

**Title:** Armenian Morphosyntactic Alignment in Diachrony  
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**Abstract:**

This article outlines the development of morphosyntactic alignment in Armenian from its pre-attested stage to modern forms of the language. On the basis of numerous examples, it is shown that, for the most part, Armenian follows a nominative–accusative alignment pattern; the only exception occurs in the periphrastic perfect in Classical Armenian. This tense, composed of a historically passive-intransitive participle and a fossilized third-person singular form of the copula, shows tripartite alignment: subjects are marked as nominative, agents as genitive, and objects as accusative. This tense-sensitive alignment split prevails until the end of the Classical Armenian period.

After a discussion of previous explanatory approaches, it is suggested that the origin of this alignment pattern lies in the contact with the West Middle Iranian language Parthian from which Armenian has borrowed heavily in almost all linguistic domains. The Armenian perfect and its alignment are the grammaticalised result of pattern replication, a process by which the Parthian ergative–absolute past tense is borrowed into Armenian and there realized by means of the participle. The change from ergative–absolute to tripartite alignment is based on morphosyntactic re-analysis of the object case.

**Keywords:** morphosyntactic alignment; language contact; pattern replication; Parthian; Armenian; historical syntax

**Biographical note:**

Robin Meyer completed his doctoral thesis on Iranian–Armenian language contact at the University of Oxford in 2017. After three years as the Diebold Research Assistant in Comparative Philology and Lector for Latin and Ancient Greek at Oxford, he is now Assistant Professor of Historical Linguistics at the Université de Lausanne.

# Armenian Morphosyntactic Alignment in Diachrony\*

Robin Meyer (Université de Lausanne)

## 1. Introduction

Classical Armenian was a language at the cross-roads, both linguistically and culturally. Beyond its Indo-European heritage and, arguably, phylogenetically close relationship to Greek, Armenian was heavily influenced by West Middle Iranian languages (most significantly Parthian), Classical and early Byzantine Greek, and (to a lesser extent) Syriac.<sup>1</sup> The influence of the Iranian languages went so far as to impact not only the lexicon and phraseology of Armenian, but its syntax as well.

This syntactic influence is most patent in a set of diachronic alignment changes in the morphosyntax of the Classical Armenian periphrastic perfect, a discussion of which forms the core of this paper. It is argued that, on the basis of or at least in convergence with the West Middle Iranian tense-sensitive split-ergative verbal system, Armenian ‘borrowed’ the construction of the Iranian ergative–absolutive past tense onto its periphrastic perfect by means of pattern replication. Owing to morphosyntactic pressures, this replicated pattern was adapted and resulted in the largely tripartite alignment of the perfect attested in the earliest Classical Armenian texts. Over the course of time, this split-tripartite alignment was ousted in favour of nominative–accusative alignment, which dominated the non-periphrastic tenses.

Section 2 outlines the basic alignment structures of Classical Armenian, focusing on two contrasts: that between periphrastic tenses based on the *-eal* participle and the synthetic tenses; and that between definite and indefinite objects, which influences surface interpretations of the alignment pattern.

In section 3, traditional explanations of the development and loss of this split alignment pattern are discussed with a view to their explanatory power and potential problems.

An alternative approach is presented in section 4: it is argued that the primary cause of this alignment pattern is to be found not language-internally, but in language contact with West Middle Iranian. This proposal is backed up both by other syntactic similarities between the two

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<sup>1</sup> There are further a number of loanwords from Hurro-Urartian and the Kartvelian languages; their numbers are, however, so small that the influence of those languages, compared to the others named above, is negligible. See Greppin & Diakonoff (1991), Greppin (1996) on Hurro-Urartian, Deeters (1927:111–4), Vogt (1938), Djahukian (2003) and Gippert (2005:153–5) on Kartvelian.

languages as well as typological observations. The discussion ends in an outline of the loss of split alignment in late Classical Armenian.

Section 5 addresses the subsequent developments in Medieval and Modern Armenian, all of which show nominative–accusative alignment without significant exception.

## 2. Morphosyntactic Alignment in Classical Armenian

Before going *medias in res* of morphosyntactic alignment in Classical Armenian, it is worth briefly outlining its morphosyntactic categories. Both the verbal and nominal systems are derivable from Proto-Indo-European without too much effort and compare readily to those of other Indo-European languages; they have, however, undergone simplification and much syncretism, broadly speaking.

Armenian nouns and verbs are differentiated for two numbers (singular and plural); a dual does not exist. The case system consists of seven cases (NOM, ACC, GEN, DAT, LOC, ABL, INS), some of which have, to a greater or lesser degree, syncretized with one another.<sup>2</sup> There is no gender category. The verbal system differentiates three persons, three moods (IND, IMP, SBJV) and two voices (ACT, MP). There are three synthetic tenses (PRS, PST, AOR) next to two analytical tenses (PF, PLPF) formed with a participle and a copulative verb;<sup>3</sup> the PST only occurs in IND. A consistent voice distinction exists only in the AOR; the future is expressed by means of the SBJV.

Table 1: 1.SG.IND forms of *sirem* ‘to love’ and *helum* ‘to pour; to flow’

Tense	Voice		Voice	
	ACT	MP	ACT	MP
PRS	<i>sirem</i>	<i>sirim</i>		<i>helum</i>
PST		<i>sirei</i>		<i>helui</i>
AOR	<i>sirec ‘i</i>	<i>sirec ‘ay</i>	<i>heli</i>	<i>helay</i>
PRF	<i>(im) sireal ē</i>	<i>sireal em</i>	<i>(im) heleal ē</i>	<i>heleal em</i>
PLPF	<i>(im) sireal ēr</i>	<i>sireal ei</i>	<i>(im) heleal ēr</i>	<i>heleal ei</i>

Table 1 illustrates that the voice distinction in Classical Armenian is inconsistent; only *-em* verbs show separate synthetic MP forms outside the AOR.<sup>4</sup> This, in turn, results in ambiguities: *helu* (3.SG.PRS.IND) can be read as ACT ‘he pours (transitive); he flows (intransitive)’, but equally as MP ‘he is poured’. This inconsistency has been afforded great importance by some

<sup>2</sup> The details of case syncretism are dependent on number and declension; for a general overview, cf. Jensen (1959:49–67), for more historical detail, cf. Godel (1975:92–107), Matzinger (2005), and Schmitt (2007<sup>2</sup>:89–114).

<sup>3</sup> Armenian possesses other participial forms which are of no interest here, however, since they are not systematically used to form a specific tense; for an overview of these forms, cf. Stempel (1983).

<sup>4</sup> These MP forms in PRS are supplied by *i*-stem forms, which also exist in isolation, consisting of intransitive verbs without transitive counterparts; for historical notes on these verbs, cf. Meillet (1936:107–8), Godel (1975:120), Klingenschmitt (1982:9–11).

scholars in the question of the diachronic development of morphosyntactic alignment in Armenian, as detailed in §3 below.

Table 2: Declension of the noun *am* ‘year’, and the personal pronouns of the 1.SG and 3.SG

Case \ Number	‘year’ SG	‘year’ PL	3.SG	3.PL	1.SG	1.PL
NOM	<i>am</i>	<i>amk’</i>	<i>na</i>	<i>nok’a</i>	<i>es</i>	<i>mek’</i>
ACC	<i>am</i>	<i>ams</i>	<i>na</i>	<i>nosa</i>	<i>is</i>	<i>mez</i>
GEN	<i>ami</i>	<i>amac’</i>	<i>nora</i>	<i>noc’a</i>	<i>im</i>	<i>mer</i>
DAT	<i>ami</i>	<i>amac’</i>	<i>nma</i>	<i>noc’a</i>	<i>inj</i>	<i>mez</i>
LOC	<i>ami</i>	<i>ams</i>	<i>nma</i>	<i>nosa</i>	<i>is</i>	<i>mez</i>
ABL	<i>amē</i>	<i>amac’</i>	<i>nmanē</i>	<i>noc’anē</i>	<i>in(j)ēn</i>	<i>mēnj</i>
INS	<i>amaw</i>	<i>amawk’</i>	<i>novaw</i>	<i>nok’awk’</i>	<i>inew</i>	<i>mewk’</i>

Table 2, in turn, exemplifies the types of syncretism prevalent across the nominal and pronominal system. In general, NOM and ACC have syncretised across both systems in the singular, with the exception of the 1.SG and 2.SG personal pronouns; they remain distinct in the plural, however. Other types of syncretism are common too (GEN=DAT and often also =LOC in the singular; GEN=DAT=ABL and ACC=LOC in the plural), but depend on declension class. Again, the formal identity of some NOM and ACC forms has an impact on questions of alignment as discussed below.

In the case of Classical (and indeed modern) Armenian, the three categories of syntactic interest are subject (S), agent (A), and direct object (O). For the present purpose, further differentiation, e.g. of more or less goal-like objects in three-place arguments, is not necessary, nor is the consideration whether S is more agentive or more patientive.<sup>5</sup> As might be expected of an Indo-European language, for the most part Classical Armenian expresses S and A as NOM, and O as ACC. The finite verb agrees with S or A in number and person.

This general rule must be qualified in two ways, however. First, since NOM and ACC are not morphologically differentiated in all instances, and given that there is no fixed constituent order,<sup>6</sup> Armenian effectively exhibits both direct (or neutral) alignment (S=A=O) as well as NOM–ACC alignment (S=A≠O). The frequency of direct alignment patterns is diminished,

<sup>5</sup> More detailed analyses of alignment structures, such as presented in Dowty (1991) and Bickel & Nichols (2009), are of course available and could be applied to Armenian, too; they would, however, not shed any further light on the alignment pattern of Armenian at least given the present state of research.

<sup>6</sup> Little research has been done on this subject. Grammatical surveys largely reiterate the same point, that constituent order is largely pragmatically motivated; cf. Meillet (1936<sup>2</sup>:138), Schmitt (2007<sup>2</sup>:158), Klein (2017:1109).

however, by the second qualification, namely differential object marking. Definite, or at least individuated objects are commonly marked by the proclitic  $z=$ .<sup>7</sup>

The following examples illustrate the relevant sentence types for the synthetic tenses: active, intransitive (2.1); passive, no agent (2.2); passive, agent expressed (2.3); active, transitive, indefinite object (2.4); active, transitive, definite object (2.5).<sup>8</sup>

(2.1) S = NOM (ACT)

*hasanēr ar is hraman arn mioy patuakani*  
 arrive.3.SG.PST to 1.SG.ACC **order.NOM/ACC.SG** man.GEN.SG INDF.GEN.SG venerable.GEN.SG  
*Yovsēp' koč'ec'eloy*  
 PN called.GEN.SG

‘There arrived for me the order of a venerable gentleman called Yovsēp’ (Kor. 1.1)

(2.2) S = NOM (PASS)

*ayl ibrew satakec'aw kaysr=n darjan amenayn*  
 CONJ when kill.3.SG.AOR.PASS **emperor.NOM/ACC.SG=DET** return.3.PL.AOR all  
*hoviwk' episkoposk'n ork' ak'sorealk' ēin*  
 shepherd.NOM.PL bishop.NOM.PL REL.NOM.PL exile.PTCP.NOM.PL be.3.PL.PST

‘But when the emperor was killed, all shepherding bishops returned who had been exiled.’ (PB IV.13)

(2.3) S = NOM (PASS); PP (agent/instrument)

*zi gitac' t'ē y=Astucoy patrastec'aw koč'el*  
 CONJ understand.3.SG.AOR COMP by=god.ABL.SG prepare.3.SG.AOR.PASS call.INF  
*z=na jatagov čšmartut'ean=n ar i tal patasxani*  
 OBJ=3.NOM/ACC.SG protector.NOM/ACC.SG truth.GEN.SG=DET to give.INF answer.NOM/ACC.SG

‘... for he understood that it was ordained by god to summon him as protector of the truth to give a rebuttal [to the heretics]’ (PB IV.8)

(2.4) A = NOM; O = ACC-DEF

*ew ard kamik' p'oxanak K'ristosi ararč'i=n jeroy*  
 CONJ now wish.2.PL.PRS instead Christ.GEN.SG maker.GEN.SG=DET 2.PL.POSS.GEN.SG  
*carayel jez anastuac=n magut'ean*  
 enslave.INF 2.ACC.PL godless=DET magism.DAT.SG

‘And now, instead of Christ [your] maker, you wish to enslave yourself to the godless religion of the Magians ...’ (PB IV.51)

(2.5) A = NOM; O = ACC+DEF

*ayl tēr Astuac z=zōrutiwn=n iwr yayteac'*  
 CONJ **lord.NOM/ACC.SG** **God.NOM/ACC.SG** OBJ=might.NOM/ACC.SG=DET own show.3.SG.AOR

‘But the Lord God showed his might ...’ (PB III.3)

It is worth noting that Armenian is a pro-drop language; both S and O can be left unexpressed where the context allows for it. In PASS, the agent is most commonly expressed in a PP (*i* + ABL); INS is used for instruments.

In the analytical tenses, viz. PF and PLPF, the picture is more complex. S and O remain marked by NOM and ACC, respectively, with the same qualifications as above regarding definiteness

<sup>7</sup> It should be noted that even inherently more individuated or definite entities (e.g. personal pronouns, personal names) can be and frequently are marked by this proclitic, but that this is not always the case. For the present purpose, [ $\pm$ DEF] refers to the presence or absence of this proclitic.

<sup>8</sup> In all examples, constituents fulfilling S/A function are marked in **bold**, while those with O function are underlined.

and case syncretism. What changes are the case of A and verbal agreement. A is marked as GEN, wherefore in the analytical tenses, Armenian exhibits both ergative alignment (S=O≠A) and tripartite alignment (S≠A≠O), depending on the type and definiteness of O.<sup>9</sup> Further, in the analytical tenses, the finite verb agrees only with S; with transitive verbs, the copula appears in the 3.SG form independent of the number or person of A or O.

These patterns are exemplified by the following sentences: active, intransitive (2.6); passive, no agent (2.7); passive, agent expressed (2.8); active, transitive, indefinite object (2.9); active, transitive, definite object (2.10).

(2.6) S = NOM (ACT)

<i>ew</i>	<i>minč' č'ew</i>	<i>na</i>	<i>ekeal</i>	<i>ēr</i>
CONJ	before	<b>3.NOM.SG</b>	arrive.PTCP	be.3.SG.PST

‘And before he had arrived, ...’ (PB III.20)

(2.7) S = NOM (PASS)

<i>zi</i>	<i>yaṛaĵ</i>	<i>nax</i>	<i>and</i>	<i>šineal</i>	<i>ēr</i>	<i>surb</i>	<i>ekelec'i=n</i>
CONJ	first	first	there	build.PTCP	be.3.SG.PST	holy	<b>church.NOM/ACC.SG=DET</b>

‘... for there was built for the very first time the holy church’ (PB III.14)

(2.8) S = NOM (PASS); PP (agent/instrument)

<i>z=surb</i>	<i>uxt</i>	<i>ekelec'woy=n</i>	<i>or</i>	<i>oč'</i>	<i>ēr</i>
OBJ=holy	covenant.NOM/ACC.SG	church.GEN.SG=DET	<b>REL.NOM/ACC.SG</b>	NEG	be.3.SG.PST
<i>herac'eal</i>	<i>i</i>	<i>zawrakenē=n</i>			
abandon.PTCP	by	soldiery.ABL.SG=DET			

‘... the holy covenant of the Church, which had not been abandoned by the soldiers.’ (Eł. p. 106)

(2.9) A = GEN; O = ACC-DEF

<i>oroy</i>	<i>yankarc</i>	<i>uremn</i>	<i>ēr</i>	<i>gteal</i>	<i>nšanagirs</i>
<b>REL.GEN.SG</b>	unexpectedly	somewhere	be.3.SG.PST	find.PTCP	<u>sign.ACC.PL</u>
<i>alp'ap'etac'</i>	<i>hayerēn</i>	<i>lezui</i>			
alphabet.GEN.PL	Armenian	language.GEN.SG			

‘... who somewhere had unexpectedly discovered alphabetic signs for the Armenian language.’ (Kor. VI.3)

(2.10) A = GEN; O = ACC+DEF

<i>ew</i>	<i>ēr</i>	<i>sora</i>	<i>ənkaleal</i>	<i>z=k'orepiskoposut'ean</i>	<i>jeṛnadrut'iwn</i>
CONJ	be.3.SG.PST	<b>3.SG.GEN</b>	receive.PTCP	<u>OBJ=rural-</u>	<u>consecration.NOM/ACC.SG</u>
				bishop.GEN.SG	
<i>astičani=n</i>	<i>i</i>	<i>jerac'</i>	<i>meci=n</i>	<i>Grigori</i>	
rank.GEN.SG=DET	from	hand.ABL.PL	great.GEN.SG=DET	PN.GEN.SG	

‘And he had received the consecration to the rank of bishop from the hands of the great Grigor’ (PB III.14)

Four complexities need to be added. First, in PF, the finite copula is optional, meaning that the participle may stand on its own as a full verb (2.11). Second, the tripartite alignment pattern dominant in the analytical tenses has exceptions: occasionally, S is expressed as GEN (2.12) or A as NOM (2.13); these seem to be free, unconditioned variants. Third, the participle may be used converbially with other tenses, and in such instances A may be expressed as NOM or GEN

<sup>9</sup> As a result of the morphological details described above, the ergative pattern is effectively restricted to O-DEF in SG in settings not involving speech acts and thus pronominal references.

(2.14).<sup>10</sup> Finally, since NOM=ACC in most instances (as mentioned above) and the two cannot be distinguished except if O is definite, the alignment of some sentences may appear as ERG–ABS (2.15; see also Table 3 below).

(2.11) PTCP as full verb without copula

<i>ew</i>	<i>ert'eal</i>	<i>i</i>	<i>kolmans</i>	<i>Arami</i>	<i>i</i>	<i>k'atak's</i>	<i>erkus</i>	<i>Asorwoc'</i>
CONJ	arrive.PTCP	to	side.ACC.PL	PN.GEN.SG	in	city.ACC.PL	two	Assyrian.GEN.PL

‘... and he arrived in the region of Aram, in two cities of the Assyrians ...’ (Kor. VII.1)

(2.12) S = GEN

<i>apa</i>	<i>ekeal</i>	<i>ēr</i>	<b><i>ark'ayi=n</i></b>	<i>i</i>	<i>tehi</i>	<i>čakatu=n</i>
then	come.PTCP	be.3.SG.PST	<b>king.GEN.SG=DET</b>	to	place.NOM/ACC.SG	front.GEN.SG=DET
<i>ew</i>	<i>ənd</i>	<i>nma</i>	<i>mec</i>	<i>episkoposapet=n</i>	<i>Hayoc'</i>	
and	with	3.DAT.SG	great	chief-bishop.NOM/ACC.SG=DET	Armenian.GEN.PL	

‘Then the king came to the frontline and with him the great chief-bishop of the Armenians ...’ (PB III.7)

(2.13) A = NOM

<i>ew</i>	<b><i>č'aragorc=n</i></b>	<i>melawor</i>	<i>Meržuan=n</i>	<i>z=iwr</i>	<i>z=zēn=n</i>
CONJ	<b>evil-</b>	sinful	PN=DET	OBJ=REFL.POSS	OBJ=arms.NOM/ACC.SG=DET
	<b>doer.NOM/ACC.SG=DET</b>				
<i>ew</i>	<i>zard</i>	<i>ew</i>	<i>z=nšan=n</i>	<i>salawarti=n</i>	
and	<u>ornament.NOM/ACC.SG</u>	and	<u>OBJ=insignia.NOM/ACC.SG=DET</u>	helmet.GEN.SG=DET	
<i>bazmac'</i>	<i>edeal</i>	<i>ēr</i>	<i>z=noyn</i>	<i>ōrinak</i>	
many.DAT.PL	give.PTCP	be.3.SG.PST	OBJ=same	fashion.NOM/ACC.SG	

‘And the sinful evil-doer Meržuan had given as identical copies his arms, ornaments, and the insignia on his helmets to many [people]’ (PB V.43)

(2.14) PTCP used as CVB; S unexpressed

<i>ew</i>	<i>haseal</i>	<i>gayr</i>	<i>handēp</i>	<i>Gardmanakan</i>	<i>joroyn</i>
CONJ	arrive.CVB	come.3.SG.PST	opposite	Gardman	valley.GEN.SG

‘And he arrived opposite the valley of Gardman ...’ (Kor. XVIII.1)

(2.15) O<sub>-DET</sub> = NOM/ACC

<i>ew</i>	<b><i>nora</i></b>	<i>tueal</i>	<i>hraman</i>	<i>ark'ayagund</i>	<i>banakac'='n</i>
CONJ	<b>3.GEN.SG</b>	give.PTCP	<u>order.NOM/ACC.SG</u>	royal-guard	army.DAT.SG=DET

‘And he gave an order to the royal army ...’ (Ag. §829)

Table 3 ventures to summarise the alignment system of Classical Armenian at its most conservative, viz. as represented in the earliest attested texts dating to the 5<sup>th</sup> century CE. It does not take into account the diachronic trends leading to the loss of tripartite alignment in the analytical tenses over the course of the following three centuries, which result in the predominantly NOM–ACC alignment of late Classical Armenian and subsequent forms of the language. These developments are discussed in §§4–5 below. On the surface, viz. from a solely morphological perspective, the synchronic data suggests that Classical Armenian shows a two-dimensional alignment split: tense-sensitive alignment (TSA) between synthetic and analytical tenses; and a split along lines of definiteness. From a broader, morphosyntactic perspective,

<sup>10</sup> A corpus analysis of fifth-century texts indicates that statistically the converbial use is, by far, the single most common application of the participle, accounting for 40–68% of all participles in the texts surveyed (Meyer 2017:196).

and taking into account accounts of contemporary Armenian grammarians, it seems more appropriate, however, to treat the formal identity of NOM and ACC in some categories as coincidental. For the purposes of *morphosyntactic* alignment, it is after all the morphosyntax that plays the pivotal role. The result is that, generally speaking, Armenian is best understood as showing only TSA along the lines mentioned above; for this purpose, the solidly shaded column in Table 3 need not be seen as a separate dimension.

Table 3: Summary of constituent marking and morphosyntactic alignment

Domain	1./2.SG/PL; 3.PL; PN.PL; N.PL	3.SG+DEF; PN.SG+DEF; N.SG+DEF	3.SG-DEF; PN.SG-DEF; N.SG-DEF
Marking	NOM ≠ ACC   S ≠ A	NOM = ACC   S ≠ A	NOM = ACC   S = A
Synthetic tenses	S = NOM A = NOM O = ACC	S = NOM A = NOM O = z+NOM(=ACC)	S = NOM A = NOM O = NOM(=ACC)
Alignment	<i>nominative-accusative</i>	<i>nominative-accusative</i>	<i>direct</i>
Analytical tenses	S = NOM A = GEN O = ACC	S = NOM A = GEN O = z+NOM(=ACC)	S = NOM A = GEN O = NOM(=ACC)
Alignment	<i>tripartite</i>	<i>tripartite</i>	<i>ergative-absolutive</i>

For a satisfactory diachronic explanation of this pattern, any explanation needs to answer or at least address the following questions:

- (a) How and why did TSA arise?
- (b) Why does GEN mark A?
- (c) Why is the finite copulative verb in PF optional?
- (d) Why does the finite copulative verb in PF.TR show  $\emptyset$ -agreement?

These questions will be addressed in the following two sections.

### 3. Traditional Explanations of this Alignment Pattern

Over the course of the twentieth century, there have been different attempts at explaining this split alignment pattern. The following selection is representative if not exhaustive:

- (1) a nominal construction (*nomen actionis* + *genitivus auctoris*);
- (2) a ‘have’-perfect with a *genitivus possessivus*;
- (3) the genitive is a prototypical agent case;
- (4) language contact with Caucasian languages;
- (5) the result of analogical shifts.

While there is an ongoing debate whether (Pre-)Proto-Indo-European was a language with an alignment pattern other than NOM–ACC, this is of no consequence for the present question, as



the type of alternative alignment envisaged by some revolves around questions of animacy or gender rather than tense or definiteness.<sup>11</sup>

In what follows, the historical explanations listed above are discussed briefly with a view to demonstrating why they fall short of explaining alignment in Classical Armenian to a sufficient degree.<sup>12</sup>

### **3.1 Meillet and the nominal construction**

The first attempt at explaining GEN-marking in PF goes back to Antoine Meillet, who in the 1936 edition of this *Esquisse d'une grammaire comparée de l'arménien classique* proposes that the construction be construed as a *genitivus auctoris* with a *nomen actionis*:

[L]’emploi au premier abord étrange, du génitif dans les tours [participaux] provient sans doute de ce que les participes en *-eal* représentent d’anciens substantifs: *nora bereal ē* ‘il a porté’ a dû signifier originairement ‘il y a porté de lui’, c’est-à-dire que l’infinitif et le participe seraient des formations également nominales, mais de structure distincte. (Meillet 1936<sup>2</sup>:129; italics added)

While it addresses all the questions asked above,<sup>13</sup> this explanation—also presented in the first edition of Meillet’s *Esquisse* from 1903—had already been refuted by Deeters on different grounds: Meillet does not explain the difference between the intransitive PF (S = NOM) and the transitive PF (A = GEN). In polemic terms: why is it ‘there is my carrying him’ but not ‘there is my coming’ (Deeters 1927:80)? Benveniste (1952:58) further objects that Meillet’s analysis requires a different morphological history for the intransitive and transitive participle, respectively, since the *-eal* participle would have to be a participle *sensu stricto* in the intransitive construction, but a *nomen actionis* in the transitive sense.

### **3.2 Benveniste and the ‘have’-perfect**

Trying to improve on Meillet’s explanation, Benveniste (1952) suggested that the Armenian perfect should be construed as a ‘have’-perfect with its agent in the *genitivus possessivus*; the construction starts out with the possessed entity in NOM (‘I have a written letter’ ~ ‘There is unto me a written letter’), which is over time re-analysed as the object of a transitive sentence and expressed as ACC. This explanation is still accepted even in more recent scholarship, so Schmitt (2007<sup>2</sup>:152). For Benveniste, the Armenian construction is similar to its Old Persian

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<sup>11</sup> For a recent and thorough discussion, cf. Willi (2018:504–546).

<sup>12</sup> For a more detailed discussion of these and other approaches, cf. Meyer (2017:113–31). In particular, a discussion of the historical morphology and its implications for the valency of the participle in *-eal* has been avoided for reasons of space; on this matter, cf. Meyer (2014; 2017:39–82) with bibliography.

<sup>13</sup> In Meillet’s eyes, this alignment pattern is the result of a retained nominal construction; the copula does, historically, agree with the *nomen actionis* and is optional because the copula generally is in Armenian and many other Indo-European languages.

counterpart, the so-called *taya manā kṛtam* construction.<sup>14</sup> Pointing out the possessive function the Armenian GEN/DAT fulfils,<sup>15</sup> Benveniste sees the perfect as ‘une expression possessive bâtie en arménien même sur un modèle idiomatique pour rendre ce qui était apparemment le sens propre du parfait transitif’ (1952:60). The fact that Armenian, as opposed to Old Persian, marks O as ACC is explained as a cogent development of its transitive nature (cf. Benveniste 1959). The 3.SG copula, in turn, Benveniste sees as part of the possessive construction: ‘I have’ is the same as ‘there is unto me’.

His approach does, however, not explain why possessed entities in the plural do not receive a 3.PL copula (‘there are unto me’); equally, it offers no cogent explanation as to why, in a diachronically increasing trend, A can be expressed by NOM in some instances, or why, at an early stage, S can be expressed by GEN on occasion.<sup>16</sup> Finally, Benveniste does not take into account that the copula is an innovation and unlikely to have been a part of the original construction, as evidenced by its overwhelming absence in the earliest texts.<sup>17</sup>

### 3.3 Schmidt and the prototypical genitive agent

Since the role of GEN as the case marking A is pivotal in the discussion of the origin of the split alignment in Classical Armenian, the question whether GEN may simply be a prototypical agent case is worth asking. Such a point was made by Schmidt (1963), pointing to a number of other Indo-European languages in which GEN fulfils such or similar functions when combined with verbal adjectives or participles, like for instance Latvian, Lithuanian, Vedic, and Tokharian.<sup>18</sup> He admits, however, that in each case this agentive function is a secondary development based on the original role of GEN with the nominal, non-finite forms of the verb (1963:11). Hettrich (1990: 94, 97) adds that the use of GEN as an agent was originally restricted to qualifications of verbal adjectives with PASS force as evidenced by Vedic, Greek and Old Persian data; it cannot be considered a separate function of that case, but is a manifestation of its basic appurtenative use, wherefore any agentive uses must have developed *einzel sprachlich* and thus

<sup>14</sup> Exhaustive discussions of this construction can be found in Haig (2008:23–88) and Jügel (2015).

<sup>15</sup> GEN and DAT are morphologically indistinguishable in Armenian except in pronouns. The perfect must construe with GEN, however, since it never occurs with a DAT pronoun.

<sup>16</sup> See (2.12–2.13). The proposal that GEN is ‘préférée parce qu’elle faisait mieux ressortir le rapport d’antériorité’ (Benveniste 1959:63) is *ad hoc* and lacks any reasoning.

<sup>17</sup> Schmidt (1962:231–2) elaborates on Benveniste’s approach and does take into account the copula-less, appositive or converbial use of the participle; he argues that the participle is ‘primär unempfindlich gegen eine Diathesenunterscheidung [und] stimmt [darin] mit anderen armenischen [...] Verbalnomina überein’ and that, despite its passive origins, the construction derives its transitive use from the appositive, copula-less variant. This assumption is, however, unmotivated; if at all, a transitive re-interpretation could only arise from the ‘have’-perfect use, and the argument runs the risk of becoming circular. For a more detailed discussion, cf. Meyer (2017:116–7).

<sup>18</sup> For Latvian, cf. Endzelīns (1923:§774); for Tokharian, Thomas (1952); for Vedic, Jamison (1979:133–7).

independently.<sup>19</sup> Since even the closest comparandum to the Armenian construction, namely Tokharian verbal adjectives, has a different aetiology,<sup>20</sup> the idea of a prototypically agentive GEN can be rejected.

### ***3.4 Lohmann and contact with languages of the Caucasus***

The proposal that the construction of the Armenian perfect should be due to contact with other languages of the Caucasus, many of which have or had ergative alignment, goes back to Meillet who suggests that the Armenian construction ‘rapelle [...] le “caractère passif du transitif dans les langues du Caucase” ’ (1899–1900:395). Despite clear and convincing refutations by Deeters (1927), who makes the point that constructions with neither agent nor patient in NOM are equally unusual in Caucasian languages, this line of argumentation is further pursued by Lohmann (1937). The latter adopts Meillet’s historical analysis of the construction (see §3.1) and seeks to explain the ACC object as the equivalent of NOM in the Kartvelian transitive perfect constructions (effectively ABS in ergative alignment; 1937:53). The agent expressed by GEN in Armenian is analogous to the Kartvelian DAT-ACC; since Armenian does not distinguish GEN and DAT consistently, Lohmann believes the DAT functions to be sufficient for, in modern terms, polysemy copying.<sup>21</sup> This comparison with the Kartvelian ergative construction and the suggestion of a historical link with the Armenian construction have also been advocated by Tumanyan (1974).

The suggestion is, however, untenable. The contact situation between Armenian and other languages of the Caucasus except Greek and the West Middle Iranian languages was not sufficiently well-developed to result in such significant changes: morphological and syntactic borrowings are not found; lexical borrowings are not numerous, and even they have been called into question recently.<sup>22</sup>

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<sup>19</sup> An earlier analysis by Jamison (1979:133–7) corroborates Hettrich’s position. Jamison shows convincingly that so-called agentive uses of GEN in Greek and Vedic are so marginal as to be virtually non-existent.

<sup>20</sup> In Tokharian, the deontic verbal adjective in TA *-l*, TB *-lle/-lye* < PIE *\*-lo-*, like its Armenian counterpart, is used primarily as a passive, agreeing with its patient, whilst the agent is found in GEN (Thomas 1952:19). The fact that the construction is largely passive, expresses a deontic modality, and that the Tokharian GEN has through syncretism taken on functions of the lost DAT (Zimmer: 1985:568–9; Pinault 2008:463, 2011:383) suggests that there is no relation to the Armenian construction; in fact, closer comparanda can be found in the deontic constructions of other Indo-European languages, e.g. Hittite, Vedic, Avestan, Greek, and Latin (Luraghi 1995:262; Hettrich 1990:64–6).

<sup>21</sup> For the term polysemy copying, see fn. 28 below and Matras & Sakel (2007:852), Heine & Kuteva (2005:100), Heine (2012).

<sup>22</sup> Deeters (1927:111–4) and Vogt (1938) present some findings, suggesting that the pre-literary contact between the Kartvelian languages and Armenian was not comparable in degree to the latter’s contact with Iranian languages or Greek. Even the elements listed there are, however, problematic (Gippert 2005:153–5).

### 3.5 Stempel and analogical shift

An entirely different approach is presented by Stempel, who rejects the attempts outlined above for similar reasons. Together with Benveniste and Schmidt, Stempel assumes that the perfect construction arose from an earlier passive construction of the type *\*nora gorceal ē gorc* ‘the deed was done by him’, where *gorc* ‘deed’ is the clausal subject; according to Stempel, this initial stage fits best with the intransitive-passive and adjectival nature of the *-eal* participle (1983:83). Instead of the possessive explanation of Benveniste, Stempel provides an ‘innerarmenisches Motiv’ for the diathetic shift from passive to active.

Under the assumption that the participle is originally intransitive-passive, he proposes that, at least initially, the perfect only existed in a passive sense (1983:84). He explains the GEN agent as inherited from the proto-language, comparable to similar usages in Tokharian, Lithuanian and in remnants of Greek. Since the agent in passive constructions was otherwise expressed by *i* + ABL, the advent of the perfect passive led to the coexistence of two types of agent marking in that tense.

It is at this point that Stempel suggests an analogical shift: the coexistence in the perfect passive of two possibilities of marking the agent taken together with the system pressure exerted by the synthetic tenses, in which an active diathesis existed next to the passive, left open the possibility of one of the two agent-marking patterns being re-analysed. He suggests that the original perfect passive construction *\*nora gorceal ē gorc*, whose function was now performed by the more common *i* + ABL agentive expression, was reinterpreted as an active according to the pattern illustrated in Table 4.

Table 4: Analogical shift explanation of morphosyntactic alignment in Classical Armenian (Stempel 1983)

	ACT	PASS
AOR	<i>na gorceac</i> ‘(z=)gorc	<i>gorc gorcec</i> ‘aw <i>i nmanē</i>
PF	∅	<i>gorc ē gorceal i nmanē</i> <i>*nora gorceal ē gorc</i>
↓ analogical shift ↓		
	ACT	PASS
AOR	<i>na gorceac</i> ‘(z=)gorc	<i>gorc gorcec</i> ‘aw <i>i nmanē</i>
PF	<i>nora gorceal ē</i> (z=)gorc	<i>gorc ē gorceal i nmanē</i>

While the perfect had thus acquired an active diathesis as well, the participle itself had not yet followed suit. Further steps were required to arrive at the attested grammatical *status quo*: in the new perfect active, the former grammatical subject in NOM had to be re-analysed as the logical object in ACC, a process simplified by the identity of NOM and ACC in the singular of

nouns and most pronouns. Subsequently, any potential congruence in number marking between former subject and participle was likely eliminated; since adjectives preceding their head nouns do not normally agree with the latter in Armenian anyway, and only optionally do so when following them, this pattern may have been adopted for postposed predicative adjectives, too (Stempel 1983:85). In a final analogical step, and owing to the reinterpretation of NOM subject as ACC object, the latter could be marked by the definite object proclitic *z=*, as is frequently the case in all other tenses.

In the course of time, so Stempel, these processes allowed for an active interpretation of even attributively used participles, which in turn required the maintenance of a morphologically marked difference between active and passive participle, thus PASS *na teseal ē* ‘he has been seen’ vs ACT *nora teseal ē* ‘he has seen [something]’ (1983:86).

Stempel’s explanation cannot work, however. To begin with, it is based on the erroneous assumption that genitive agents are an inherited Indo-European feature; this has been rejected in §3.3 above. Secondly, the extent of the analogical remodelling proposed is implausible. While the reinterpretation of NOM subject as ACC object may have taken place as such, two questions arise: given that an alternative agent marking for PASS already existed, and that non-NOM subjects are not otherwise found in Armenian, why was the GEN-marked agent not simply lost? Similarly, why is the copula a fossilised 3.SG form, and only arises after the establishment of the perfect, as borne out by the earliest texts? As in the other explanations discussed, these questions remain unresolved.

#### **4. A Language Contact Approach**

While none of the approaches outlined above wholly explain the development of the Armenian perfect to a satisfying degree, many partly plausible suggestions have been made. In what follows, a different approach is laid out which aims to answer the four questions posed at the end of §2.

The background of this approach is the firmly established contact relationship between Armenian and the West Middle Iranian languages, particularly Parthian, which is the result of extended Iranian rule over the Armenian kingdom and finds its most well-known and patent expression in the great number of Iranian lexical loans in Armenian.<sup>23</sup> Furthermore, extra-linguistic as well as linguistic evidence strongly speaks in favour of this contact situation

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<sup>23</sup> For an overview, see Schmitt (1983), Meyer (fthc. *a*); a more thorough, though dated discussion can be found in Bolognesi (1960).

having been strong enough as to have gone beyond lexical influence and having an impact on Armenian syntax as well.<sup>24</sup>

With this in mind, an Iranian origin of the Armenian perfect construction must be considered. The West Middle Iranian languages also show TSA, with the tenses based on the present stem aligning NOM–ACC, whereas the participle-based tenses show ERG–ABS alignment.<sup>25</sup> (4.1–4.4) illustrate this briefly.

(4.1) PRS, explicit A and O

<i>'w</i>	<i>'m'h</i>	<i>hrw'yn</i>	<i><u>bwxtqyft</u></i>	<i>wynd'm</i>
CONJ	<b>1.PL</b>	all	<u>salvation</u>	seek.1.PL.SBJV

‘And we all shall seek salvation.’ (BBB 302–3; Parthian)

(4.2) PRS, explicit A, O enclitic

<i>ky=<u>m</u></i>	<i>wyš'h'h</i>	<i>'c</i>	<i>hrwyn</i>	<i>gryhcg</i>	<i>w</i>	<i>zynd'n</i>
<b>INTERROG=1.SG.OBL</b>	liberate.3.SG.SBJV	from	all	abyss	and	prison

‘Who will free me from all [these] abysses and prisons ... ?’ (H/IVa/1a = Durkin-Meisterernst 2014:292)

(4.3) PST, copula with S-agreement; A as enclitic, copula with O-agreement, O marked DIR

<i>qd</i>	<i>tw</i>	<i>'b</i>	<i>sd</i>	<i>'yy</i>	<i>'w=t</i>	<i>'z</i>	<i>hyšt</i>	<i>hym</i>	<i>syywg</i>
		<i>r</i>							
whe	<b>2.S</b>	up	ascend.PTC	be.2SG.PR	<b>CONJ=2.SG.OB</b>	<u>1.SG.DI</u>	leave.PTC	be.1.SG.PR	orpha
n	<b>G</b>		<b>P</b>	<b>S</b>	<b>L</b>	<b>R</b>	<b>P</b>	<b>S</b>	<b>n</b>

‘... when you ascended and left me [as] an orphan ...’ (M42/R/i/14–16 = Durkin-Meisterernst 2014:394)

(4.4) PST, A as enclitic, O in 3.SG, no copula

<i>kw</i>	<i>'ym,</i>	<i><u>cy=m</u></i>	<i>'c</i>	<i>tw</i>	<i>wx'št,</i>	<i>'w</i>	<i>mn</i>	<i>w'c'h</i>
COMP	DEM	<u>REL=1.SG.OBL</u>	from	2.SG	request.PTCP	to	1.SG.OBL	say.2.SG.SBJV

‘That which I requested from you, may you tell me [it]!’ (MKG 1610–11)

When comparing the West Middle Iranian PST to the Armenian PF, however, there are a number of notable differences: the copula agrees in person and number with O, except in 3.SG where it is absent;<sup>26</sup> West Middle Iranian has lost most of its case morphology, and with the exception of 1.SG pronouns and clitic pronouns for all persons, constituent function is derived from word order; the alignment of the West Middle Iranian PST is ERG–ABS, with S=O. How, then, can this situation be related to the tripartite alignment pattern of Classical Armenian presented above?

<sup>24</sup> In particular, this refers to the strong social ties between the Arsacid Parthian rulers of Armenia and the nobility otherwise in charge of the region. These close relationships find an expression in Iranian–Armenian intermarriage and tutelage of young nobles in other families; the Christianisation of the Iranian rulers together with their Armenian subjects; and frequent political and military struggles with the Sasanian neighbours. A more detailed treatment of this question and of other Armenian syntagmata replicated on the basis of Iranian models can be found in Meyer (2017:295–339), Meyer (fthc. b).

<sup>25</sup> The nominal morphology of West Middle Iranian is very limited: a case distinction is only made in the 1.SG pronoun and, in early sources, in some kinship terms (Skjærvø 1983:49, 176); enclitic pronouns, when used, only code OBL functions, i.e. O and A as well as possessive marking. The standard constituent order is SOV.

<sup>26</sup> The absence of the 3.SG copula applies only to PST, where the copula would be a PRS form of 'h ‘to be’; in the PLPF, a PST copula or auxiliary in 3.SG can occur (Durkin-Meisterernst 2014:246–7, 376–7).

As the data suggests, the tripartite pattern is a secondary development of a previous, less clearly attested ERG–ABS alignment in Armenian, too; see (2.15) above. At first, it is this alignment pattern which Armenian imitates, likely by extending the usage of the participle beyond its basic attributive use, copying the usage of the West Middle Iranian participle. (4.5–4.6) illustrate this usage in both languages.<sup>27</sup>

(4.5) Attributive PTCP in Armenian

*ant'erc'uack'* [ēin]      *surb*      *groc'*      *katareal*      *uraxut'iwnk'*  
**lesson.NOM.PL**    be.3.PL.PST    holy      scripture.GEN.PL    complete.PTCP    happiness.NOM.PL  
 ‘The lessons in holy scripture were supreme happiness.’ (Eł. p. 125)

(4.6) Attributive PTCP in Parthian

*hrw*    *'st'r*    *'ndryn*    *'wd*    *b'yn*    *'ndyš'd*    *w'xt*    *'wd*    *qyrd*    *cy*    *myhg'r*  
 each    **sin**    internal    and    external    think.PTCP    speak.PTCP    and    do.PTCP    INTERROG    damage  
 ‘Each sin, external and internal, thought, spoken, and done [entails] what damage?’ (HLS 284–7)

The ensuing process of pivot matching, in which the functions of the key components of the model construction (the West Middle Iranian PST) are mapped onto Armenian counterparts,<sup>28</sup> accordingly needs to find appropriate expressions for the involved constituents and the copula. The initial matching of S and O, where the Pth. DIR is mapped onto the Arm. NOM, is trivial; as regards the marking of A, however, the mapping of Pth. OBL onto Arm. GEN is not immediately obvious. It stands to reason, however, that in another case of polysemy copying, it was the Pth. OBL enclitic pronouns which made the Arm. GEN the obvious choice; the former frequently occur as A, but are also used for marking possessive and appurtenative relationships, like the Arm. GEN.<sup>29</sup> This possessive function is shown in (4.7).

(4.7) Parthian enclitic pronoun expresses possession

*gy'n=wm*      *j'm*      *'w*      *whyšt*      *'nwšg*  
soul=1.SG      lead.IMP      to      paradise      immortal  
 ‘Lead my soul to immortal Paradise!’ (MMiii 887)

<sup>27</sup> Cf. Jügel (2015:273–4).

<sup>28</sup> Particularly in bilingual speakers, syntagmata can be copied in a language processing mechanism which identifies ‘a structure that plays a pivotal role in the model construction, and matching it with a structure in the replica language, to which a similar, pivotal role is assigned in a new, replica construction’ (Matras & Sakel 2007:830). This process is called pivot-matching; the resulting replica construction do not usually involve borrowing of lexical items at the same time (Matras 2009:26–7). It relies on another process termed polysemy (or polyfunctionality) copying, in which the bilingual identifies an element in the replica language that shares some semantic or functional features with a pivot element in the model language and extends (or ‘copies’) some or all of the model language features onto the replica element.

<sup>29</sup> Given the absence of morphological distinction in the WMIr. nominal system, the pronominal system is the logical locus for polysemy copying. The choice of GEN, beyond the reason mentioned here, is surely also structurally motivated: large-scale isomorphism in the Arm. oblique cases results in the undifferentiability of, e.g., GEN, DAT, and often ABL and their associated functions (e.g. appurtenance, recipient, origin marking). The exception are the majority of instances of GEN in the pronominal system (all personal pronouns; SG of demonstratives, etc.), which exhibit different forms. Therefore, the choice of GEN is motivated not only by functional equivalence with its Pth. model, but by unambiguous and economic coding of grammatical functions as well.

The copula is a different matter. Given that in the earliest sources, the copula is still a relatively uncommon occurrence, it must be assumed that its increasing presence is an Armenian innovation. The West Middle Iranian model, then, is likely the 3.SG in which the copula is not found anyway; this also goes to explain why, when the copula is introduced later, it exhibits a different agreement pattern than its model.

The rise of the copula and its  $\emptyset$ -agreement in transitive expressions is likely the result of system pressure from the synthetic tenses, in which all verbs are finite and marked for person and number. This does not pose a problem for the intransitive PF, where S-agreement is readily marked since S is expressed by NOM. In the transitive PF, however, where A is marked by GEN, agreement does not appear to be licensed and the copula defaults to the 3.SG;<sup>30</sup> this kind of behaviour can be observed in other languages undergoing similar alignment changes, too, which lends further credence to this suggestion.<sup>31</sup>

These are the mechanisms most likely at play leading to the replication of the West Middle Iranian PST alignment pattern in Armenian and to the development of a fossilised 3.SG copula. This accounts for the right-most column in Table 3 above. To account for the tripartite alignment pattern, however, one further step of re-analysis is required.

As pointed out in Table 1 illustrates that the voice distinction in Classical Armenian is inconsistent; only -em verbs show separate synthetic mp forms outside the aor. This, in turn, results in ambiguities: *helu* (3.sg.prs.ind) can be read as act ‘he pours (transitive); he flows (intransitive)’, but equally as mp ‘HE is poured’. This inconsistency has been afforded great importance by some scholars in the question of the diachronic development of morphosyntactic alignment in Armenian, as detailed in §3 below.

Table 2 above illustrates that there is considerable isomorphy between NOM and ACC in Armenian, particularly in the SG. Since O is marked as ACC in the synthetic tenses, a re-analysis in the PF of O as being marked ACC rather than NOM is not difficult to imagine, particularly if taking into account the role of the proclitic  $z=$  in marking definite O.

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<sup>30</sup> It is worth noting that even in the non-standard patterns mentioned above (where unexpectedly S=GEN or A=NOM), copula agreement with either A or O did not arise. The fossilised 3.SG copula appears to be an Armenian-internal development, with incidence rising sharply in the course of the 5th century (Meyer 2017:185–189). Were a model like that of Benveniste to be correct (see §3.2 Benveniste and the ‘have’-perfectabove), traces of O-agreement with plural objects might be expected and a greater initial incidence, if not obligatoriness, of the copula.

<sup>31</sup> Cf. Pirejko (1966) and Payne (1979:442) on Talyši, Comrie (1978:342) on Dānesfāni, Anand & Nevins (2006:7) on Hindi.



This situation prevails for the majority of the history of Classical Armenian; as pointed out above (see 2.12–2.13), the grammaticalization process behind the establishment and later ousting of the tripartite alignment pattern is evidenced already in certain early uses not conforming to the perceived standard, thus e.g. NOM-marked A or GEN-marked S; these alternative constructions indicate that the split alignment system strove to normalise the NOM–ACC alignment of the synthetic tenses, no matter which case took S=A function; system pressure resulted in NOM winning over GEN. The statistical data gleaned from a corpus analysis shows that the NOM-marked A rises significantly already over the course of the 5<sup>th</sup> century (Meyer 2017:182–4); by the end of the 8<sup>th</sup> century, NOM–ACC alignment has been established, though in more elevated literature, some remnants of the old construction still crop up owing to literary imitation.

### 5. Morphosyntactic Alignment in Medieval and Modern Armenian

After the loss of the split alignment system as outlined above, the NOM–ACC alignment of post-classical Armenian has remained stable throughout the Middle Ages in all variants of the language. The Armenian verbal system, however, and to a lesser extent the nominal system have undergone significant morphological and, subsequently syntactic, changes.<sup>32</sup>

Both major variants of modern Armenian—Modern Eastern Armenian as spoken in the Republic of Armenia and Modern Western Armenian as spoken in the diaspora<sup>33</sup>—have developed a highly analytical verbal system with few synthetic forms remaining.<sup>34</sup> As an example, consider the development of the PRS as outlined in Table 5.

Table 5: Diachronic development of the Armenian PRS as seen in the 1.SG.ACT of *grem* ‘I write’

Classical Arm.	Early MArm.	Late MArm.	MEA	MWA
<i>grem</i> IND	→ <i>grem</i> IND/SBJV	→ <i>grem</i> SBJV	→ <i>grem</i> SBJV	~ <i>grem</i> SBJV
		↳ <i>ku grem</i> IND	→ <i>kgrem</i> COND/FUT	≠ <i>kə grem</i> IND

<sup>32</sup> There is next to no literature on the linguistic changes in Middle Armenian; the standard reference remains Karst (1901).

<sup>33</sup> Owing to the nature of the diaspora, Modern Western Armenian is pluricentric and for a large number of speakers a heritage language, a linguistically unified description of which is difficult to achieve; cf. Chahinian & Balakian (2016). For a map and general description of dialect distinctions prior to the emergence of the modern diaspora in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, cf. Adjarian (1909); for a more general and modern discussion of Armenian dialects, cf. Greppin & Khachaturian (1986).

<sup>34</sup> Most verbal forms are composed of a non-finite form of the lexical verb and a finite form of an auxiliary; the remaining synthetic forms are found in AOR, (dynamic) SBJV, (dynamic) COND, and IMP (in the terms of Dum-Tragut 2009:214–77).



*erku*      *ambastanyalneri*      *kolmic'*  
 two      defendant.GEN.PL      side.ABL.SG  
 'The son of the latter was killed by the two defendants.' (*Arawōt*, 16/01/2003)

(5.5) PASS, with instrumental expression  
*spanut'yun=n*      *irakanac'vel*      *ēr*      *danakov*  
 murder.NOM.SG=DET      carry-out.PF.PASS.PTCP      be.3.SG.PST.IND      knife.INS.SG  
 'The murder was carried out with a knife' (*Arawōt*, 29/07/2003)

Like Modern English, then, the alignment of Modern Armenian is largely direct/neutral from the perspective of nominal morphology and its usage, but word order, verb agreement, and pronominal morphology evidence that NOM–ACC is a more accurate description from a morphosyntactic perspective.<sup>38</sup>

Similarly, like many other languages, Armenian makes an animacy-based differentiation in the optional argument found with PASS predicates: animate agents are marked by a postpositional phrase (GEN + *kolmic'*), while inanimate instruments are expressed as NPs in INS.<sup>39</sup>

As mentioned above, however, pragmatic considerations and definiteness can affect word order. The resulting variants, largely SVO or OVS, may be caused by dislocating O<sub>+DEF</sub>, 'heavy' O<sub>-DEF</sub>, or indeed pragmatically marked S—to name but a few—to the right. (5.6–8) exemplify these scenarios.

(5.6) SVO, O<sub>+DEF</sub>  
*na*      *tesel*      *ēr*      *miayn*      *žolovrdi*      *storac'um=a*  
 3.NOM.SG      see.PF.PTCP      be.3.SG.PRS.IND      only      people.GEN.SG      humiliation.ACC.SG=DET  
 'He saw only the humiliation of [his] people.' (*Sovetakan dproc'*, 17/02/1956)

(5.7) SVO, 'heavy' O<sub>-DEF</sub>  
*es*      *kardac'el*      *em*      *erku*      *gorc*      *oronk'*  
 1.NOM.SG      read.PF.PTCP      be.1.SG.PRS.IND      two      work.ACC.SG      REL.NOM.PL  
*šat*      *hetak'rk'rakan*      *ēin*  
 very      interesting      be.3.PL.PST.IND  
 'I have read two pieces which were very interesting.' (*Azg*, 11/12/2004)

(5.8) VS, emphasising S  
*Moskvayum*      *loys*      *ēr*      *tesel*      *Karen Brutenc'i*  
 Moscow.LOC.SG      light.ACC.SG      be.3.SG.PRS.IND      see.PF.PTCP      PN.GEN.SG  
*nor*      *girk'=a*  
 new      book.NOM.SG=DET  
 'In Moscow, Karen Brutenc''s new book has appeared.' (*Azg*, 19/05/2006)

In (5.8), VS word order is presumably the result of the topicalisation of the subject, which continues to be of relevance for the ensuing paragraph.

<sup>38</sup> Cp. The similar situation in Classical Armenian, briefly discussed at the end of §2 above.

<sup>39</sup> Particularly with affective verbs, this postpositional phrase can often be replaced by an NP in ABL of the agent (Dum-Tragut 2009:94).

Beyond matters of word order changes, the only further complication in constituent marking lies in the so-called partitive subject, which is marked by ABL. These partitive subjects only occur with passive verbs, only refer to non-human actants, and denote that ‘the action is only carried out on one part, or partially [on] this grammatical subject’ (Dum-Tragut 2009:313).<sup>40</sup> (5.9) will serve as an example.

(5.9) partitive S

<i>Āradijov</i>	<i>heĀarjakvum</i>	<i>ēin</i>	<i>Hovhannes T‘umanyani</i>	<i>patmvack‘neric‘</i>
radio.INS.SG	broadcast.IPFV.PASS.PTCP	be.3.PL.PST.IND	PN.GEN.SG	story.ABL.PL

‘On the radio, [some] of the stories of Hovhannes T‘umanyan’s were being broadcast.’ (Dum-Tragut 2009:313)

Since this type of expression is highly constrained, the question arises whether it does indeed represent an independent subject category, or is just an instantiation of the very common partitive ABL. Given that Armenian is a pro-drop language, this ABL could be interpreted as depending on a  $\emptyset$  head, an implied indefinite quantifier. While further studies are necessary, native speaker grammaticality judgements suggest that the ABL does not pass subjecthood tests. Overall, the morphosyntactic alignment of Modern Eastern Armenian is an interesting example of NOM–ACC alignment with certain complications owing to the role definiteness and animacy play in the case assignment of O.<sup>41</sup> Given that syntactic function is expressed by a combination of morphological case marking and constituent order, however, no systematic ambiguity arises, nor is a different interpretation of this alignment possible.

## 6. Conclusions

The development of morphosyntactic alignment in the history of Armenian is uncomplicated for the most part, as NOM–ACC dominated for most of its existence and in the majority of tenses. The Classical Armenian periphrastic perfect stands alone, showing tripartite alignment for at least the beginning of the attested history of this language, but is eventually ousted in favour of NOM–ACC alignment towards the end of the classical period. Its preliterate history and genesis has been the topic of a hundred-year-long debate, during which a great number of solutions internal and external to this language have been proposed.

The approach advocated here, based on the well-attested, extensive, and prolific contact between Classical Armenian and the West Middle Iranian languages, chief amongst which Parthian, suggests that the tripartite alignment of the periphrastic perfect is the result of a

<sup>40</sup> See further Abrahamyan (2004:40), Papoyan (2003:142–3).

<sup>41</sup> As indicated above, on the morphological level there is a split between the nominal (direct/neutral alignment) and pronominal (NOM–ACC alignment) system. The main reason to consider the alignment system on the whole NOM–ACC lies in the morphosyntax, since verb agreement is consistently with S=A and constituent order also clearly separates S=A from O.

grammaticalization process which started with the replication of the Parthian ERG–ABS aligned past tense. This participle-based tense, through pivot matching and polysemy copying, was replicated in Armenian with the participle in *-eal* and a GEN agent; the re-analysis of the original nominative object as accusative resulted in part from the large-scale isomorphy between those cases as well as from system pressure from the synthetic tenses. The introduction and later quasi-obligatorification of a fossilized 3.SG copula with Ø-agreement is an Armenian-internal development.

The eventual loss of tripartite in favour of nominative–accusative alignment is caused once more by system pressure, since the identity of S and A prevails in the synthetic tenses, and even in the perfect the subject of intransitive verbs is marked as nominative. Once this transition was concluded, the alignment pattern of Armenian has remained stable even though its verbal morphology and constituent order rules have undergone significant changes.

While the prehistory and early stages of alignment in Armenian have been documented and investigated thoroughly, the later transition period between Classical and Middle Armenian, and thus between the two alignment types, remains a subject further enquiry into which should prove fruitful.

### Textual abbreviations

Ag. – Ter-Mkrtč‘ean & Kanayeanč‘ (1909); BBB – Henning (1937); Eł. – Thomson (1993); HLS – Durkin-Meisterernst (2006); Kor. – Mat‘evosyan (1994); MKG – Sundermann (1981); MMiii – Andreas & Henning (1934); PB – Garsoïan (1984).

### Glosses & linguistic abbreviations

A – agent; ABL – ablative; ABS – absolutive; ACC – accusative; ACT – active; AOR – aorist; Arm. – Armenian; COMP – complementiser; COND – conditional; CONJ – conjunction; CVB – converb; DAT – dative; DEF – definite; DEM – demonstrative; DET – determiner; DIR – direct; ERG – ergative; FUT – future; GEN – genitive; IMP – imperative; IND – indicative; INDF – indefinite; INF – infinitive; INS – instrumental; INTERROG – interrogative; IPFV – imperfective; LOC – locative; LOG – logophore; MArm. – Middle Armenian; MEA – Modern Eastern Armenian; MWA – Modern Western Armenian; MP – medio-passive; NOM – nominative; NP – noun phrase; O – object; OBJ – object-marking; OBL – oblique; PASS – passive; PF – perfective; PL – plural; PN – proper noun; POSS – possessive; PP – prepositional phrase; PRS – present; PST – past; PTCP – participle; Pth. – Parthian; REL – relative; S – subject; SBJV – subjunctive; SG – singular; TSA – tense-sensitive alignment.

### References

- Abrahamyan, S. G. (2004) *Hayoc‘ lezu. Šarahyusut‘yun*, Erewan: Luys.  
Adjarian, H. (1909) *Classification des dialectes arméniens*, Paris: Librairie Honore Champion.  
Anand, P., & Nevins, A. (2006), “The Locus of Ergative Case Assignment: Evidence from Scope”, in: A. Johns, D. Massam, J. Ndayiragije (eds) *ERGATIVITY. Studies in Natural Language and Linguistic Theory*, Dordrecht: Springer, 2–26.

- Andreas, F. C., & Henning, W. B. (1934) “Mitteliranische Manichaica aus Chinesisch-Turkestan III”, *Sitzungsberichte der Preußischen Akademie der Wissenschaften*, 848–912.
- Benveniste, É. (1952) “La construction passive du parfait transitif”, *Bulletin de la Société Linguistique de Paris* 48, 52–62.
- Benveniste, É. (1959) “Sur la phonétique et la syntaxe de l’arménien classique”, *Bulletin de la Société Linguistique de Paris* 54, 46–68.
- Bickel, B., & Nichols, J. (2009) “Case Marking and Alignment”, in A. Malchukov & A. Spencer (eds), *The Oxford Handbook of Case*, Oxford: Oxford University Press, 304–321.
- Bolognesi (1960) *Le fonti dialettali degli imprestiti iranici in armeno*, Milan: Società Editrice Vita e Pensiero.
- Chahinian, T., & Balakian, A. (2016) “Language in Armenian American communities: Western Armenian and efforts for preservation”, *International Journal of the Sociology of Language* 237, 37–57.
- Comrie, B. (1978) “Ergativity”, in W.P. Lehmann (ed.), *Syntactic Typology. Studies in the Phenomenology of Language*, Sussex: Harvester Press, 329–394.
- Deeters, G. (1927) *Armenisch und Südkaukasisch*, Leipzig: Verlag der Asia Major.
- Djahukian (2003) “Notes on some lexical correspondences between Armenian and the Kartvelian Languages”, *Iran and the Caucasus* 7 (1-2), 191–192.
- Dowty, D. (1991) “Proto-Roles and Argument Selection”, *Language* 67 (3), 547–619.
- Dum-Tragut, J. (2009) *Armenian: Modern Eastern Armenian*, Amsterdam: John Benjamins.
- Durkin-Meisterernst, D. (2006) *The Hymns to the Living Soul. Middle Persian and Parthian Texts in the Turfan Collection*, Turnhout: Brepols.
- Durkin-Meisterernst, D. (2014) *Grammatik des Westmitteliranischen (Parthisch und Mittelpersisch)*, Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Endzelins, J. (1923) *Lettische Grammatik*, Heidelberg: Carl Winter.
- Garsoïan, N. G. (1984) *Buzandaran Patmut’iwnk’ [The Epic Histories]*, Delmar, NY: Caravan Books.
- Gippert, J. (2005) “Das Armenische – eine indogermanische Sprache im kaukasischen Areal”, in G. Meiser & O. Hackstein (eds), *Sprachkontakt und Sprachwandel: Akten der XI. Fachtagung der Indogermanischen Gesellschaft, 17.–23. September 2000, Halle an der Saale*, Wiesbaden: Dr. Ludwig Reichert, 139–160.
- Godel, R. (1975) *An Introduction to the Study of Classical Armenian*, Wiesbaden: Dr. Ludwig Reichert.
- Greppin, J. A. C. (1996) “New Data on the Hurro-Urartian Substratum in Armenian”, *Historische Sprachforschung* 109(1), 40–44.
- Greppin, J. A. C., & Diakonoff, I. M. (1991) “Some Effects of the Hurro-Urartian People and Their Languages upon the Earliest Armenians”, *Journal of the American Oriental Society* 111(4), 720–730.
- Greppin, J. A. C., & Khachaturian, A. A. (1986) *A Handbook of Armenian Dialectology*, Delmar NY: Caravan.
- Haig, G. L. J. (2008) *Alignment Change in Iranian Languages – A Construction Grammar Approach*, Berlin: Mouton de Gruyter.
- Heine, B. (2012) “On polysemy copying and grammaticalization in language contact”, in C. Chamoreau & I. Léglise (eds), *Dynamics of Contact-Induced Language Change*, Berlin: De Gruyter Mouton, 125–166.
- Heine, B., & Kuteva, T. (2005) *Language Contact and Grammatical Change*, Cambridge: Cambridge University Press.
- Henning, W. B. (1937) *Ein manichäisches Bet- und Beichtbuch*, Berlin: Akademie der Wissenschaften.

- Hettrich, H. (1990) *Der Agens in passivischen Sätzen altindogermanischer Sprachen*, Göttingen: Vandenhoeck & Ruprecht.
- Jamison, S. (1979) “The case of the agent in Indo-European”, *Die Sprache* 25(2), 129–143.
- Jensen, H. (1959) *Altarmenische Grammatik*, Heidelberg: Carl Winter.
- Jügel, T. (2015) *Die Entwicklung der Ergativkonstruktion im Alt- und Mitteliranischen. Eine korpusbasierte Untersuchung zu Kasus, Kongruenz und Satzbau*, Wiesbaden: Harrassowitz.
- Karst, J. (1901) *Historische Grammatik des Kilikisch-Armenischen*, Strassbourg: Trübner.
- Klein, J. (2017) “The syntax of Classical Armenian”, in J. Klein, B. Joseph & M. Fritz (eds), *Handbook of Comparative and Historical Indo-European Linguistics*, Berlin: De Gruyter Mouton, 1097–1114.
- Klingenschmitt, G. (1982) *Das Altarmenische Verbum*, Wiesbaden: Dr. Ludwig Reichert.
- Lohmann, J. (1937) “Ist das idg. Perfektum nominalen Ursprungs?”, *Zeitschrift für vergleichende Sprachforschung* 64, 42–61.
- Luraghi, S. (1995) “Prototypicality and Agenthood in Indo-European”, in H. Andersen (ed.), *Historical Linguistics 1993: Selected Papers from the 11th International Conference on Historical Linguistics*, Los Angeles: John Benjamins, 259–268.
- Mat‘evosyan, A. S. (1994) *Vark‘ Mesrop Maštoc‘i*, Erewan: Hayastan.
- Matras, Y. (2009) *Language Contact*, Cambridge: Cambridge University Press.
- Matras, Y., & Sakel, J. (2007) “Investigating the mechanisms of pattern replication in language convergence”, *Studies in Language* 31(4), 829–865.
- Matzinger, J. (2005) *Untersuchungen zum altarmenischen Nomen: die Flexion des Substantivs*. Dettelbach: Röhl.
- Meillet, A. (1899–1900) “Recherches sur la syntaxe comparée de l’arménien I”, *Mémoires de la Société Linguistique de Paris* 11 (6), 369–388.
- Meillet, A. (1936<sup>2</sup>) *Esquisse d’une grammaire comparée de l’arménien classique*, Vienna: Imprimerie des PP. Mékhitaristes.
- Meyer R. (2014) “Remodelling the Historical Morphology of the Classical Armenian *-eal* participle”, *Banber Matenadarani* 21, 385–398.
- Meyer, R. (2017) *Iranian-Armenian language contact in and before the 5th century CE: an investigation into pattern replication and societal multilingualism*, D.Phil. thesis, University of Oxford.
- Meyer, R. (fthc. a) “Languages in Contact: Armenian and Iranian”, in A. Orenco & I. Tinti (eds), *Armenian Linguistics*, Handbuch der Orientalistik 23(2), Leiden: Brill.
- Meyer, R. (fthc. b) “Alignment change and changing alignments: Armenian syntax and the first ‘death’ of Parthian”, in M. Bianconi, M. Capano, D. Romagno, and F. Rovai (eds), *Contact, in Variation, and Reconstruction in the Ancient Indo-European Languages: between Linguistics and Philology*, Leiden: Brill.
- Papoyan, A., & Badikyan, X. (2003) *Žamanakacic‘ hayoc‘ lezvi šarahyusut‘yun*, Erewan: Erewani hamalsarani hratarakč‘ut‘yun.
- Payne, J. R. (1979) “Transitivity and Intransitivity in the Iranian Languages of the U.S.S.R.”, in P.R. Clyne, W.F. Hanks, and C.L. Hofbauer (eds), *The Elements: A Parasession on Linguistic Units and Levels, April 20–21, 1979, including Papers from the Conference on Non-Slavic Languages of the USSR, April 18, 1979*, Chicago: Linguistic Society, 436–447.
- Pinault, G. J. (2008) *Chrestomathie Tokharienne*, Leuven: Peeters.
- Pinault, G. J. (2011) “Sur l’histoire des cas en Tokharien”, in M. Fruyt, M. Mazoyer, and D. Pardee (eds), *Grammatical Case in the Languages of the Middle East and Europe. Acts of the International Colloquium “Variations, concurrence et évolution des cas dans divers domaines linguistiques”, Paris, 2–4 April 2007*, Chicago: Oriental Institute, 383–398.

- Pirejko, L. A. (1966) “Talyšskij Jazyk”, in V. V. Vinogradov (ed.), *Jazyki Narodov CCCP. Indoevropskie jazyki*, Moscow Academy of Sciences of the USSR, Institute of Linguistics, 302–322.
- Schmidt, K.-H. (1962) “Zum umschriebenen Perfekt in indogermanischen Sprachen”, *Indogermanische Forschungen* 67(3), 225–236.
- Schmidt, K.-H. (1963) “Zum Agens beim Passiv”, *Indogermanische Forschungen* 68(1), 1–12.
- Schmitt, R. (1983) “Iranisches Lehngut im Armenischen”, *Revue des Études Arméniennes* 17, 73–112.
- Schmitt, R. (2007<sup>2</sup>) *Grammatik des Klassisch-Armenischen mit sprachvergleichenden Erläuterungen*, Innsbruck: Institut für Sprachwissenschaft.
- Skjærvø, P. O. (1983) “Case in inscriptional Middle Persian, inscriptional Parthian and the Pahlavi Psalter”, *Studia Iranica* 12(1), 69–94, 151–181.
- Stempel, R. (1983) *Die infiniten Verbalformen des Armenischen*, Frankfurt a.M.: Peter Lang.
- Sundermann, W. (1981) *Mitteliranische manichäische Texte kirchengeschichtlichen Inhalts*, Berlin: Akademie-Verlag.
- Ter-Mkrtč’ean, G., & Kanayeanc’, S. (1909) *Agat’angelay Patmut’iwn Hayoc’*, Tiflis.
- Thomas, W. (1952) *Die tocharischen Verbaladjektive auf -l: eine syntaktische Untersuchung*, Berlin: Akademie-Verlag.
- Thomson, R. W. (1993) *History of Vardan and the Armenian War*, Delmar NY: Caravan Books.
- Tumanyan, E. G. (1974) “Suščestvuet li èrgativ v indoevropskix jazykax?”, in L. Heilmann (ed.), *Proceedings of the Eleventh International Congress of Linguists, Bologna-Florence, Aug. 28 - Sept. 2, 1972*, Bologna: Il Mulino, 957–961.
- Vogt, H. (1938) “Arménien et Caucasique du Sud”, *Norsk Tidsskrift for Sprogvidenskap* 9, 321–338.
- Willi, A. (2018) *Origins of the Greek Verb*, Cambridge: Cambridge University Press.
- Zimmer, S. (1985) “Die Gebrauchsweisen des adnominalen Genetivs im Tocharischen”, in B. Schlerath (ed.), *Grammatische Kategorien, Funktion und Geschichte*, Wiesbaden: Dr. Ludwig Reichert, 560–574.