Alignment change and changing alignments: Armenian syntax and the first 'death' of Parthian

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Abstract

This paper seeks to combine the insights gathered in a corpus study of the periphrastic perfect in Classical Armenian texts from the 5th century CE and research into the socio-historical and political interactions of the Armenians and their Iranian neighbours in the same time period.

It is argued that the construction of the Classical Armenian perfect, which consists of a participle in *-eal* (< PIE *-lo-) and an optional form of the copula, is most accurately described as tripartite morphosyntactic alignment:

- intransitive and transitive passive verbs construe with a NOM subject under subject agreement of the copula;
- transitive active verbs take GEN agents, ACC objects, and the copula is an invariant 3.SG.

This pattern shows some diachronic variation and by the 8th century CE has given way to NOM–ACC alignment under pressure from the rest of the verbal system. Based on observations in the corpus and typological data, this alignment pattern can be explained as a case of pattern replication and pivot matching of a Middle Iranian, specifically Parthian, ERG–ABS model in pre-literary times and subsequent adaptation to Armenian requirements cf. MEYER (2016; 2017).

This explanation is lent further credence by the existence of both a great wealth of Iranian loanwords in Armenian, as well as a small number of other syntactic patterns that have clear Iranian parallels. Furthermore, the prevalence of political quarrels between the Parthian rulers of Armenia and other Iranians, their adoption of Christianity in *c*. 301 CE, frequent intermarriage with Armenians, and the lack of any Parthian language documents in the area suggest that the existence of Iranian syntactic patterns in Armenian is due not only to language contact, but indeed to language shift of the Parthian ruling class to Armenian. This, in turn, may provide a partial explanation of the first 'death' of Parthian, a significant attestation gap between Arsacid inscriptions and later religious documents.

Keywords: alignment change; comparative syntax; language contact; language death; Armenian; Iranian; Parthian

1. Introduction

It is no secret to historical linguists and Indo-Europeanists that Classical Armenian, although occupying its own branch on the Indo-European family tree, is a language heavily influenced by its Iranian neighbours, chief amongst which Parthian. After Hübschmann's establishment of the fact that Armenian is not an Iranian language,¹ great progress has been made over the course of the twentieth century in the separation, categorisation, and analysis of Iranian and native elements in the Armenian lexicon and, to a lesser extent, its morphological inventory.² Similarly, early Armenian literature, history, and society have been in the focus of academic discussion, yielding exemplary pieces of interdisciplinary work like Nina Garsoïan's translation of and commentary on the *Epic Histories* attributed to P'awstos Buzand.³

Almost inevitably, however, not all Classical Armenian resources have been used to their fullest yet; the study of Armenian comparative and diachronic syntax, for instance, and the socio-linguistics of the language have thus far not received the attention they deserve.

This paper sets out to exemplify what information can be gleaned from syntactic analysis, and how it can be used to obtain a clearer picture of the socio-linguistic situation in preliterary and fifth-century Armenia. It uses as its basis the example of contact-induced alignment change in the Classical Armenian periphrastic perfect, and will make use of the material gathered in a corpus study of fifth-century CE historiographical texts. The diachronic development of the syntax of the perfect suggested here proposes two particular diachronic analyses:

1.) The tripartite alignment of the perfect is an extension of an ERG–ABS pattern borrowed from Parthian;

¹ Hübschmann (1875).

² For overviews, cf. MEYER (fthc.), SCHMITT (1983). Key contributions to the field include BENVENISTE (1957; 19(4), Bet accurate (19(0)), Hürsen (1997), MEYER (1911)

^{1964),} BOLOGNESI (1960), HÜBSCHMANN (1897), MEILLET (1911).

³ Garsoïan (1989).

2.) This alignment pattern is in a state of change already in the fifth century CE under system pressure from NOM-ACC alignment in the other tenses.

On the socio-linguistic side—based on considerations of the documentary evidence of Parthian, the historical interactions of Armenians and Parthians, and the Armenian literary evidence—the paper further proposes the following:

3.) The Parthian ruling class adopted Armenian as its main language of communication, leading to the eventual (near) death of Parthian and explaining the documentary gap between Inscriptional and Manichaean Parthian.

Following this introduction, section 2 will give a brief overview of the contact between Armenian and the Iranian languages, focusing on the linguistic data in general. Section 3, in turn, will outline the construction of the perfect tense, and present a contact-based explanation thereof. The diachronic development of the morphosyntactic alignment of the perfect is delineated in section 4 on the basis of statistical trends gleaned from the abovementioned corpus study. Turning from linguistics to (language) history, section 5 explores the contact between Armenian and Parthian from a socio-historical perspective, leading to the discussion of the 'death' of Parthian at the hand of Armenian in section 6. Finally, section 7 synthesises the linguistic and historical accounts.

2. Iranian–Armenian contact in general

While the modern concept of Iranian–Armenian contact goes back to the work of Hübschmann in the late nineteenth century, earlier scholars had already come to the realisation that Armenian was replete with Iranian loanwords.⁴ The study of such loanwords, and based on which the discovery of regular phonological correspondences, accounts for a

⁴ Based on lexical material from Classical and contemporary Persian, Johann Joachim Schröder distinguishes words introduced by the language of the Arsacids into Armenian from those native to that language more than 150 years before Hübschmann; cf. BOLOGNESI (1988: 563), SCHRÖDER (1711: 46).

large amount of twentieth-century scholarship in this field. The exploration of morphological, phraseological, and syntactic elements borrowed from Iranian languages has played a lesser role to date.⁵ What follows is a very concise summary of the key findings in Iranian– Armenian contact.

The Iranian loan lexicon of Armenian is vast and extends beyond the common array of technical and cultural vocabulary well into the realm of basic vocabulary items and closed classes like prepositions and numerals.⁶ Exemplarily, consider items like Arm. *p'ark'* '(royal) glory' < WMIr. *frh* /farrah/ 'id.', next to basic terms like Arm. *seaw* 'black' < Pth. *sy'w* /syāw/, Arm. *hazar* '1,000' < WMIr. *hz'r* /hazār/, or Arm. *vasn* 'on account of, because of' ~ Pth. *wsn'd* /wasnā δ /, MP *wšn* /wašn/.⁷

As regards lexis and phonological correspondences in loan words, two observations can be made which will inform the discussion in later sections. First, it is evident that Parthian is the dominant model or donor language.⁸ Middle Persian, the other Iranian language with which Armenian is in contact, provides exclusively cultural, political, and administrative items, not infrequently as a *Doppelentlehnung* ('double loan'), e.g. in the case of Arm. *spayapet* and *sparapet* 'general-in-chief', the former of which is a Middle Persian loan, the latter a Parthian one.⁹ Secondly, within the Parthian loans, two distinct layers of loan words can be identified

⁵ One of the few questions discussed previously with regard to Iranian syntactic borrowings in Armenian is the potential Iranian origin of certain types of Armenian relative clauses (AJELLO 1973; 1997: 251; BENVENISTE 1964: 35); as it turns out, the evidence for borrowing is slim.

⁶ Based on the data collected by Hübschmann, BELARDI (2003: 98–102) calculated that more than a third of the lexical items therein is of Middle Iranian origin, whereas less than a quarter is etymologically Armenian. Given the more recent corrections to Hübschmann's work, these figures may be imprecise, but still indicate the general composition of the Armenian lexicon.

⁷ The Armenian form does not correspond perfectly to either its Parthian or Middle Persian counterpart, nor to the Old Persian form OP *vašnā* 'by grace of'. SZEMERÉNYI (1966) suggests an origin in Pth. **wsn* /wasn/, which later underwent univerbation and phonological reduction with Pth. $r'd/ra\delta/$ 'for, owing to'.

⁸ Certain phonological and morphological correspondences hint at the existence of third West Middle Iranian language, which is not attested in writing; cf. OLSEN (2005), GIPPERT (2005; 2009), KORN & OLSEN (2012), KORN (2016: 409–411).

⁹ Such double forms can be differentiated on a phonological basis, since Parthian and Middle Persian differ in their treatment of certain Old Iranian sounds. In the case of Arm. *spayapet* (<MP) and *sparapet* (< Pth.), the this

on the basis of phonological divergences. Pth. $w/\bar{o}/, y/\bar{e}/, \text{ and } r$ - /r-/ are reflected in early Armenian loans as $o\dot{y}/u$, \dot{e}/i , and *er*- respectively,¹⁰ but in later loans as o, e, and \dot{r} .¹¹

As compared to the lexicon, Armenian morphology has undergone relatively speaking little influence from Parthian or other Iranian languages; only derivation and compounding seem to be affected. Apart from the borrowing of a few common derivative suffixes such as *-akan* (cp. CIr. *-ākana-) or *-ik* (cp. CIr. *-ika-) as seen in Arm. *sovorakan* 'usual' or Arm. *spasik* 'servant', the main element of note is the compounding strategy Armenian has adopted, which allows for the complete borrowing of Parthian compounds, semi-calques (in which Armenian and Parthian items are compounded), or straightforward calques (in which the structure of a Parthian compound is imitated with Armenian lexical material).¹²

The two most understudied aspects of the influence of Parthian on Armenian concern phraseology and syntax. The former largely consist of light verb constructions, prevalent also in many modern Iranian languages.¹³ Syntactical loans have thus far been found in the use of the intensifier and anaphoric pronoun Arm. *ink 'n* '-self', which is used analogically to Pth. *wxd* /wxad /, as well as in the use of the Armenian complementiser (*e*)*t* ' \bar{e} 'that' to introduce direct and indirect questions (unusually including *wh*-questions) paralleled by the Parthian use of *kw* /k \bar{u} /.¹⁴ The most complex way in which Parthian has influenced Armenian,

difference is expressed in the different treatment of Old Iranian intervocalic /d/ (cp. Av. *spāda*- 'army'), where OIr. *-d- > MP -*y*-, Pth. - δ -. The latter, in turn, is regularly expressed in Armenian loans as Arm. -*r*-. ¹⁰ The alternative forms given refer to stressed and unstressed variants.

¹¹ Examples of the earlier layer: Arm. *boyž* 'cure, remedy', *bužem* 'to cure, heal'< Pth. *bwj*-/bōž-/ 'to save, redeem'; Arm. *dēmk* '(GEN *dimac*') 'face' < WMIr. *dym* /dēm/; and Arm. *eram* 'troop, flock' < WMIr. *rm* /ram/ 'flock; Manichaean community'. Examples of the later layer: Arm. *tohm* 'family, seed', cp. Pth. *twxm* /tōxm/; Arm. *den* (GEN *deni*) 'religion, faith' < Pth. *dyn* /dēn/; and Arm. *razm* 'fight, battle' < WMIr. *rzm* /razm/.

¹² Note the following examples: for borrowing, Arm. *vattohmak* 'of low birth' < MP *wttwhm* /wattōhm/ (with an optional suffix *-ak*); for semi-calques, Arm. *č* '*arabaxt* 'unfortunate', cp. MP *wtb* '*ht* / watbāxt/; for calques proper, Arm. *jerbakal* 'prisoner (lit. taken by the hand)', cp. Pth. *dstgrb* /dastgra β /, with an exact correspondence of *jerb*- (cp. *jern* 'hand') and *dst* as well as *-kal* (cp. *kalay*, suppletive aorist of *unim* 'to have, hold') and *-grb* (cp. Pth. *gyrw*- /gīrw/ 'to take, seize').

¹³ Examples of such constructions are Arm. *heri arnel* 'to make remote, remove', cp. Pth. *dwr kr* /dūr kar-/, NP *dūr kardan*, or Arm. *p* 'ol harkanel 'to sound the trumpet', cp. MP n'y pzd /nāy pazd-/.
¹⁴ For a detailed discussion, cf. MEYER (2013; 2017: 219–252).

however, lies in the construction of the periphrastic perfect tense, which is discussed in more detail below.

Even this cursory summary of the most salient interactions between the two languages in question shows that they must have been in contact for an extended period of time, and that the contact itself was pervasive. Its impact on Armenian and Parthian society, as will be argued below, cannot be underestimated.

3. Iranian-Armenian contact in particular: the perfect

In order to understand how Parthian has influenced the syntax of the Armenian perfect, a set of comparanda need to be established first.

To begin with, the syntax of synthetic tenses in classical Armenian (PRS, IPF, AOR) shows, like that of many other early Indo-European languages, NOM–ACC syntax; that is to say, intransitive subjects and transitive agents are both morphosyntactically marked in the same manner (NOM), while the direct object of transitive verbs is marked differently (ACC).¹⁵ In all instances, the verb agrees in number and person with the subject or agent. Examples (1–2) illustrate this behaviour.

(1) Non-perfect, intransitive (subject: NOM; subject agreement)

ewduk'darjayk'imolorut'iwnkrapastut'eanCONJ**2.NOM.PL**return.2.PL.AOR.IND.MIDtoerror.NOM/ACC.SGidolatry.GEN.SGnaxneac'=njeroc'jeroc'idolatry.GEN.PL=DET2.PL.POSS.GEN.PL

'And you have returned to the errors of idolatry of your ancestors' (PB I.14)

(2) Non-perfect, transitive (agent: NOM; direct object: ACC; subject agreement)

ew duk' <u>z=ordis</u> ew <u>z=žarangs</u> ew <u>z=gorcakic's</u>

¹⁵ Passives also operate along these lines. The logical object is promoted to subject and takes NOM; the logical agent is demoted to an optional adjunct prepositional phrase, Arm. i + ABL.

CONJ**2.NOM.PL**OBJ=SON.ACC.PLandOBJ=heir.ACC.PLandOBJ=associate.ACC.PLewz=nmanołsnoc'inspanēk'andOBJ=follower.ACC.PL3.DEM.EMPH.GEN.PLkill.2.PL.AOR.IND.ACT'And you killed their sons and heirs and associates and followers' (PB I.14)

In the perfect—a periphrastic tense composed of the participle in *-eal* and, optionally, a copula—the same behaviour can be observed in intransitive verbs, at least with regard to the use of NOM, as example (3) shows.

(3) Perfect, intransitive (subject: NOM; subject agreement)

mtealk' hałordealk' duk' ew ew and **2.NOM.PL** enter.PTCP.NOM.PL participate.PTCP.NOM.PL CONJ ic'ēk' Astuacut'ean i harsanis be.2.PL.PRS.SBJV.ACT into union.ACC.PL god-head.GEN.SG '... and that you may enter into and share in the union of the God-head' (Ag. §719)

Transitive verbs in the perfect behave differently, however. While the object is still expressed

as ACC, the agent of the verb is marked by GEN; if a copula occurs, it shows neither object nor

subject agreement, but appears in an invariant 3.SG form. (4) provides an example of this

pattern.

(4) Perfect, transitive (agent: GEN; object: ACC; Ø-agreement)

ew	du		ink'nin		isk k'ezēn		vkayes			
conj 2.nom.sg		self.NOM.SG		indeed	2.ABL.SG	witness.2.SG.PRS.IND.ACT				
inj		t'ē	oč'	erbek'	asac'ea	el ë	7			
1.DAT.	SG	COMP	NEG	ever	mentio	n.PTCP ł	De.3.SG.PRS.IND.ACT			
noc'a		c ʻ=k ʻez		<u>z=ayd</u>	<u>l</u> vasn		sn			
3.GEN.PL		to=2.ACC.SG		OBJ=DEM.NOM/ACC.SG		<u>CC.SG</u> co	ncerning			
imoy			tanjeloy=s			i	k 'ēn			
1.SG.POSS.GEN.SG tortu				e.PRS.INF.GEN.SG=DET			2.ABL.SG			
'And you yourself are indeed witness to me that they [the gods] have never mentioned this to										

you, about my being tortured at your hands' (Ag. §71)

As a result, Classical Armenian is best analysed as showing a tense-sensitive split-alignment pattern, with a NOM-ACC alignment in all synthetic tenses, and tripartite alignment—in which

intransitive subject, transitive agent, and direct object are all marked differently—in analytical tenses like the perfect. *Table 1* summarises this situation.

	Subject	Agent	Object	Agreement
Synthetic tenses	NOM	NOM	ACC	S_{ITR}, A_{TR}
Analytic tenses	NOM	GEN	ACC	$S_{ITR}, \boldsymbol{Ø}_{TR}$

Table 1 - Summary of the Classical Armenian alignment pattern

Three further observations need to be made. First, Armenian does not consistently distinguish NOM and ACC forms across all paradigms; in all nominal and most pronominal singular paradigms, NOM and ACC are identical. The 1./2.SG pronouns are the exception in differentiating Arm. *es, du* 'I, you (NOM)' from *is, k* '*ez* 'me, you (ACC)'. The formal ambiguity is lessened in a large number of cases owing to the existence of a proclitic definite object marker Arm. *z*-. Nonetheless, at least on the surface, the alignment of the perfect can on occasion appear to be ERG–ABS. Examples (5–6) illustrate this surface ERG–ABS pattern and the use of the *z*- for differential object marking.

(5) Perfect, transitive (agent: GEN; object: NOM=ACC; no copula)

ewnoratuealhramanark 'ayagundbanakac '=nCONJ**3.GEN.SG**give.PTCPorder.NOM/ACC.SGroyal-guardarmy.DAT.SG=DET'And he gave an order to the royal army ...' (Ag. §829)

(6) Perfect, transitive (agent: GEN; object: OBJ + ACC; Ø-agreement)

zawrut'ean=n Astucov paheal ew tesin zi see.3.PL.AOR.IND.ACT COMP God.GEN.SG CONJ power.GEN.SG preserve.PTCP ēr noc'a z=marminsbe.3.SG.PST OBJ=body.ACC.PL 3.GEN.PL 'And they saw that the power of God had preserved their bodies' (Ag. §223)

The second observation concerns the usage of GEN subjects and NOM agents in the perfect.

Although the basic pattern stands as laid out above, there are occasional instances of

unexpected intransitive subjects marked as GEN and transitive agents marked as NOM, as

indicated by (7-8).

(7) Perfect, intransitive (subject: GEN)

manawandoroc'nayec'ealimxit'arut'iwnarak'elakanmoreoverREL.GEN.PLlook.PTCPtoconsolation.ACC.SGapostolicbanic 'nt' \bar{e} vord.GEN.PLCOMP'Moreover they considered the consolation of the apostolic words, namely that ... ' (Kor. 22)

(8) Perfect, transitive (agent: NOM; object: ACC; no copula)

išxank'=n ekealk' *matuc*'eal *t*'*agawori*=*n* ew and noble.NOM.PL=DET come.PTCP.NOM.PL **present.PTCP** king.DAT.SG=DET CONJ there *z*=*bereal* olĭunaber *patasxani=n* t'lt'ovn OBJ=bring.PTCP answer.NOM/ACC.SG=DET bearing-greetings letter.DAT.SG=DET 'And there the nobles, upon arrival, presented to the king the answer they had brought to his letter of greeting' (Ag. §819)

Third, it has been argued that languages exhibiting tripartite alignment, whether wholesale or split, are in the process of morphosyntactic re-alignment.¹⁶ This is, self-evidently, true of Classical Armenian, whose medieval and modern forms are exclusively NOM–ACC. One expression of this transitional state is the lack of verbal agreement; a number of languages exhibiting tripartite alignment exhibit similar invariant 3.SG forms, likely as the result of a lack of agreement licensing with cases other than NOM.¹⁷

These two latter points, in particular, corroborate the assumption that the alignment observed in Classical Armenian is a snapshot of an unstable transitional state. The question that arises is that of the point of origin from which the language embarked upon this trajectory.

¹⁶ For some general observations on tripartite alignment, cf. DIXON (1994: 40, 55, 70). Some instances of tripartite alignment as a transitional state are discussed by SKALMOWSKI (1974) and PAYNE (1980: 150). ¹⁷ Such languages include Talyši and Hindi; cf. COMRIE (1978: 342), PAYNE (1979: 442), PIREJKO (1966).

Traditional explanations¹⁸ have for the most part failed to observe correctly the alignment type of Armenian in the first place, and have accordingly ignored its implications for previous and subsequent developments. Barring one,¹⁹ they also sought to explain the Armenian pattern language-internally, and frequently did not take into account or were unable to explain satisfactorily the whole gamut of data.²⁰

Considering all the observations made above in addition to the potential influence of contact languages, an investigation into the morphosyntactic alignment pattern of Parthian suggests itself. The latter also exhibits tense-sensitive split alignment; in Parthian, the past tense—formed similarly with a copula and a participial form of the verb—exhibits ERG–ABS alignment, a pattern that Armenian, too, could be argued to show in certain surface analyses, as illustrated in (5) above. Furthermore, Parthian too has optional object markers like Pth. *w* $\langle \bar{o} \rangle$. Two key differences between the Armenian and Parthian alignment patterns exist, however. In Parthian, verbal agreement in the past tense is with the object; in the case of 3.SG objects, however, the copula is most commonly left unexpressed in the simple past.²¹ The second point of difference concerns the nominal and pronominal system: Parthian has arguably lost most case distinctions.²² The difference between ERG and ABS is only evident in some pronouns and pronominal clitics.

¹⁸ Amongst these must be counted BENVENISTE (1957), BOLOGNESI (1960), MEILLET (1936).

¹⁹ A Kartvelian origin was suggested already by MEILLET (1899: 385); in spite of the clear counterarguments made by DEETERS (1927), MEILLET still includes his original reasoning in later work (1936: 95). For other, unsuccessful attempts at making a Kartvelian connection, cf. MEYER (2017: 122–124) with bibliography.
²⁰ For a concise analysis of the issues with previous approaches, cf. MEYER (2016).

²¹ In other tenses or moods, however, a 3.SG copula is found, so for instance in the pluperfect or subjunctive; cf. DURKIN-MEISTERERNST (2014: 376, 392–400).

²² Manichaean Parthian certainly has lost this distinction. A consequent execution of the DIR–OBL and indeed the SG–PL distinction is found only in inscriptional Parthian (first century BCE until 3 century CE), and in the psalter fragments (SKJÆRVØ 1983: 49, 176) and even there only in kinship terms, the personal pronouns of the 1.SG; and in the plural for nouns, pronouns and adjectives. Some examples: *br'd* /brād/ (DIR), *br'dr* /brādar/ (OBL); *pyd* /pid/ (DIR), *pydr* /pidar/ (OBL); *'z* /az/ (DIR), *mn* /man/ (OBL). Given the time in which Parthian and Armenian were interacting most actively, however, it is not implausible that a degree of morphological distinction between DIR and OBL could still have been in effect.

In spite of these differences—ERG–ABS alignment, not tripartite; different agent marking case; different verbal agreement—Parthian–Armenian contact provides the most straightforward explanatory model to account for the alignment pattern of Classical Armenian. The diachronic and interactional mechanisms behind this explanation are laid out in what follows.

4. Alignment change: ERG–ABS > TRI > NOM–ACC

Broadly speaking, Armenian alignment change is likely to have taken place as follows:

- (1) Pattern replication: in contact with Parthian, Armenian creates a periphrastic perfect tense based on the Parthian model; this construction follows the original ERG–ABS pattern and, based on the later advent of an invariant 3.SG copula, does not contain a finite verbal form. The ERG function is fulfilled by GEN, while ABS is expressed as NOM.
- (2) Grammaticalisation: the replicated Parthian construction is adapted to the requirements and 'abilities' of Armenian: in parallel to the rest of the verbal system, the original ABS=NOM for the logical object is reanalysed as ACC in the transitive construction, but left unchanged in the intransitive one; an optional copula with Øagreement is introduced.
- (3) Actualisation: the copula becomes more prevalent; the adapted, tripartite pattern begins to destabilise as the incidence of NOM agents rises.
- (4) Disappearance: the TRI pattern is ousted in favour of NOM-ACC alignment.

This outline requires some explanations, which are provided below stage-by-stage.

The creation of the periphrastic perfect tense in stage (1) by pattern replication requires that at least some of the constituent parts of the Armenian pattern have something in common with the Parthian model. In this specific case, this common core is the participle, which as a verbal adjective was used attributively as well as predicatively prior to the creation of the perfect.²³ Since this is also true for Parthian, the participle and its adjectival use act as the pivot for the creation of the new Armenian perfect construction; the latter derives its meaning and structure from the Parthian model by two process, pivot matching and polysemy/polyfunctionality copying.²⁴

In the resulting ERG-ABS alignment pattern, the Parthian OBL had to be expressed in Armenian. By the same set of processes, that is pivot matching and polysemy copying, the Armenian GEN took on this function. It was best suited to this role since, like the Parthian OBL it also expresses possession or appurtenance.²⁵

The structure of the earliest instances of the perfect indicate that the use of the copula was not part of the pattern replication process in stage (1). In the earliest texts, Koriwn's *Life of Maštoc*⁴, the copula is almost completely absent. This is corroborated by the fact that the copula in Armenian never shows object agreement. On this basis, it must be assumed that the Parthian model pattern had a 3.SG object and thus lacked an overt copula.

In stage (2), the post-contact adaptation of the replicated pattern takes place. The two adaptations—the development of ERG-ABS into TRI and the rise of an optional copula—both result from different expressions of system pressure.

As regards argument marking, this pressure is exerted by the other, non-perfect tenses, all of which exhibit NOM–ACC. Owing to the formal identity of NOM and ACC in the singular of the nominal and most of the pronominal system, a reanalysis of direct objects marked NOM in the

²³ The participle on its own, esp. when used attributively, does not have transitive force but reflects the historically intransitive-passive morphology of the participle; cf. MEYER (2014: 391–394).

²⁴ Pivot matching is the process of 'identifying 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); polysemy copying denotes the realization of 'the potential of a structure in the replica language to cover the (lexical or grammatical) semantics represented by the model' (2007: 852). If sufficient semantic aspects are shared, the replica language can replicate those uses from the model language which were not previously part of the replica language's grammar; also cf. HEINE (2012), HEINE & KUTEVA (2005: 100).

²⁵ Cf. DURKIN-MEISTERERNST (2014: 292). Armenian could not simply have adopted the morphologically largely unmarked pattern of Parthian nouns, as Armenian word order is far less constrained than that of Parthian.

periphrastic perfect as ACC is a logical grammaticalization process. It is possible that this process was further aided by the existence of the DOM clitic z= mentioned above.

The gradual advent of the copula in the perfect must be due to the fact that in all other, nonperfect tenses, predicates containing lexical verbs are always finite. Since participles are adjectival in character, the choice of the copula to express this finiteness is analogical to copulas used with predicative adjectives. The use of a copula further allows for the creation of-or could have been prompted by the need for-pluperfect and future perfect constructions, using a past or future tense of the copula, respectively. Where possible, the copula agrees with the subject in number and person. In transitive verbs, however, the copula invariably shows Ø-agreement, occurring only in the 3.SG. Like the rise of the copula itself, the reason for the invariability of this form must find a language-internal explanation, too. Given that the occurrence of invariant copulas finds parallels in other languages with TRI alignment or, more broadly, in transition between ERG-ABS and NOM-ACC, a correlation between such alignment patterns and lack of verbal agreement seems plausible. The most obvious explanation stipulates that, while system pressure results in the creation of a copula for the periphrastic perfect, in the absence of verbal agreement licensing with anything but a subject marked NOM, the newly created copula defaults to the least-marked form, in this case 3.sg.

Statistics concerning the incidence of the copula corroborate that it must have developed gradually post-contact, as indicated in stage (1) above already, since its relative frequency steadily rises over the course of the fifth century (see Figure 1).

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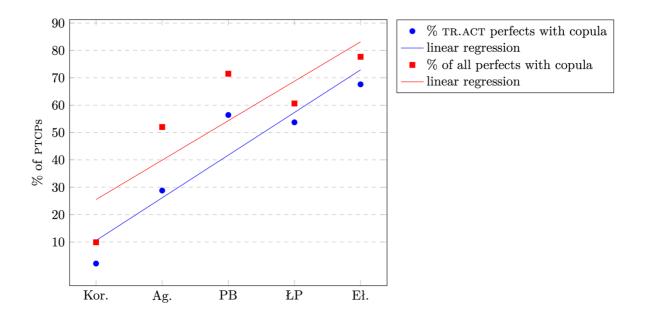


Figure 1: Incidence and trend of perfects with copula in fifth-century texts²⁶ By stage (3), the copula has become essentially obligatory in the periphrastic perfect.²⁷ At the same time, however, statistical analysis indicates that the pattern replicated in stage (1) and grammaticalised in stage (2) is not completely stable from the very beginnings of its attestation. Next to the obligatorification of the copula, other actualisation processes are taking place. Already in some of the earliest sources, analogically extended alignment patterns like in examples (7–8) above can be found; here, either the use of NOM for intransitive subjects is extended to agents of transitive verbs (resulting in apparent NOM–ACC alignment), or the use of GEN for transitive agents extended to subjects of intransitive verbs (creating an apparent ERG-ABS pattern). As Figure 2 illustrates, the latter pattern is declining over time whilst the former gains currency; this trend is, once more, in keeping with the pressure exerted by the other, non-perfect tenses, and shows the beginning of the grammaticalization S-curve leading up to stage (4), in which TRI alignment has been ousted in favour of NOM-ABS in all tenses. The rising incidence of the NOM–ACC-type non-standard

²⁶ It is difficult to establish specific dates of publication for these texts. Here and in Figure 2 below, they are arranged in the most commonly accepted chronological order.

²⁷ On obligatorification as a possible, but not universally necessary pathway of grammaticalisation, cf. HOPPER & TRAUGOTT (2003: 32), HEINE & KUTEVA (2007: 34).

pattern even in the earliest texts underlines the transitional nature of TRI alignment in Armenian, as its decline begins while the standard construction is still in the process of actualising core elements like the copula.

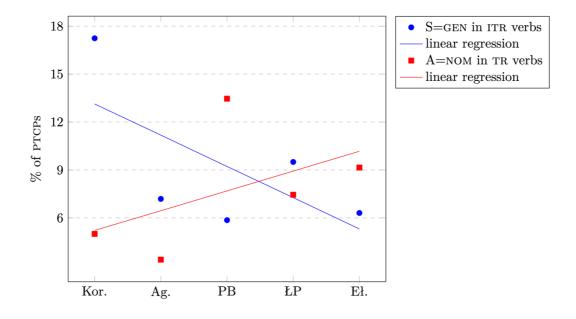


Figure 2: Incidence of non-standard alignment patterns in fifth-century texts This delineation addresses all of the key questions regarding the perfect construction when compared to its Parthian model: Why a GEN agent? Why a 3.SG copula? Why an ACC object? It provides a relative chronological order of the development of the perfect, from its replication on the basis of a Parthian model via the grammaticalisation and actualisation of a TRI pattern in Armenian to the decline and eventual loss of this pattern in favour of NOM–ACC alignment.

An absolute chronology is more difficult to arrive at, however. The syntactic patterns found in Koriwn suggest that stage (1) must have taken place and terminated prior to the literary attestation of Armenian. Stage (2) clearly takes place over the course of the 5th century CE, and may be overlapping with stage (3) for a significant period of that time; stage (3) is likely to last longest (fifth to eighth centuries CE), since the complete loss of TRI alignment, and thus stage (4) is not effected until the eighth century. The latter parts of stage (3) are in need of further statistical exploration and evaluation.

5. The socio-historical context

The scenario laid out in §§3–4 above relies on the assumption that contact between Parthians and Armenians in the relevant time period was close enough to facilitate not only lexical and morphological borrowing, but also pattern replication of syntagmata like the Parthian past tense. This and the following section seek to support this assumption first with clear historical evidence of such close contact, and secondly with an outline of the probable socio-linguistic situation obtaining in late pre-literary Armenia.

There are four aspects of particular historical significance that support close ties between Armenians and Parthians in this period:

- 1) Governance: Parthian rule over Armenia for almost four centuries;
- 2) Religion: conversion of Armenia to Christianity in the early fourth century;
- 3) Society: clear evidence of Parthian–Armenian intermarriage and tutelage;
- Foreign Policy: frequent military conflicts with the neighbouring Sasanians, suggesting Parthian identification with the Armenians;
- 5) Language: absence of any documentary evidence in the Parthian language from this time and region.

Each of these aspects deserves a few explanatory notes.

The Armenian Kingdom was ruled for almost 400 years by Parthians in particular, and prior to that had been under general Iranian rule since the days of Darius I.²⁸ Parthian rule over Armenia began in 53 CE, when the Parthian King Vologaeses I installed his younger brother,

²⁸ For an overview of Armenian history prior to Arsacid rule, cf. GARSOÏAN (1997a).

Trdat I on the Armenian throne;²⁹ from this point onward, a member of the junior branch of the Arsacid Parthian ruling house would reign over Armenia until the transformation of the kingdom into a Sasanian *marzpanate* in 428 CE. Parthian rule is further cemented by the establishment of a hereditary dynasty in the beginning of the third century CE, just prior to the fall of the Arsacid Empire. Xosrov I (*r*. 198–217 CE), having succeeded his father Vałarš II, passed on the crown to Trdat II and thus established a largely unbroken succession until the end of Armenian autonomy. The existence of a Parthian-speaking ruling family, further compounded by the presence of other noble families of Parthian origin,³⁰ makes Parthian the overt prestige language at court and for the upper echelons of society, thus motivating the acquisition and imitation of Parthian by Armenian-speakers, or indeed of the Parthians' idiolectal use of Armenian.

Next to the fall of the Arsacid Empire in 224 CE, which resulted in the rise of the Middle Persian-speaking Sasanians and the delegation of the Parthians to second rank in their old domain, the Christianisation of the Armenians by Gregory the Illuminator is the single most important process aligning the Parthian nobility with their Armenian subjects. If the historiographic literature is to be believed, the pivotal moment in this process—the conversion of King Trdat III—is particularly relevant since it involves the conversion of the ethnically Parthian ruler of Armenia adopting Christianity at the hands of another Parthian, Gregory.³¹ This change induced a further separation between the Armenians and their Parthian rulers on the one hand, and the neighbouring Sasanian Empire on the other hand,

²⁹ This installation was ratified later in the treaty of Rhandeia (61 CE), according to which the rule over Armenia would fall to an Arsacid who was nominated and invested by Rome. Trdat I, although he had reigned since 53 CE, was only crowned by Nero in 66 CE.

³⁰ Overviews of the genealogy of Arsacid and other Armenian families can be found in TOUMANOFF (1969; 1976).

³¹ This is the version of the Christianisation of Armenia as told by Agat'angelos; for a critical perspective, cf. GARSOÏAN (1997b: 81–84).

whose Zoroastrian religion the former had shared until this point.³² Whether Trdat III's decision to adopt Christianity was wholly motivated by religious concerns is unclear, since political calculations may have favoured such a separation from the Sasanians as well.³³ By the beginning of the fifth century, Christianity had succeeded in developing sufficiently strong roots in Armenia to warrant translation of the Bible into Armenian; this required the creation of an alphabet suitable for writing the language and heralded the beginning of the Armenian literary tradition. In the centuries and millennia to come, Christianity and their language would develop into two of the primary pillars of Armenian identity; that the former's foundation was laid and subsequently maintained by Parthians suggests, if perhaps not quite yet an Armenian-Parthian identity, but at least a willingness on part of the ruling class to identify with their subjects.

This willingness also finds expression in certain customs in the higher echelons of Armenian society, particularly among the *naxarar* ('noble') families. Two of these customs are particularly suitable for creating or fostering multilingualism: intermarriage between Armenian and Parthian families, and the *dayeak* ('tutor') system, an 'institution [...] whereby *naxarar* youths were raised by foster-fathers of their own social class.³⁴ A prominent and traditional instance of this kind of tutelage can be found in the relationship between the Armenian Arsacid dynasty and the Mamikonean family; the latter's head held the hereditary office of *sparapet* ('commander-in-chief') and would also act as *dayeak* for the heir-apparent to the Arsacid throne. The same two families have also been known to intermarry, so e.g. in the case of Vardanduxt, daughter of Manuēl Mamikonean, and King Aršak III in the late

³² Conversion is, of course, a process, and not accomplished overnight: Agat'angelos details Gregory's efforts to spread Christianity in the early third century in some detail; Koriwn, in turn, writes about Mesrop Maštoc', who lived a century later and was still engaged in the (re-)Christianisation of the country. For the purposes of the court and the ruling classes, as well as for international politics, however, the principle *cuius regio, eius religio* applies.

³³ BOYCE (1979: 84).

³⁴ Garsoïan (1989: 521).

fourth century.³⁵ While political considerations are more likely to have been the prime reason for establishing such familial ties than linguistic ones, at least one historiographic sources suggests that clear communication between powerful married couples and by extension their families was of importance: 'only through intermarriage will they [the Armenians and Iranians] communicate with each other'.³⁶

While many of the contemporaneous historiographic sources touch on all of the above aspects, most of them chiefly deal with politics and warfare. In this context, too, the Parthian rulers of Armenia side with their subjects for the most part and over the centuries try to set themselves apart from their Sasanian neighbours, often in armed conflict. In the third century, the Armenians fought back numerous Sasanian incursions under King Trdat II (*r.* 217–252);³⁷ Roman losses and Sasanian successes in the middle of the century led to a short period of Sasanian rule over Armenia (*c.* 258–87), which had temporarily lost its importance as a buffer state between East and West.³⁸ Once Trdat the Great (*r. c.* 298–330), another Arsacid Parthian king, had ascended the Armenian throne, however, he pursued a stringently anti-Sasanian policy, not only by making Christianity the *de facto* state religion, as outlined above, but also by spending 'the whole period of his reign devastating the land of the Persian kingdom'.³⁹ Across the board, the general depiction of the Sasanians in fifth-century Armenian historiographic literature is negative, whilst the Arsacids are on the whole portrayed not only in a positive light, but indeed as the natural rulers of Armenia.⁴⁰

By considering together these aspects of Parthian–Armenian relations—long-term Parthian ruler over Armenia; a shared religion; ties of marriage and tutelage; and a largely anti-

³⁵ For a fuller discussion with bibliography of the relevance of intermarriage and tutelage, cf. MEYER (2017: 307–309).

³⁶ ŁP §12.

³⁷ Ag. §23.

³⁸ For a concise account of this uncertain and disputed time period, cf. GARSOÏAN (1997b: 73–75).

³⁹ Ag. §123.

⁴⁰ For a discussion of the term Arm. *bnak tēr* 'natural lord', cf. GARSOÏAN (1976: 180, 196–7; 1989: 517). This positive depiction is, of course, likely due to the patronage of the writers by the Parthian ruling class.

Sasanian foreign policy—the conclusion suggests itself that the Parthian ruling class had integrated well with its Armenian subjects, likely to the extent of identifying with them at the exclusion of their Sasanian cousins. This is fruitful ground for extensive and deep language contact. The final question to consider, namely that of the specifics of this contact situation, will be dealt with in what follows.

6. Changing alignment: the first 'death' of Parthian

The socio-historical setting laid out above, when taken together with the large number of Parthian lexical borrowings into Armenian and the Armenian syntactic patterns replicated on the basis of Parthian models, suggests that the most plausible contact situation is a superstrate shift, viz. the adoption of a language of the socio-economically less powerful speech community (here: Armenian) by a socio-economically more powerful speech community (here: the Parthian ruling class).⁴¹ This kind of scenario is also applicable to, e.g., Britain in the centuries after the Norman Conquest in 1066, when the French ruling class over time adopted English as their main means of communication, all the while Norman French left its imprint on the English language.⁴² In particular, both the Parthian–Armenian and the French– English context have two things in common: the comparatively small number of superstrate language speakers and the loss of a power-base during contact.⁴³

Next to the linguistic and socio-historic data presented above, there is one further indication that the Arsacid Parthians adopted Armenian as their language: the lack of any Parthian-

⁴¹ For a general overview of language shift in contact situations and associated concepts, cf. THOMASON & KAUFMAN (1988: 37–46, 110–146), THOMASON (2003; 2008), MYERS-SCOTTON (2002: 48–51).

⁴² For a full discussion, cf. MEYER (2017: 332–336)

⁴³ The percentage of Norman French speakers in Britain is unlikely to have exceeded ten percent of the populace; more conservative estimates suggest closer to one percent (BERNDT 1965: 147); no specific numbers for Parthians in Armenia are available, but since they constituted only a part of the ruling elite, they are unlikely to have made up a significant percentage of the populace. As for the loss of a powerbase, the fall of the Parthian Empire in 224 might be compared to the loss of Normandy in 1204.

language documents from the Armenian Kingdom in the almost four centuries of their rule.⁴⁴ After the fall of the Arsacid Empire in 224 CE, Parthian quickly lost its relevance even in its former core territory; the last multilingual Sasanian inscriptions in which Parthian figures are those of Narseh (*r*. 293–303). Indeed, there is a considerable attestation gap between the last epigraphic attestation of Parthian (late third century CE) and its literary use the as the liturgical language of Manichaeism in the documents from Turfan (ninth–tenth century CE).⁴⁵ Judging by the form of the language used in the latter, Parthian was no longer spoken natively at that time; its 'death' must fall somewhere in this time period, viz. between the fourth and ninth centuries.⁴⁶

The Armenian data suggests that the Arsacid rulers of Armenia were one of the first Parthian speech communities to switch to the locally dominant language as their primary means of communication. This is backed up not only by the linguistic and socio-historical material presented above, but also by the fact that all of the literature about the Arsacid dynasty in Armenia comes from sources in Armenian, not Parthian. While the absence of evidence is not evidence of absence, based on what is known at present it stands to reason that this first localised 'death' of Parthian in Arsacid Armenia is owed to the shift of Parthian-speakers to Armenian and the resulting demise of Parthian over the course of a few generations.

When this shift is likely to have commenced is a difficult question, as the data is insufficient to make such determinations. The establishment of a hereditary Arsacid dynasty in Armenia in the early third century, the Fall of the Arsacid Empire at the hand of the Sasanians in 224,

⁴⁴ The Parthian inscriptional evidence in general is very limited. Next to the Nisa ostraka, there are three letters from Avroman and one from Dura Europos, a number of inscriptions of Arsacid kings from the time of the Parthian Empire, and Arsacid coin legends (DURKIN-MEISTERERNST 2014: 4). The inscription of Artašēs I at Zangezur may be Parthian, but is written largely in Aramaic heterograms and belongs to an earlier dynasty, the Orontids (PÉRIKHANIAN 1966).

⁴⁵ The date of original composition of these texts may, of course, be much earlier (DURKIN-MEISTERERNST 2014: 7–9).

⁴⁶ There are significant differences of opinion on the subject of the demise of Parthian as a 'living' language, ranging from the end of the fourth century as a *terminus post quem non* (CHRISTENSEN 1930: 4–5; GHILAIN 1939: 28) to the seventh century (DURKIN-MEISTERERNST 2014: 3).

and the Christianisation of Armenia at the end of that century make it a likely candidate for a *terminus a quo*; the invention of the Armenian alphabet and subsequent beginning of a literary tradition entail a plausible *terminus ante quem*. The resulting time period, from the middle of the third to the end of the fourth century, is certainly long enough for a superstrate shift like this to take place.⁴⁷

7. Conclusions

This paper set out to advocate three points: the Iranian origin of the Armenian perfect; the transitory nature of its tripartite alignment pattern; and the superstrate shift of Parthians to Armenian. An attempt has been made to show that the explanations proffered here are a cogent account not only of the development of the periphrastic perfect itself, but also of the Armenian socio-linguistic situation in and before the fifth century CE; one caveat, frequently implied in the above description and analysis, bears repeating here *expressis verbis*: much of the linguistic and extra-linguistic evidence concerning pre-literary Armenian and the ancient socio-linguistics in general is based on indirect, circumstantial, or external evidence and inferences; since the linguistic evidence remaining from this time period—synchronic as well as diachronic—is imperfect, so any understanding of the data cannot be more than an approximation of the truth.

That being said, all of the arguments brought forward here have good evidentiary support: the conclusions drawn concerning the contact-based origin of the perfect have contemporary parallels in other constructions gained through pattern replication; the delineation of the

⁴⁷ The Parthians of the generation in which this shift began were likely unbalanced bilinguals with Parthian as a dominant language. Their social status lent prestige to their idiolectal form of Armenian, sufficiently so to be adopted as the general language of court. The next generation are initially brought up with Parthian as their heritage language, and come into contact with Armenian either in the context of residing with their *dayeak* (tutor), acquiring the Partho-Armenian idiolect of their parents, or both. This, or a subsequent generation, in their lifetime would have shifted to Armenian entirely, speaking either the idiolect of generation 1, or their own Parthian-influenced version of Armenian. Their usage—including the use of Parthian patterns such as the periphrastic perfect—is in time adopted by native Armenian speakers of the ruling classes as well, and crystallises as the Classical Armenian used in fifth-century literature (MEYER 2017: 328–329). This is, by necessity, only a hypothetical and speculative account, but seems to fit the data best.

development of the perfect itself is backed by statistics; and the explanation of the Parthian superstrate shift has historical parallels in similarly constituted historical linguistic communities. Further corroboration, mitigation, or refutation of these points will have to be found in the course of further research. The study of perfect syntax in sixth- and seventhcentury texts will indicate whether the trends evident in the fifth century continue at pace. Comparisons of Armenian and Middle Iranian syntax will unearth whether other structural similarities may be due to language contact between the two languages. Potential archaeological finds of Parthian documents from the first half of the first millennium CE could indicate that Parthian had not died a 'localised death' as mooted here. Until such time, however, the conclusions presented here may stand, and Iranian–Armenian language contact must be seen in a new light, namely as even closer than thought until a few years ago. The reasoning presented here also emphasises, once more, that only the consideration of both linguistic and extra-linguistic data can yield anything resembling the full picture of historical socio-linguistics, and that, furthermore, extra-linguistic data can have a meaningful impact on the diachronic reconstruction of a syntactic pattern.

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Abbreviations and Transliteration

Abbreviations in glossing follow the Leipzig Glossing Rules; Armenian is transliterated according to the Hübschmann-Meillet-Benveniste system as used by the *Revue des Études Arméniennes*.

Ag. = Agat'angelos, History of Armenia THOMSON (1980)

Eł. = Ełišē, *The History of Vardan and the Armenian War* THOMSON (1993)

Kor. = Koriwn, Life of Maštoc' MAKSOUDIAN (1985)

ŁP = Łazar P'arpec'i, *History of the Armenians* KOUYMJIAN (1985)

PB = P'awstos Buzand, *The Epic Histories* GARSOÏAN (1984)

References

- Ajello, R. (1973). 'Sulla "frase relativa nominale" e su alcuni procedimenti formali di unione di determinate e determinante in armeno classico', *Studi e saggi linguistici*, 13: 141–184.
- ——. (1997). 'Armeno'. Giacalone Ramat A. & Ramat P. (eds) Le lingue indoeuropee, new., pp. 225–54. Il Mulino: Bologna.

Belardi, W. (2003). Elementi di armeno aureo. Rome: Il Calamo.

Benveniste, É. (1957). 'Mots d'emprunt iraniens en arménien', *Bulletin de la Société Linguistique de Paris*, 53: 55–71.

. (1964). 'Élements parthes en arménien', *Revue des Études Arméniennes*, 1: 1–39.

Berndt, R. (1965). 'The linguistic situation in England from the Norman conquest to the loss of Normandy', *Philologica Pragensia1*, 8: 145–163.

Bolognesi, G. (1960). *Le fonti dialettali degli imprestiti iranici in armeno*. Milan: Società Editrice Vita e Pensiero.

 . (1988). 'La stratificazione del lessico armeno nell'opera di J. J. Schröder'. Albrecht J., Thun H., & Lüdtke J. (eds) *Energeia und Ergon : sprachliche Variation, Sprachgeschichte, Sprachtypologie. Studia in honorem Eugenio Coseriu*, pp. 561–571. Narr: Tübingen.

Boyce, M. (1979). Zoroastrians: Their Religious Beliefs and Practices. London/Boston: Routledge & Kegan Paul. Christensen, A. (1930). *Contributions à la dialectologie iranienne*. Copenhagen: Bianco Lunos.

Comrie, B. (1978). 'Ergativity'. Lehmann W. P. (ed.) *Syntactic Typology. Studies in the Phenomenology of Language*, pp. 329–94. Harvester Press: Sussex.

Deeters, G. (1927). Armenisch und Südkaukasisch. Leipzig: Verlag der Asia Major.

Dixon, R. M. W. (1994). Ergativity. Cambridge: Cambridge University Press.

Durkin-Meisterernst, D. (2014). Grammatik des Westmitteliranischen (Parthisch und Mittelpersisch). Vienna: Verlag der Österreichischen Akademie der Wissenschaften.

Garsoïan, N. G. (1976). 'Prolegomena to a study of the Iranian aspects in Arsacid Armenia', *Handes Amsorya*, 90: 177–234.

(Ed.). (1984). Buzandaran patmut 'iwnk' = (The epic histories) : also known as, Patmut 'iwn Hayoc' (History of Armenia). Delmar, NY: Caravan Books.

——. (1989). *The Epic Histories (Buzandaran Patmut`iwnk`)*. Cambridge, MA: Harvard University Press.

——. (1997a). 'The Emergence of Armenia'. Hovannisian R. G. (ed.) The Armenian People from Ancient to Modern Times, vol. 1: The Dynastic Periods, from Antiquity to the Fourteenth Century, pp. 37–62. St Martin's Press: New York.

——. (1997b). 'The Aršakuni Dynasty (A.D. 12–[180?]–428)'. Hovannisian R. G. (ed.) *The Armenian People from Ancient to Modern Times, vol. 1: The Dynastic Periods, from Antiquity to the Fourteenth Century*, pp. 63–94. St Martin's Press: New York.

Ghilain, A. (1939). Essai sur la langue Parthe, son systeme verbal d'après les textes manichéens du Turkestan Oriental. Leuven: Bureaux du Muséon.

Gippert, J. (2005). 'Armeno-albanica'. Schweiger, G. (ed.) Indogermanica: Festschrift Gert Klingenschmitt. Indische, iranische und indogermanische Studien. Dem verehrten Jubilar dargebracht zu seinem fü nfundsechzigsten Geburtstag, pp. 155–165. VWT-Verlag, Taimering.

- —. (2009). 'An etymological trifle'. Sundermann, W., Hintze, A., and de Blois, F., (eds) *Exegisti monumenta. Festschrift in Honour of Nicholas Sims-Williams*, pp. 127–140. Harrassowitz, Wiesbaden.
- Heine, B. (2012). 'On polysemy copying and grammaticalization in language contact'.
 Chamoreau, C. & Léglise, I. (eds) *Dynamics of Contact-Induced Language Change*, pp. 125–166. De Gruyter Mouton: Berlin.

Heine, B., & Kuteva, T. (2005). *Language Contact and Grammatical Change*. Cambridge: Cambridge University Press.

-. (2007). The genesis of grammar. Oxford: Oxford University Press.

Hopper, P. J., & Traugott, E. C. (2003). *Grammaticalization*. Cambridge: Cambridge University Press.

Hübschmann, H. (1875). 'Ueber die stellung des armenischen im kreise der indogermanischen sprachen', Zeitschrift für vergleichende Sprachforschung auf dem Gebiete der Indogermanischen Sprachen, 23/1: 5–49.

- ——. (1897). Armenische Grammatik. 1. Theil: Armenische Etymologie. Leipzig: Breitkopf & Härtel.
- Korn, A. (2016). 'A partial tree of Central Iranian', *Indogermanische Forschungen*, 121:401–434.
- Korn, A. and Olsen, B. A. (2012). 'On Armenian -agin: additional evidence for a third West Middle Iranian dialect?', *Münchener Studien zur Sprachwissenschaft*, 66/2: 201–220.
- Kouymjian, D. (Ed.). (1985). *History of the Armenians and The Letter to Vahan Mamikonean*. Delmar, NY: Caravan Books.
- Maksoudian, K. H. (Ed.). (1985). Vark' Maštoc'i. Delmar, NY: Caravan Books.

Matras, Y., & Sakel, J. (2007). 'Investigating the mechanisms of pattern replication in

language convergence', Studies in Language, 31/4: 829-865.

- Meillet, A. (1899). 'Recherches sur la syntaxe comparée de l'arménien I', *Mémoires de la Société Linguistique de Paris*, 11/6: 369–388.
- ——. (1911). 'Sur les mots iraniens emptruntés par l'arménien', *Melanges de la Sociéte Linguistique de Paris*, 17: 250–2.
- ——. (1936). *Esquisse d'une grammaire comparée de l'arménien classique.*, 2. éd. Vienna: Impr. des Pp. Mékhitharistes.
- Meyer, R. (2013). 'Armeno-Iranian Structural Interaction: The Case of Parthian wxd, Armenian ink'n', *Iran and the Caucasus*, 17/4: 401–25.
- ——. (2014). 'Remodelling the Historical Morphology of the Classical Armenian -eal participle', *Banber Matenadarani*, 21: 385–98.
- . (2016). 'Morphosyntactic Alignment and the Classical Armenian Periphrastic Perfect'. Jamison S. W., Melchert C. H., & Vine B. (eds) *Proceedings of the 26th Annual UCLA Indo-European Conference : Los Angeles, October 24th and 25th, 2014*, pp. 117–133. Hempen: Bremen.
- ——. (2017). Iranian-Armenian language contact in and before the 5th century CE. An investigation into pattern replication and societal multilingualism. University of Oxford, Oxford.
- ——. (n.d.). 'Languages in Contact: Armenian and Iranian'. Orengo A. & Tinti I. (eds) *Armenian Linguistics*, Handbuch der Orientalistik, Vol. 23. Brill: Leiden.
- Myers-Scotton, C. (2002). *Contact Linguistics: Bilingual Encounters and Grammatical Outcomes*. Oxford: Oxford University Press.
- Olsen, B. A. (2005). 'On Iranian dialectal diversity in Armenian'. Hackstein, O., and Meiser, G. (eds) *Sprachkontakt und Sprachwandel: Akten der XI. Fachtagung der Indogermanischen Gesellschaft, 17.–23. September 2000, Halle an der Saale*, pp. 473–481. Reichert, Wiesbaden.
- Payne, J. R. (1979). 'Transitivity and Intransitivity in the Iranian Languages of the U.S.S.R.' Clyne P. R., Hanks W. F., & Hofbauer C. L. (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*, pp. 436–447. Linguistic Society: Chicago.
- ——. (1980). 'The Decay of Ergativity in Pamir Languages', *Lingua*, 51: 147–186.
- Périkhanian, A. (1966). 'Une inscription araméenne du roi Artašēs trouvée à Zanguézour (Siwnik')', *Revue des Études Arméniennes1*, 3: 17–29.
- Pirejko, L. A. (1966). 'Талышский Язык'. Vinogradov V. V (ed.) Языки Народов СССР. Индоевропейские языки, pp. 302–22. Академия Наук СССР, Институт Языкознания: Москва.
- Schmitt, R. (1983). 'Iranisches Lehngut im Armenischen', *Revue des Études Arméniennes*, 17: 73–112.
- Schröder, J. J. (1711). Aramean lezuin gandzi, Hoc est: Joh. Joachimi Schröderi Thesaurus Linguae Armenicae, Antiquae Et Hodiernae: Cum varia Praxios materia, cujus elenchum sequens pagella exhibet. Amsterdam.
- Skalmowski, W. (1974). 'Transitive verb constructions in the Pamir and Dardic languages'. Kuryłowicz J., Safarewicz J., & Smoczyński W. (eds) *Studia Indoeuropejskie*, pp. 205–212. Polska Akademia Nauk, Zakład Narodowy im. Ossolińskich: Krakow.
- Skjærvø, P. O. (1983). 'Case in inscriptional Middle Persian, inscriptional Parthian and the Pahlavi Psalter', *Studia Iranica*, 12/1: 69–94, 151–181.

Szemerényi, O. (1966). 'Iranica II', Die Sprache, 12: 190-226.

Thomason, S. G. (2003). 'Contact as a Source of Language Change'. Joseph B. D. & Janda R. D. (eds) *Handbook of Historical Linguistics*, pp. 687–712. Blackwell: Malden, MA.

——. (2008). 'Social and Linguistic Factors as Predictors of Contact-Induced Change', *Journal of Language Contact*, 2: 42–56.

- Thomason, S. G., & Kaufman, T. (1988). *Language Contact, Creolization, and Genetic Linguistics*. Berkeley/Los Angeles/Oxford: University of California Press.
- Thomson, R. W. (Ed.). (1980). *Patmut 'iwn Hayots' History of the Armenians*. Delmar, NY: Caravan Books.

—— (Ed.). (1993). *The history of Vardan and the Armenian war*. Delmar, NY: Caravan Books.

- Toumanoff, C. (1969). 'The Third-Century Armenian Arsacids: a Chronological and Genealogical Commentary', *Revue des Études Arméniennes*, 6: 233–281.
- ——. (1976). *Manuel de généalogie et de chronologie pour l'histoire de la Caucasie chrétienne*. Rome: Edizioni Aquila.