‘alternating contexts’ in which a corresponding non-middle, morphologically active verb exists:

- (1)
 - a. Anticausatives/inchoatives
 - b. Reflexives and reciprocals
 - c. Self-benefactives/autobenefactives/‘indirect reflexives’
 - d. Dispositional/generic constructions
 - e. Passives (‘mediopassives’)

All of the above with the exception of (1-d) also occur in non-alternating contexts as *media tantum* (‘middle only’) verbs. *Media tantum* moreover encompass a number of other types of verbs, such as subject experiencer verbs, different types of movement and ‘act-like’ verbs, statives, etc. (Kemmer 1993, Grestenberger 2014, Zombolou & Alexiadou 2014). The conditioning environment for nonactive/middle morphology in Greek (as in other languages with a similar voice system) is taken to be the lack of a canonical external argument (agent argument; “a Voice head is spelled out with non-active morphology [...] if it lacks a specifier”, (Alexiadou, Anagnostopoulou & Schäfer 2015: 101; cf. also Embick 1998, 2004; Grestenberger 2018, 2021), (2). Crucially, nonactive/middle morphology is not valency-reducing/intransitivizing according to this approach, which is confirmed by what we observe in Greek, where we find nonactive morphology in a variety of descriptively transitive environments, for example in self-benefactives.

- (2) Spell-Out condition on non-active morphology (Alexiadou, Anagnostopoulou & Schäfer 2015: 101–102)
Voice → **Voice[NonAct]/_ No DP specifier**

Moreover, in this approach active morphology instantiates the Elsewhere environment and surfaces whenever the condition on nonactive in (3) is not fulfilled. This is useful for explaining why Greek (and languages with a similar voice system) have both active-marked agentive transitive verbs and active-marked unaccusative states and change-of-state verbs.

Table 1 illustrates the AG active and nonactive (thematic and athematic) sets of endings for the finite non-past forms (the ‘present endings’). The citation form for Greek verb forms is the first person singular.

Table 1: Ancient Greek active and nonactive non-past (‘present’) endings

| | Active | | | Nonactive/Middle | | |
|---|----------------------|-------------|--------------------------|------------------|---------------|---------------|
| | Sg. | Dual | Pl. | Sg. | Dual | Pl. |
| 1 | <i>-mi, -ō</i> | — | <i>-men, -mes</i> | <i>-mai</i> | — | <i>-metha</i> |
| 2 | <i>-s(i), -eis</i> | <i>-ton</i> | <i>-te</i> | <i>-sai, -ēi</i> | <i>-sthon</i> | <i>-sthe</i> |
| 3 | <i>-si, -ti, -ei</i> | <i>-ton</i> | <i>-asi, -nti, -ousi</i> | <i>-tai</i> | <i>-sthon</i> | <i>-ntai</i> |

While ‘middle’ is sometimes also used to refer to particular ‘situation types’ or syntactic contexts (including some or all of the ones listed in (1)), it is used exclusively to refer to morphological exponence (that is, the middle/nonactive endings such as the ones in Table 1) in this chapter.

Greek has both middle-marked and active-marked reflexive verbs at one and the same synchronic stage of the language. Although the focus of this article is descriptive rather than theoretical, it must be emphasized that the approach sketched out above predicts an argument-structural difference between active-marked and middle-marked reflexives. It moreover makes testable predictions about the types of verb classes in Greek that are expected to surface with active vs. with nonactive morphology more generally.

1.2.2 Pronouns in Greek and beyond

Pronouns used in reflexive constructions differ cross-linguistically in whether or not they are specified for Person and Number features, that is, whether they agree with an antecedent for all or some of the antecedent’s morphosyntactic features, as well as with respect to their prosodic properties. Greek has two sets of pronominal forms that are found in reflexive constructions: The personal pronoun forms that are specified for person, number, and case, illustrated in Table 2 (leaving out the nominative case forms which are not used reflexively; cf. Kühner 1890: 580–93; Schwyzer 1939: 602–603 for a more detailed summary and Van Emde Boas et al. 2019: 89 for Classical Greek). Except for the first and second person plural forms, all of these have a tonic and an atonic (clitic) variant.

Table 2: Classical/Attic Greek simple personal pronouns. Variants found in epic Greek (Homer) and in Ionic prose (Herodotus) are given in brackets.

| | | 1 | | 2 | | 3 | |
|-----|------|---|--|---------------------------|---|--|------------------------------|
| | | tonic | clitic | tonic | clitic | tonic | clitic |
| Sg. | gen. | <i>emoũ</i> (<i>eméo</i> , <i>eméthen</i>) | <i>mou</i> (<i>meu</i> , <i>meo</i>) | <i>soũ</i> (<i>seũ</i>) | <i>sou</i> (<i>seu</i> , <i>seo</i> , <i>teu</i>) | <i>hoũ</i> (<i>héo</i> , <i>heũ</i>) | <i>hou</i> (<i>heu</i>) |
| | dat. | <i>emoí</i> | <i>moi</i> | <i>soí</i> (<i>toí</i>) | <i>soi</i> (<i>toi</i>) | <i>hoĩ</i> | <i>hoi</i> |
| | acc. | <i>emé</i> | <i>me</i> | <i>sé</i> | <i>se</i> | <i>hé</i> (<i>heé</i>) | <i>he</i> |

| | | | | | | | |
|-----|------|---|-------------|---------------------------------------|---------------|------------------------------------|------------------|
| Du. | gen. | <i>nōin</i> | <i>nōin</i> | <i>sphōin</i> | <i>sphōin</i> | <i>sphōin</i> | <i>sphōin</i> |
| | dat. | <i>nōin</i> | <i>nōin</i> | <i>sphōin</i> | <i>sphōin</i> | <i>sphōin</i> | <i>sphōin</i> |
| | acc. | <i>nó (nōi)</i> | <i>nō</i> | <i>sphó (sphōi)</i> | <i>sphō</i> | <i>(sphōé)</i> | <i>(sphōe)</i> |
| Pl. | gen. | <i>hēmōn</i> <i>(hēmé(i)ōn)</i> | | <i>humōn</i> <i>(humé(i)ōn)</i> | | <i>sphōn</i> <i>(sphé(i)ōn)</i> | |
| | dat. | <i>hēmīn (ámmi,</i> <i>hēmīn)</i> | | <i>humīn (úmmīn,</i> <i>hūmīn)</i> | | <i>sphísīn</i> | <i>(sphī(n))</i> |
| | acc. | <i>hēmās</i> <i>(ámme,</i> <i>hēméas)</i> | | <i>humās (úmme)</i> | | <i>sphās (sphéas)</i> | <i>(sphē)</i> |

In Homer, the tonic pronouns of the first, second, and third person can be used in reflexive contexts and to express emphasis (see Bolling 1947, Schwyzer 1950: 193–4). The third person pronouns are also used anaphorically, and they continue to be used as simple reflexives in post-Homeric Greek (cf. Petit 1999: 59ff.) in indirect reflexive contexts and infinitival and participial constructions. The clitic forms alone are never used in direct reflexive contexts, but they do occur as long-distance reflexives, cf. section 2.24.¹

Apart from these, which for the most part continue the inherited (PIE) pronominal system, Greek also develops a designated ‘complex’ reflexive pronominal paradigm, consisting of the simple pronouns² in Table 2 plus the inflected forms of the intensifier/anaphoric pronoun *autó-* ‘self; same’ (nom.m. *autós*, nom.f. *auté*, nom.n. *autó(n)*, illustrated in Table 3 (see Kühner 1890: 596–601; Schwyzer 1939: 606–7; Van Emde Boas et al. 2019: 90–91). These forms are marked for person, number, gender, and case. In Homer, the singular forms are not yet contracted. In the third plural, there is variation between the use of the third person dual and plural simple pronoun stem *sph(i)-* + *autó-* and a newer variant that generalizes the third singular simple pronoun stem *hé-* to the third plural and expresses number on the inflectional endings only (rather than on both the stem and the endings).

¹Note that some of the handbooks refer to personal and reflexive pronouns in subordinate clauses that are bound from outside their domain (i.e., the main clause) as ‘indirect reflexives’, e.g., Smyth & Messing 1956: 304; Van Emde Boas et al. 2019: 347, whereas in much of the theoretical and typological literature (and in this handbook), ‘indirect reflexive’ refers to self-benefactive constructions only, cf. section 2.11.

²The Classical/Attic forms are based on the accusative forms of the simple pronouns, but the Ionic forms used by Herodotus appear to be based on the genitive forms and hence differ slightly, e.g., 3sg. *heōutó-*, etc.

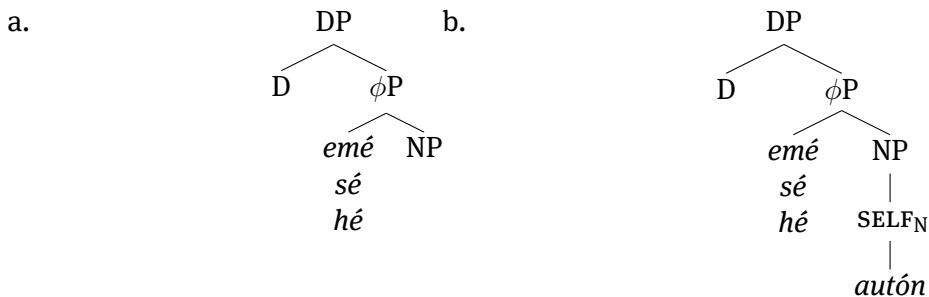
Table 3: AG complex reflexives (Classical/Attic)

| | | 1 | 2 | 3 |
|-----|------|---|---|--|
| Sg. | gen. | <i>emautoũ</i> (m., n.), <i>emautēs</i> (f.) | <i>s(e)autoũ</i> (m., n.), <i>s(e)autēs</i> (f.) | <i>h(e)autoũ</i> (m., n.), <i>h(e)autēs</i> (f.) |
| | dat. | <i>emautōi</i> (m., n.), <i>emautēi</i> (f.) | <i>s(e)autōi</i> (m., n.), <i>s(e)autēi</i> (f.) | <i>h(e)autōi</i> (m., n.), <i>h(e)autēi</i> (f.) |
| | acc. | <i>emautón</i> (m., n.), <i>emautén</i> (f.) | <i>s(e)autón</i> (m., n.), <i>s(e)autén</i> (f.) | <i>h(e)autón</i> (m., n.), <i>h(e)autén</i> (f.) |
| Pl. | gen. | <i>hemōn autōn</i> | <i>humōn autōn</i> | <i>heautōn / sphōn autōn</i> |
| | dat. | <i>hemīn autoīs</i> (m., n.), <i>hemīn autais</i> (f.) | <i>humīn autoīs</i> (m., n.), <i>humīn autais</i> (f.) | <i>heautoīs</i> (m., n.), <i>heautais</i> (f.) / <i>sphisin autoīs</i> (m., n.), <i>sphisin autais</i> (f.) |
| | acc. | <i>hemās autoús</i> (m.), <i>hemās autás</i> (f.) | <i>humās autoús</i> (m.), <i>humās autás</i> (f.) | <i>heautoús</i> (m.), <i>heautás</i> (f.) / <i>sphās autoús</i> (m.), <i>sphās autás</i> (f.) |

In ‘decompositional’ approaches to pronominal typology, the distribution of different types of pronouns (e.g., whether they can occur in argument or predicate position) can be derived from their different syntactic structures and morphosyntactic features (i.e., specification for Person, Number, Gender), cf., e.g., Cardinaletti & Starke 1999; Déchaine & Wiltschko 2002, 2017; Reuland 2011; Rooryck & Vanden Wyngaerd 2011. ‘Strong pronouns’ pattern as DP-arguments, whereas ‘weak pronouns’ may be morphologically and prosodically deficient and syntactically restricted with respect to which surface positions they can occupy. Other approaches derive the choice of a particular pronominal form (reflexive or otherwise) from the availability of pronominal forms in particular domains, so that the choice is 1) form-dependent (depending on which forms are available in any given language) and 2) domain-dependent (e.g., Kiparsky 2002, 2012; Safir 2004).

The feature typology of reflexive markers in the older Indo-European languages has been discussed at length in, e.g., Petit 1999, 2001; Puddu 2005, 2007; Cotticelli Kurras & Rizza 2013. For present purposes, I adopt a simplified version of the proposals by Déchaine & Wiltschko 2017 and Patel-Grosz & Grosz 2017 for the Greek pronominal forms in Tables 2 and 3, which are fully specified for person, number and case and have the same distribution as other nominal arguments. Their structure is illustrated in (3) for the accusative forms of the Greek simple, (3-a), and complex reflexive pronouns, (3-b).

(3) Pronominal structure in AG



Crucially, reflexive constructions that use either of these pronouns are expected to pattern as *coargument reflexives*, with (at least) two syntactically represented arguments.

1.3 Greek reflexive constructions

1.3.1 Middle-marked reflexives

Like many other languages, Greek uses different reflexivization strategies depending on 1) predicate type, 2) syntactic context or ‘domain’ (e.g., main vs. embedded clause) and 3) semantic-pragmatic context (e.g., emphasis/focus). As in other older Indo-European languages with a morphological active/non-active (or ‘active/middle’) voice distinction, these interact with a difference in morphological voice marking and give rise to three broad (and also cross-linguistically attested) categories:

- (4) Reflexivization strategies for reflexive predicates in Ancient Greek
- Reflexivization through middle/nonactive voice morphology on the verb
 - Middle morphology on the verb + (strong or weak) reflexive pronoun (or ‘particle’; not in AG)
 - Active morphology + strong reflexive pronoun

The following discussion focuses on strategies a.) and c.), which are attested throughout the history of Greek, but differ in their distribution, whereas (4-b) was never a productive strategy for reflexive predicates as we will see below. (4-a), the most restricted strategy, will be referred to as construction 1 in the following. This strategy, i.e., reflexivization through middle morphology alone, is restricted to so-called inherent reflexives or ‘body action verbs’ throughout the history of Greek (cf. Engl. *shower*, *shave* without *-self*); the same holds for inherently reciprocal verbs (e.g., *fight*, *compete*...). (5) lists the AG verbs of grooming and body action which can reflexivize in this manner (Allan 2003: 89; Rijksbaron 2002: 144–145).

- (5) Verbs of grooming & body action; refl. use attested in Homer = **bold**; oppositional³ actives given where attested
- aleíphomai*** ‘anoint oneself’ (***aleíphō*** ‘anoint’)
 - apo-mússomai*, *apo-múttomai* ‘blow one’s nose’ (*apo-mússō*, *apo-múttō* ‘wipe’)
 - apo-psáomai* ‘wipe oneself, wipe one’s nose’ (*apo-psáō* ‘wipe sth. off’)
 - déphomai* ‘masturbate’ Arist. (< ‘knead oneself’; *déphō* ‘knead’); but later act. + *heaúton*
 - hénnumai*** ‘get dressed; dress (oneself)’ (***hénnumi*** ‘dress, clothe’)
 - zónnumai*** ‘gird oneself’ (***zónnumi***)
 - ?***keíromai*** ‘cut off one’s hair’ (***keírō*** ‘cut’) — abs. use is post-Homeric
 - kosmoūmai* ‘adorn oneself’ (***kosméō*** ‘arrange’)
 - knáomai* ‘scratch oneself’ (Plato+; ***knáō*** ‘grate, scratch’)
 - loúomai*** (*loūmai*) ‘wash myself, bathe’ (***loúō*** ‘wash sth.’)
 - nízomai*** ‘wash one’s hands/feet’ (***nízō*** ‘wash, clean’)
 - stephanóomai* ‘crown oneself’ (Soph., Eur.+; *stephanóō*)
 - ksuroūmai* ‘shave (oneself)’ (*ksuréō* ‘shave’)

(6) illustrates these reflexives in the wild. Note the contrast between morphologically active ‘wash off’ in the third line and the middle-marked reflexives ‘wash oneself, bathe’ in lines 1, 4 and 5.

- (6) *autoi* *d’ hidrō* *pollōn* ***ap-e-nízonto*** *thalássēi*
SELF.NOM.PL PTCL sweat.ACC much.ACC off-AUG-wash.IPF.MID.3PL sea.DAT
es-bántes *knémas* *te idē lōphon* *amphí te mēroús.* *autār epeí*
in-go.PTCP.ACT.NOM.PL shin.ACC.PL and neck.ACC around and thigh.ACC.PL but when

³I use ‘oppositional’ here to mean that the middle-marked form alternates with an active-marked non-reflexive form *synchronically*, remaining agnostic on which form (if any) is historically the older one.

sphin kūma thalássēs hidrō pollōn nīpsen apō khrōtōs kai
 them.DAT.PL wave.NOM sea.GEN sweat.ACC much.ACC wash.AOR.ACT.3SG from skin.GEN and
anépsukhthen philon ētor, és rh' asamínthous bántes
 refresh.AOR.PASS.3PL dear.NOM heart.NOM into PTCL bath.ACC.PL go.PTCP.AOR.ACT.NOM.PL
eü-kséstas louísanto. tō dè loessaménō kai
 well-polished.ACC.PL bathe.AOR.MID.3PL they.NOM.DU PTCL bathe.PTCP.AOR.MID.NOM.DU and
aleipsaménō líp' elaiōi deípnōi ephizanétēn, ...
 anoint.PTCP.AOR.MID.NOM.DU richly oil.DAT dinner.DAT sit.IPF.ACT.3DU

'But they themselves after entering the sea **washed off** much (of the) sweat from (their) shins, neck and around their thighs. And when the wave of the sea **had washed** much (of the) sweat from their skin and their hearts were refreshed, having gone into the polished bathtubs **they bathed**. And **having bathed** and **anointed themselves** richly with oil, they sat down for dinner...' (*Il.* 10.574–578)

1.3.2 Active-marked verb + complex reflexive

The second relevant construction consists of an active-marked (usually prototypically transitive) verb with the complex reflexive pronoun type PRON + SELF illustrated in Table 3. An example is given in (7).

- (7) *epikata-spházei tōi túmbōi heōútōn*
 over-slay.PRS.ACT.3SG ART.DAT grave.DAT 3SG.self.ACC
 'he **killed himself** over the grave.' (*Hdt.* 1.45.3)

In Homer, the simple pronoun and the intensifier are still syntactically and prosodically autonomous, as illustrated in (8) for the third person singular, consisting of uncontracted *hé/heé* + *autón* (m.)/*autén* (f.).

- (8) *heè d' autòn epotrúnei makhésasthai*
 3SG.ACC PART SELF.ACC excite.PRS.ACT.3SG fight.INF.PRS.MID
 'He **stirs himself up** to fight' (*Il.* 20.171)

There are only three examples of direct reflexives with *hé* + *autón/autén* in Homer and one, (8), with *heè autén* (Petit 1999: 12, 161, Viti 2009: 151). For the most part, we find middle endings in contexts that we would classify as direct reflexives, namely the body action/inherent reflexives discussed in section 1.3.1, whereas the simple pronouns of the first and second person as well as 'simple' 3sg. *hé/heé* (and its dual and plural equivalents) are found as objects of prepositions, (9-a), and in ECM/AcI constructions, (9-b) (cf. Kiparsky 2012: 86–87).

- (9) a. *amphì hē papténas*
 around 3SG.ACC glancing.PTCP.AOR.ACT.NOM
 'glancing **around himself**' (*Il.* 15.574)
 b. *emé phēmi polù propherésteron eīnai*
 1SG.ACC declare.PRS.ACT.1SG much more.excellent be.INF.PRS
 'I **declare myself** to be the best'/'I declare that I am best by far' (*Od.* 8.221, cf. Kiparsky 2012: 87)

It is also sometimes claimed that the simple pronouns of the first and second person could be used in direct reflexive contexts in Homer (e.g., Bolling 1947: 23; Schwyzer 1950: 193), but the two examples that are usually cited as evidence (*Il.* 10.378 and 24.773) are problematic for different reasons: In the latter,

the simple pronoun is part of a coordinated phrase, hence not technically a coargument of the verb (see Kiparsky 2012: 94 on simple pronouns in coordination contexts), and in the former, the simple pronoun co-occurs with middle marking on the verb but without any sort of emphatic or contrastive meaning, as one might expect if the pronoun were there to ‘strengthen’ the reflexive meaning of the middle endings (see further section 2.4.1 on this passage). Middle marking + simple pronoun is therefore not treated as a separate reflexivization strategy in this survey.

Finally, note that the contexts for the two strategies identified here (middle marking alone vs. active endings + complex reflexive) are not mutually exclusive, as some predicates can use both strategies depending on the context, cf. (10-a) vs. (10-b).

- (10) a. *óphra tákhista entúneai*
 so.that quickly get.ready.SBJV.MID.2SG
 ‘so that **you may get ready** most quickly’ (*Od.* 6.32–33)
- b. *eũ entúnasan hē autēn*
 well get.ready.PTCP.AOR.ACT.ACC 3SG.ACC self.ACC
 ‘Having **gotten herself ready**/having well **adorned herself**’ (*Il.* 14.162)

Compare the distribution of *zich* (simple reflexive) vs. *zich-zelf* (complex reflexive) in Dutch, e.g., (11), which according to Rooryck & Vanden Wyngaerd (2011: ch. 3) correlates with unaccusative vs. transitive syntax and a difference in volition/intentionality. It is possible that the same is true for Ancient Greek, but further study is needed to confirm this (on unaccusativity and middle-marked reflexives cf. section 2.3.1).

- (11) Dutch *zich-* vs. *zichzelf-* reflexives (Rooryck & Vanden Wyngaerd 2011: 54–55)
- a. *Milo heft zich bezeert*
 Milo has REFL hurt
 ‘Milo hurt himself’ (unintentionally)
- b. *Milo heft zichzelf bezeert*
 Milo has REFL.self hurt
 ‘Milo hurt himself’ (intentionally)

2 Variables

2.1 Inflection

2.1.1 Construction 1 (1.3.1)

As illustrated in Table 1, the middle endings are specified for person and number and agree with the nominative subject. (12) gives some examples of this for the reflexive construction (cf. also ex. (6)). As discussed in the introduction, the middle endings are not restricted to reflexive contexts but are also found in anticausatives, passives, self-benefactives, experiencer/psych verbs, etc. While the middle endings are not usually analyzed as case markers, they do express agreement with a nominative subject (like the active endings).

- (12) a. *hóte kèn pot' apophthiménou basilēos zónnuntai te néoi kai epentúnontai áethla*
when PTCL ever die.PTCP.AOR.MID.GEN king.GEN gird.PRS.MID.3PL and young.NOM.PL and
prepare.PRS.MID.3PL contest.ACC.PL
'Whenever a king dies, the young men **gird themselves** and prepare the contests.' (*Od.* 24.88–9)
- b. *stephanoũthe kissōi*
crown.PRS.IPV.MID.2PL ivy.DAT
'**crowns yourself** with ivy!' (*Eur. Ba.* 106)

1. PERSON:

Is the reflexive marker specified for person? yes

2. PERSON RESTRICTIONS:

Is the reflexive marker restricted to certain persons? no

3. RESTRICTIONS TO REFLEXIVE CONSTRUCTIONS:

Is the marker or one of the paradigmatically related markers restricted to the use in the construction that expresses reflexives? no

4. NUMBER:

Is the reflexive marker specified for number? yes

5. CASE:

Is the reflexive marker specified for case? no

6. NUMBER OF CASES:

Is case restricted to a subset of the cases attested with (other) pronouns? NA

2.1.2 Construction 2 (1.3.2)

The complex reflexive pronoun is specified for person, number, gender, and case (genitive, dative, and accusative - there are no nominative case forms, cf. Table 3). Examples for first, second, and third person direct reflexives are given in (13). Unlike the middle endings (construction 1), this construction is restricted to (direct and indirect) reflexive contexts.

- (13) a. *all' étoi epì nukti phuláksomen heméas autoús, ...*
 but surely at night.DAT guard.FUT.ACT.1PL 1PL.ACC self.ACC.PL
 'But surely tonight we **will guard ourselves**, ...' (*Il.* 8.529)
- b. *all' emoí te peíthesthe kaì emoí huméas autoùs*
 but 1SG.DAT and believe.PRS.IPV.MID.2PL and 1SG.DAT 2PL.ACC self.ACC.PL
epi-trépsate
 towards-turn.AOR.IPV.ACT.2PL
 'So believe me and **entrust yourselves** to me' (Hdt. 6.11.3)
- c. *epikata-spházei tōi túmbōi heōtón*
 over-slay.PRS.ACT.3SG ART.DAT grave.DAT 3SG.self.ACC
 'he **killed himself** over the grave.' (Hdt. 1.45.3)

In Attic, the forms of the third person can also be used with first and second person antecedents (Schwyzer 1950: 197–8; there is also one example in Herodotus, 5.92.2), as in (14) (note the variation between the third and second person plural pronominal forms with one and the same second person plural antecedent), and this use continues into Koiné Greek and New Testament Greek where it comes to predominate and eventually forms the basis for the renewed late Byzantine/early Modern Greek complex reflexive *tòn heautó mou*, etc. (Petit 1999: 381–383).

- (14) *kaì hóthen málist' alēthē peúsethe kaì ou meta-noésantes*
 and whence most truth.ACC.PL learn.FUT.MID.2PL and NEG after-notice.PTCP.AOR.ACT.NOM.PL
hústeron heurése te sphās autoùs hēmartēkótas tà mégista
 late find.FUT.ACT.2PL 3PL.ACC self.ACC.PL fail.PTCP.PF.ACT.ACC.PL ART.ACC.PL greatest
eis theóus te kaì humās autoús.
 against god.ACC.PL and 2PL.ACC self.ACC.PL
 'And from which you will best learn the truth and avoid **finding yourselves** later regretting to have committed the greatest sins against the gods and also **against yourselves**.' (*Xen. Hell.* 1.7.19)

Schwyzler (1939: 198) tentatively proposes that the Attic use could be an archaism, but Petit (1999: 359, 371) points out that the simple reflexive pronouns of the third person (*hé/heé* in the sg. and stem *sph(e/i)-* in the dual and plural) are never used with first or second person antecedents in Homer, nor in post-Homeric poetry or dialectal inscriptions (this is different for the reflexive possessive adjective formed from the same stem as the 3sg. pronoun, *heós/hós*, cf. section 2.26), so it is more likely that the Attic use is an innovation.

1. PERSON: yes

2. PERSON RESTRICTIONS: no

3. RESTRICTIONS TO REFLEXIVE CONSTRUCTIONS: yes

4. NUMBER: yes

5. CASE: yes

6. NUMBER OF CASES: 3

2.2 Position relative to the verb

2.2.1 Construction 1 (1.3.1)

The reflexive marker in this construction is a suffix, hence always occurs in the same position (as part of the inflectional endings) together with person and number features. The singular endings and the third plural ending can be segmented into person/number-voice-tense:

- (15) *-m-a-i*
1SG-NONACT-NONPAST

This is less obvious for the other endings, but suggests that the middle/nonactive marker occurs to the right of agreement marking. However, the active and nonactive endings are usually treated as cumulative expression of subject agreement (person/number), voice (active/nonactive), and tense (past/nonpast). While some endings can be segmented into these three categories (cf. ex. (15)), this is not as obvious in the other instances, hence the position of the reflexive (middle) marker relative to the person marker is given as "NA" below.

7. POSITIONAL DEPENDENCY:

Is the position of the reflexive marker dependent on the position of the verb? I.e. is there a rule that the marker must be placed relative to the verb? yes

8. POSITION PRE:

Can the marker occur to the left of the verbal root? no

9. POSITION POST:

Can the marker occur to the right of the verbal root? yes

10. POSITION RELATIVE TO PERSON MARKER LEFT:

Can the marker occur to the left of the person marker? NA

11. POSITION RELATIVE TO PERSON MARKER RIGHT:

Can the marker occur to the right of the person marker? NA

12. CUMULATIVITY:

Can the marker express, in addition to reflexivity, any other verbal inflectional categories such as tense, illocution, mood in a cumulative way? yes

13. INFORMATION STRUCTURE:

Can information structure determine the positioning of the marker? no

2.2.2 Construction 2 (1.3.2)

The complex reflexive can occur to the left or to the right of the verb, cf. (16) = (8) and (10-b) above.

- (16) a. *heè d' autón epotrúnei makhésasthai*
3SG.ACC PTCL self.ACC excite.PRS.ACT.3SG fight.INF.PRS.MID
'He **stirs himself up** to fight' (*Il.* 20.171)
- b. *eũ entúnasan hè autén*
well get.ready.PTCP.AOR.ACT.ACC 3SG.ACC self.ACC

‘Having well **adorned herself**/having gotten herself ready’ (*Il.* 14.162)

The ‘self’-element of the complex reflexive pronouns always occurs to the right of the pronominal stem, both in contracted and in uncontracted forms. This is illustrated in (17) for the first person singular and plural accusative masculine reflexives.

- (17) a. *em-aut-ón*
 1SG-SELF-ACC
 ‘myself’
 b. *hēm-ās aut-óús*
 1PL-ACC.PL SELF-ACC.PL
 ‘ourselves’

The ‘self’-element is moreover sensitive to information structure and can be moved to designated focus- or other discourse-functional positions. Goldstein 2015: 184 analyzes *autón* in (18) as preposed to a (counter-expectational) focus position. An example in which a complex reflexive is fronted to the clausal focus position is given in (19).

- (18) *ouk òn dè peíthein autón toútoisi. allà keleúein toús*
 NEG PTCL PTCL persuade.INF.PRS.ACT 3SG.ACC DEM.DAT.PL but tell.INF.PRS.ACT ART.ACC.PL
*porthméas è **autón_F** diakhrásthái=min, hōs àn taphḗs en gēi*
 seaman.ACC.PL DISJ self.ACC kill.PRS.MID.INF=3SG.ACC CONJ MOD burial.GEN on land.DAT
túkhēi, è ekpēdān es tèn thálassan tèn takhístēn.
 happen.AOR.SBJV.ACT.3SG DISJ jump.INF.PRS.ACT into ART.ACC sea.ACC ART.ACC quickest.ACC
 ‘He did not persuade them. Instead the crew ordered that either he **kill himself**, so as to receive burial on land, or else to jump into the sea at once.’ (Hdt. 1.24.3, cit. after Goldstein 2015: 182)
- (19) *heōutōi mèn dè tōi thúonti idíēi moúnōi ou hoi*
 3SG.self.DAT PTCL PTCL ART.DAT sacrificing.DAT privately.ADV alone.DAT NEG 3SG.DAT
eggínetai arásthai agathá
 be.allowed.PRS.MID.3SG pray.INF.PRS.MID blessing.ACC.PL
 ‘It is not permitted to the sacrificer to pray for blessings for **himself** alone on his own’ (Hdt. 1.132.2)

7. POSITIONAL DEPENDENCY: no

8. POSITION PRE: yes

9. POSITION POST: yes

10. POSITION RELATIVE TO PERSON MARKER LEFT: no

11. POSITION RELATIVE TO PERSON MARKER RIGHT: yes

12. CUMULATIVITY: no

13. INFORMATION STRUCTURE: yes

2.3 Syntactic status

2.3.1 Construction 1 (1.3.1)

The reflexively used middle endings cannot be coordinated, modified, or used in equations. Unambiguous tests for unaccusativity are so far lacking in Greek, but there is a large body of literature that suggests that middle-marked reflexives (and middle-marked verbs in general) in languages with a comparable voice system are at least syntactically unaccusative in that they lack an external (agent) argument, e.g., Embick 2004, Alexiadou, Anagnostopoulou & Schäfer 2015, Schäfer 2017, Grestenberger 2018, Kastner 2020. Specifically, this type of analysis has been proposed for Modern Greek middle-marked reflexives (naturally reflexive verbs and middle-marked verbs with *afto*-prefixation) by Alexiadou 2014 and Spathas, Alexiadou & Schäfer 2015 based on various diagnostics, most importantly the lack of disjoint reference effects (unlike in middle-marked passives) which they interpret to mean that the external argument role is existentially bound by (the functional head that introduces) the middle inflection. Given the broad similarities between the Ancient Greek and the Modern Greek verbal system with respect to the types of verb classes that take middle endings (alternating and non-alternating, cf. Manney 2000, Zombolou & Alexiadou 2014 on MG), it is reasonable to assume that this analysis also holds for Ancient Greek middle-marked reflexives. Independent diagnostics that could confirm this but have yet to be tested systematically include:

- (20) a. Agent nouns cannot be formed to unaccusative verbs, hence are predicted to be incompatible with a reflexive interpretation for verbs that can form middle-marked reflexives (Grestenberger 2014, Grestenberger 2018)
- b. Lack of object focus alternatives for middle-marked reflexives (Spathas, Alexiadou & Schäfer 2015 for MG)

(20-a) predicts that agent nouns from alternating verbs whose middle forms can be used with a reflexive interpretation (like the grooming verbs in section 1.3.1) never have a reflexive reading themselves. Thus the middle of *kosméō* ‘arrange, order; adorn sth.’, *kosméomai* (*kosmoūmai*) can have a reflexive interpretation ‘adorn oneself’. However, the agent noun derived from this verb, *kosmétēr* only ever occurs with the meaning of the active agentive verb (‘commander; adorer’) and not with the reflexive meaning ‘self-adorer’. This diagnostic works well for the agent nouns in *-tēr* (see the collections in Fraenkel 1912, Benveniste 1948), which are indeed only formed to agentive verbs (leaving aside inherited kinship nouns like *patēr* ‘father’ and instrument nouns like *lampētēr* ‘torch’ from *lámpeō* ‘shine’).

(20-b) is slightly more complicated. Spathas, Alexiadou & Schäfer 2015 show that MG middle-marked reflexives with ‘*afto*-prefixation’ do not allow object alternatives under focus. Thus, (21-b) (a subject alternative) would be a valid correction of (21), whereas the correction with an object alternative in (21-a) is infelicitous.

- (21) O Janis dhen AFTO- katijori-thike.
the J.NOM not self-accused-NACT.3SG
‘John did not accuse himself.’
- (22) a. #Katijori-se ti MARIA.
accused-ACT.3SG the M.ACC
‘He accused Mary.’
- b. Ton katijori-se i MARIA.
him accuse-ACT.3SG the M.NOM
‘Mary accused him.’

Coargument reflexives formed with active morphology and the complex reflexive anaphor *ton eafto tu*,

on the other hand, do allow object alternatives under focus (but not subject alternatives). Simplifying somewhat, this follows if the complex reflexive is an argument in object position, whereas prefixed *afto-* is an adverb rather than an object. Since *afto-*prefixed verbs do not have syntactic objects, then, they cannot license object alternatives in corrective contexts. Modified for AG, this diagnostic predicts that construction 1 (under the unaccusative analysis) should only allow subject alternatives whereas construction 2 should only allow object alternatives (when the focus is on the reflexive object, that is). Example (18) could be interpreted as evidence for the former (the alternative to Arion killing himself is that the ship's crew kills him, hence a subject alternative), while example (42) could be evidence for the latter (Adrēstos kills himself as opposed to killing others as he did before, hence an object alternative), but this obviously requires further study.

14. COORDINATION:

Is it possible to coordinate the reflexive marker with an NP/DP? no

15. EQUATION:

Can the reflexive be used in equations? no

16. MODIFICATION:

Can the reflexive be constructed with a possessive? no

17. OPTIONALITY OF MODIFICATION:

If so, is the possessive obligatory? NA

18. UNACCUSATIVITY:

Are (at least some) reflexive-marked predicates syntactically unaccusative? yes?

2.3.2 Construction 2 (1.3.2)

Both the complex reflexive and the 'intensifier' *autó-* 'self' can be coordinated. (23) is an example of coordination of the complex reflexive with another DP, (24) an example in which a long-distance (complex) reflexive is co-ordinated with a simple pronoun.

- (23) *mnēmósuna dè elípeto prò toũ Hēphaisteíou andriántas*
 memorial.ACC.PL PTCL leave.behind.AOR.MID.3SG before ART.GEN H.GEN statue.ACC.PL
lithínous, dúo mèn triékonta pēkhéōn, heōtón te kai tēn gunaīka
 of.stone.ACC.PL two PTCL thirty ell.GEN.PL 3SG.self.ACC and ART.ACC wife.ACC
 'As memorials he erected stone statues before the temple of Hephaistos, 32 ells in high, **to himself and to his wife, ...**' (Hdt. 2.110.1)
- (24) *kaí min Ámasis_i eũ perieíte: télos dè memphoménōn*
 and 3SG.ACC A.NOM well treat.IPF.ACT.3SG at.last PTCL complain.PTCP.PRS.MID.GEN.PL
Aiguptíōn hōs ou poiéoi díkaia tréphōn tōn
 E.GEN.PL that NEG make.PRS.OPT.ACT.3SG right.ACC.PL nourish.PTCP.PRS.ACT.NOM ART.ACC
sphísi te kai heōtōĩ_i ékhthiston, ...
 3PL.DAT and 3SG.self.DAT hostile.SPD.ACC
 'And Amasis_i treated him well, but at last the Egyptians complained that nourishing someone who was extremely hostile **to both them and (Amasis) himself_i** wouldn't be right.' (Hdt. 2.169.3)

In the anaphoric use, third person *autó-* can also be co-ordinated, as in (25).

- (25) *autàr epeì sítou tárphthen dmōiái te kai auté*
 then when food.GEN enjoy.AOR.PASS.3PL handmaid.NOM.PL and self.NOM
 ‘Then when **her handmaids and she (herself)** had enjoyed (their) food, ...’ (*Od.* 6.99)

Because there are no nominative forms of the complex reflexive, we do not expect it to occur in equation contexts where a nominative would be required. However, *autó-* alone has nominative forms and occurs in subject position, as well as in contexts such as (26) that could be interpreted as equation contexts.

- (26) *kai egò mèn ho autós eimi*
 and 1SG.NOM PTCL ART.NOM self.NOM be.PRS.1SG.ACT
 ‘And I am the same’ (*Thuc.* 2.61.2)

In (27), the complex reflexive is the direct object of *eiskein* ‘to liken, to deem’ and equated to/compared with a dative object (‘to deem X_{ACC} like Y_{DAT}’).

- (27) *argaléon se, theá, gnōnai brotōi antiásanti, kai mál’*
 difficult 2SG.ACC goddess.VOC know.INF mortal.DAT encounter.PTCP.DAT and very
epistaménōi: sè gàr autèn pantì eískeis
 knowledgeable.DAT 2SG.ACC for self.ACC all.DAT make.like.PRS.ACT.2SG
 ‘It is difficult, goddess, for a mortal to know you when he encounters you, even a very knowl-
 edgeable one, for you (can) **make yourself (look) like anybody.**’ (*Od.* 13.312–313)

14. COORDINATION: yes

15. EQUATION: yes

16. MODIFICATION: no

17. OPTIONALITY OF MODIFICATION: NA

18. UNACCUSATIVITY: no

2.4 Expandability

2.4.1 Construction 1 (1.3.1)

The reflexively-used middle endings cannot be iterated or reduced in conjuncts. The intensifier *autó-* ‘self’ can be used to expand a middle-marked reflexive in early Greek, as in the indirect reflexive middle in (28) (ex. from Schwyzer 1950: 196).

- (28) a. *méga mèn kléos autēi poieit’, autàr soi ge pothèn*
 great.ACC PTCL fame.ACC self.DAT make.PRS.MID.3SG but 2SG.DAT PTCL lack.ACC
poléos biótoio
 much.GEN livelihood.GEN
 ‘Great fame **she makes for herself**, but for you lack of much livelihood.’ (*Od.* 2.125–126)

The nominative forms of *autó-* can also be used to expand middle-marked reflexive constructions, as in (29).

- (29) *toion palaistèn nūn paraskeuázetai ep’ autòs hautōi*
 such.ACC adversary.ACC now prepare.PRS.MID.3SG against self.NOM 3SG.self.DAT

‘Such an adversary he **is** now **himself preparing** against himself.’ (Aesch. PB 920–921)

It is less clear if the simple pronouns in Table 2 were also originally used to expand reflexively used middles (or used in coargument reflexive contexts, for that matter). Bolling (1947) and Schwyzer (1950: 193) note that the use of simple pronouns in reflexive contexts is usually not emphatic (“ohne Nachdruck”, Schwyzer loc.cit.), and they are almost never found in direct reflexive contexts (dative and genitives occur more often). The only example that could be interpreted in this way is (30), but we would actually expect an active-marked verb with a complex reflexive pronoun in this context.

(30) *Zōgreĩt’, autàr egòn emè lúsomai: ésti gàr*
 take.alive.PRS.IPV.ACT.2PL but 1SG.NOM 1SG.ACC ransom.FUT.MID.1SG be.PRS.ACT.3SG for
éndon khalkós te khrūsós te polúkmētós te sídēros, tōn k’
 at.home bronze.NOM and gold.NOM and much.toil.ADJ.NOM and iron.NOM ART.GEN.PL PTCL
úmmin kharísaito patèr apereísi’ ápoina eí ken emè
 2PL.DAT grant.AOR.OPT.MID.3SG father.NOM countless.ACC ransom.ACC if PTCL 1SG.ACC
zōòn pepúthoit’ epì nēusìn Akhaiōn.
 alive.ACC learn.AOR.OPT.MID.3SG on ship.DAT.PL A.GEN.PL

‘Take me alive, and **I will ransom myself**, for at home there is bronze and gold and well-wrought iron, of which my father would gladly give you countless ransom if he were to learn that I am alive on the ships of the Achaeans.’ (*Il.* 10.378–381)

Note moreover that the use of the pronoun in this passage is not emphatic because Dolon, the speaker, is actually referring Diomedes and Odysseus, the addressees, to his *father* (rather than to himself) for the actual ransom. This could suggest that *lúsomai* in (30) is actually a causative middle (see section 2.18) meaning ‘I will have myself ransomed’ (syntactically ‘I will cause [myself to be ransomed]’), in which the pronoun and the causer are not (syntactic) coarguments. Under this analysis the generalization that simple pronouns do not occur in coargument contexts would remain intact.

19. EXPANSION:

Can the reflexive construction be expanded with an intensifier or a similar formant which is not a pronoun in itself for stress, clarification or similar ends? yes

20. DOUBLING WITH PRONOUNS:

Can the reflexive marker be doubled with a distinct pronoun, be it reflexive, anaphoric or a personal pronoun? no

21. DOUBLING WITH REFLEXIVE:

If doubling occurs, is the pronoun doubling the reflexive marker itself a reflexive? no

22. DOUBLING WITH ANAPHORIC OR PERSONAL PRONOUN:

If doubling occurs, is the pronoun doubling the reflexive marker a non-reflexive pronoun? no

23. ADJACENCY:

Is the reflexive obligatorily immediately adjacent to its expansion or to the doubled pronoun? NA

24. ITERATION:

Can the reflexive marker be iterated within the same construction? no

25. REDUCIBILITY:

Can the reflexive marker be omitted in conjuncts when preceded by the same construction? no

2.4.2 Construction 2 (1.3.2)

Coargument reflexives that use the complex reflexive pronouns can use the nominative forms of the intensifier *autó-* to expand the reflexive construction (Schwyzer 1950: 196; Smyth & Messing 1956: 306; in ECM/AcI contexts we find the accusative, as in (32)), (31), starting with third person contexts but later on in CG also with first and second person antecedents, (32). The intensifier does not have to be adjacent to the complex reflexive.

- (31) *(tōn sautoũ ktēmátōn) eí ti autò heautò apokteinúoi*
 ART.GEN.PL 2SG.self.GEN chattel.GEN.PL if INDF.NOM self.NOM 3SG.self.ACC kill.PRS.OPT.ACT.3SG
 ‘If (of your chattel) one **were itself to kill itself**, ...’ (Plat. *Phaed.* 62c)
- (32) *pepoiēkás té me tà nŷn autòn emautōi epiplētein hóti*
 make.PF.2SG.ACT and 1SG.ACC.CL ART.ACC.PL now self.ACC 1SG.self.DAT chide.INF.PRS.ACT that
taũta eirēka
 3PL.ACC proclaim.PF.ACT.1SG
 ‘And you have made **me myself** now **chide myself** for that which I have proclaimed.’ (Plat. *Leg.* 7.805b)

Moreover, plain *autó-* can also be used reflexively for the third person without being added to the simple pronouns. In the Doric dialects of Greek, the combination of this ‘simplex reflexive’ with the nominative of the intensifier *autó-* gave rise to a new ‘reduplicated’ reflexive pronoun *autosautó-* that is also compatible with first and second person antecedents (Kühner 1890: 600–601; Schwyzer 1950: 197), as in (33). This example also shows that the reflexive and its intensifier were originally separable (they also did not originally have to be adjacent).

- (33) *mè (e)pi mikroĩs autòs autòn oksúthumon deíknuē*
 NEG about small.DAT.PL self.NOM self.ACC angry show.PRS.IPV.ACT.2SG
 ‘Do not (**yourself**) **show yourself angry** over small things’ (Epich. Frag. 281; Diels 1906: 96)

Note that I am not treating the combination of simple personal pronoun + *autó-*, i.e., the complex reflexive, as an expansion in direct (coargument) reflexives because that would presuppose that the simple pronouns could be used reflexively in these contexts in non-intensive/non-emphatic reflexive contexts, which was probably never the case in (attested) Greek. In non-coargument and long-distance reflexive contexts, however, the use of the simple forms was possible, and adding the intensifier/reflexive *autó-* could then be analyzed as ‘doubling with reflexive’.

19. EXPANSION: yes

20. DOUBLING WITH PRONOUNS: no

21. DOUBLING WITH REFLEXIVE: no

22. DOUBLING WITH ANAPHORIC OR PERSONAL PRONOUN: no

23. ADJACENCY: no

24. ITERATION: no

25. REDUCIBILITY: ?

2.5 Stress

2.5.1 Construction 1 (1.3.1)

The middle endings do not affect the usual computation of word stress in the verb.

26. STRESS:

Can the reflexive marker establish its own stress domain? no

2.5.2 Construction 2 (1.3.2)

The complex reflexive pronoun (Table 3) and the reflexive/intensifier *autó-* form their own stress domains.

26. STRESS: yes

2.6 Phonological interaction

2.6.1 Construction 1 (1.3.1)

The reflexively used middle endings do not interact phonologically with surrounding material.

27. INTERACTION:

Does the reflexive marker interact phonologically with surrounding linguistic items? no

2.6.2 Construction 2 (1.3.2)

In Classical Greek, the complex reflexive pronoun (Table 3) and the reflexive/intensifier *autó-* do not interact phonologically with surrounding linguistic material. However, in Homeric Greek, contraction of the personal pronouns with the reflexive/intensifier *autó-* had not yet taken place; cf. ex. (8) and (34).

(34) *kaì makhómēn kat'ém' autòn egō*
and fight.IPF.MID.1SG by 1SG.ACC self.ACC 1SG.NOM
'And I fought **on my own/by myself**' (*Il.* 1.271)

Since these forms eventually contracted into a single stress domain (cf. the singular forms in Table 3), phonological interaction must have taken place diachronically to give rise to them.

27. INTERACTION: no

2.7 Homonymy

2.7.1 Construction 1 (1.3.1)

The middle endings are not homonymous with a body part lexeme and their use is not semantically restricted, though reflexively used grooming verbs and verbs of body action, the main groups of verbs in

which reflexivity is marked by middle endings alone, only allow for animate subjects. This semantic restriction is due to the nature of the predicates, though, not the middle endings themselves.

28. BODY PART HOMONYMY:

Is the reflexive synchronically homonymous with a lexeme denoting a body part? no

29. SEMANTIC RESTRICTION:

Is the use of the reflexive semantically restricted to a subset of referents? no

2.7.2 Construction 2 (1.3.2)

The complex reflexive pronouns can be used with grammatically neuter animate and inanimate antecedents, as in (35). Although this use is rare in Herodotus and non-existent in Homer, examples like (35-b) and the fact that the ‘self’-element of the complex reflexive (*autó-*) could only be interpreted as a body part in a very abstract sense suggest that there was no grammatical animacy restriction.

- (35) a. *tò dè plēthos toũ stratoũ apallásesthai hekáteron es tēn*
 ART.NOM PTCL majority.NOM ART.GEN army.GEN remove.INF.PRS.MID each.NOM to ART.ACC
heōutoũ ...
 3.self.GEN
 ‘The majority of each army (was agreed) to depart to **its own** (country) ...’ (Hdt. 1.82.3)
- b. *hósō dè pléon ep’heōtòn húdōr ho hēlios epélketai*
 as.much.as PTCL more.ACC to 3.self.ACC water.ACC ART.NOM sun.NOM draw.PRS.MID.3SG
en tōi thérei è en tōi kheimōni ...
 in ART.DAT summer.DAT than in ART.DAT winter.DAT
 ‘And to the extent that the sun **draws to itself** more water in the summer than in the winter, ...’ (Hdt. 4.50.4)

28. BODY PART HOMONYMY: no

29. SEMANTIC RESTRICTION: no

2.8 Use in deverbal derivation

2.8.1 Construction 1 (1.3.1)

There are no middle-marked verbal nouns or agent nouns in Greek.

30. DEVERBAL NOUNS:

Can the marker occur with nominal derivatives? no

31. OPTIONALITY WITH DEVERBAL NOUNS:

If so, is the marker optional? NA

2.8.2 Construction 2 (1.3.2)

autó- ‘self’ is used as a reflexive prefix in compounds, mostly with verbal adjectives as in (36). This prefix is obligatory for the reflexive reading.

- (36) a. *auto-dídaktos* ‘self-taught’ (Hom.+)
 b. *autó-matos* ‘self-acting, acting of one’s own will’ (Hom.+)
 c. *autó-nomos* ‘self-governing, independent’ (Hdt.+)

30. **DEVERBAL NOUNS:** yes

31. **OPTIONALITY WITH DEVERBAL NOUNS:** no

2.9 Use with non-finite verb forms

2.9.1 Construction 1 (1.3.1)

The Greek participles and infinitives have active- and nonactive-marked allomorphs, just like the corresponding finite verb endings (Table 1). The active- and nonactive-marked participles are summarized in Table 4, the infinitives in Table 5. The expression of reflexivity is cumulative in that the middle participial and infinitival endings express both reflexivity (or rather, middle/nonactive voice) and non-finiteness.

Table 4: Participles of *louí-ō* ‘wash’

| | Active | Nonactive |
|---------------|--|--|
| a. Prs. | <i>louí-ōn</i> m., <i>louí-ousa</i> f., <i>loĩ-on</i> n. (stem <i>-o-nt-</i>) | <i>louó-men-os</i> m., <i>-ē</i> f., <i>-on</i> n. |
| b. Aor. | <i>loús-ās</i> m., <i>loús-asa</i> f., <i>loĩs-an</i> n., (stem <i>-a-nt-</i>) | <i>lousá-men-os</i> m., <i>-ē</i> f., <i>-on</i> n. |
| c. Perf. | <i>lélouk-ós</i> m., <i>lélouk-uĩa</i> f., <i>lélouk-ós</i> n. (stem <i>-ōt-</i>) | <i>lélou-mén-os</i> m., <i>-ē</i> f., <i>-on</i> n. |
| d. Fut. | <i>loús-ōn</i> m., <i>loús-ousa</i> f., <i>loĩs-on</i> n. (stem <i>-o-nt-</i>) | <i>lousó-men-os</i> m., <i>-ē</i> f., <i>-on</i> n. |
| e. Aor. pass. | <i>louthéis</i> m., <i>loutheĩsa</i> f., <i>louthén</i> n. (stem <i>-é-nt-</i>) | |
| f. Fut. pass. | | <i>louthēsó-men-os</i> m., <i>-ē</i> f., <i>-on</i> n. |

Table 5: Greek infinitives

| | Active | Nonactive |
|---------------|--------------------|-----------------------|
| a. prs. | <i>louí-ein</i> | <i>loué-sthai</i> |
| b. Aor. | <i>loĩs-ai</i> | <i>lousá-sthai</i> |
| c. Perf. | <i>lélouk-énai</i> | <i>leloĩ-sthai</i> |
| d. Fut. | <i>loús-ein</i> | <i>lousé-sthai</i> |
| e. Aor. pass. | <i>louthē̃-nai</i> | |
| f. Fut. pass. | | <i>louthése-sthai</i> |

The distribution of active vs. nonactive nonfinite verb forms mirrors that of the finite forms (specifically on participles cf. Grestenberger 2017; Grestenberger 2020): The nonactive forms occur in the same environments that have been defined as canonical for Ancient Greek in section 1.2.1, including body action reflexives, cf. ex. (6) and (37), and indirect reflexive/self-benefactive contexts, cf. (38).

The only distributional ‘skew’ concerns the *perfect* middle participle, which mostly occurs in passive or resultative use already in Homeric Greek (and even earlier in Mycenaean, e.g., PY Ta 641 *a-pu ke-ka-u-me-(no)* /*apu-kekaumenos*/ ‘burnt off’, perf. ptc. mid. of (classical) *apo-kaíō* ‘burn off’), cf., e.g., Chantraine 1926: 7ff. Schwyzler 1950: 237; Napoli 2017. However, as (37-a) shows, perfect middle participles can also occur in canonical reflexive contexts.

- (37) a. (... *pūr*) *astér'* *opōrinōi* *enalínkion*, *hós* *te* *málista lampròn*
 fire.ACC star.DAT of.late.summer.DAT like.ACC REL.NOM PTCL most brightly
pamphainēisi ***lelou-mén-os*** *ōkeanoō*
 shine.PRS.SBJV.3SG.ACT bathe.PF-PTCP.MID-NOM Okeanos.GEN
 ‘(... a fire) like an autumn star, which shines most brightly (after) **having bathed** in Okeanos’
 (waters).’ (*Il.* 5.4–6)
- b. *éñōgon* *d'* *ára* *min* ***loústhai*** *potamoō* *rhoēisin*
 command.IPF.ACT.3PL PTCL then 3SG.ACC bathe.INF.PRS.MID river.GEN stream.DAT.PL
 ‘... and they then commanded him **to bathe** in the streams of the river.’ (*Od.* 6.216)
- (38) *tòn* *d'* *heūr'* ***amph' ómoisi*** ***tithé-men-on*** ***éntea***
 ART.ACC PTCL find.AOR.ACT.3SG around shoulder.DAT.PL put.PRS-PTCP.MID-ACC armour.ACC
kalà
 beautiful.ACC
 ‘He found him **putting his beautiful armour around his shoulders**’ (*Hom. Il.* 10.34)

32. NONFINITE VERB FORMS:

Does the marker co-occur with non-finite verb forms? yes

33. OPTIONALITY WITH NONFINITE VERB FORMS:

If so, is the marker optional? no

34. CUMULATIVITY IN NONFINITE VERB FORMS:

Can the marker express non-finiteness and reflexivity in a cumulative way? yes

2.9.2 Construction 2 (1.3.2)

The active forms of the participles in Table 4 and the active infinitives in Table 5 can be used with the complex reflexive pronouns in direct reflexive constructions as in (39), just like the corresponding finite forms. The expression of reflexivity is not cumulative (again, like in the finite forms).

- (39) a. *sumbouleúomen* *dè* *humĩn* ***doũnai*** ***huméas autoùs*** *Athēnaíoisi*, ...
 advise.PRS.ACT.1PL PTCL 2PL.DAT give.INF.AOR.ACT 2PL.ACC self.ACC.PL A.DAT.PL
 ‘We advise you **to give yourselves** (up) to the Athenians ...’ (*Hdt.* 6.108.3)
- b. ***nomízontes*** ***heōutoùs*** *eĩnai* *anthrópōn* *makrōĩ*
 consider.PTCP.PRS.ACT.NOM.PL 3.self.ACC.PL be.INF.PRS.ACT man.GEN.PL. by.far
tà *pánta* *arístous*, ...
 ART.ACC.PL all.ACC.PL best.ACC.PL
 ‘**considering themselves** to be by far the best of (all) men in all regards, ...’ (*Hdt.* 1.134.2)

32. NONFINITE VERB FORMS: yes

33. OPTIONALITY WITH NONFINITE VERB FORMS: no

34. CUMULATIVITY IN NONFINITE VERB FORMS: no

2.10 Direct reflexive semantics

2.10.1 Construction 1 (1.3.1)

Prototypically transitive agentive verbs usually do not form direct reflexives through middle endings alone in Greek (as in other older IE languages; see, e.g., the chapters on Hittite, Vedic, and Latin in this volume). There are, however, some prototypically transitive agentive verbs that do seem to form middle-marked direct reflexives in this way in post-Homeric Greek, cf. (40). Examples are given in (41).

- (40) Direct reflexives from agentive transitive verbs (Allan 2003: 89–90)
- apánkhomai* ‘hang, strangle oneself’, Hdt.+ (*apánkhō* ‘strangle’)
 - kóptomai* ‘beat oneself (in grief)’, Pl. (*kóptō* ‘beat, strike’)
 - (*apo*)*spháttomai* / (*apo*)*spházomai* ‘slit one’s throat; kill oneself’, Xen. ((*apo*)*spháttō* / (*apo*)*spházō* ‘slit, cut’)
 - túptomai* ‘beat oneself; lament’, Hdt. (*túptō* ‘beat’)
- (41) a. *metà dè légousi hōs hē païs apénksato hupò ákheos*
 after PTCL say.PRS.ACT.3PL that the girl hang.AOR.MID.3SG from grief.GEN
 ‘They say that afterwards the girl.NOM **hanged herself** out of grief.’ (Hdt. 2.131.2)
- énioi gàr (...) pro-apothnéiskousin hupò toũ phóbou, hoi mèn*
 some.NOM.PL for before-die.PRS.ACT.3PL from ART.GEN fear.GEN ART.NOM.PL PTCL
rhiptoũntes heautoús, hoi d’ apankhómēnoi
 throw.PCTP.PRS.ACT.NOM.PL 3.self.ACC.PL ART.NOM.PL PTCL hang.PTCP.PRS.MID.NOM.PL
hoi d’ aposphattómēnoi: ...
 ART.NOM.PL PTCL slit.PTCP.PRS.MID.NOM.PL ...
 ‘Some (...) die in terror before their time - some by **hurling themselves** over a precipice, others by **hanging themselves**, others by **cutting their own throats**.’ (Xen. Cyr. 3.1.25, cit. after Allan 2003: 91)

Allan 2003: 91–92 argues based on a statistical analysis of the distribution of the active and middle forms of these verbs that these actions were conceptualized as equally or more naturally performed on oneself than on somebody else. He interprets examples like (42) in which construction 2 is used instead for one of these verbs (*epikataspházō* ‘slay on/over’) as involving contrasting emphasis, which in this case is supported by the context.

- (42) *ádrēstos dè ho Gordiēō toũ Mídeō, hoũtos dè ho phoneùs mèn*
 Adrēstos.NOM PTCL ART.NOM G.GEN ART.GEN M.GEN DEM.NOM PTCL ART.NOM slayer.NOM PTCL
toũ heōutoũ adelpheoũ genómenos phoneùs dè toũ
 ART.GEN 3SG.self-GEN brother.GEN become.PTCP.AOR.MID.NOM slayer.NOM PTCL ART.GEN
kathérantos, epeíte hēsukhíē tōn anthrōpōn egéneto perì
 purify.PTCP.AOR.ACT.GEN when quiet.NOM ART.GEN.PL man.GEN.PL become.AOR.MID.3SG about
tò sēma, (...) epi-kataspházei tōi túmbōi heōutón
 ART.ACC grave.ACC over-slay.PRS.ACT.3SG ART.DAT tomb.DAT 3SG.self.ACC
 ‘But Adrēstos, son of Gordias, son of Midas, this man who had become the slayer of his own brother and of the one who purified him, **killed himself** on the tomb when everything had gone quiet at the grave.’ (Hdt. 1.45.3)

Alternatively, the use of these two different constructions could be interpreted as mirroring the difference between voluntary/deliberate and involuntary action, as in the Dutch examples discussed in section 1.3.2 and the Modern Greek examples of reflexivized ‘naturally disjoint verbs’ in (43) (from Spathas,

Alexiadou & Schäfer 2015: 1298). The reflexive verb in (43-a) takes middle (nonactive) morphology and ‘*afto*-prefixation’, the reflexive in (43-b) takes active morphology and the complex reflexive.

- (43) a. *O Janis afto-katijori-thike.*
 the J.NOM self-accused-NACT.3SG
 ‘John accused himself.’
 b. *O Janis katijori-se ton eafto tu.*
 the John.NOM accused-ACT.3SG the self.ACC his
 ‘John accused himself.’

Moreover, naturally reflexive verbs like ‘wash’, which are usually reflexivized by nonactive morphology alone, (44-a), can also use the second strategy in contrastive contexts in MG (Spathas, Alexiadou & Schäfer 2015: 1298), (44-b).

- (44) a. *O Janis pli-thike.*
 the J.NOM washed-NACT.3SG
 ‘John washed.’
 b. Context: Did John wash Mary?
Oxi, o Janis epli-ne ton eafto tu.
 no the J.NOM washed-ACT.3SG the self.ACC his
 ‘No, John washed *himself*.’

The middle-marked uses of naturally disjoint verbs as in (40) could thus be interpreted as the semantic equivalent of (43-a), morphologically syncretic with (44-a) because there was no *afto*-prefixation in AG. The difference with respect to voice morphology between these uses and something like (42) would then be due to the difference in the status of the surface subject (patient vs. agent), as outlined in section 1.2.1 – note that this analysis is also compatible with Allan’s proposal that the latter construction involves contrastive emphasis. In that case, the middle-marked variants of these verbs are essentially analyzable as a subclass of inherent reflexives and are therefore no counterexamples to the generalization that direct reflexives are not formed through middle endings alone in AG.

35. DIRECT REFLEXIVE:

Is the construction used to denote events with direct reflexive argument structure? no

2.10.2 Construction 2 (1.3.2)

This construction is usually used to express direct reflexive relations with prototypically agentive transitive verbs, cf. (45).

- (45) a. *ekeĩnon mèn oudèn epainō, emautòn dè pségō.*
 that.DEM.ACC PTCL NEG.ADV praise.PRS.ACT.1SG 1SG.self.ACC PTCL censure.PRS.ACT.1SG
 ‘I am in no way praising that one, **I am censuring myself.**’ (Xen. Ages. 5.7)
 b. *ek-didoūsi dè autai heōtás*
 out-give.PRS.ACT.3PL PTCL self.3PLOM 3.SELF.ACC.PL
 ‘**They offer themselves** (for marriage).’ (Hdt. 1.93.4)

35. DIRECT REFLEXIVE:

Is the construction used to denote events with direct reflexive argument structure? yes

2.11 Indirect reflexive semantics

2.11.1 Construction 1 (1.3.1)

The middle endings are used to mark self-benefactives, both alternating, (46)–(47), and non-alternating ones, (48).

(46) Alternating self-benefactives

- a. Act. *pherō* ‘carry, bring’ – mid. *phéromai* ‘carry for myself, carry away; win’
- b. Act. *poiéō* ‘make, do’ – mid. *poiéomai, poiōūmai* ‘make for myself’
- c. Act. *entúnō* ‘prepare, make ready’ – mid. *entúnomai* ‘prepare sth./make sth. ready for myself’
- d. Act. *paraskeuázō* ‘prepare’ – mid. *paraskeuázomai* ‘prepare for myself’

- (47) a. *phíloi d’ amph’ autòn hetaíroi essuménōs epénonto kai*
dear.NOM.PL PTCL around self.ACC comrade.NOM.PL busily toil.IPF.MID.3PL and
entúnonto áriston
prepare.IPF.MID.3PL breakfast.ACC
‘And around him his dear comrades were busily working and **preparing breakfast for themselves.**’ (*Il.* 24.123–124)
- b. *ái k’ apokēdēsante pherōmetha kheíron áethlon*
if be.careless.PTCP.AOR.ACT.NOM.DU.M bring.PRS.SBJV.MID.1PL inferior.ACC prize.ACC
‘if (because of you two) being careless **we shall win an inferior prize.**’ (*Il.* 23.413)

(48) Non-alternating self-benefactives

- a. *áinumai* ‘take, seize’
- b. *ánumai* ‘acquire’
- c. *dékhomai* ‘receive, accept’
- d. *ktáomai* ‘acquire’
- e. *ōnéomai*, suppletive aor. (*e*)*príato* (3sg.) ‘buy’

36. INDIRECT REFLEXIVE

Is the marker used to denote an event in which the beneficiary and the agent are coreferent? yes

2.11.2 Construction 2 (1.3.2)

In Homer, the dative of *autós/auté* ‘self’ can be used as an emphatic indirect reflexive pronoun, (49).

- (49) *méga mèn kléos autēi poieit’*
great.ACC PTCL fame.ACC self.DAT do.PRS.MID.3SG
‘She **brings** great fame **to herself**’ (*Od.* 2.125–126)

The dative forms of the complex reflexive pronoun (Table 3) are also used to express the beneficiary in self-benefactive constructions, (50).

- (50) *kai ho tēn Háluos potamoū anō Asiēn pāsan sustésas*
and ART.NOM ART.ACC H.GEN river.GEN above A.ACC all.ACC unite.PTCP.AOR.ACT.NOM
heōutōi
3SG.self.DAT
‘and (he who) **united for himself** the whole of Asia beyond the river Halys.’ (*Hdt.* 1.103.2)

36. INDIRECT REFLEXIVE yes

2.12 Equivalence set with reciprocals

2.12.1 Construction 1 (1.3.1)

‘Inherent’ reciprocals, mostly verbs that mean ‘contend, fight’, can be formed by adding the middle endings without an overt reciprocal pronoun, (52), see, e.g., Allan 2003: 84–8, Conti 2006, Inglese & Zanchi 2020. Verbs that can form inherent reciprocals in this way include the forms in (51) (from Allan 2003; bold forms attested in Homer). Note that some of these are *media tantum*.

- (51) a. *agōnízomai* ‘contend, fight’
b. *akrobolízomai* ‘fight with missiles’
c. ***ameíbomai*** ‘exchange/change place with one another’ (***ameíbō*** ‘exchange sth.’)
d. ***dēriómαι, dēriáomαι, dērióomαι*** ‘fight, quarrel’
e. *philéomai* ‘kiss’ (each other, Hdt. 1.134.1)
- (52) a. *hoì mèn ameíbómenoι phulakàs ékhon*
they PTCL change.PTCP.PRS.MID.NOM.PL watch.ACC.PL keep.IPF.ACT.3PL
‘They **took turns** keeping watch’ (*Il.* 9.471)
b. *hó t’ áristoi Akhaiṓn dērióōnto*
that PTCL best.NOM.PL A.GEN.PL fight.IPF.MID.3PL
‘...that the best of the Achaeans **were quarrelling.**’ (*Od.* 8.78)

A related type of reciprocal construction consists of a middle-marked reciprocal verb plus a dative object, e.g., the verbs in (53). ‘Collective motion middles’ (Allan 2003: 82–84) such as verbs meaning ‘to mix, mingle’ (*mísgomai*) or ‘to gather’ (*ageíromai*) are also treated as a subtype of inherently reciprocal verbs here (cf. also Inglese & Zanchi 2020 on “inherently reciprocal verbs of the spatial type”).

- (53) a. *dialégomai* ‘converse (with)’
b. ***erízomai*** ‘quarrel (with)’
c. ***mákhomai*** ‘fight (with)’

37. RECIPROCAL:

Does the construction form an equivalence set with reciprocals? yes

2.12.2 Construction 2 (1.3.2)

Greek usually uses a designated reciprocal pronoun, *allélōn* (gen.), in reciprocal constructions, as in (54) (Smyth & Messing 1956: 311; Inglese & Zanchi 2020).

- (54) *amphì pólin Kaludōna kai allélous enárizon*
around city.ACC K.ACC and RECIP.ACC.PL slaughter.IPF.ACT.3PL
‘And **they slaughtered one another** about the city of Kalydon.’ (*Il.* 9.530, cit. after Inglese & Zanchi 2020: 131)

However, the complex reflexive is also used in reciprocal constructions, especially in Ionic and Attic (Schwyzer 1950: 198–199), as in (55).

- (55) *pròs heōutoús te sphéas ópsesthe naumakhéontas*
against 3.self.ACC.PL PTCL 3PL.ACC see.FUT.MID.2PL do.seabattle.PTCP.PRS.ACT.ACC.PL

‘You will see them **fighting (by sea) against each other** (/among themselves).’ (Hdt. 8.75.3)

37. RECIPROCAL: yes

2.13 Equivalence set with passives

2.13.1 Construction 1 (1.3.1)

The middle/nonactive endings are used in passive contexts throughout the history of Greek in the imperfective tenses (present & imperfect) and in the AG perfect, pluperfect, and future, e.g., (56). See further Schwyzler 1950: 236–41, Jankuhn 1969, Allan 2003: 58–59, George 2005: 2–16, etc.

- (56) a. *ẽ soì árista pepoiētai katà oĩkon pròs Tróōn*
PTCL 2SG.DAT best.NOM.PL do.PF.MID.3SG towards house.ACC from/by T.GEN
‘(So) were **the best things done** to you in your house **by the Trojans?**’ (*Il.* 6.56–57)
- b. *hòs ára puknà karéath’ hup’ Héktori dámnato laōn*
so then many.NOM.PL heads.NOM.PL by H.DAT subdue.IPF.MID.3SG men.GEN
‘Thus many heads of the men **were** then **subdued by Hector.**’ (*Il.* 11.309)

In the perfective (aorist stem), a designated passive suffix *-thē-* (older *-ē-*, *-thē-*) develops that obligatorily takes the *active* endings (this is descriptively still the case in MG, where the perfective nonactive takes the same set of endings as the perfective and imperfective active; see Holton, Mackridge & Philippaki-Warburton 1997: 116, 124). On the formal and functional distribution of middle-marked vs. *-(th)ē-* passives, cf., e.g., Smyth & Messing 1956: 394–398, Bakker 1994, Allan 2003: ch. 3, Lavidas 2012, Benedetti 2017, Grestenberger 2021.

38. PASSIVE:

Does the construction form an equivalence set with passives? yes

2.13.2 Construction 2 (1.3.2)

38. PASSIVE: no

2.14 Equivalence sets with facilitatives

Facilitatives (e.g., Engl. *the bread cuts easily*) are formed using the nonactive endings in Modern Greek (“dispositional middles”, e.g., Lekakou 2005, Alexiadou & Doron 2012), but it is unclear whether this function also existed in Ancient Greek. In Modern Greek, it is analyzed as a type of generic middle/passive (Lekakou 2005, Alexiadou, Anagnostopoulou & Schäfer 2015); see also section 2.15.

39. FACILITATIVE:

Is the construction used in contexts where ease of execution is stressed? No?

40. FACILITATIVE-IMPERSONAL:

If so, is the construction used in impersonals? NA

2.14.1 Construction 2

39. FACILITATIVE: NA

40. FACILITATIVE-IMPERSONAL: NA

2.15 Equivalence set with impersonal constructions

2.15.1 Construction 1 (1.3.1)

Impersonal verbs in Greek are morphologically *active* (3sg.), e.g., *deĩ* ‘it is necessary’ (lit. ‘it needs’), *neĩphei* ‘it snows’, *khreĩ* ‘it is necessary’ (originally a noun ‘need’, lit. ‘there is need’), *dokeĩ* ‘it seems’, *prepei* ‘it is fitting/becoming’, etc. Whether the middle endings are systematically used to form impersonal constructions (e.g., generic or facilitative constructions; impersonal passives) is controversial. Allan (2003: 44) denies that this cross-linguistically common function of the middle voice exists in Greek, while George (2005: 85) and Van Emde Boas et al. (2019: 465, 469) suggest that the passive use of formally middle (plu)perfects as in (57) can be classified as impersonal construction.

(57) *edē dē ēn opsē kai epepaiānisto autoĩs hōs es epíploun*
already PTCL be.IPF.ACT.3SG late and paean.sing.PLUPF.MID.3SG 3PL.DAT as into attack.ACC
‘It was already late and **the paean had been sung by them** as if for the attack’ (Thuc. 1.50.5, cit. after Van Emde Boas et al. 2019: 465)

However, the fact that this use is restricted to the perfect stem and is not a general property of the middle endings suggests that examples like (57) are better analyzed as passives in which the agent is expressed in the dative (‘dative of agent’), which is common for perfect passives in post-Homeric Greek (see Goldstein 2019; Goldstein 2021 on the Homeric and post-Homeric dative of agent).

41. IMPERSONAL

Does the construction form an equivalence set with impersonal constructions? no

2.15.2 Construction 2 (1.3.2)

41. IMPERSONAL no

2.16 Equivalence set with anticausatives

2.16.1 Construction 1 (1.3.1)

The syncretic middle endings are found in oppositional anticausatives, Table 6.

Table 6: Middle-marked oppositional anticausatives (ex. from Allan 2003: 60–61)

| | | | |
|--------------------|--------------------------|-------------------|------------------------------------|
| <i>(ap)óllumai</i> | ‘die, perish’ | <i>(ap)óllūmi</i> | ‘destroy’ |
| <i>auksánomai</i> | ‘grow’ (itr.) | <i>auksánō</i> | ‘grow’ (tr.) |
| <i>sépomai</i> | ‘rot’ | <i>sépō</i> | ‘make rotten’ |
| <i>tréphomai</i> | ‘grow up’ | <i>tréphō</i> | ‘cause to grow up, raise, nourish’ |
| <i>rhégnomai</i> | ‘break, burst’ | <i>rhégnūmi</i> | ‘break sth.’ |
| <i>leukaínomai</i> | ‘become white’ | <i>leukaínō</i> | ‘make white, whiten’ |
| <i>phaínomai</i> | ‘become visible, appear’ | <i>phaínō</i> | ‘make visible, show’ |

As Allan (loc.cit.) notes, these are often ambiguous (or rather ‘syncretic’, in terms of the ‘voice syncretism’ account mentioned in section 1.2.1) between a spontaneous event and an externally caused event reading, e.g., (*ap*)*óllumai* ‘die, perish’ vs. ‘be destroyed’. There are only a few non-oppositional spontaneous event verbs, and these are not necessarily middle-marked, e.g., (58).

- (58) *thámnos é-phū tanú-phullos elaiēs hērkeos entós*
 bush.NOM AUG-grow.AOR.ACT.3SG stretched-leaf.ADJ.NOM olive.tree.GEN court.GEN inside
 ‘A long-leafed bush of olive **was growing** inside the courtyard’ (*Od.* 23.190)

Note that this verb also alternates between active (causative) and middle (anticausative/spontaneous event), like the verbs in Table 6, cf. (59) (from Allan 2003: 60); in the present and s-aorist already in Homer.

- (59) (...) *pélas tōn kēpōn (...) en toīsi phúetai autómata*
 near ART.GEN.PL garden.GEN.PL in which grow.PRS.MID.3SG by.self.ADJ.NOM.PL
rhóda
 rose.NOM.PL
 ‘(...) near the gardens (...), wherein roses **grow** of themselves’ (*Hdt.* 8.138.2)

42. ANTICAUSATIVE

Does the construction form an equivalence set with oppositional anticausatives? yes

43. SPONTANEOUS EVENT

Is the construction used on non-oppositional anticausatives to denote spontaneous events? no

2.16.2 Construction 2 (1.3.2)

42. ANTICAUSATIVE no

43. SPONTANEOUS EVENT no

2.17 Equivalence set with antipassives

2.17.1 Construction 1 (1.3.1)

44. ANTIPASSIVE

Does the construction form an equivalence set with antipassive constructions? no

2.17.2 Construction 2 (1.3.2)

44. ANTIPASSIVE no

2.18 Further semantic restrictions on reflexive or middle constructions

2.18.1 Construction 1 (1.3.1)

The middle endings are found in a number of other (mostly non-alternating) contexts broadly consistent with typological descriptions of middle/‘reflexive’ morphology (e.g., Geniušienė 1987; Kemmer 1993; Zúñiga & Kittilä 2019, Inglese 2021). Among these are (alternating) grooming and body action verbs, which were already discussed in section 1.3.1 (see examples there). Non-translational motion verbs also usually alternate, cf. Table 7.

Table 7: Middle-marked oppositional non-translational motion verbs (ex. from Allan 2003: 77)

| | | | |
|-------------------|----------------------------------|----------------|------------------------------|
| <i>orégomai</i> | ‘stretch oneself out, reach out’ | <i>orégō</i> | ‘stretch out (one’s arm(s))’ |
| <i>stréphomai</i> | ‘turn around’ (itr.) | <i>stréphō</i> | ‘turn around’ (tr.) |
| <i>tánumai</i> | ‘stretch oneself out’ | <i>tanúō</i> | ‘stretch out’ (tr.) |
| <i>trépomai</i> | ‘turn’ (itr.) | <i>trépō</i> | ‘turn’ (sth.) |

Table 8: Middle-marked oppositional change in body posture verbs (ex. from Allan 2003: 78)

| | | | |
|-------------------------------|-----------------------------|----------------------------|-------------------------|
| <i>hístamai</i> | ‘stand, stand up’ | <i>hístēmi</i> | ‘set up, make to stand’ |
| (<i>kath</i>) <i>ízomai</i> | ‘take one’s seat, sit down’ | (<i>kath</i>) <i>ízō</i> | ‘make sit down’ |
| <i>klínomai</i> | ‘lean’ | <i>klínō</i> | ‘cause to lean’ |

However, the active forms of *hízō* in Table 8 are used intransitively in Homer, e.g., (60), and in the aorist the equivalent of middle *hístamai* ‘stand’ is the inherited *active* root aorist 1sg. (*é-*)*stēn*. This suggests that at least some body action verbs may have originally inflected as active only verbs (*activa tantum*).

- (60) *kaì es thrónon híze* *par’ Alkínoon basilēa*
 and on seat.ACC sit.IPF.ACT.3SG by A.ACC king.ACC
 ‘... and he **sat down on a seat** next to king Alkinoos.’ (*Od.* 8.469)

Translational motion verbs alternate in Classical Greek, cf. Table 9.

Table 9: Middle-marked oppositional translational motion verbs (ex. from Allan 2003: 78)

| | | | |
|------------------|--------------------|---------------|--------------------|
| <i>komízomai</i> | ‘travel’ | <i>komízō</i> | ‘carry, bring’ |
| <i>hormáomai</i> | ‘start off’ | <i>hormáō</i> | ‘set in motion’ |
| <i>poreúomai</i> | ‘go, walk’ | <i>poréuō</i> | ‘make to go’ |
| <i>stéllomai</i> | ‘set out, journey’ | <i>stéllō</i> | ‘make ready, send’ |

However, there are a number of partially inherited (mostly translational) non-alternating middle-marked motion verbs (some only in Homer), that suggest that this class was originally *medium tantum*, (61), cf. Allan 2003: 79, Grestenberger 2014: 90.

- (61) Non-oppositional (translational) motion verbs
aléomai ‘avoid, flee’, *hállomai* ‘leap’, *hépomai* ‘follow, accompany’, *érkhomai* ‘come, go (to)’, *hiknéomai* ‘arrive at, reach’, *néomai* ‘return’, *pétomai* ‘fly’, *seúomai* ‘rush (at)’, *phébomai* ‘flee (from)’, *kházomai* ‘fall back, withdraw (from)’, etc.

Verbs of cognition are usually *media tantum* (‘mental activity middles’, Allan 2003: 101), (62).

- (62) Non-alternating verbs of cognition (Allan 2003: 101)
bouleúomai ‘take counsel, plan, resolve’, *médomai* ‘be mindful of’, *médomai* ‘plan, contrive’, *semáinomai* ‘infer from signs, conjecture’, *tekmaíromai* ‘judge from signs, conjecture’, *epi-*, *peri-*, *sum-phrázomai* ‘consider carefully, devise’, etc.

While some of these can undoubtedly be reconstructed as *media tantum* (on *médomai/médomai* cf. Grestenberger 2016; cf. also *maínomai* ‘rage’ and its cognates Ved. *mányate* ‘think’, OIr. *-mainethar* ‘think’, etc.), there are also a number of *active* verbs of cognition in Greek, e.g., *axióō* ‘think, consider worthy’, *gignóskō* ‘(come to) know, recognize’ (cf. Lat. (*g*)*nōscō*), *phronéō* ‘be minded to, be prudent; think’, *noéō* ‘perceive; think, consider’.

Verbs of emotion ('mental process middles', Allan 2003: 64–76) and emotive speech act verbs are usually media tantum (see Luraghi & Sausa 2015 on the syntax of these verbs in Homer and Luraghi 2020 on Homeric experiencer/experiential verbs in general), (63)-(64).

- (63) Non-alternating middle-marked verbs of emotion (Allan 2003: 66–67, Grestenberger 2014: 296ff.)
aídomai, aidéomai 'be reverent of, fear', *ágamai, agáomai* 'admire, envy', *ákthomai* 'be grieved with', *hádomai* 'be in awe of', *atúdomai* 'be bewildered by, amazed at', *boúlomai* 'want', *éramai* 'love', *(e)éldomai* 'wish (for)', *maínomai* 'rage', *mémphomai* 'be angry at, blame', *olophúromai* 'take pity on', *sebázomai, sébomai* 'be in awe of, fear', *khóomai* 'be angry at'
- (64) Non-alternating middle-marked (emotive) speech act verbs (Allan 2003: 105–112)
eúkhomai 'praise, declare', *líssomai* 'beg, demand', *eíromai* 'ask, question', *kélomai* 'urge, command', *psédomai* 'lie, belie', *steūmai* 'promise, declare to'

However, there is also a large group of active/alternating speech act verbs in Greek (some of which are undoubtedly inherited), e.g., *aitéō* 'beg, demand', *phēmi* 'say', aor. *eīpon* 'said', *kaléō* 'call, summon', *kleíō, kléō* 'tell of, make famous', *ómnūmi* 'swear' (cf. Grestenberger 2014: 60–62), and the semantic and syntactic difference between these and the class in (64) isn't always clear-cut (for example, both classes take accusative objects). Kemmer (1993: 127ff.) discusses speech act verbs together with other 'cognition middles' and appeals to the notion of subject affectedness for middle-marked emotive speech act verbs. She also points out that these verbs tend to diachronically develop from verbs denoting mental states and may thus inherit the middle marking that is also characteristic of cognition or 'psychological state' verbs (psych-verbs).

Some verbs of emotion or 'mental process verbs' (Allan) can moreover form oppositional, formally active causatives, cf. Table 10. Although the oppositional causative is almost always diachronically younger than the corresponding middle, synchronically these can be considered alternating (cf. the discussion of object experiencer verbs in Grestenberger 2014: 56–57 and Luraghi 2020: ch. 9).

Table 10: Middle-marked oppositional verbs of emotion (Allan 2003: 66)

| | | | |
|----------------------------|------------------------|-----------------|---------------------------------|
| <i>aiskhúnomai</i> (+ dat) | 'be ashamed for/about' | <i>aiskhúnō</i> | 'cause to be ashamed; dishonor' |
| <i>élpomai</i> | 'hope' | <i>élpō</i> | 'cause to hope' |
| <i>hédomai</i> | 'enjoy (oneself)' | <i>hédō</i> | 'please, delight' |
| <i>mimnéskomai</i> | 'remember' | <i>mimnéskō</i> | 'remind' |
| <i>peíthomai</i> | 'believe, obey' | <i>peíthō</i> | 'persuade' |
| <i>téropomai</i> | 'enjoy' | <i>térpō</i> | 'please' |
| <i>phobéomai</i> | 'flee in panic' | <i>phobéō</i> | 'cause to flee in panic; scare' |

Verbs of reaction are also marked with middle morphology, e.g., *(ap-)anaínomai* 'refuse, deny', *arnéomai* 'refuse, deny'. Verbs that mean 'defend, ward off, protect' are usually morphologically active (e.g., *aléksō* 'ward off, defend', *amúnō* 'ward off, keep away', *phulássō* 'protect, guard'), but the continuants of PIE **uer* 'ward off, keep away', Gk. *érūmai, erúomai, rhúomai, rhūmai* 'protect, guard, defend', are media tantum (see Grestenberger 2016, Merritt Forthcoming on the Greek and IE reflexes of this root).

There are two additional verb classes in which middle morphology is regularly found. First, verbs of perception (*hear, feel, see*, etc.) usually take middle morphology (*geúo-mai* 'taste' also forms a formally active oppositional causative *geú-ō* 'cause to taste'), illustrated in Table 11, cf. Allan 2003: 95–101.

Table 11: Middle-marked non-oppositional verbs of perception (ex. from Allan 2003: 98)

| | |
|---------------------|----------------------|
| <i>aisthánomai</i> | ‘perceive, notice’ |
| <i>punthánomai</i> | ‘hear; learn’ |
| <i>epístamai</i> | ‘understand’ |
| <i>theáomai</i> | ‘look at, marvel at’ |
| <i>sképtomai</i> | ‘look at’ |
| <i>osphraínomai</i> | ‘smell’ |
| <i>akouázomai</i> | ‘listen’ |

These are semantically and syntactically similar to the non-alternating verbs of cognition and emotion (‘mental activity middles’, ‘mental process middles’) discussed above. However, Allan 2003: 158–160 argues that perception verbs and ‘mental process middles’ can be distinguished by their aorist formations: While perception verbs usually form middle *s*-aorists (e.g., *geúomai* ‘taste’, aor. *egeusámēn*; *theáomai* ‘marvel at’, aor. *etheasámēn*; *sképtomai* ‘look at’, aor. *eskepsámēn*), mental process middles tend to form *-(th)ē-* (‘passive’) aorists.

There are also a number of morphologically *active* verbs of perception, e.g., *blépō* ‘look at, see’, *akoúō* ‘hear’, *klúō* (aor. *ékluon*) ‘listen’, *horáō* (suppletive aor. *eídon*) ‘see’, etc., some of which alternate with syntactically passive middles (‘is heard’, etc.), cf. further Benedetti 2012, 2014 on perception verbs in Greek.

The second ‘other’ class of interest is the so-called ‘causative middle’ (Smyth & Messing 1956: 392, Duhoux 2000: 116, Allan 2003: 115–118), e.g., (65).

- (65) *è ouk akékoas hóti Themistoklēs Kleóphanton tòn huòn hippéa mèn*
 or NEG hear.PF.ACT.2SG that Th.NOM K.ACC ART.ACC son.ACC horseman.ACC PTCL
edidáksato agathón
 teach.AOR.MID.3SG good.ACC
 ‘Have you never heard how Themistocles **had his son Cleophantus taught** to be a good horse-
 man?’ (Pl. *Men.* 93d, cit. after Allan 2003: 116)

Allan treats this as a subtype of the indirect reflexive middle, arguing that Themistokles in (65) is the beneficiary of the event, and compares the causative middle reading to ‘perspective-changing middles’ from three-place predicates with (recipient) dative objects and accusative themes or patients, such as *rent, lend, pay, sell*, etc., where the recipient becomes the subject of the middle-marked verb. However, he also points out that formally *active* transitive verbs can also occur with these unexpected causative readings, so it is not at all clear that the term ‘causative middle’ exhaustively describes this phenomenon.

45. GROOMING

Is the construction used to denote grooming events? yes

46. GROOMING: NON-OPPOSITIONAL

If so, is the reflexive marker non-oppositional? no

47. GROOMING: REDUNDANCY

Or is the marker redundant throughout the paradigm and therefore optional? no

48. NONTRANSLATIONAL MOTION

Is the construction used to denote nontranslational motion? yes

49. NONTRANSLATIONAL MOTION: NON-OPPOSITIONAL no

50. NONTRANSLATIONAL MOTION: REDUNDANCY no

51. CHANGE IN BODY POSTURE

Is the construction used to denote changes in body posture? yes

52. CHANGE IN BODY POSTURE: NON-OPPOSITIONAL no

53. CHANGE IN BODY POSTURE: REDUNDANCY no

54. TRANSLATIONAL MOTION

Is the construction used to denote translational motion? yes

55. TRANSLATIONAL MOTION: NON-OPPOSITIONAL yes

56. TRANSLATIONAL MOTION: REDUNDANCY no

57. COGNITION

Is the construction used to denote cognitive processes? yes

58. COGNITION: NON-OPPOSITIONAL yes

59. COGNITION: REDUNDANCY no

60. EMOTION

Is the construction used to denote emotional states? yes

61. EMOTION: NON-OPPOSITIONAL yes

62. EMOTION: REDUNDANCY no

63. EMOTIVE SPEECH ACTS

Is the construction used to denote emotive speech acts? yes

64. EMOTIVE SPEECH ACTS: NON-OPPOSITIONAL yes

65. EMOTIVE SPEECH ACTS: REDUNDANCY no

66. REACTION

Is the marker used to denote events in which agents react to some other event? yes

67. REACTION: NON-OPPOSITIONAL yes

68. REACTION: REDUNDANCY no

69. OTHER TYPES

Is the construction used to systematically denote other types of events? yes

70. OTHER TYPES: NON-OPPOSITIONAL no

71. OTHER TYPES: REDUNDANCY no

2.18.2 Construction 2 (1.3.2)

Construction 2 is canonically found in direct reflexive contexts with prototypically agentive verbs, but occasionally with other semantic verb classes as well. None of these are non-oppositional, however.

Grooming verbs and body-part reflexives occasionally occur with active morphology and complex reflexive pronouns from Homer on, as in (66), but the use of the middle endings alone (= construction 1, 1.3.1) remains canonical in these contexts.

- (66) a. *eũ entúnasan* *hè autēn*
well get.ready.PTCP.AOR.ACT.ACC 3SG.ACC self.ACC
'Having gotten herself ready' (*Il.* 14.162)
- b. *kálupse* *dè kalà* *prósōpa*
cover.AOR.ACT.3SG PTCL handsome.ACC face.ACC
'he covered his handsome face' (*Od.* 8.85)

The use of this construction with verbs that mean 'hide', 'cover', as in (67-a), could be classified as body action reflexive, as change in body posture, or as motion verb, cf. also (67-b-c). However, these are all canonical uses of this construction in the sense that they are (subclasses of) direct reflexives.

- (67) a. *mé pōs moi deísantes* *apollékseian* *hetaĩroi*
NEG how 1SG.DAT be.afraid.PTCP.AOR.NOM.PL cease.AOR.OPT.ACT.3PL comrade.NOM.PL
eiresiēs entòs dè pukázoiēn sphéas autoús
rowing.GEN inside PTCL cover.PRS.OPT.ACT.3PL 3PL.ACC self.ACC.PL
'So that my comrades would not somehow out of fear cease the rowing, but **hide themselves** inside.' (*Od.* 12.224–225)
- b. *hoi dé te purgēdōn sphéas autoús artúnantes*
they PTCL and wall.like.ADV 3PL.ACC self.ACC.PL arrange.PTCP.PRS.ACT.NOM.PL
'and they (were) **arranging themselves** like a wall' (*Il.* 12.43; cf. 12.86, 13.152)
- c. *hai gār gunaīkes [...] he-autàs epikateríptoun*
ART.NOM.PL for woman.NOM.PL 3-self.ACC.PL down.throw.IPF.ACT.3PL
'For the women **threw themselves down**' (*Xen. Anab.* 4.7.13, cit. after Kiparsky 2012: 90)

45. GROOMING yes

46. GROOMING: NON-OPPOSITIONAL no

47. GROOMING: REDUNDANCY no

48. NONTRANSLATIONAL MOTION yes

49. NONTRANSLATIONAL MOTION: NON-OPPOSITIONAL no

50. NONTRANSLATIONAL MOTION: REDUNDANCY no

- 51. CHANGE IN BODY POSTURE no
- 52. CHANGE IN BODY POSTURE: NON-OPPOSITIONAL NA
- 53. CHANGE IN BODY POSTURE: REDUNDANCY NA
- 54. TRANSLATIONAL MOTION no
- 55. TRANSLATIONAL MOTION: NON-OPPOSITIONAL NA
- 56. TRANSLATIONAL MOTION: REDUNDANCY NA
- 57. COGNITION no
- 58. COGNITION: NON-OPPOSITIONAL NA
- 59. COGNITION: REDUNDANCY NA
- 60. EMOTION no
- 61. EMOTION: NON-OPPOSITIONAL NA
- 62. EMOTION: REDUNDANCY NA
- 63. EMOTIVE SPEECH ACTS no
- 64. EMOTIVE SPEECH ACTS: NON-OPPOSITIONAL NA
- 65. EMOTIVE SPEECH ACTS: REDUNDANCY NA
- 66. REACTION no
- 67. REACTION: NON-OPPOSITIONAL NA
- 68. REACTION: REDUNDANCY NA
- 69. OTHER TYPES no
- 70. OTHER TYPES: NON-OPPOSITIONAL NA
- 71. OTHER TYPES: REDUNDANCY NA

2.19 Telicity

2.19.1 Construction 1 (1.3.1)

72. TELICITY INVERSION

Is the construction used to invert the telicity of the denoted event? no

2.19.2 Construction 2 (1.3.2)

72. TELICITY INVERSION no

2.20 Equivalence set with intransitives not covered in sections 2.10–2.19

2.20.1 Construction 1 (1.3.1)

There are a few intransitive verbs which occur with both active and middle endings without any discernible semantic difference, e.g., (68).

- (68)
- a. *brémō* – *brémomai* ‘roar’
 - b. *dakrúō* – *dakrúomai* ‘cry’
 - c. *lámpō* – *lámpomai* ‘shine’
 - d. *nékhō* – *nékhomai* ‘swim’
 - e. *speúđō* – *speúđomai* ‘speed’

Allan (2003: 207) cites these (among other) forms as part of a broader discussion of active–middle ‘synonyms’ which also includes transitive examples, so this equivalence is not restricted to intransitive classes (see also Schwyzer 1950: 232–233). It seems to concern verb classes that could be interpreted as ambiguous as to whether they belong to one of the canonical classes of non-alternating middles (*media tantum*) discussed in section 2.18, especially those classes which cross-linguistically tend to show variation in whether or not they are construed as canonical middles, such as verbs of (emotive) speech or sound emission and verbs of motion.

73. INTRANSITIVE

Does the construction form an equivalence set with intransitives not covered in sections 3.10–3.19? yes

74. MARKER OBLIGATORY WITH INTRANSITIVES

If so, is the marker obligatory with some of the intransitive uses covered here? yes

2.20.2 Construction 2 (1.3.2)

73. INTRANSITIVE no

74. MARKER OBLIGATORY WITH INTRANSITIVES NA

2.21 Equivalence set with transitives not covered in sections 2.10–2.19

2.21.1 Construction 1 (1.3.1)

The middle endings in Greek are obligatory for a small set of transitive agentive verbs which would otherwise be expected to take active endings, i.e., there is a mismatch between form and function (*deponents*, or transitive *media tantum*). Some Homeric examples are given in column a) of Table 12 (see Grestenberger 2014: 91, 296–314 for a more detailed discussion of Ancient Greek deponents). To illustrate that these are semantically and syntactically equivalent to canonical agentive *active*-marked verbs, the corresponding non-deponent active (quasi-)synonyms (where available) are listed in column b).

For arguments that these verbs are syntactically equivalent to active-marked agentive verbs see Grestenberger 2018. On the diachrony of deponents in Greek see Lavidas & Papangeli 2007.

Table 12: (Homeric) Greek deponents and semantically similar active transitive verbs

| a. Deponent | | b. Non-deponent alternating | |
|------------------------|----------------------------|-----------------------------|----------------------------------|
| <i>daíomai</i> | ‘distribute, give a share’ | <i>némō</i> | ‘deal out, dispense, distribute’ |
| <i>dēléomai</i> | ‘hurt, spoil’ | <i>iáptō</i> | ‘hurt, spoil’ |
| <i>dízēmai</i> | ‘seek’ | <i>ereunáō</i> | ‘seek, search for, track’ |
| <i>erúomai, érūmai</i> | ‘watch out for, protect’ | <i>phuláttō</i> | ‘guard, protect’ |
| <i>eúkhomai</i> | ‘praise, pray’ | <i>litaneúō</i> | ‘pray’ |
| <i>íptomai</i> | ‘press, oppress’ | <i>epeígō</i> | ‘press, urge on’ |
| <i>kaínomai</i> | ‘surpass, excel’ | <i>aristeúō</i> | ‘be best (at)’ |
| <i>kélomai</i> | ‘exhort, urge’ | <i>keleúō</i> | ‘urge, drive on’ |
| <i>médomai</i> | ‘contrive, devise’ | <i>bouleúō</i> | ‘deliberate (on), devise’ |
| <i>ónomai</i> | ‘scorn’ | — | |
| <i>sínomai</i> | ‘harm, hurt; plunder’ | <i>pēmaínō</i> | ‘ruin, damage’ |

- (69) a. *tákha d’ ípsetai huías Akhaiōn*
soon PTCL press.FUT.MID.3SG son.ACC.PL A.GEN.PL
‘Soon he **will oppress** the sons of the Achaeans’ (*Il.* 2.193)
- b. *háte dè eóntes diáphoroi edēléonto autoús*
inasmuch PTCL be.PTCP.PRS.ACT.NOM.PL at.odds.NOM.PL damage.IPF.MID.3PL 3PL.ACC
‘While they (= the Aeginetans_i and the Epidaurians_j) were adversaries, they_i **kept doing damage** to them_j’ (*Hdt.* 5.83.2)

75. TRANSITIVE yes

76. OBLIGATORY WITH TRANSITIVES yes

2.21.2 Construction 2 (1.3.2)

75. TRANSITIVE

Does the marker form an equivalence set with transitives not covered in sections 3.10–3.19? no

76. OBLIGATORY WITH TRANSITIVES

If so, is the construction obligatory with some transitive verbs covered here? NA

2.22 Unpredictability

2.22.1 Construction 1 (1.3.1)

Apart from the active–middle ‘synonyms’ discussed in sections 2.20 and 2.21, Greek also has a few verbs which can take both active and non-active inflection and in which the meaning change is not predictable from the usual canonical alternation types. Allan (2003: 210–29) discusses the following examples, among others:

- (70) a. CG *hormáō* ‘rush (up to), march (against)’ – *hormáomai* ‘start off, leave’ (itr.)
b. Hom. *peiráō* ‘make an attempt on (by force), try’ – *peiráomai* ‘test, try, investigate (by questioning)’
c. Xen. *politeúō* – *politeúomai* ‘be/act as a citizen’
d. *Hdt.* *strateúō* ‘advance with an army; wage war’ – *strateúomai* ‘serve in the army’

The active and middle forms of (70-a) do not show any discernible differences in Homer according to Allan, but they do show a telicity/Aktionsart difference in Classical Greek, in that the active variant is durative-atelic, whereas the middle variant is ingressive or inchoative. In the case of (70-b), the middle voice is supposedly motivated by “an element of *cognition*” (Allan 2003: 223, emphasis in the original), while in (70-c) even Allan admits that the active and middle forms seem to be used interchangeably by most authors, but speculates that the middle forms could be interpreted as self-benefactives (and, bizarrely, as a body motion middle in the case of (70-d)). Whatever the original motivation of the alternation may be, it seems to have been obscured by semantic changes and/or dialectal and idiolectal variation in how individual lexemes are treated with respect to the assignment of active vs. middle inflection (which is why the author or period of each pair is given in (70)). In that sense, these examples are similar to the transitive deponents discussed in section 2.21, which most likely also arose from reanalyzed canonical middles (Grestenberger 2016), but with an (at least diachronically) motivateable active counterpart.

77. UNPREDICTABILITY

Are there cases where the semantics of the reflexive construction is not predictable from the semantics of the non-reflexive counterpart? yes

2.22.2 Construction 2 (1.3.2)

77. UNPREDICTABILITY no

2.23 Denominal reflexives

2.23.1 Construction 1 (1.3.1)

The middle inflection of Greek denominal media tantum can for the most part be synchronically motivated by one of the canonical functions of middle morphology also seen in primary (root-derived) verbs, e.g., reciprocal, as in *ankázomai* ‘take into one’s arms, embrace’ (*ankás* ‘in the arms’, adv.); subject experiencer/cognition/emotion, as in *nemesízomai* ‘be angry with, fear’ (*némesis* ‘retribution’), *opízomai* ‘revere’ (*ópis* ‘reverence’); self-benefactive, as in *oinízomai* ‘supply oneself with wine’ (*oínos* ‘wine’), etc. (see the study on Modern Greek denominal media tantum in Zombolou & Alexiadou 2014 for this argument). In these cases, then, the middle inflection is motivated by the synchronic argument structure and meaning of the verb, rather than by the fact that it happens to be denominal.

However, there are also a few verbs in which the motivation is synchronically less clear and which could be classified as denominal deponents (in the sense of Grestenberger 2018, with an agent subject). Some examples are given in table 13 (see Grestenberger 2014: 91; 314 for further examples).

| Present | Meaning | Base |
|------------------------------|-------------------|---|
| <i>aitiáomai</i> | ‘accuse, blame’ | <i>aitios</i> ‘responsible’, <i>aitiā</i> ‘blame, charge’ |
| <i>akéomai (ex-)</i> | ‘heal, repair’ | <i>ákos</i> ‘cure’ |
| <i>gounázomai, gounóomai</i> | ‘implore’ | <i>gónu</i> ‘knee’ |
| <i>ergázomai</i> | ‘work’ | <i>érgon</i> ‘work’ |
| <i>manteúomai</i> | ‘prophesy’ | <i>mántis</i> ‘prophet’ |
| <i>mētiomai</i> | ‘devise’ | <i>mētis</i> ‘wisdom, skill’ |
| <i>mūthéomai (apo-)</i> | ‘relate, tell’ | <i>mūthos</i> ‘speech, tale’ |
| <i>odúromai</i> | ‘lament, bewail’ | <i>odúnē</i> ‘pain’ |
| <i>dia-skopiáomai</i> | ‘spy out’ | <i>skopiā</i> ‘look-out place’ |
| <i>tekmaíromai</i> | ‘assign, ordain’ | <i>tékmar</i> ‘mark, sign’ |
| <i>kharízomai</i> | ‘bestow, gratify’ | <i>kháris</i> ‘grace, favor’ |

Table 13: Denominal deponents

Nevertheless, it must be emphasized again that these are *not* middle because they are denominal, since morphologically active denominal verbs with similar meanings and/or argument structure (‘quasi-synonyms’) can easily be found, e.g., *epiorkéō* ‘swear a false oath, forswear’ (*epiorkos* ‘falsely sworn, false oath’), *kosméō* ‘arrange, order’ (*kósmos* ‘order’), *pēmaínō* ‘ruin, damage’ (*pēma* ‘misery, ruin’), etc. Rather, their middle inflection must have become synchronically opaque in the course of lexical-semantic change in the meaning of these verbs, as in the case of the primary deponents discussed in section 2.21. This is also suggested by the fact that the synchronic semantic bases of these verbs sometimes diverge morphologically, e.g., *odúromai* must originally have been derived from a heteroclitic stem variant **odūr-* rather than the variant **odŭn-* continued in *odúnē*, *manteúomai* looks like it was derived from a stem **manteús*, etc.

78. DENOMINAL REFLEXIVE

Can the reflexive construction be used in denominal verbs (in virtue of them being denominals)? no

2.23.2 Construction 2 (1.3.2)

78. DENOMINAL REFLEXIVE no

2.24 Binding

2.24.1 Construction 1 (1.3.1)

The reflexively used middle endings do not allow long distance binding or logophoric use.

79. LONG DISTANCE BINDING

Is the marker bound from outside its narrow domain? no

80. LOGOPHOR

If so, Is the marker used as a logophor? no

2.24.2 Construction 2 (1.3.2)

Both the complex reflexive and the simple pronouns can be bound from outside their local domain. Long distance binding of complex reflexives, (71), and simple pronouns, (72), occurs when the antecedent of the pronoun is outside its local domain. Van Emde Boas et al. (2019: 345) define these as “pronouns in a

subordinate construction (subordinate clauses, infinitive or participle constructions), which refer back to an element in the main/matrix clause” (cf. also Schwyzler 1950: 194–195 on these uses).

- (71) a. *parekeleúonto dè autōi pántes; hósoiper dieléonto [mē*
 urge.IPF.MID.3pl PTCL 3SG.DAT all.NOM.PL all.who.NOM.PL converse.IPF.MID.3PL NEG
mákhesthai, all' ópisthen heautōn; táttesthai]
 fight.INF.PRS.MID but behind 3.self.GEN.PL fall.in.INF.PRS.MID
 ‘**All**_i who conversed with him urged him not to fight, but to fall in behind **them**_i.’ (Xen. *An.* 1.7.9)
- b. *kàì ou toīs eisēgēsaménois taūt' epitimō, (...)*
 and NEG ART.DAT.PL introduce.PTCP.AOR.MID.DAT.PL DEM.ACC.PL blame.PRS.ACT.1SG
all' humīn, ei taūth' hikanà humīn autoīs hupolambánet'
 but 2PL.DAT if DEM.ACC.PL sufficient.ACC.PL 2PL.DAT self.DAT.PL assume.PRS.ACT.2PL
eīnai
 be.INF.PRS.ACT
 ‘I do not blame those who have introduced these measures, but you, if you_i think that these things are sufficient **for you**_i.’ (Dem. 13.30, cit. after Van Emde Boas et al. 2019: 347).
- (72) a. *akoúōi [perì emōi; Thēraménēn állois te lógous*
 hear.PRS.ACT.1SG about 1SG.GEN Th.ACC other.ACC.PL and word.ACC.PL
blasphémous eirékēnai]
 slanderous.ACC.PL utter.PF.INF.ACT
 ‘I hear that Theramenes has uttered other slanderous statements **about me**’ (Dem. *Letters* 4, cit. after Kiparsky 2012: 91)
- b. *taútas; stásas katà prúmnēn tēs neòs [*
 DEM.ACC.PL stand.PTCP.AOR.ACT.ACC.PL about stern.ACC ART.GEN ship.GEN
ōnéesthai tōn phortíōn tōn sphi; ēn
 bargain.INF.PRS.MID ART.GEN.PL ware.GEN.PL REL.GEN.PL 3PL.DAT be.IPF.ACT.3SG
thumòs málista]
 mind.NOM most
 ‘As these_i (women) were standing about the stern of the ship to bargain for the wares which pleased **them**_i most, ...’ (Hdt. 1.1.4, cf. Powell 1933: 214–215)

However, the use of the first and second person complex reflexives in these contexts, as in (71-b), is actually very rare, and in the third person, the complex reflexive not only competes with the unaccented simple pronouns of the third singular, as in (72-b), but also with *min* (*autón/autén*), (73), and *autós*, (74).

- (73) a. ... *hikéteue; [mé min; anankaiēi endéein diakrīnai*
 beg.IPF.ACT.3SG NEG 3SG.ACC compulsion.DAT bind.in.INF.PRS.ACT decide.INF.AOR.ACT
toiaútēn haíresin]
 such.ACC choice.ACC
 ‘... he_i begged her not to compel **him**_i to make such a choice.’ (Hdt. 1.11.3, cf. Kiparsky 2012: 105).
- b. *hē dè Tómuris; [sunieīsa ouk autén min;*
 ART.NOM PTCL T.NOM understand.PTCP.PRS.ACT.NOM NEG self.ACC 3SG.ACC
mnōmenon allà tēn Masagetēōn basilēiēn], apeípato
 court.PRS.PTCP.MID.ACC but ART.ACC M.GEN.PL kingdom.ACC refuse.AOR.MID.3SG
tēn prósodon.
 ART.ACC advance.ACC

‘but Tomyris_i, understanding that he was not after **her**_i but the kingdom of the Massagetaens, refused his advances.’ (Hdt. 1.205.1, cf. Kiparsky 2012: 105)

- (74) *hoi d’ ágontes euthùs aphésousi tèn*
 ART.NOM.PL PTCL carry.PTCP.PRS.ACT.NOM.PL immediately let.go.FUT.ACT.3PL ART.ACC
leían, epeidàn ídōsí; tinas [ep’ autoùs;
 booty.ACC whenever see.AOR.SBJV.ACT.3PL someone.ACC.PL towards self.ACC.PL
elaúnontas]
 charge.PTCP.PRS.ACT.ACC.PL
 ‘The plunderers will drop their booty immediately whenever they_i see someone charging **at them**_i.’
 (Xen. Cyr. 1.4.19, cf. Van Emde Boas et al. 2019: 348)

Kiparsky (2012: 92–101) therefore proposes a more sophisticated system of anaphora for Homeric and Classical Greek which divides them according to whether their antecedent domain is a finite sentence (co-argument and non-coargument), clause, or the discourse, and whether they are obviative (i.e., require disjoint reference between coarguments) or not. His classification is given in table 14. Note that the simple pronouns are treated as [+OBVIATIVE] both in Classical and in Homeric Greek, which derives the observation that they seem to be incompatible with direct reflexive/coargument contexts without the ‘anti-obviative’ intensifier *autó-* already at the Homeric stage.

Table 14: Homeric and Classical Greek anaphora, Kiparsky 2012: 101

| a. Homeric | Domain | Obviation | b. Classical | Domain | Obviation |
|--------------|-----------|-----------|----------------|-----------|-----------|
| <i>he-</i> | Discourse | + | <i>heautó-</i> | Finite | - |
| <i>hé-</i> | Finite | + | <i>emautó-</i> | Clause | - |
| <i>emé</i> | — | + | <i>emé</i> | — | + |
| <i>autó-</i> | — | - | <i>autó-</i> | Discourse | - |

According to this classification, the main changes between Homeric and post-Homeric Greek were the replacement of the third singular simple reflexive (*hé-*) by the newly developed complex reflexive (*heautó-*) in finite contexts and the change of *autó-* from a non-obviative emphatic adjective/anaphor into a non-obviative discourse anaphor. This system predicts the synchronic distribution of simple and complex reflexives more accurately than previous descriptions, but the problem of variation in the same context (e.g., between *min* and *heōtón/heōtén* in Herodotus, or between complex reflexive forms vs. *autó-* as in (71-a) vs. (74) needs further study.⁴

Logophoric binding by an animate non-speaker antecedent is available for the accented forms of the third person simplex reflexive pronoun (sg. stem *hó-*, dual/pl. stem *sphó/i-*), (75), and for the complex reflexive, as in (76). These uses are discussed by Kiparsky (2012: 112–115).

- (75) *hossáki d’ horméseie puláōn Dardaniáōn antíon áíksasthai*
 whenever PTCL dart.AOR.OPT.ACT.3SG gate.GEN.PL D.GEN.PL against sprint.INF.AOR.MID
eüdmétous hupò púrgous, eí pōs hoĩ kathúperthen
 well.built.ACC.PL under wall.ACC.PL if how 3SG.REFL.DAT from.above
alálkoien beléessi
 ward.off.AOR.OPT.ACT.3PL missile.DAT.PL
 ‘Whenever he_i (= Hector) would rush towards the Dardanian gates to dart under the well-built

⁴Kiparsky 2012: 106–107 tentatively proposes that it may be due to the competing requirements of feature subsumption (preference for the more specified form) and economy (preference for the simpler form), but no testable predictions follow from this.

walls, (hoping) that they (= the Trojans) might defend **him_i** from above with missiles, ...’ (*Il.* 22.194–196, cf. Kiparsky 2012: 113)

- (76) [*Kroĩsos_i*] *élege* (...) *hós te autōi pánta apobebékoι téi per*
 C.NOM say.IPF.ACT.3SG that PTCL self.DAT all.NOM.PL turn.out.PF.OPT.ACT.3SG in.this.way
ekeĩnos; [ho Sólōn] eĩpe, oudén ti mállon es heōútōn;
 DEM.NOM ART.NOM S.NOM say.AOR.3SG NEG INDF more to 3.self.ACC
légōn è ouk es hápan tò anthrópinon
 speak.PTCP.PRS.ACT.NOM than to all.ACC ART.ACC humanity.ACC
 ‘[Croesus_i] said (...) that everything had turned out for him_i as he_j [Solon] had said, speaking_j; no more of **him(self)_i**; [Croesus] than of every human being.’ (Hdt. 1.86.5–6, cit. after Kiparsky 2012: 114. Material in square brackets supplied by Kiparsky for clarity.)

79. LONG DISTANCE BINDING yes

80. LOGOPHOR yes

2.25 Grammaticalization path

2.25.1 Construction 1 (1.3.1)

The active and middle inflectional endings can be reconstructed for Proto-Indo-European, but there is some debate as to their original function and distribution. However, most scholars and handbooks agree that the naturally reflexive and indirect reflexive uses of the middle endings were already possible in PIE (e.g., Rix 1988, Fortson 2010: 89, Weiss 2020: 403, Fritz & Meier-Brügger 2021: 263, Cotticelli Kurras & Rizza 2013, Lavidas 2012; cf. Inglese 2020: 250–267 for a recent survey) and are hence inherited. Within the history of Greek, the naturally reflexive function continued to remain available up until today in Modern Greek for certain body action and grooming verbs, while the self-benefactive/indirect reflexive function declined (Lavidas 2009). However, Modern Greek also has a more recent class of middle-marked reflexives in which the prefix *afto-* (e.g., *afto-katastrefome* ‘destroy myself, self-destruct’) is added and which can be formed to passivizable transitive verbs (see Spathas, Alexiadou & Schäfer 2015), so in a sense the range of reflexive-marked middles has expanded on the way to Modern Greek.

2.25.2 Construction 2 (1.3.2)

While reflexive pronouns diachronically often stem from grammaticalized body part nouns (Schladt 2000; Kuteva et al. 2019: 78–81), this is not the case in Greek: Although the reflexive element (-) *autó-* is related to the nominal stem *autó-* ‘same; self’, further connections are difficult to establish. Risch 1974[1937]: 369 tentatively proposes a univerbation of **aũ tó(n)*, etc., consisting of the adverbial *aũ* ‘again, once more’ + demonstrative pronoun/article (see also Schwyzler 1939: 613–614, Beekes 2010: 173), but Dunkel 2014: 344, fn. 45 criticizes this because the reflexes of **h₂o/u* ‘and, also’ (if this is indeed the ancestor of Gk. *aũ*) in other languages usually *follow* demonstratives (and adverbials, etc.), i.e., they are ‘postpositives’. Dunkel himself (2014: 794) takes *autós* from **au tó-* ‘that one there’, consisting of the local adverb **au* ‘off, away’ + the demonstrative stem **to-*. Both etymologies suggest a grammaticalization path from ‘same’ > emphatic nominal/intensifier > reflexive (anaphor), for which the literature on the diachrony of reflexives offers plenty of parallels (e.g., Faltz 1985: ch. IV; König & Siemund 2000; van Gelderen 2000; Kuteva et al. 2019: 243, 374–375).

The development of the complex reflexive itself, and the marking of direct reflexive contexts in general, has already been outlined in the previous sections and is summarized in (77).

- (77) Strategies for direct reflexivization in the history of Greek
- Homeric Greek: middle endings; simple pronouns + (anti-obviative) intensifier *autó-*
 - Classical Greek: middle endings; complex reflexives with person distinction (*heautó-/hautó-* only for third person)
 - Post-Classical/Koiné: middle endings; complex reflexive without person distinction (*heautó-/hautó-* for all persons)
 - Medieval/Modern Greek: middle endings; renewed complex reflexive with person distinction (*ton eafto mu*, etc.); middle endings + *afto-* prefixation

Note that there are multiple strategies at each stage for different types of predicates because the option of using middle endings remains available for body action/grooming verbs throughout the history of Greek. On reflexivization in Modern Greek see, e.g., Holton, Mackridge & Philippaki-Warbuton 1997: 480–83, Alexiadou 2014, Spathas, Alexiadou & Schäfer 2015.

2.26 Reflexive possessives

Homeric Greek has possessive adjectives marked for person and number of the possessor and agreeing with the possessum for gender, number, and case, cf. Table 15. These can be also be used reflexively.

Table 15: Possessive adjectives in Homeric Greek, nom. & pl. forms

| | 1 | 2 | 3 |
|-----|--|---|---|
| Sg. | <i>emós</i> m., <i>emé</i> f., <i>emón</i> n. 'my' | <i>teós</i> m., <i>teé</i> f., <i>teón</i> n. & <i>sós</i> m., <i>sé</i> f., <i>són</i> n. 'your' | <i>heós/hós</i> m., <i>heé/hé</i> f., <i>heón/hón</i> n. 'his/her/its' |
| Pl. | <i>hamós</i> m., <i>hamé</i> f., <i>hamón</i> n. & <i>hēméteros</i> m., <i>hēmetérē</i> f., <i>hēméteron</i> n., 'our' | <i>humós</i> m., <i>humé</i> f., <i>humón</i> n. & <i>huméteros</i> m., <i>humetérē</i> f., <i>huméteron</i> 'your' | <i>sphós</i> m., <i>sphé</i> f., <i>sphón</i> n. & <i>sphéteros</i> m., <i>sphetérē</i> f., <i>sphéteron</i> n. 'their' |

There is some debate surrounding the antecedent requirements of the third person anaphoric/reflexive pronoun *heé/hé* (cf. Table 2; dual/pl. stem *sphe/i-*) and its corresponding reflexive possessive *heós/hós* in Table 15. Both are sometimes claimed to show traces of uses as a 'generalized reflexive' compatible with not only third, but also first and second person antecedents. At least for the pronominal forms of the third person reflexive, this is not corroborated by the Homeric evidence (Petit 1999: 335–338), but there are some instances in which the reflexive possessive adjective *heós/hós* occurs with first or second person antecedents, as in (78) (Petit 1999: 338–363).

- (78) *all' aieì phresìn hēisin ékhōn dedaigménon*
 but always chest.DAT.PL 3.REFL.DAT.PL having.PTCP.PRS.ACT.NOM split.PTCP.PF.MID.ACC
ētor ēlómēn
 heart.ACC roam.IPF.MID.1SG
 'But I was always roaming, bearing **in my chest** a torn heart...' (*Od.* 13.320–321, Ulysses addressing Athena)

The cognate reflexive possessive in Vedic is also compatible with first, second, and third person antecedents, so instances like (78) may preserve traces of the inherited situation. However, the rule in epic Greek (including Homer) and in the inscriptional evidence is that the reflexive possessive *heós/hós* is restricted to third person antecedents.

Like in many other older IE languages, the possessive pronouns in 15 are not obligatory, especially when expressing inalienable possession, cf. (79).

- (79) *Oūtin dé me kıkléskousi métēr ēdè patèr ēd' álloi*
 nobody.ACC PTCL 1SG.ACC.CL call.PRS.ACT.3PL mother.NOM both father.NOM and other.NOM.PL
pántes hetaĩroi
 all.NOM.PL comrade.NOM.PL
 “‘Nobody’ is what (my) mother and (my) father and all (my) other comrades call me.’ (Od. 9.366–367)

Other alternatives exist as well and become more prolific in Attic Greek (cf. Schwyzer 1950: 201–207; Smyth & Messing 1956: 299–302; Van Emde Boas et al. 2019: 349–351). In nonemphatic contexts, the genitives of the simple pronouns (Table 2) are used for the first and second person, and those of *autó-* for the third person, (80-a). In emphatic/contrastive contexts, the genitive of the complex reflexive pronoun (Table 3) can be used, (80-c); Homer still uses the agreeing possessive adjective as in (80-b) + the genitive of *autó-* ‘self’ in this context (cf. ex. (81)). The adjective *ídios* ‘own’, (80-d), is used as an emphatic ‘general’ reflexive (= compatible with first, second, and third person antecedents) in post-Homeric (especially Attic) Greek and is also used for possessive doubling (see Iatridou 1986 on its uses in Modern Greek).

- (80) a. *tòn patéra mou/ autoũ/ autēs*
 ART.ACC father.ACC 1SG.GEN self.GEN self.GEN
 ‘my/his/her father’
 b. *tòn emòn/ h(e)òn/ hēméteron patéra*
 ART.ACC POSS.1SG.ACC POSS.3SG.ACC POSS.1PL.ACC father.ACC
 ‘my/his,her/our father’
 c. *tòn emautoũ/ heautoũ/ heautēs patéra*
 ART.ACC 1SG.self.GEN 3.self.GEN 3.self.GEN father.ACC
 ‘my/his/her father’
 d. *tòn ídion patéra*
 ART.ACC OWN.ACC father.ACC
 ‘the (/my/his/her/our...) own father’

(80-a) reflects the Classical Greek situation; in Homer the definite article is not obligatory in this construction and the possessive genitive can be placed before or after its head noun (the same is true for the Homeric versions of (80-b) and (80-c); that is, the article is not obligatory). The unaccented versions of the genitive pronouns are used in CG when the possessor is not the subject of the clause; the accented version is used in the same context to express emphasis (Van Emde Boas et al. 2019: 350). (80-b), in which the possessive adjective agrees with the head noun for case, is the diachronically older version of (80-a), that is, it is used in unemphatic possessive contexts before becoming replaced by the possessive genitive in (80-a) in Classical Greek. Strategies (80-c-d) are illustrated in (81).

- (81) *nostēsántōn dè toutōn es tēn Helláda dokéein (pro_i)*
 return.PTCP.AOR.ACT.GEN.PL PTCL DEM.GEN.PL in ART.ACC H.ACC expect.INF.PRS.ACT
éphē akóúsantas toūs Hellēnas tà heōutoũ_i
 say.IPF.ACT.3SG hear.PTCP.AOR.ACT.ACC.PL ART.ACC.PL Greek.ACC.PL ART.ACC.PL 3SG.self.GEN
prégmata prò toũ stólou toũ ginoménu
 deed.ACC.PL before ART.GEN expedition.GEN ART.GEN come.to.bePTCP.PRS.MID.GEN

paradósein *sphéas; tèn* *idiēn;* *eleutheriēn*
 surrender.FUT.INF.ACT 3PL.ACC ART.ACC own.ACC freedom.ACC
 ‘(Xerxes_i) said that if they were to return to Hellas, the Greeks would hear **about his_i deeds** and they_i would surrender **their own; freedom** before the future expedition.’ (Hdt. 7.147.1)

Greek also has various strategies for possessive doubling, e.g., the genitives of *auto-* ‘self’ are used for emphasis in possessive contexts already in Homer, as in (82) (cf. Schwyzer 1950: 201).

(82) *arnúmenos* *patrós* *te méga* *kléos* *éd’ emòn* *autoũ*
 gain.PTCP.PRS.MID.NOM father.GEN and great.ACC fame.ACC and POSS.1SG.ACC self.GEN
 ‘winning my father’s great fame and **my own**’ (Il. 6.446)

81. POSSESSIVE

Does the language have a designated reflexive possessive? yes

82. PERSON RESTRICTIONS IN POSSESSIVES

Is the reflexive possessive restricted to certain persons? yes

83. SIMPLE POSSESSIVE

Is the marker used as a simple possessive pronoun, i.e. is it bound by another nominal than the subject?
 yes

84. ALTERNATIVES

Is it possible to use non-reflexive pronouns alternatively if they are bound by the subject of their domain?
 yes

85. POSSESSIVE DOUBLING

Can the reflexive possessive be doubled by another possessive pronoun? yes

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