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Be, become, or remain: The grammaticalisation of the copulative perfect in Classical Armenian

Abstract: The Classical Armenian periphrastic perfect consists of a participle in *-eal* and an initially optional form of a copulative verb. Over the course of the fifth century CE, one copula, *em* ‘to be’, grammaticalises into a standard, unmarked major use pattern in a process of obligatorification; patterns with other copulas such as *linim* ‘to become’ and *kam* ‘to stand, remain’ are retained to a lesser extent and with more specific aspectual semantics. This paper outlines the development of these constructions over the course of the fifth and early sixth centuries on the basis of a corpus of historiographical texts and draws out parallels with the neighbouring West Middle Iranian languages.

Keywords: grammaticalisation, Classical Armenian, periphrastic perfect, semantic change, obligatorification

1. Introduction

Like a number of other Indo-European languages, Classical Armenian possesses a periphrastic perfect tense composed of a participle and an auxiliary verb, most commonly the copula *em* ‘to be’. In the earliest texts, however, this construction shows greater variation than this simple explanation lets on: for one because the copulative verb is, at least to begin with, not obligatory, but also because other auxiliary verbs are found without any immediately clear-cut difference in aspect or semantics. Across the fifth century CE, the Armenian perfect includes varieties ranging from likenesses to the Slavonic pattern (type Ru. *я написал* ‘I wrote’, without copula) to those resembling Romance patterns (type Fr. *j’ai écrit*, Sp. *he escrito*, It. *ho scritto* ‘I have

written’). By the end of the Classical Armenian period, however, one pattern has eclipsed all others and is retained as such in one of the two major modern varieties (MEA *es grel em* ‘I have written’).

The purpose of the present paper is twofold: firstly, it describes in more detail than afforded by the standard grammatical reference works the variability of this periphrastic perfect construction in Classical Armenian; secondly, it outlines the development of this structure over the course of the fifth century with a view to explaining the trajectory outlined above. Broadly speaking, it is argued that the manifestation of a single perfect construction is a clear case of obligatorification of a major use pattern at the cost of minor patterns; both major and minor patterns have parallels in West Middle Iranian languages, which served as *a*, if not *the* impetus for the development described.

Section 2 sets the scene in providing a concise overview of the Classical Armenian verbal system from a synchronic perspective and outlining the basics of the perfect construction and its semantics. By contrast, section 3 gives a more detailed explanation of the perfect’s pattern variability, starting with the majority use pattern employing the copula *em* ‘to be’ (§3.1), and then moving on to minority patterns with *linim* ‘to become’ (§3.2) and *kam* ‘to stand, remain; be’ (§3.3); the section ends with a discussion of other patterns and the diachronic development of the patterns discussed. Since the existence of different variants suggests the possibility of semantic differentiation, these differences are addressed in section 4, in relation to their Iranian counterparts and potential models. Section 5 ties together the insights gleaned up to that point and, in integrating them with known grammaticalisation pathways, proposes that the reason for this particular development is to be sought, at least in part, in language contact and associated grammaticalisation processes.

2. Background: perfective constructions in Classical Armenian

The tense-aspect system of Classical Armenian distinguishes clearly two time references (present and past) and at least two aspects (imperfective and perfective); these are expressed by the paradigmatic forms

in PRS (*grem* ‘I write / am writing’) and IMP (*grei* ‘I was writing’) for the imperfective, and AOR (*grec’i* ‘I wrote’) for the perfective.¹ A separate future tense does not exist, such references being made either by the present and with the aid of contextual or adverbial markers, a periphrasis with the necessitative participle in *-oc’*, or with the help of the subjunctive.²

Whilst the values of these synthetic forms are clear, their analytical counterparts present a more complex picture. The participle in *-eal* forms the basis of the periphrastic perfect, pluperfect, and future perfect; it may be used on its own as a main verb, or together with a copula in PRS or IMP, or converbially.³ Some of these uses are illustrated in (1–3) below.

(1) Ełišē, VII.232⁴

<i>ew</i>	<i>andēn</i>	<i>vałvałaki</i>	<i>dahičk’=n</i>	<i>hraman</i>
and	then	suddenly	executioner.NOM.PL=DET	command
<i>areal</i>	<i>y=eric’</i>	<i>naxararac’=n</i>	<i>srov</i>	
receive.PTCP	from=three.ABL	noble.ABL.PL=DET	sword.INS.SG	

1 Glosses follow the Leipzig Glossing Rules with the following additions and exceptions: CONJ – conjunction; IMP – imperfect; IMV – imperative; INAN – inanimate; PN – proper noun.

2 Cf. Meillet (1911: 118); Jensen (1959: 118, 120); Tumanjan (1971: 363–364); both present and aorist subjunctive can have future functions, but it is the latter that, in later varieties, forms the basis of standard future expressions.

3 While there are numerous definitions of the category converb, for the present purpose it may be understood in Haspelmath (1995)’s terms as a “non-finite verb form whose main function is to mark adverbial subordination” (1995: 3), setting it apart in terms of usage from adjectival (=participial) and nominal (=masdar) uses. Converbs in Armenian may share the subject of the main verb or have their own (cf. Nedjalkov 1995: 110–111) and, while exhibiting perfective aspect, have context-dependent semantics (cf. Nedjalkov 1995: 108–109; König 1995: 59–64).

4 The Armenian texts follow the edition of the *Matenagirk’ hayoc’* (Yeghavian 2003a, 2003b); the translations are the author’s.

hatanel *z=paranoc'* *eranelwoy=n*
 cut-off.INF OBJ=neck.ACC.SG blessed.GEN.SG=DET

“And then, the executioners immediately received a command from the three nobles to cut off the head of the Blessed.”

(2) Łazar P'arpec'i, III.66.16

ew gitem *t'ē* *lueal* *ē*
 and know.1SG.PRS COMP hear.PTCP be.3SG.PRS

z=xorhurds *mer* *Parskac'* *kapen*
 OBJ=plan.ACC.PL 1PL.POSS Persian.GEN.PL bind.3PL.PRS

z=na *ew* *vštac'uc'anen*
 OBJ=3SG.ACC and torment.3PL.PRS

“I know that [if] the Persians have heard our plans, they [will] imprison and torment him.”

(3) Łazar P'arpec'i, III.69.20

ew ankeal *zawrawork'=n* *i* *sur*
 and fall.CVB soldier.NOM.PL=DET into sword

t'snameac'=n *meřaw* *k'aǰ=n*
 enemy.GEN.PL=DET die.3SG.AOR valiant=DET

Mamikonean *Vasak*
 PN PN

“And as the soldiers engaged the enemies in battle (lit. fell on the swords of the enemies), the valiant Vasak Mamikonean died.”

In (1), the participle *areal* occurs as the sole predicate of its sentence, with neither a copula or another matrix verb. While transitive perfects most frequently take agents in GEN, the sentential subject *dahičk'n*

here occurs in NOM;⁵ the direct object (or verbal complement, if a complex predicate reading is preferred), meanwhile, takes ACC.⁶

The copular perfect is illustrated in (2), where the verb *lueal ē* takes a GEN.PL agent *Parškacʻ* and an ACC.PL object *zxorhurds*.⁷ The copula itself, as is typical of the transitive construction, does not agree with either agent or object, but appears in Ø-agreement as a 3SG form.⁸ In both this and the previous example, the context suggests that a present perfect reading is most appropriate, since both actions expressed by the perfect (‘receiving a command’ and ‘hearing the plans’) have a relevant effect on the ensuing actions (‘cutting of heads’ and ‘imprisoning and tormenting’) and are not just completed anterior actions.

The converbial use of the participle, as indicated in (3), by contrast, does not permit a resultative or present perfect reading.⁹ Here, two actions in the past are described (‘engaging the enemy’ and ‘dying’) which are

5 This type of variation is part of a larger change in progress from tripartite to NOM-ACC alignment; cf. Meyer (2023: 140–142).

6 Morphologically, NOM and ACC are identical in Classical Armenian except in the plural and in personal pronouns in both numbers. On a syntactic level, however, a distinction can often be made with the help of the so-called *nota accusativi*, the OBJ-marker *z=*, which is used for differential object marking; cf. Scala (2011). For typological support for this reasoning, cf. Corbett (2013: 92–93), and on the morphosyntactic implications of this marker, Meyer (2022b: 284).

7 For the sake of clarity, the terms *subject* and *agent* are here used as distinct syntactic terms to differentiate between the single participant with intransitive verbs (*subject*) and the prototypically more agent-like or active participant with transitive verbs (*agent*); cf. Bickel and Nichols (2008: 305).

8 Instances of Ø-agreement in periphrastic tenses are often a sign of a newly created or transient construction, in which e.g. subject licensing has not yet been extended to the newly created forms (here the GEN agents); cf. Pirejko (1966) and Payne (1979: 442) on Talyši, Comrie (1978: 342) on Dānesfāni, and Anand and Nevins (2006: 7) on Hindi.

9 A reading of the participle *ankeal* as a non-copulative perfect is not warranted, as there is no clear clausal coordination with or subordination to the matrix clause.

completed, do not have a meaningful interrelation, and occurred either subsequently or concurrently – but in any case in the past.¹⁰

The converbial use illustrated in (3) is statistically the most frequent across the fifth century CE, with an average of *c.* 52% of participles used thus. This predominance along with their simple perfective aspect indicate that this usage is likely to be the historically earliest one.¹¹ It is on this basis that the other two uses illustrated above, that is the participle as a main verb with or without a copula, must have arisen later; this development is outlined in more detail in §3.5 below.

Hand in hand with this extension from converb to matrix verb, the aspectual value of the participle has changed already in Classical Armenian, where it is largely used as a present perfect *sensu stricto* or as a resultative perfect.¹² The MEA continuation of the classical perfect construction, which uses the same building blocks, has retained the same aspectual values.¹³ As (1) above shows, however, this is not an absolute and universal rule, since occasional perfective readings are still possible, esp. in perfects without copula.

In the following section, the details of the various perfect constructions will be discussed with a view to establishing the degree of variability, the relative frequency of each variant, and the potential aspectual or semantic differences.

10 The translation, which follows English idiom, should not be taken here as a guide to verbal aspect; a more faithful rendering might read: “The soldiers engaged the enemies in battle [and] the valiant Vasak Mamikonean died”.

11 Cf. Meyer (2023: 151–157).

12 Cf. Lyonnet (1933); Ouzounian (2001); Kölligan (2013); Semionova (2016); Kölligan (2020).

13 Cf. Dum-Tragut (2009: 222–226); the aspect system of MEA is, however, more complex than that of its Classical counterpart and, in addition, to the perfect in MEA *-el* also knows a strictly resultative form in *-ac*.

3. Copulative perfects

While converbial use, as mentioned above, accounts for the majority of participles in the 5th-century historiographical corpus,¹⁴ the copulative perfect represents the next largest set of participle uses with 1267 instances in a corpus of 6998 tokens (18.1%). Over the course of the century, the incidence of these perfects as compared to their non-copulative counterparts rises from 11.8% in the beginning (Koriwn) to 77.7% at the end of 5th or beginning of the 6th century (Elišē).¹⁵ Of the three copulative verbs used and discussed below, *em* ‘to be’ is the most common and diachronically important one, as it continues to be used in Middle and Modern Eastern Armenian. The other two copulas, *linim* ‘to become’ and *kam* ‘to remain’, together make up for less than 10% of all copulative perfects and decrease in use over time.

3.1. Perfects with *em* ‘to be’

The ‘standard’ copulative perfect with *em* ‘to be’ has already been illustrated in (2) above. While variations on this pattern exist as concerns the cases used to mark subject, agent, or object, for the present purpose it is of greater interest to see such instances in which the copula is employed differently.

(4) P’awstos Buzandac’i, V.44

im Astucov kec’ eal ē ĵerm
 1SG.GEN God.INS.SG live.PTCP be.3SG.PRS warm

k’ristonēut’ eamb
 Christianity.INS.SG

“I have lived in the sight of God in fervent Christian faith.”

Passage (4) exhibits an unexpected use of the copula in Ø-agreement with an intransitive verb and GEN subject where a NOM subject and

14 This is the same corpus as analysed in Meyer (2023), consisting of the works of (or attributed to) Koriwn, Agat’angelos, P’awstos Buzandac’i, Łazar P’arpec’i, and Elišē.

15 Cf. Meyer (2023: 149–151).

subject-agreement would be expected. Instead of *im kec'eal ē*, the 'standard' construction would have had *es kec'eal em*. The opposite case is given in (5).

(5) P'awstos Buzandac'i, III.14

minč' duk' z=jer anjins=d
 while 2PL.NOM OBJ=2PL.GEN=DET self.ACC.PL
angiwts arareal eik' i
 unfindable.ACC.PL make.PTCP be.2PL.IMP in
korstean=n
 perdition.LOC.SG=DET

“... while you made yourselves irrecoverable in this perdition.”

Here, the transitive verb *arnem* ‘to do, make’ is employed with a NOM agent *duk'* and a copula in subject-agreement, *eik'*; the expected, ‘standard’ form would have been *jer... arareal ēr*.¹⁶

Together with the diachronic rise in incidence of copular perfects, both of these examples illustrate that this construction had not fully stabilised in Classical Armenian and must be interpreted as a grammaticalisation in progress. A similar change in progress relates to the case-marking of subject and agent.¹⁷

16 The repetition of *jer* in this sentence as both agent and part of the object phrase may have contributed to the choice of this alternative pattern; in general, the occurrence of *minč'* without *deř* in this instance gives rise to questions about potential scribal interventions and influence of post-classical diction, which cannot, however, be resolved here.

17 The most common pattern in early Classical Armenian foresees that intransitive subjects be marked NOM, transitive agents GEN and direct objects ACC. There are, however, instances where NOM-marked agents or GEN-marked subjects occur. As diachronically Armenian moves away from split-tripartite alignment in the perfect and towards NOM-ACC alignment, NOM-marked agents rise in frequency, noticeably even in the 5th century: while they still represent a marginal pattern, their frequency doubles over the course of the century. Cf. Meyer (2023: 137–146; 2022a; 2022b).

3.2. Perfects with *linim* ‘to become’

In some 100 instances (depending on matters of analysis discussed below), the verb *linim* ‘to become’ functions as the copula of the periphrastic perfect. The existence of this minority pattern raises two main questions: firstly, whether there is a semantic difference between perfects with *linim* and those with *em*; and secondly how this variation may have arisen. The latter question is addressed in §3.5 below.

Two examples illustrate plausibly the semantic difference or specialisation that this copula may have added.

(6) P’awstos Buzandac’i, II.12

ew darjeal ōr əst ōrē matakaranēr
 CONJ again day after day.ABL.SG administer.3SG.IMP
alk’atac’=n ew aynm stēp stēp lc’eal
 beggar.DAT.PL=DET and DEM.DAT.SG continually fill.PTCP
linēr
 become.3SG.IMP

“And so day after day he distributed [the content of jars] to the poor and they were incessantly refilled.”

(7) P’awstos Buzandac’i, III.7

bayc’ vasn k’o zi mec vastakk’
 CONJ because 2SG.GEN COMP great service.NOM.PL
en ar’ is z=or
 be.3PL.PRS to 1SG.ACC OBJ=REL.ACC.SG
inč’ xndrec’er=n ert’ tuel
 INDF.INAN desire.2SG.AOR=DET go.2SG.PRS.IMV give.PTCP
lic’i k’ez
 become.3SG.AOR.SBJV 2SG.DAT

“But because your services to me have been great [let] what you have requested be given to you!”

In both instances, the periphrasis denotes a completed change-of-state, ‘empty’ to ‘filled’ in (6), ‘not yet given’ to ‘given’ in (7). The occurrence of the copula in the subjunctive in the latter passage, thus producing a future perfect, finds parallels in uses of *em*, as well, and is thus not linked to the choice of copula itself.¹⁸

The copula *linim* in particular, however, at times poses problems of analysis: is a periphrastic reading of the combination PTCP + COP at all times the best one, or might the participle better be seen as a predicative adjective on occasion? (8) illustrates this issue.

(8) Agat’angelos, XX.7

ew amenayn əntanik’ t’agawori=n
 CONJ all household.NOM.PL king.GEN.SG=DET

caṛayk’ ew spasawork’ aṛ hasarak
 slave.NOM.PL and servant.NOM.PL in common

haruacovk’ harealk’ linēin
 torment.INS.PL afflicted.NOM.PL become.3PL.IMP

“All the king’s household, slaves and servants alike, were afflicted with torments.”

While formally the periphrasis *harealk’ linēin* can be analysed as a pluperfect, referring to an action completed prior to the main past action of the narrative, the context of this passage does not warrant an interpretation in the sense of ‘they had become afflicted’. Instead, an imperfective reading with the participle acting as a predicative adjective is more contextually appropriate, thus ‘they were / became /

18 At the same time, the suppletive relationship that exists between *em* and *linim* complicates the clear and unequivocal distinction between a ‘true’ *linim* future perfect, suggesting a change of state, and future perfect in which *linim* stands in for *em*.

were becoming afflicted'.¹⁹ Given that the participle could still be used adjectivally at this time²⁰ and that the reanalysis of predicative participles has been shown to be the foundation of the perfect tense in other languages,²¹ this ambiguity is not surprising.

Over the course of the 5th century, the use of *linim* as a copula with the perfect decreases significantly. While it constitutes the majority of perfects with a copula in Koriwn (60%), already in Agat'angelos it only makes up a fifth of occurrences (20.6%) and in Elišē barely occurs at all anymore (1.9%); the incidence of *em*, by contrast, shows the opposite trend. In view of its relative frequency in the oldest attestations, it stands to reason that it was employed there more frequently because of its specialised change-of-state semantics, whereas the 'normal' present perfect semantics were sufficiently reflected by non-copular perfects. To what extent, if any, the existence of perfects with *linim* may have aided in the successive grammaticalisation of *em* remains unclear.

3.3. Perfects with *kam* 'to remain'

Less common still than the perfects with *linim* are those formed with *kam* 'to remain'. Once more depending on the particularities of analysis, only about 20 instances of this periphrasis can be found in the 5th-century corpus. The same questions already mentioned above, that is those concerning the specific semantics of this construction, its origin, and the problem of alternative analyses, arise here too.

Passages (9–10) speak to the semantics of this perfect construction.

19 Such a reading may further be supported by the occurrence of the plural agreement marker *-k*, which is, however, at times also found in unequivocally perfective constructions.

20 Cf. Meyer (2023: 134–137).

21 For a classic discussion of this development in Latin, cf. Pinkster (1987); for various other Indo-European languages, cf. the discussions in Crellin and Jügel (2020).

(9) P'awstos Buzandac'i, IV.5

isk ibrew etes et'ē arhamarheal kayr
 CONJ when see.3SG.AOR COMP scorn.PTCP stay.3SG.IMP
hayr i mardkanē xalac'
 father.NOM.SG by mankind.ABL.SG move.3SG.AOR
ekn ēj y=ajmē
 come.3SG.AOR descend.3SG.AOR from=right.ABL.SG
at'oroy anti
 throne.GEN.SG from

“But when he saw the Father scorned by mankind, he arose and came down from the right hand of the throne.”

(10) Agat'angelos, CII.29

ayr du zi kas
 man.NOM/VOC.SG 2SG.NOM/VOC why stay.2SG.PRS
zarmac'eal ew oč' i mit arnus
 amazed.PTCP and NEG in mind.ACC.SG take.2SG.PRS
z=mecamecs Astucoy
 OBJ=miracle.ACC.PL God.GEN.SG

“O man, why do you stand in amazement without pondering the miracles of God?”

In both instances, context suggests that the perfects with *kam* may express an enduring state resulting from a completed action; this is compatible with the basic present perfect or resultative reading of the perfect in that the result or endurance is emphasised. Accordingly, *arhamarheal kayr* in (9) might more precisely be read as ‘had been

and remained scorned’, while *kas zarmac’ eal* in (10) could read ‘were and still are amazed’.²²

As before, however, there are instances in which a clear periphrastic reading cannot be guaranteed. In (11) below, for example, a converbial reading for the participle *xaleal* is equally possible.

(11) Ełiṣē, VII.72

ew dadarec’ in novaw handerj minč’ ew
 CONJ remain.3PL.AOR 3SG.INS together until
i pah= n error d ew aynpēs xalaleal
 to watch.ACC.SG=DET third and thus be-calm.PTCP
kac’ in i k’ un amenek’ ean
 stay.3PL.AOR in sleep.LOC.SG each.NOM.SG

“...they remained with him until the third watch and thus calmed they all slept...”

The passage could be read variously as CVB + *i k’ un kam* ‘to remain/ be asleep’, thus ‘having calmed, they were/remained asleep’, or as PF + *i k’ un*, thus ‘they were and remained calm in sleep’. In the present context, a reading as a perfect would seem preferable but is improbable given that the verb is in the aorist, a tense not otherwise combined with the participle to form periphrastic perfects. A purely perfective reading of *kac’ in* is, perhaps, most plausible in this context if it is read as a *tempus narrativum* to relay successive actions.

3.4. Other copulative perfects

Another construction in which the participle and a finite verb co-occur is the resultative perfect discussed by Kocharov (2016). In a comparable but different corpus of early Classical Armenian texts, he de-

22 It must be admitted, however, that there is no principled reason to prevent a literal reading, viz. ‘you stand having been amazed’, other than the fact that participles are only infrequently used in this predicative function.

scribes a pattern of PTCP + *unim* ‘to have’, parallel to similar perfects which exist in other languages of Western and Central Europe. In Classical Armenian, too, this pattern developed on the basis of the reanalysis of a possessive construction as a resultative, thus e.g. ‘I have a written book’ → ‘I have written a book’.

This pattern is illustrated in (12) below.

(12) Agat’angelos, XX.29

ew matuc’éal t’agawor=n ew
 CONJ approach.PTCP king.NOM.SG=DET and
naxarark’=n buřn hareal unēin
 noble.NOM.PL=DET hand.ACC.SG throw.PTCP have.3PL.IMP
z=otic’ srboy=n Grigori ew
 around=foot.ABL.PL holy.GEN.SG=DET PN.GEN.SG and
asēin
 say.3PL.IMP

“When the king and the *naxarars* had approached, they embraced (lit. clutched their hands around) the feet of St. Grigor and said...”

The basic, literal idea of ‘holding/having one’s hands clutched’ *vel sim.* has here been reinterpreted as a completed, result-focused action, thus along the lines of ‘they embraced (and kept embraced) the legs...’. While such developments are anything but unusual in Indo-European languages, the number of occurrences of this construction does not exceed 20 in Kocharov (2016)’s corpus, wherefore he rightly concedes that this pattern is, at best, weakly grammaticalised (2016: 670).

3.5. Diachronic perspective

The situation obtaining in 5th-century Classical Armenian as described above can be summarised as follows:

- at the beginning of the century, non-copulative perfects (= participles as main verbs) outweigh copulative forms;

- at the end of the century, the situation has inverted;
- copulative perfects may initially use a number of copulas: *em* ‘to be’, *linim* ‘to become’, *kam* ‘to remain’, and *unim* ‘to have’;
- only two of these verbs (*em* and *linim*) had any currency;
- at the end of the century and in later varieties, only the pattern with *em* is retained;
- at the beginning of the century, the converbial use of the participle accounts for the majority of occurrences.

On the basis of this summary, a tentative outline of the diachronic development of the perfect construction can be sketched.²³ As has been argued in detail elsewhere,²⁴ the variability of the Classical Armenian morphosyntactic alignment system and the \emptyset -agreement of the copula in transitive perfects strongly suggests that the construction was not inherited from Proto-Armenian, but was still in the early stages of grammaticalisation. The existence of semantically and aspectually comparable or even identical non-copular perfects in the earliest texts suggests that they represent the point of departure. The ‘reasoning’ behind the addition of a finite auxiliary verb form appears to be twofold. In the case of *linim* and *kam*, the copula made possible the addition of a specific semantic or aspectual nuance like change-of-state or durative-resultative. The second reason is morphosyntactic: just as the pressure of an explicitly marked or differentiated object in the synthetic tenses can be argued to have contributed to the development of tripartite alignment in the perfect, so too can the fact that all synthetic tenses use finite verbs be seen as contributing to the creation of an otherwise vacuous copula.²⁵ The relative novelty of the copula is further corroborated on the one hand by its rising frequency and eventual obligatorification in late-Classical Armenian and other later

23 For the diachrony of the alignment pattern, cf. Meyer (2022b).

24 Cf. Meyer (2023: 146–151).

25 It is plausible to assume that the existence of a past perfect, where the copula marks anteriority, has equally contributed to the analogous extension of this pattern to the present. It cannot be determined, however, which came first, present or past perfect.

varieties, on the other hand by occasional agent agreement in transitive perfects even in Classical times. Finally, the initial existence and subsequent loss of copulas other than *em* indicates a nascent pattern.

Two questions remain: is there a reason that, next to *em*, only periphrases with *linim*, *kam*, and *unim* are attested? And: what is the relationship between the non-copulative perfect, on which the periphrastic perfect is based, and the converbial use of the participle, which at least initially was the most frequent use pattern? These two questions are addressed in the following sections.

4. Semantics of the copulative perfect

In trying to get to the bottom of the variety of copulas that were initially employed in the perfect construction, certain parallels in the neighbouring West Middle Iranian languages (Parthian, Middle Persian) must not go unnoticed. There, too, a historical participle forms an analytical past tense with generally perfective aspect with the help of a number of copulas, some of which add a more specific aspectual notion.

The ‘standard’ past tense is formed with *ah-* ‘to be’;²⁶ another copula, *baw-* ‘to become’ is equally found, though the specific semantics of this construction are variable;²⁷ finally, there is the verb Pth. *išt-/ēšt-*, MP *ēst-* ‘to stay’ which designates a resulting state.²⁸ These three copulas parallel very closely the situation described for Classical Armenian, both in basic lexical meaning and as regards their aspect-

26 Note that in transitive verbs, the copula agrees with the object and that it is generally omitted in 3SG; cf. Durkin-Meisterernst (2014: 392–397).

27 Combinations with *baw-* can produce both resultative and past perfect readings, depending on the specific forms used; they have a strong tendency towards a passive reading. Cf. Durkin-Meisterernst (2002: 50–51, 55–57); (2014: 376); Jügel (2015: 141–142).

28 Cf. Ghilain (1939); Asatrjan (1989); Skjærvø (2004); Durkin-Meisterernst (2014: 384); Jügel (2015: 149–151).

providing role in the past tense construction.²⁹ Passages (13–16) exemplify these usages.

- (13) *bēž awās čē=m dīd ē u=m*
 CONJ now COMP=1SG see.PTCP be.2SG.PRS and=1SG
tū saxwan išnud
 2SG.POSS speech hear.PTCP

“But now that I have seen you and heard your speech...”
 (Parthian; Sundermann 1981: 89, §§1398–1400)

- (14) *ud ō harw[īn] padījag abyušt bawēnd*
 CONJ to all.PL before uncover.PTCP become.3PL.PRS

“And they are revealed in front of all of them” (Parthian;
 Sundermann 1981: 114, §§1855–1856)

- (15) *ud harwīn murd bawēnd*
 CONJ all.PL die.PTCP become.3PL.PRS

“And they all will be dead (= have died)” (Parthian;
 Sundermann 1973: 97, §§1895–1896)

- (16) *u=m was xwēš nām gyāgīhā abar*
 CONJ=1SG much own name in-various-places upon
mādayān nibišt ēstēd
 book write.PTCP stay.3SG.PRS

“I have written my name many times all over [...] books (= and it remains there).” (Middle Persian; Gignoux 1991: 36, lines 24–25)

In (13), two verbs follow upon one another. The first verb, *dīd*, has a direct object in the 2SG, wherefore the form of the copula *ah-* is found in

29 No evidence of a construction with the verb ‘to have’ is found in West Middle Iranian (cf. Jügel 2015: 155–156); Kocharov (2016) speculates that its existence in Armenian may be related to a similar Greek construction or a larger areal phenomenon.

the 2SG, *ē*, as well; by contrast, the next verb, *išnud*, takes *saxwan* (3SG) as its object, and no copula occurs. This construction acts as the standard West Middle Iranian past tense; while verbal aspects *sensu stricto* are not traditionally distinguished in the grammars of these languages,³⁰ it is clear that this construction describes a completed action.

Passages (14) and (15) each illustrate the change of state indicated by *bawēnd*, in one case ‘covered’ → ‘revealed’, in the other ‘alive’ → ‘dead’. As in Armenian above (§3.2), this construction exclusively refers to completed actions, but need not be set in the past; cp. (7) above. A past perfect-like construction can further be achieved by using the past tense of *baw-*; contrast *grift hēm* ‘I was captured’ with *grift būd (a)hēm* ‘I had been captured’ and the comparable (but dispreferred) reading illustrated in (8) above.

Example (16) similarly exhibits clear similarities with the Armenian periphrasis in *kam* (§3.3 above) in highlighting the state resulting from a perfective action. In this case, *nibišt ēstēd* ‘[I] have written it’ might even be usefully compared to idiomatic expressions like NHG *es steht geschrieben*, demonstrating clearly that the perfective action results in a state.

The fact that there is in both Classical Armenian and the West Middle Iranian languages a perfective / past tense construction centred around a participial form and with varying copulas, each of which adds a similar if not necessarily identical aspectual notion to the construction is unlikely to be a pure coincidence. Taken together with the established strong lexical influence of Parthian on Armenian,³¹ and the influence contact with Iranian languages has arguably had on the Armenian morphosyntactic alignment system,³² it stands to reason that in the case of the copular perfect, too, an Iranian model may have served as inspiration for the, admittedly marginal, structures found in Classical Armenian.

30 For a detailed treatment of the question, cf. Jügel (2015: 82–90).

31 For overviews, cf. Schmitt (1983); Meyer (in press).

32 Cf. Meyer (2023, 2022a).

The most obvious difference between the Armenian and Iranian patterns is that between the ‘standard’ perfects with Arm. *em*, Pth. *ah-*, where the Armenian suggests a present perfect reading (with the perfective aspect expressed by the aorist), whereas Parthian and Middle Persian use the same construction as a simple (perfective) past tense. Two things need to be taken into account, however: firstly, that there is another participle-based usage that appears to be chiefly perfective – the converb; and that the diachronic data suggest that the Armenian perfect with *em* only arose over the course of the 5th century.

Without supposing that the Iranian models were the one and only reason for the development of the Armenian periphrastic perfect in its variety, the following sequence of events fits the data as described above and the works cited: before its literary attestation, Armenian creates a participle-based perfective past tense on the model of similar constructions in the West Middle Iranian. Some of them are replicated with an aspectual connotation similar to that in the model language and using the same copula (‘to become’; ‘to stand, remain’); the other construction is borrowed without its copula, as in the model language it occurs less regularly (not in 3SG), but again with the same basic past-complete tense-aspect combination. The resulting non-finite construction, whose alignment pattern is also based on an Iranian model, was used both as a main verb (initially with purely perfective meaning) and as a converb. While the latter retained its aspectual meaning, the non-finite perfect construction over the course of the 5th century, and likely in analogy to the other copulative perfects and under pressure from the other finite tenses,³³ adopted *em* as a neutral copula. In doing so, it is plausible that it should have developed the present perfect aspect usually ascribed to it, which also serves to separate it from the aorist. With the rise in frequency of the new *em*-based perfect, the other patterns became more marginal and were lost over time, perhaps since their aspectual specificity was deemed superfluous.

33 Cf. Haig (2008: 193) on the notion of cross-system harmony.

5. Grammaticalisation pathway

Supposing that the development outlined above approaches historical reality, the question remains to what extent the diachrony of the Classical Armenian perfect construction fits in with already established grammaticalisation pathways. In general, the type of periphrasis so commonly found in perfect constructions in the languages of Europe is comparatively uncommon cross-linguistically, especially if based on a combination with verbs signifying ‘to be’ or ‘to have’,³⁴ but seems to have developed in a number of branches of the Indo-European family along similar lines.³⁵ At the same time, these perfects are, as a group, semantically diverse, some being more perfective *sensu stricto* than others.³⁶

The existence of multiple perfect constructions in one language is not uncommon in the Indo-European languages, considering for instance the complementary use of NHG *sein*, Fr. *être* and *haben*, *avoir* for (some) intransitive and transitive verbs, respectively (*ich bin gefallen*, *je suis tombé* vs *ich habe gegessen*, *j’ai mangé*). Likewise, even languages like English with a single firmly established ‘standard’ perfect construction show considerable variability in regional varieties, some of which are associated with particular tense-aspect values.³⁷

The Classical Armenian perfect as well as its West Middle Iranian cousins are therefore not outliers. In the case of Armenian, the diachronic development is without doubt an instance of grammaticalisation in the sense of a process “whereby particular items become more grammatical through time” (Hopper and Traugott 2003: 2), but one which does not clearly show the typical mechanisms of erosion, decategorialisation, desemanticisation and extension (in the terms of Heine 2003). Instead, the development as outlined exhibits other key elements

34 Cf. Bybee, Perkins and Pagliuca (1994: 64–65, 80); Haspelmath (1994: 173); (1998: 274–276); Dahl (1996: 365).

35 Cf. Drinka (2003).

36 Cf. Dahl (2020).

37 Cf. Tagliamonte (2000: 331–332).

of grammaticalisation processes found elsewhere: reduction of variables, systemic adaptation, and obligatorification.

The loss over the course of the 5th century and beyond of all copulas except *em* in the perfect indicates that this pattern has developed into the standard, perhaps at the cost of aspectual precision as might have been expressed by other copulas. This reduction of variables, that is the possible choice of copulas, is well-attested in other grammaticalisation processes, e.g. Jespersen's Cycle in French, as a result of which the negative bracket *ne ... pas* becomes the standard and other versions (*ne ... point*; *ne ... goute*; *ne ... mie*; etc.) fall into disuse.³⁸

Over the same time period, the adaptation of the originally Russian-style participle-only pattern via one with a copula in Ø-agreement to the final form with subject-agreement similarly indicates a developmental process so found also in other grammaticalisation processes. In this particular case, the fact that verb forms are inflected in all other tenses was extended to the perfect construction, initially without subject agreement in transitive verbs, perhaps since GEN agents could not license it.³⁹

Since the originally optional copula *em* increases in frequency over the course of the 5th century and by the times of Middle Armenian is an obligatory part of the perfect construction and continues to be so in Modern Eastern Armenian, the construction has clearly undergone obligatorification, another process associated with grammaticalisation pathways.⁴⁰

38 Cf. also Lehmann (1985).

39 Comparable adaptation processes in the alignment systems of Iranian and Indo-Aryan languages are discussed in Haig (2008: 187–197) and Harris and Campbell (1995: 255–273).

40 Lehmann (2015: 148–152) subsumes this process and the one referred to above as variable reduction (loss of 'transparadigmatic variability') into one process; given that such variability need not exist, however, it seems more appropriate to treat them as independent, if potentially linked processes.

While the rise of the *em*-based periphrastic perfect in Classical Armenian is therefore not a textbook example of grammaticalisation in that it does not exhibit signs of phonetic reduction,⁴¹ semantic bleaching, and the like, it is still clearly a process which exhibits other hallmark signs of grammaticalisation. Whether this somewhat unusual behaviour can be ascribed to the influence of language contact, as argued above, or whether other factors were at play is difficult to ascertain. At least in terms of phonetic changes, however, it is worth noting that compared to, e.g., the developments in German, English, or French, Armenian has undergone fewer large-scale changes which may help to explain the relative stability of the perfect construction, too.

6. Conclusions

This paper hopes to have shown that the periphrastic perfect construction in Armenian, consisting of a participle in *-eal* and a form of the copula *em* ‘to be’, latterly inflected for number and person and in subject-agreement, is the final product of a grammaticalisation process in early Classical Armenian. This perfect construction, whose semantics are largely that of a resultative or present perfect, had early rivals constructed with *linim* ‘to become’, *kam* ‘to stand, remain’, and *unim* ‘to have’, all of which exhibited similar but more specific semantics, but were marginal constructions to begin with and lost currency over the course of the 5th century.

While the occurrence of a variety of periphrastic perfect constructions may be related to an areal phenomenon of European languages, the particular initial variation in Classical Armenian is not unique, but reflected to a large extent in the West Middle Iranian languages as well. On the basis of other contact-based instances of pattern replication, it seems plausible that the Armenian periphrastic perfect with copula should have at least been influenced by if not modelled on the parallel Iranian constructions. On the whole, however, the development of the

41 The exception is the regular change of the participle formant by Middle Armenian times: *-eal* > *-el*; cf. Karst (1901: 69–71, 345).

em-based perfect is a process of the 5th century itself and as such subject to a number of adaptations, esp. as regards incipient subject-agreement. This process must have gone hand in hand with other developments in the Classical Armenian alignment system.

Although the development of the perfect in Armenian is not a classical example of grammaticalisation in that it lacks or omits a number of otherwise typical processes, there are nevertheless clear indications that a particular pattern has been grammaticalised, since theretofore optional and variable structures have undergone reduction and obligatorification, yielding the construction which, since the middle of the Classical Armenian period, has been retained as the perfect with only limited changes.

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