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## Old Armenian nasal verbs : archaisms and innovations

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# Old Armenian Nasal Verbs

## Archaisms and Innovations

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## ABBREVIATIONS

### Languages

Alb.	Albanian
Arm.	Old Armenian
Av.	Avestan
BSl.	Balto-Slavic
Eng.	English
Gk.	Ancient Greek
Go.	Gothic
Grm.	German
IE	Indo-European
Ic.	Icelandic
Lat.	Latin
Latv.	Latvian
Lith.	Lithuanian
MHG	Middle High German
MPers.	Middle Persian
MW	Middle Welsh
NPers.	Persian
NPhryg.	New Phrygian
OAv.	Old Avestan
OCS	Old Church Slavic
OE	Old English
OHG	Old High German
OIr.	Old Irish
OIs.	Old Icelandic
ON	Old Norse
OPers.	Old Persian
ORu.	Old Russian
Osc.	Oscan
Oss.	Ossetic
OSw.	Old Swedish
PAlb.	Proto-Albanian
PArm.	Proto-Armenian

Parth.	Parthian
PBalt.	Proto-Baltic
PCelt.	Proto-Celtic
PGrm.	Proto-Germanic
PIt.	Proto-Italic
Phryg.	Phrygian
PIE	Proto-Indo-European
PIr.	Proto-Iranian
PIIr.	Proto-Indo-Iranian
PSl.	Proto-Slavic
PToch.	Proto-Tocharian
Ru.	Russian
Skt.	Sanskrit
Toch.	Tocharian
Umbr.	Umbrian
YAv.	Young Avestan

### Grammar terms

abl.	ablative
acc.	accusative
act.	active
adj.	adjective
adv.	adverb
anticaus.	anticausative
aor.	aorist
athem.	athematic
caus.	causative
dat.	dative
gen.	genitive
habit.	habitual
ind.	indicative
instr.	instrumental
intr.	intransitive

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ipf.	imperfect	smb.	somebody
ipfv. (IPFV)	imperfective	so.	something
ipv.	imperative	subj.	subjunctive
iter.	iterative	suppl.	suppletive
lit.	literally	them.	thematic
loc.	locative	tr.	transitive
mp.	mediopassive	v.	verb
n.	noun		
nom.	nominative	<b>Other</b>	
pfv. (PFV)	perfective	n/a	not attested
pl.	plural	v.l.	<i>varia lectio</i>
pres.	present	-&-	etymologically ambiguous
pret.	preterite		morphological segment
proh.	prohibitive	<, >	derives by sound law
ptc.	participle	←-, →	derives by analogy
res. (RES)	resultative/stative		
sg.	singular		

## CHAPTER 1. INTRODUCTION

### Section 1.1. Problem statement

The present study is dedicated to a particular issue of Old Armenian historical grammar — the evolution of the verbal classes characterised by a subset of imperfective suffixes containing a dental nasal phoneme (henceforth the *nasal classes*) from Proto-Indo-European to the earliest Old Armenian texts of the 5<sup>th</sup> century CE. Old Armenian has multiple nasal classes which presumably go back to a single PIE class characterised by a nasal infix.<sup>1</sup> The goal of the present research is to clarify how and why the Proto-Armenian verbal system developed its diversity of nasal classes. The study will address the interaction of sound changes with formal and functional analogy behind the evolution of nasal classes.

A surface review of the Old Armenian inherited verbal lexicon (e.g. in *LIV*<sup>2</sup>: 758–760) will suffice to see that roughly one half of inherited verbs belongs to the nasal classes. It makes the Old Armenian nasal verbs particularly important for the comparative grammar of Indo-European languages. Some noticeable matches between Old Armenian and Ancient Greek, such as Arm. *zgenum* and Gk. ἑννυμαι ‘clothe oneself’, Arm. *lk’anem* and Gk. λιμπάνω ‘leave’, may be taken as indications of a shared evolution of the nasal classes in these two branches. An important aspect of the present study is to pinpoint the innovations shared by Old Armenian and Ancient Greek as opposed to the other Indo-European languages. This aspect is connected to the ongoing debate on the position of Armenian within the Indo-European language family; see the recent overviews of the issue in Martirosyan 2013, de Lamberterie 2013, Kortlandt 2016, and Kim 2018 along with the monographic assessment of the topic in Clackson 1994, all with ample references to the previous scholarship.

Although the Old Armenian nasal classes contain many inherited roots, only a relatively small number of stems, both perfective and imperfective, can be derived from PIE prototypes. Besides, the nasal classes contain some verbs without etymology and no recognised Urartian, Iranian, Greek, or Syriac loanwords. Thus, the nasal classes belong to

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<sup>1</sup> Proto-Indo-European had numerous verbal classes, each characterised by a specific ablaut pattern, marking of the threefold opposition of tense-aspect stems, and voice assignment pattern. At least three of them contained the nasal suffixes *\*-n(e)u-* and *\*-n(e)h<sub>2</sub>-*, and the infix *\*-n(e)-*. The hypothesis that the suffixed stems were produced by the infixed stem, first proposed in de Saussure 1879, has become the mainstream among Indo-Europeanists. Altogether, there is suggestive evidence that the nasal suffixes already existed at some stage of the proto-language.

the PIE heritage and remained productive for some time within early Proto-Armenian. The inner-Armenian productivity of the nasal stems conditioned their secondary spread (cf. Meillet 1900b = 1977: 75f.; Godel 1975:124). The conditions of the spread, its relative chronology as well as grammatical properties of secondary nasal verbs have not been sufficiently clarified.

Much of the inner-Armenian spread of the nasal verbs was based on analogy. The following types of analogy will be taken into account in the present study: (a) analogy based on the formal features of a paradigmatic class (e.g. the type of perfective stem, ablaut, peculiarities of inflection); (b) analogy based on the argument structure; (c) analogy based on actionality and aspectual features; (d) analogy based on lexical semantics. Importantly, only type (c) concerns the nasal morpheme on its own, while types (a), (b), and (d) concern a predicate as a whole and a respective nasal class as its integral morphological representation. The present study aims to specify which of the listed analogical processes played a role in the rise and spread of the Old Armenian nasal classes. It implies distinguishing the lexical items in which a nasal affix is an inherited idiosyncratic morphological feature from those in which it is grammatically or analogically motivated. It is clear from the start that this challenging task can be fulfilled only partially due to the limitations of the evidence. However, it is worthwhile to determine the limitations of the method and empirical data for the issue at hand.

The scope of the present study is to review all Old Armenian nasal verbs attested in a representative selection of early classical texts (see Section 1.5), and provide an in-depth analysis of the formal and functional changes in the nasal classes, taking into account up-to-date etymological findings and insights in general linguistics.

My approach will be to first describe the grammatical content of the Old Armenian nasal classes synchronically pinpointing the similarities and contrasts across the classes in terms of their argument structure, voice assignment, and lexical aspectual features. This part of the research has trivial limitations. Obviously, it is impossible to establish all the complexities of usage judging from limited textual attestations. Thus, the categorisation of the Old Armenian nasal verbs according to their argument structure and lexical aspectual features, as presented in Chapter 2, is inherently deficient. The reader will have an opportunity to estimate the degree of credibility of the selected classifiers per lexical item. Nonetheless, the chosen grammatical parameters make it possible to control the data, and, should the necessity arise, improve in the description with an immediate access to its implications for the diachronic analysis.

The main objective of the diachronic analysis will be to establish the evolution of formal and functional properties of the nasal classes. In particular, the following questions will be addressed: which of the Old Armenian nasal stems can be derived from core PIE or

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some variety of dialectal PIE reconstructable for a group of branches, and which stems are clear inner-Armenian innovations; whether innovative nasal stems can be stratified in light of the known Proto-Armenian sound changes and, if so, whether any changes in their grammatical properties can be detected; how the evolution of the nasal classes correlates with the process of root levelling over the PFV and IPFV stems within Proto-Armenian; which of the two tense-aspect stems, perfective and imperfective, served as the derivational base for the new nasal verbs; which factors determined the split of the nasal suffixes into two series beginning with *-n-* and *-an-* and their distribution among the four thematic conjugations. Multiple related issues of the historical phonology and morphology of Old Armenian will be addressed in the course of the present study in order to answer these major questions.

## Section 1.2. PIE and Old Armenian nasal classes

The PIE verbal system of the Greco-Aryan type, based on the three-way opposition of tense-aspect stems (imperfective “present stem” — IPFV, perfective “aorist stem” — PFV, resultative/stative “perfect stem” — RES), evolved into the Old Armenian verbal system that was based on the two-way opposition of stems (imperfective “present stem” — IPFV, perfective “aorist stem” — PFV) in the course of approximately three millennia (cf. Meillet 1910–1911a = 1962: 83–122; Godel 1980 = 1982; etc.).<sup>2</sup> Unlike the opposition of the PFV and IPFV stems based on the use of preverbs found in Balto-Slavic, Germanic, and Italo-Celtic, Old Armenian developed in line with Ancient Greek and the Indo-Iranian languages, where stems were contrasted by means of affixes (Meillet 1896 = 1977: 25). The present, imperfect, and aorist tenses were retained. The loss of the PIE perfect was compensated with the emergence of the Old Armenian periphrastic perfect and pluperfect. Apart from the imperative, the PIE non-indicative moods were reduced to the subjunctive/future in its two aspectual varieties, imperfective (“present subjunctive”) and perfective (“aorist subjunctive”). The PIE inflectional voice category was retained in a renovated form. See Meillet 1936, Jensen 1959, Godel 1975, Klingenschmitt 1982, and, recently, Martirosyan *frthc.* § 5 with references.

Like in PIE, the Old Armenian nasal affixes are found only in IPFV stems. The Old Armenian nasal suffixes *-n-*, *-nčʻ-*, *-an-*, *-ančʻ-* occur in a variety of paradigmatic classes, each characterised by a specific combination of a nasal suffix with one of the four conjugations in *-e-*, *-i-*, *-a-*, and *-u-*,<sup>3</sup> and one of the four PFV stems — the root stem, the *cʻ*-stem, the *acʻ*-stem, and the *i*-stem. Not all of the combinations were possible (see Table 1). The paradigmatic classes had unequal productivity. Only two classes were productive — a class that contained productive causatives (IPFV *-an-e/i-* : PFV *-Ø-*), and a class that contained

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<sup>2</sup> See an overview of the structural differences between the so-called Greco-Aryan and Indo-Hittite verbal systems in Clackson 2007: 118–138. The Armenian branch clearly belongs to the Greco-Aryan type, in which the three tense-aspect stems constituted part of the inflectional, not derivational, morphology. As it will be demonstrated in the course of the present study, Ancient Greek and Old Armenian share important morphological features which allow to view them as belonging to a cluster of particularly closely related branches within the languages with the verbal system of the Greco-Aryan type. See Bartolotta 2009 on the aspectual contrasts between the PIE tense-aspect stems with further references.

<sup>3</sup> Beginning with Hübschmann (1883: 93–5), the thematic vowels are often interpreted as part of the stem rather than inflection, hence morphemic segmentations like *-na-m*, *-ana-m*, etc. This approach, rooted in the diachronic analysis, makes it difficult to account for the 3 sg. pres. act. ind. *-ē*, 2 pl. pres. act. *-ēkʻ*, and inf. *-el* in the *e/i*-conjugation. In the present study, synchronically motivated segmentations are continually used (*-n-am*, *-an-am*, etc.).



productive inchoatives (IPFV *-an-a-* : PFV *-ac'*). The remaining classes were recessive, although they included a large number of frequently used verbs.

Table 1. Old Armenian nasal classes

		Perfective stems			
		-∅-	-c'	-ac'	-i-
Imperfective stems	<i>-n-u-</i>	+	+		+
	<i>-n-a-</i>	+			
	<i>-n-e/i-</i>	+			+
	<i>-an-a-</i>			+	
	<i>-an-e/i-</i>	+			+
	<i>-nč'-i-</i>				+
	<i>-anč'-e-</i>	+			

Traditionally, the Old Armenian nasal classes are derived from the PIE paradigmatic classes with the IPFV suffixes *\*-n(e)u-* and *\*-n(e)h<sub>2</sub>-*, and the infix *\*-n(e)-*; see Greppin 1973, Hamp 1975, and Klingenschmitt 1982 for an overview and discussion of the traditional Proto-Armenian reconstructions.<sup>4</sup> Altogether, Old Armenian does not contain assured direct traces of PIE nasal infixed stems from roots ending in consonants, *\*-u-*, or *\*-H-*, so that one may argue that the nasal infix was eliminated at an early stage of Proto-Armenian, and that the suffixes *\*-n(e)u-* and *\*-n(e)h<sub>2</sub>-* were the only prototypes of the attested variety of Old Armenian nasal suffixes. In addition, one may take into account yet another structural type as part of the hypothesis on the evolution of the PIE nasal stems that has recently been offered by Kloekhorst (*EDHIL*: 152–155).

According to Kloekhorst, the PIE infix goes back to the pre-PIE IPFV suffix *\*-(e)n-*, which could form pres. act. 3 sg. *\*CRC-én-ti*, 3 pl. *\*CRC-n-énti* and pres. mp. 3 sg. *\*CRC-ón-e*, 3 pl. *\*CRC-n-ér*. In the forms where the zero-grade of the nasal suffix came into contact with a root-final obstruent or a laryngeal, the prenasalisation of that consonant occurred, yielding 3 pl. *\*CR<sup>n</sup>C-n-énti*. Later, the levelling of the prenasalised forms across the paradigm yielded 3 sg. *\*CR<sup>n</sup>C-én-ti*. After that, the cluster *\*<sup>n</sup>Cn-* was simplified to *\*<sup>n</sup>C-* producing paradigms of the type 3 sg. *\*CR<sup>n</sup>C-én-ti*, 3 pl. *\*CR<sup>n</sup>C-énti*. Under the pressure of the 3 pl. form, the suffix *\*-en-*, still present in the singular, was introduced into the root by a metathesis yielding 3 sg. *\*CR-ne-<sup>n</sup>C-ti*. The metathesis might have been facilitated by the mismatch in the order of the nasal and a root-final consonant in the singular and plural.

<sup>4</sup> The literature dedicated to the PIE nasal formations is immense. Besides handbooks on the PIE verbal morphology, one can mention Pedersen 1893, Kuiper 1937, Strunk 1967, Teijeiro 1970, Rasmussen 1990, Meiser 1993 among many others.

The mismatch provoked an analogical remaking of the singular after the plural forms. After the split of the Anatolian branch from PIE, prenasalised consonants lost their nasalisation yielding the well-known type of the infix stem with 3 sg. *\*CR-né-C-ti*, 3 pl. *\*CR-n-C-énti*. In Anatolian, by contrast, prenasalised velars retained their nasalisation. Within the aforementioned scenario, Old Armenian fits the non-Anatolian system so that the traditional analysis of infix stems applies. Yet, the nasal suffix *\*(e)n-* might have survived on the margins of the system where root-final consonants were not prenasalised or the suffix was not eliminated by the pressure of the 3 pl. forms in verbs for which the plural was not a pivotal part of the paradigm. One may consider such a possibility for bi-consonant roots where the lack of *\*-R-* would block prenasalisation. Thus, for example, the pre-PIE pres. act. 3 sg. *\*b<sup>h</sup>h<sub>2</sub>-en-ti* / 3 pl. *\*b<sup>h</sup>h<sub>2</sub>-n-enti* could be retained in PIE (and not become *\*b<sup>hn</sup>h<sub>2</sub>-en-ti* and *\*b<sup>hn</sup>h<sub>2</sub>-n-enti*, respectively) and be reflected in Arm. *ban-am* ‘open’.

In PIE, nasal stems, like most other types of characterised IPFV stems, constituted paradigmatic patterns primarily with PFV root stems. This structural feature is also found in many Old Armenian nasal verbs as an archaism. Deviations from that default paradigm type are also found, including one secure instance of a reduplicated PFV stem, some suggestive cases of sigmatic stems, and inner-Armenian *c*’-formations. It will be questioned which of these types constitute core PIE heritage, dialectal PIE innovation, or Proto-Armenian innovation.

The grammatical meanings associated with nasal verbs vary significantly in the daughter languages. Two grammatical domains are traditionally associated with the PIE nasal stems: 1) Aktionsarts consistent with the imperfective aspectual meaning, and 2) valency-increasing derivational semantics.

The PIE nasal affixes are imperfective by default given that they were used exclusively in the IPFV stem in the principle Indo-European languages. “Imperfective” is an umbrella term that covers a set of primitive aspectual meanings such as “durative”, “iterative”, “habitual”, etc., and, potentially, the original use of the nasal affixes could have been more narrow in PIE or pre-PIE. For example, the imperfective aspect proves to be an insufficiently accurate category in determining the use of a nasal infix in PIE *\*ui-né-d-* ‘look for’ (cf. Skt. *vindáti* tr. ‘find’) next to *\*uoid-* ‘know’ (cf. Skt. *véda* tr. ‘know’). Both forms could perhaps be used in a context of the present tense. Altogether, one observes a clear grammatical contrast in the semantic relation of these forms to the punctive meaning ‘saw; found’ of the PFV root stem *\*ueid-* (cf. Skt. *ávidat* ‘found’), cf. “X *was looking for* (*\*ui-né-d-*) Y and *found* (*\*ueid-*) it” and “X *has seen/found* (*\*ueid-*) Y and *knows* (*\*uoid-*) it”.

The above-mentioned PIE paradigmatic pattern that combined IPFV nasal stems with PFV root stems, typical for the so-called “aoristic” verbs, suggests that PIE nasal stems commonly expressed actionalities with the [+ telic], [+ dynamic], [+ durative] aspectual

features. The present study will explore whether the Old Armenian evidence supports such a distribution of features. In particular, special attention will be given to verbs with different features, e.g. [– telic] verbal like *ĵeranim* ‘have a fever’.

A conventional aspectological framework will be used in the present study to break the generic imperfective meaning into specific aspectual meanings (progressive, durative, stative, iterative, etc.) and describe their distribution in the Proto-Indo-European, Proto-Armenian, and Old Armenian nasal stems (see § 1.3.2).

There is a growing consensus based on the decompositional approach to verbal lexical semantics that lexical aspect of a predicate may depend on its argument structure and idiosyncratic lexical features (see Tenny 1987; van Valin & LaPolla 1997; Kennedy & Levin 2008, among others). Thus, a valency-changing derivation can influence the aspectual content of tense-aspect markers (e.g. intr. *I write* [– telic] next to tr. *I am writing a letter* [+ telic]). Therefore, it is difficult to determine whether the distribution of nasal stems in PIE and their analogical spread at various stages of Proto-Armenian depended on argumental or aspectual meanings. The fact that nasal affixes were linked to the imperfective slot in the tense-aspect paradigms of Proto-Indo-European and Proto-Armenian, does not exclude the possibility that the derivational semantics of the nasal classes could be linked to grammatical parameters beyond aspect, in particular, the argument structure of a verb. For example, the Old Armenian causatives in *-ucʻanem* show how the analogical spread of a nasal affix can be determined by the non-aspectual derivational semantics of a productive valency-changing formation that utilised such affix.

Meiser (1993) made a point that valency-increasing derivations were cumulatively encoded by derivational and inflectional markers in PIE. According to him, PIE transitive verbs could be derived from intransitive ones by means of additional morphemes, including nasal affixes.<sup>5</sup> Meiser claimed that nasal affixes were older than the two other recognised PIE valency-increasing markers, the *\*eie*-stem with roots in the *o*-grade, and the reduplicated stem, both of which originally had intensive or iterative meaning, and only secondarily received the transitivising function within PIE. According to Meiser, the later productivity of the *o*-grade *\*eie*-stem as a valency-increasing marker is reflected in the fact that it retained its transitivising function in Indo-Iranian and Germanic. By contrast, the valency-increasing value of nasal formations, still clearly seen in the Anatolian branch (cf. the Hittite *nu*-causatives along with the non-productive *nin*-causatives, cf. Hoffner & Melchert 2008: 175, 178f.; *EDHIL*: 608; Shatskov 2017), is rudimental in the other branches, e.g. Sanskrit (cf. Skt. *éti* intr. ‘go’ → *inóti* tr. ‘send, impel’; *úrte* intr. ‘move’ →

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<sup>5</sup> This hypothesis does not exclude the marking of transitivity pairs by means of voice endings in common PIE. The coexistence of the “equipollent” and “causative” marking strategies is amply attested in the languages of the world (see § 1.3.1 for details on the transitivity marking strategies).

*ṛṇóti* tr. ‘move’; *jávate* intr. ‘run’ → *junāti* tr. ‘make run’; *pávate* intr. ‘become clean’ → *punāti* tr. ‘purify’; *rámate* intr. ‘remain’ → *ramṇāti* tr. ‘stop’; etc.).<sup>6</sup>

Altogether, intransitive nasal verbs well attested in Germanic, Baltic, and Slavic, cf. Go. *aflifnan*, Lith. *liūpa*, OCS *prilьnetъ* ‘stick to’ (see Gorbachov 2007; Villanueva Svensson 2011). The Lithuanian infixed intransitive verbs include impersonal verbs (cf. *sniūga* ‘it snows’) as well as the anticausative members of causative/anticausative pairs (*ke-m̃-pa* intr. ‘become dry’ next to *kèpti* intr., tr. ‘bake’). The intransitive infixed formations can be opposed to the transitive verbs in *-in-*, cf. *kèp-in-ti* tr. ‘burn’; both the intransitivizing nasal infix and the transitivizing nasal suffix are non-productive morphological markers and can be regarded as archaisms within Old Lithuanian (Petit 1999: 81f.). Infixes also marked inchoative verbs next to non-nasal stative verbs, cf. *užmiūga* ‘fall asleep’ next to *miēga* ‘sleep’. In Germanic, the most prominent type of intransitive nasal verbs are anticausative verbs of the Germanic 4<sup>th</sup> weak class, cf. Go. *gafullnan* ‘become filled’ (Ringe 2006: 176–179, 258–260). In Slavic, one also finds the nasal classes with the inchoative and anticausative verbs, cf. *vzbzṇoti* ‘wake up’, *oglxṇoti* ‘become deaf’.

Virtually all of the Old Armenian nasal classes include both transitive and intransitive verbs. Moreover, the synchronically productive Old Armenian markers of both causatives and anticausatives belong to nasal classes (caus. *-ucʻan-e-* vs. anticaus. *-an-a-*). The question arises whether the Old Armenian intransitive nasal verbs constitute an archaism shared with some other IE branches, or it is an inner-Armenian innovation based on reflexive uses of the underlying transitive nasal verbs (cf. Haspelmath 1987 with parallels of the grammatical change “causative → autocausative (reflexive) → anticausative”).

The relation of the Old Armenian nasal morphology to valency-changing categories will be analysed in terms of the theoretical framework discussed in § 1.3.1.

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<sup>6</sup> It is not easy to find secure examples for the reconstruction of nasal stems with valency-increasing function within the Greco-Aryan verbal system. A suggestive case is provided by PIE *\*h<sub>1</sub>eish<sub>2</sub>-* intr. ‘move’ (García Ramón 1992; LIV<sup>2</sup>: 234) → *\*h<sub>1</sub>is-né/n-h<sub>2</sub>-* tr. ‘set in motion’: Skt. *iṣṇāti* tr. ‘dispatch (enemy with a weapon; RV 1.63.2d)’ next to Gk. *ἰβάω* tr. ‘expel, make empty’. One may further consider a possibility that PIE *\*h<sub>1</sub>is-né/n-h<sub>2</sub>-* was extended with the *\*ie/o-* suffix at some stage of the proto-language on the evidence of Skt. *iṣanyati* tr. ‘urge on’ and Gk. *ἰάτω* tr. ‘heat’ (García Ramón 1992: 191; Dieu 2014: 143–159 with a detailed lexicological analysis of *ἰάτω* and hypothesis of its semantic change; see also Jasanoff 2003: 124 with an alternative reconstruction PIE *\*h<sub>1</sub>is-ṇh<sub>2</sub>-ie/o-*). However, the reconstruction of *\*h<sub>1</sub>is-n(-)h<sub>2</sub>-ie/o-* is problematic; the semantic justification is rather weak, and the Sanskrit cognate would point to the loss of *\*-h<sub>2</sub>-*, which did not happen in Skt. *grbhāyāti* ‘grasp’ from *\*grb<sup>h</sup>-n(-)h<sub>2</sub>-ie/o-*.

## Section 1.3. Theoretical framework

A comparative investigation of the verbal morphology in diachrony requires adopting a theoretical framework that would allow to align to each other morphological categories of different chronological stages in the history of a language, such as PIE and Old Armenian. Multiple approaches exist to map the grammatical and lexical semantics of predicates. Each one is an artificial logical construction intended to grasp universal or quasi-universal generalisations on which grammatical features are relevant to the structure of the languages of the world. By applying such generalisations to a specific language one risks imposing irrelevant parameters on the evidence. And yet it is a necessary cost for any attempt at a cross-language comparison including the diachronic comparison of genetically related languages. In the present study, the distribution of nasal suffixes will be analysed on the basis of argument structure (see § 1.3.1) and lexical aspectual features (see § 1.3.2) of nasal verbs.

### § 1.3.1. Argument structure

A comparative study of the Old Armenian nasal verbs requires taking into account their argument structure and voice marking. In order to check the hypotheses on correlations between the argument structure, voice assignment patterns, and the development of the nasal morphology from PIE to Old Armenian, we will provide a synchronic description of these grammatical parameters for each nasal verb attested in the source material.

The theoretical premises for the description of the argument structure are explicated in § 1.3.1-1, an overview of the Old Armenian voice assignment patterns is given in § 1.3.1-2, and the issue of the agentivity parameter is outlined in § 1.3.1-3.

#### § 1.3.1-1. Representation of the core arguments and transitivity alternations

The syntactic properties of the nasal verbs are described using the conventional syntactic model that distinguishes between one-, two-, and three-argument verbs; see van Valin & LaPolla 1997; Bickel & Nichols 2009; Dixon 2010; Malchukov et al. 2010.

The single core argument of a one-argument verb will be referred to as the S argument. In order to distinguish between the so-called “unergative” and “unaccusative” intransitive verbs, the S argument will be indexed as  $S_A$  (the AGENT-like subject) and  $S_O$  (the PATIENT-like subject). The AGENT-like argument of two- and three-argument verbs will be referred to as the A argument. The non-AGENT-like argument of a two-argument verb will be referred to as the O argument. Peripheral arguments, including the obligatory peripheral arguments

of three-argument verbs, will be referred to as the E argument, and such verbs will be termed *extended transitive verbs*. Thus, ditransitive verbs in which the E argument corresponds to the RECIPIENT-like argument (or the R argument) will be put in the same category as extended transitive verbs such as causative verbs or motion verbs with SOURCE or TARGET arguments. Along the same lines, the term *extended intransitive verbs* will be applied to intransitive verbs with the lexicalised valency on the E argument.

In Old Armenian, the nominative and accusative cases coincide in the singular and differ in the plural of most substantives. In both the singular and the plural, the accusative case is commonly marked by the prepositional *z*-particle (although not always). Insofar as the encoding of the arguments of the intransitive and transitive constructions is concerned, Old Armenian has the *accusative alignment* (S is marked like A and differently to O) except the cases when the direct object is in the singular and is not marked by the *z*-particle, which results in the *neutral alignment* (S is marked like A and O). The default encoding of the arguments in a three-argument construction can be defined as the *indirective alignment* — the PATIENT-like argument of a transitive verb is marked like the PATIENT-like argument of an extended transitive verb and differently from the E argument. The *neutral alignment* is marginally attested for particular verbs (O is marked like the E argument that corresponds to the RECIPIENT-like argument in the double accusative construction). See Jensen 1959: 144–156 for examples.

Depending on their lexical features, two- and three-argument verbs can undergo valency-changing alternations. Verbs that do not undergo valency-changing alternations will be referred to as “intransitive” and “transitive”, while verbs that undergo such alternations will be referred to as “ambitransitive”.

In the case of ambitransitive verbs, whenever the S argument of the intransitive construction is co-referential with one of the arguments of the transitive construction, the S will be indexed with the respective subscript letters:  $S_A$ ,  $S_O$ ,  $S_E$ . Hence, the following formulae: the active/passive alternation —  $A-O/S_O-E_A$ ; the active/antipassive alternation —  $A-O/S_A$ ; active/reflexive alternation —  $A-O/S_{A=E}$ ; the active/reciprocal alternation —  $A-O/S_{A_1=A_2}$ ; the causative/anticausative alternation —  $A-O/S_O$ , etc. Similarly, the A argument of the two-argument alternation of a three-argument verb will be indexed as  $A_O$  or  $A_E$ .

The infinitival complement is marked as  $E_{INF}$ .

### § 1.3.1-2. Patterns of marking transitivity pairs

The regular pattern of voice marking is presented in Table 2 (see further details in Jensen 1959: 91–102). The forms labelled as “lab” (labile) are used in transitive and intransitive constructions alike and are formally different from “act” and “mp”.

The majority of Old Armenian verbs use the alternation of the *e-* and *i-*conjugations to express the voice opposition. With such verbs, only the imperfect, aor. ind. 1 pl., and aor. subj. 1, 2 pl. do not express the voice category. Verbs that follow the *a-*conjugation or the *u-*conjugation are entirely labile.

**Table 2. The expression of the voice category in Old Armenian**

	<i>a</i> -conjugation	<i>u</i> -conjugation	<i>e</i> -conjugation	<i>i</i> -conjugation
Pres. ind.	lab	lab	act	mp
Imperf.	lab	lab	lab	lab
Pres. subj.	act, mp	lab	act	mp
Proh.	lab	lab	act	mp
Aor. ind.	act, mp	act, mp	act	mp
Aor. ind. 1 pl.	lab	lab	lab	lab
Aor. subj.	act, mp	act, mp	act	mp
Aor. subj. 1, 2 pl.	lab	lab	lab	lab
Ipv.	act, mp	act, mp	act	mp

Although the ability of particular verbs to participate in valency-changing alternations is language specific, some universal tendencies may be observed. In particular, it has been argued that valency alternations are determined by (a) the choice a language makes to mark the intransitive member of the alternation, the transitive one, or both; and (b) the position of the intransitive member on the spontaneity scale (Nichols & al. 2004; Schäfer 2009; Koonz-Garboden 2014; Haspelmath 1987; 2018). The following patterns of marking transitivity pairs are commonly accepted: 1) the transitive member is basic and the intransitive member is derived (henceforth the “anticausative pattern”, labelled as A); 2) the intransitive member is basic and the transitive member is derived (henceforth the “causative pattern”, labelled as C); 3) both members are marked (henceforth the “equipollent pattern”, labelled as E); 4) both members are formally identical (henceforth the “labile pattern”, labelled as L); 5) both members are formally distinct and underived (henceforth the “suppletive pattern”, labelled as S); see Nedjalkov 1969; Haspelmath 1993; “The World Atlas of Transitivity Pairs” (<http://watp.ninjal.ac.jp/en>).

The valency-changing alternations of the Old Armenian verb can follow one of the three morphological patterns: 1) the L pattern is typical for the present tense of the *a-* and *u-*conjugations (e.g. *ban-am* tr./intr. ‘open’); 2) the E pattern: cf. *hanem* tr. ‘drive away’, *hanim* intr. ‘be taken away’; 3) the C pattern, cf. *spitakanam* intr. ‘become white’ → caus. *spitakac’-uc’anem* tr. ‘make white’, *dar’nam* intr. ‘turn’ → caus. *darj-uc’anem* tr. ‘turn’. There are no cases of a reverse change from the equipollent to anticausative pattern in Old

Armenian, a change that is well represented in the Middle Armenian period (see Megerdooomian 2002).

As shown in Table 2, there are no verbs with a pure equipollent pattern, since some forms of the paradigm are always labile. For convenience, the transitivity marking pattern will be determined by the 1 sg. in the aorist indicative and subjunctive, and the labile aor. ind. 1 pl. and aor. subj. 1, 2 pl. will be left out of consideration.<sup>7</sup>

Apart from the inherently labile forms mentioned in Table 2, some verbs use their active voice forms in the intransitive construction (*activa tantum*) or, *vice versa*, mediopassive forms in the transitive construction (*media tantum* or deponents). The latter two types of lability will be labelled as L<sub>ACT</sub> and L<sub>MP</sub>, respectively, cf. *yařnem* intr. ‘rise’ and *unim* tr. ‘have’.<sup>8</sup>

The E, C, and, marginally, L patterns can be securely reconstructed for PIE. The E pattern is well attested in Sanskrit (the *várdhati/várdhate* type) and was, perhaps, the dominant type in Ancient Greek (see Haspelmath 1993: 96f.), and, possibly, already in the dialectal PIE verbal system of the Greco-Aryan type. The C pattern must be reconstructed for PIE on the evidence of the reconstructed morphological causative, identified for different verbs of different morphological types. In particular, it has been claimed that the nasal affixes were introduced into IPFV stems in core PIE as part of the C pattern of marking valency-changing alternations (cf. Meiser 1993). The L pattern must be reconstructed for PIE as well, although its use was, perhaps, rather moderate, cf. act. *\*h<sub>1</sub>es-mi* intr. ‘be’ and act. *\*h<sub>1</sub>ei-mi* intr. ‘go’, both featuring L<sub>ACT</sub>.

One of the tasks of the present study is to find out how the inherited Old Armenian verbs can be derived from PIE taking into account the distribution of the L, E, and C patterns across the nasal classes. As will become clear from Chapter 2, there are numerous cases of mismatch between the patterns of a verb in PIE and those of its continuant in Old Armenian.

### § 1.3.1-3. Agentivity as a lexicosyntactic parameter

Although Old Armenian does not have overt morphological markers that would discriminate between agentive vs. non-agentive subjects within the transitive and intransitive constructions, the [ $\pm$  agentive] parameter appears to be important for the verbal morphology of Old Armenian in synchrony and diachrony, in particular, because it

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<sup>7</sup> This concession is unnecessary in the case of the labile and causative patterns. While the former is labile, the latter is based on the opposition of derivationally connected lexemes and not on the opposition of paradigmatic forms.

<sup>8</sup> See Letuchiy 2010 with a typological study on the types of lability.



imposes restrictions on the formation of derived causatives (causatives are rarely derived from agentive intransitive verbs in Old Armenian).

In the present study, agentivity is viewed as a scalar parameter which is bound to such lexical features as volitionality, causation, ability for physical and cognitive activity, existence independent from the event described with the verb (cf. Dowty 1991: 572). A standard test will be applied, whenever the evidence of the source material allows it, in order to determine the value of the [ $\pm$  agentive] parameter, namely, the possibility of co-occurrence with agency-cancelling adverbs like *unintentionally*. This test allows to discriminate between the verbs with the lexicalised [+ agentive] feature and the remaining verbs, including those in which agentivity is unspecified ([– agentive] and [ $\pm$  agentive]). The aforementioned test has obvious limitations in the case of ancient languages with limited corpora. In most cases, judgments on whether or not the first argument is agentive relies on the interpretation of the context. This creates a certain amount of subjectivity in the evaluation of the agentivity parameter, which, altogether, does not render the whole analysis useless. Thus, contextual analysis leaves no doubt that *spananem* tr. ‘kill’ is basically agentive, while *meřanim* intr. ‘die’ is non-agentive, even when these are found without agency-cancelling adverbs.

#### a. Non-agentive verbs

- Intransitive verbs, e.g. *linim* intr. ‘become’ (S<sub>0</sub>[–E])
- Transitive verbs, e.g. *imanam* ‘understand’ (A–O).
- Ambitransitive verbs, e.g. *řeranim* tr. ‘experience (illness)’ / intr. ‘suffer (from illness)’ (A–O<sub>E</sub>/S<sub>0</sub>).

Here belong verbs that denote spontaneous events and do not have an interpretation with an external AGENT-like argument (CAUSER). These verbs typically include change of state and change of degree verbs, non-volitional verbs of manner of motion, and psych verbs (cf. Schäfer 2009: 649f.). Cross-linguistically, such verbs often include productive classes of deadjectival verbs, which is also the case of Old Armenian (see Section 2.4 on deadjectival nasal verbs).

This group includes: a) verbs that do not have a transitive counterpart expressed within the inflectional paradigm or by means of derivation, e.g. Arm. *linim* intr. ‘become’; b) verbs that follow the C transitivity marking pattern, cf. Arm. *heřjnum* intr. ‘choke’ vs. caus. *heřjuc’anem* tr. ‘suffocate’.

Some non-agentive verbs may take an external argument that corresponds to such semantic roles as STIMULUS and SOURCE. Whenever the external argument is marked by the accusative, the verb becomes syntactically transitive, cf. *řeranim* + instr. ‘suffer from so.’ / *řeranim* + acc. ‘experience so. (illness)’. Despite their transitive uses described by the A–O<sub>E</sub>

formula, such verbs are classified as non-agentive. Structurally similar are the verbs in which the RECIPIENT-like subject of the intransitive construction corresponds to the THEME-like subject of the transitive construction with the RECIPIENT-like argument marked by an oblique case, cf. *otołanem* ‘inundate so.’ / *otołanim* ‘become obsessed with so.’.

### b. Agentive verbs

- Intransitive verbs, e.g. *ořnam* intr. ‘yell’ ( $S_A$ ).
- Transitive verbs, e.g. *stanam* tr. ‘acquire’ ( $A_E$ -O).
- Ambitransitive verbs, e.g. *erdnum* tr./intr. ‘swear’ (A-O/ $S_A$ ).

This group includes two- and three-argument agentive verbs that do not have an interpretation without an external argument (CAUSER), be it expressed or not (in the passive or generic middle uses, respectively; see Levin 1993: 25f.; Schäfer 2009: 645–647). The passive and generic middle uses will be considered the transitivity alternations of agentive predicates and will be marked as  $S_O$ [- $E_A$ ] in the present study. The difference between the generic middle, passive, and anticausative readings are not always clear-cut, which may result in the conflation of agentive ambitransitive verbs and ambitransitive verbs unspecified for agentivity. Such ambiguity is determined by the lack of contexts to which the test of agency-cancelling adverbs could be applied.

Obviously, verbs with lexicalised agentivity cannot participate in the causative/anticausative alternation (cf. Hale & Keyser 1986). The morphological causative often derives a transitive verb from an intransitive one, and an extended transitive verb from a transitive one.

### c. Verbs unspecified for agentivity

- Intransitive verbs:  $S_A/S_O$  (e.g. *anc’anem* ‘pass by (of human; of time)’).
- Ambitransitive verbs: A-O/ $S_O$  (e.g. *bekanem* tr. ‘break’, *bekanim* intr. ‘break’).

This group contains verbs that can take an agentive and a non-agentive subject depending on the context. These include intransitive and ambitransitive verbs. In intransitive verbs, one finds metaphorical uses of basically agentive verbs in contexts with non-volitional subjects, e.g. *anc’anem* ‘pass (of human)’ [+agentive] → ‘pass (of time)’ [–agentive].

The morphological causative can have several functions in verbs unspecified for agentivity. It either marks the passivisation of the  $S_A$  argument of a basic intransitive verb, or it marks the transitive member of a causative/anticausative pair. The morphological causative can be derived from the intransitive or transitive member of a causative/anticausative pair. Whenever the morphological causative is derived from the intransitive member, there is space for morphological variation between the active voice

form of the base verb and the morphological causative, both of which have the same structural relation to the intransitive verb, cf. *lnum* next to *lc'uc'anem* tr. 'fill up'.

Unlike the non-agentive verbs that participate in the causative/anticausative alternation, many verbs unspecified for agentivity use voice endings to mark the transitive and intransitive members of the opposition and follow the E transitivity marking pattern.

### § 1.3.2. Actionality and aspect

#### § 1.3.2-1. Lexical aspectual features and the actional classification of predicates

In Chapter 2, the Old Armenian nasal verbs will be qualified with regard to their lexical aspectual features. It will allow comparing the nasal classes to each other in the synchrony of Old Armenian, on the one hand, and checking whether the values of specific aspectual features could be responsible for the analogical spread of paradigmatic types with the nasal suffixes in the course of the Proto-Armenian period, on the other hand.

The traditional aspectological classification of predicates has been adopted in the present study that distinguishes between the four basic actional classes each characterised by a unique set of values of the three lexical aspectual features — telicity [ $\pm$  telic], durativity [ $\pm$  durative], and dynamicity [ $\pm$  dynamic] (cf. an outline of the theoretical background in van Valin & LaPolla 1997: 90–129 among many others):

- ACHIEVEMENTS: [+ telic] / [– durative] / [+ dynamic];
- ACCOMPLISHMENTS: [+ telic] / [+ durative] / [+ dynamic];
- ACTIVITIES: [– telic] / [+ durative] / [+ dynamic];
- STATES: [– telic] / [+ durative] / [– dynamic].

The verbs of controlled states (cf. English *sit*, *stand*, etc.) constitute an intermediate type. Like STATES, they describe situations that not evolve in the course of their duration. Like ACTIVITIES, they imply subject's control that can be viewed as a kind of energy influx typical for dynamic verbs. Such verbs will be classified as ACTIVITIES in the present study. An additional study may be required in order to specify morpho-syntactic features of the given type of verbs in Old Armenian.

The value of each of the three lexical aspectual features can either be lexicalised (an inherent part of the lexical semantics largely independent of contextual uses of a verb) or not (a variable part of the lexical semantics dependent on contextual use of a verb). In the former case, a verb can be strictly attributed to one actional class (e.g. Eng. *He is asleep*. — STATE), while in the latter case, a verb can have several actional construals (e.g. Eng. *I am reading*. — ACTIVITY; *I am reading a letter*. — ACCOMPLISHMENT).

If a verb with variable values of the aspectual features is attested with different tense-aspect stems, a hypothesis can be proposed that the choice of the stems depends on the

values of the aspectual features. The approach will be applied to the analysis of the Old Armenian nasal verbs with competing stems.

Note that the aforementioned model of lexical aspectual features is a theoretical construct applied to describe the lexical semantics and compare aspectual meanings across the languages of the world; these parameters need not be significant for the morphology of a particular language. An attempt to describe the Old Armenian nasal verbs in terms of their lexical aspectual features should not be taken as an *a priori* claim that all or some of these features were responsible for the introduction, spread, or retention of nasal affixes in PIE, Proto-Armenian, and Old Armenian. Such an assumption will rather serve as a research hypothesis.

Descriptive grammars of living languages rely on diagnostic syntactic tests that allow determining the actional class of a verb or its contextual uses. For example, the compatibility of verbs with particular time phrases can set values of the durativity and telicity aspectual features, cf. Eng. *John has been working for three hours* [+ durative]/[± telic]; *John did the work in three hours* [– durative]/[+ telic].

The following tests were used when possible to determine the actionalities of verbal uses in Old Armenian (see Dowty 1979).

a) The [+ telic] aspectual feature (ACHIEVEMENT or ACCOMPLISHMENT) is compatible with adverbs and noun phrases denoting an exact time reference (e.g. ‘right before X’, ‘at once’, ‘suddenly’), time period of accomplishing an action (e.g. ‘in three days’, ‘before long’), measure of accomplishment (e.g. ‘completely’, ‘half-way’, ‘almost’) and mode of accomplishment (e.g. ‘gradually’); compatibility with phasal verbs (e.g. ‘begin’, ‘finish’).

b) The [– durative] aspectual feature (ACHIEVEMENT) is compatible with adverbs and noun phrases denoting an exact time reference (e.g. ‘right before X’, ‘at once’, ‘suddenly’).

c) The [+ durative] aspectual feature (ACCOMPLISHMENT, ACTIVITY or STATE) is compatible with adverbs and noun phrases denoting a time period (e.g. ‘for three days’, ‘for a long time’), measure of accomplishment (e.g. ‘completely’, ‘half-way’, ‘almost’, etc.) and mode of accomplishment (e.g. ‘gradually’); compatibility with phasal verbs (e.g. ‘begin’, ‘finish’).

d) The value of the [± dynamic] aspectual feature is largely determined by the context. It describes whether or not there is an influx of energy that make the process change over time. A clear example of the lexicalised [– dynamic] and [+ dynamic] aspectual features is provided by Arm. *em* ‘be’ and *linim* ‘become’, respectively, see (1) and (2) below.

- (1) *Mt.* 10, 10: <...> *zi aržani ē* [– dynamic] *mšakn kerakroy iwrum*. “<...> for the worker is worthy of his support.”
- (2) *Acts* 5, 41: <...> *anuann aržani eten* [+ dynamic] *anargeloy*. “<...> they had been considered worthy to suffer shame for His name.”

In the case of ancient languages with limited corpora, the application of syntactic tests is often problematic. Yet, like in the case of the agentivity lexical feature (see § 1.3.1-3), the shortage of evidence can be in part compensated by reasonable predictions about aspectual features of particular verbs based on the analysis of their lexical semantics and context, even when strict tests cannot be applied. And yet, no motivated choice is sometimes available. Such cases are reflected in the present study by ascribing several actionalities to a verb, e.g. ACHIEVEMENT/ACCOMPLISHMENT or ACCOMPLISHMENT/ACTIVITY. Such verbs are classified together with the verbs in which the lexical aspectual features have variable values.

In translations from Ancient Greek, such as the Bible, no attempt has been made to disambiguate the actionalities of the Old Armenian verbs based on the grammatical forms of the Ancient Greek original. Although this additional facet of analysis can potentially enhance the quality of the Old Armenian data, it must rely on the substantial research of translation strategies in regard to the used translated Old Armenian texts. Such research goes beyond the scope of the present study. Consequently, the original Ancient Greek passages will not be provided along with the cited Old Armenian translations.

### § 1.3.2-2. The aspectual profiles of Old Armenian IPFV stems

The Old Armenian verb has five synthetic tenses that can be used in the indicative mood (including the future indicative uses of the subjunctive forms of the present and aorist tenses): *present indicative*, *present subjunctive*, *imperfect*, *aorist indicative*, and *aorist subjunctive*.

These tenses are derived from two tense-aspect stems, the imperfective (IPFV) and the perfective (PFV):

- IPFV: present indicative, present subjunctive, imperfect;
- PFV: aorist indicative, aorist subjunctive.

When a verb describes an event localised in time (i.e. a process or state that takes place at a certain moment before, during or after the moment of speaking), its tenses can express the primary aspectual meanings that include the *inchoative* (the initial phase of a process or state), *durative* (the middle phase of a process or state), *completive* (the final phase of a process or state), *prospective* (the phase immediately preceding the process or state), and *resultative* (the phase immediately following the process or state). The aspectual meanings of tenses depend on the actional class (or classes) of a given verb. Thus, in ACHIEVEMENTS, the inchoative and completive meanings coincide, while the durative meaning is excluded; ACTIVITIES do not have a completive or resultative meaning, etc. The secondary aspectual meanings have no time localisation and include such meanings as *iterative*, *distributive* and *habitual*. The secondary aspectual meanings can be categorised as derivational when they change the actional class of a base verb and therefore, the range of its primary aspectual

meanings (see Plungian 2011: 280–316 and Tatevosov 2002 for a concise overview of the theory with further references as well as Kocharov 2016a and Kocharov 2018a in relation to the PIE verbal morphology).

The inchoative and completive meanings are typically expressed by the Old Armenian aorist indicative, cf. (1) below. The durative and secondary aspectual meanings are expressed by the present or imperfect indicative, cf. (2) and (3). The resultative and prospective meanings do not have a regular expression by means of synthetic verb forms in Old Armenian. Instead, the resultative is regularly expressed by periphrastic constructions. These essential ways to express aspectual meanings are complemented by many specific uses, such as the use of the present and imperfect tenses to express the narrative past (4), or the use of the present tense to express the immediate future (5), or the perdurative use of the aorist tense complemented by the prepositional phrase *minč'ew c' + acc.* 'until' (6).

- (1) *Gen. 4, 20: Ew cnaw Adda zYovbēl <...>. “Adah gave birth to Jabal <...>.”*
- (2) *Acts 8, 32: Ew glux groc'n zor ant'erñoyr ēr ays <...>. “Now the passage of Scripture which he was reading was this <...>.”*
- (3) *1Mac.11, 2: <...> ew nok'a duṛn banayin nma, ew ənd arəj ert'ayin nora <...>. “<...> and the people of the towns opened their gates to him and went to meet him <...>.”*
- (4) *Gen. 40, 11: Ew bažakn p'arawoni i jeṛin imum, arñui [ipf.] zxaṭoṭn ew čmlēi [ipf.] i bažakn p'arawoni, ew tayi [ipf.] zbažakn i jeṛs p'arawoni. “Now Pharaoh's cup was in my hand; so I took the grapes and squeezed them into Pharaoh's cup, and I put the cup into Pharaoh's hand.”*
- (5) *Ezek. 4, 16: Ew asē c'is Tēr: Ordi mardoy, ahawanik es bekanem zhastatut'iwn hac'i jErusatēm <...>. “Moreover, He said to me, «Son of man, behold, I am going to break the staff of bread in Jerusalem <...>».”*
- (6) *Gen. 32, 24: Ew mnac' Yakob miayn, ew marteaw ayr mi ənd nma minč'ew c'arawawt. “Then Jacob was left alone, and a man wrestled with him until daybreak.”*

The aforementioned aspectual meanings expressed by tense forms of Old Armenian verbs will be used as a reference for the identification of the actional class of each specific nasal verb and therefore, the grammatical content of the nasal suffixes. By consequence, the uses of nasal verbs provided in Chapter 2 will contain forms derived from both IPFV and PFV stems depending on the available attestations and characteristic uses.

## Section 1.4. Issues of historical phonology

Much of the debate on the Proto-Armenian secondary nasal formations is based on the analysis of stem auslauts. The analysis of stem auslauts determines one's view on the etymological links between the Old Armenian and PIE stems and, therefore, on the reconstruction of Proto-Armenian paradigmatic classes. Thus, the root of Arm. *hecanim* 'ride' has been analysed as reflecting PIE IPFV *\*sed-ie/o-* or PFV *\*sed-s-*. In light of comparative evidence (cf. Gk. ἕζομαι 'sit' next to εἶσα 'make sit'), each of these two reconstructions may be considered a PIE archaism yielding different accounts of the morphological change in Proto-Armenian nasal verbs.

Unfortunately, Old Armenian has very limited evidence on sound changes relevant for the controversies of the diachronic morphological analysis. This often results in the circular argumentation, when a morphological solution is proposed for a verbal stem based on a sound change justified by other verbal stems. The purpose of the present section is to set a baseline of diachronic phonological analysis before turning to the discussion of the historical morphology in Chapter 2.

### § 1.4.1. Palatalisation of labiovelars

The palatalisation of velars is a much debated issue of the Armenian historical phonology (see an overview in de Lamberterie 1980: 25; Djahukian 1978: 119–129; Beekes 2003: 177f.; *EDAIL*: 711). According to the majority view, plain velars and labiovelars merged together and subsequently underwent palatalisation before front vowels with no contrast between these two series of velars. The attested diversity of reflexes is explained due to analogical restorations. But the source for the analogical restorations often evokes doubts. Thus, PIE *\*g<sup>w</sup>i(e)h<sub>3</sub>-* (*LIV*<sup>2</sup>: 215f.) does not offer a transparent source for the restoration of the initial labiovelar in Arm. *keam* 'live'.

An alternative which does not require so many analogical restorations, is to assume that only voiceless and voiced aspirated labiovelars underwent palatalisation while voiced labiovelars changed to voiceless plain velars; none of plain velars were palatalised (Pedersen 1906: 396; Pisani 1950: 165–169), cf. PIE *\*k<sup>w</sup>etwores* > PArm. *\*k<sup>w</sup>et(w)ores* (with a dissimilatory loss of *\*w*, cf. Godel 1975: 77) > Arm. *č'ork* '4';<sup>9</sup> PIE *\*g<sup>w</sup>erh<sub>3</sub>-* 'eat' > Arm. aor. *keray* 'I ate' (*utem* 'eat'); PIE *\*g<sup>wh</sup>er-* > Arm. *jernum* 'warm up'; PIE *\*kert-* 'cut' > Arm. *k'ert'em*

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<sup>9</sup> Meillet (1890 = 1977: 5; 1896 = 1977: 32; 1909 = 1977: 134) rejected that sound change in view of Arm. *-k'* of *ok'* 'someone' from *\*-k<sup>w</sup>e* (Lat. *-que*, etc.) and *elik'* 'he left' from *\*h<sub>2</sub>e-lik<sup>w</sup>-et* (Gk. ἔλιπε, Skt. *aricat*). Both examples can be explained by the early elimination of the final vowel in enclitic *\*-k<sup>w</sup>e* and by the analogical root levelling from the IPFV *lk'ane-* to that of *elik'* (see § 2.5.1-2.28).

‘graze’. The palatalisation was blocked by a preceding nasal, e.g. PIE *\*penk<sup>w</sup>e* > Arm. *hing* ‘5’. The palatalisation of labiovelars has also been suggested for Albanian; see Scala 2017 with a detailed discussion of the Armenian evidence, further references, and a typological parallel for the palatalisation of labiovelars in French dialects.

Although the latter solution is more straightforward in terms of the Proto-Armenian sound changes, both of the outlined possibilities will be taken into account within the morphological analysis of the relevant nasal verbs, namely, *ank-anim* ‘fall’ (§ 2.5.1-2.6), *ark-an-e/i-m* ‘cast down’ (§ 2.5.1-2.7), *awcan-e/i-m* ‘anoint’ (§ 2.5.1-2.8), *bek-anem* ‘break’ (§ 2.5.1-2.9), *hark-an-e/i-m* ‘strike’ (§ 2.5.1-2.20), and *lk<sup>h</sup>-an-e/i-m* ‘abandon’ (§ 2.5.1-2.28).

### § 1.4.2. Reflexes of PIE *\*C<sub>i</sub>-* and *\*Cs-*clusters

The development of the Proto-Armenian consonant clusters *\*C<sub>i</sub>-* and *\*Cs-* has provoked an extensive debate which has not yet reached a consensus. In what follows, we shall give a concise overview of the problem. Further details can be found in Martirosyan frthc. § M 507.5 with ample references to the previous scholarship.<sup>10</sup>

The sound change *\*k<sup>(w)</sup><sub>i</sub>* > č’ is secure, e.g. Arm. aor. *č’ogay* ‘I went’ < PIE *\*k<sup>w</sup>ieu-* (*LIV*<sup>2</sup>: 394); see Meillet 1890 = 1977: 3; 1909 = 1977: 136; 1936: 29; Pedersen 1906: 396; Djahukian 1978: 123f.; Beekes 2003: 200f. among others.<sup>11</sup>

The development of PIE *\*g<sup>(w)</sup><sub>i</sub>* can, perhaps, be found in PIE *\*lēg-ieh<sub>2</sub>-* > Arm. *lič* ‘lake’, PGr. *\*lēkjōn-* ‘rivelet’, although the root *ē*-grade is poorly explained (*EDPG*: 331). More doubtful is Arm. *ačem* ‘grow’ from PArm. *\*ag-ie/o-*, perhaps, akin to Lith. *úoga* ‘berry’ (Djahukian 1978: 123; Klingenschmitt 1982: 148f.; *ALEW* 2: 1151f.).

The evidence for *\*g<sup>(w)h</sup><sub>i</sub>* consists of Arm. *lanjk<sup>h</sup>* ‘breast; lungs’ and is problematic; while some derive it from PIE *\*h<sub>1</sub>lng<sup>wh</sup>-i(e)h<sub>2</sub>-* (*EDAIL*: 304 with references) others prefer the dual form PIE *\*h<sub>1</sub>lng<sup>wh</sup>-ih<sub>1</sub>*, (Beekes 2003: 190). Although the evidence is scanty, this sound change goes in line with the two previous ones and allows to reconstruct a series of structurally parallel sound changes given in (1a) below (cf. Djahukian 1982: 57f. among others).

The Old Armenian outcomes of PIE *\*k<sub>i</sub>*, *\*g<sub>i</sub>*, and *\*g<sup>h</sup><sub>i</sub>* are unclear. Arm. *asem* ‘say’ has been analysed as a reflex of the IPFV *\*ie/o-* stem cognate to Lat. *aiō* ‘say’ from PIE *\*h<sub>2</sub>ǵ-ie/o-*

<sup>10</sup> See Viredaz 1993 on the development of *\*C<sub>i</sub>-* and *\*Cs-*clusters in Greek with references.

<sup>11</sup> The sound change is relevant for the diachronic analysis of several verbal classes including verbs of sound performance in *-(a)(n)č<sup>h</sup>* (Olsen 1988: 8; Greppin 1995; Kocharov 2012a), where *-č<sup>h</sup>* can be derived from the IPFV *\*k<sup>(w)</sup>-ie/o-* stem. Altogether, at least in one verb of that lexicogrammatical category, *-č<sup>h</sup>* goes back to a root in a velar plus *\*-ie/o-*: Arm. *goč<sup>h</sup>em* intr. ‘shout; call’ < PIE *\*uok<sup>w</sup>-ie-* (see *EDAIL*: 225 with references).



(*LIV*<sup>2</sup>: 256). Within this etymology, one assumes a sound change \*PArm. \*ǵ<sub>ǵ</sub> > \*j (before the Armenian consonant shift) > c (after the Armenian consonant shift). The root shape *ac-* is attested in *ar-ac(-k')* ‘proverb’. The next step, \*c > s, is not a regular sound change, but finds a parallel in *es* ‘T’ instead of the expected \**ec* from PIE \**h<sub>2</sub>eǵ-* (Lat. *egō* ‘T’, etc.). This case is inconclusive, however, given that \**h<sub>2</sub>eǵ-e/o-* would also yield PArm. \**ac-*. There are no clear cases for PIE \**k<sub>ǵ</sub>* and \**ǵ<sup>h</sup><sub>ǵ</sub>*. Given that PIE \**ks* (> PArm. \**t<sup>s</sup>*) merged with \**ts* in PArm. \*c > Arm. c’, it seems likely that PIE \**k<sub>ǵ</sub>* (> PArm. \**t<sub>ǵ</sub>* > \**t<sup>s</sup><sub>ǵ</sub>*) yielded the same reflex as \**t<sub>ǵ</sub>*; see below in the expected outcome of PIE \**t<sub>ǵ</sub>*. The outcomes of PIE \**k<sub>ǵ</sub>*, \**ǵ<sub>ǵ</sub>* and \**ǵ<sup>h</sup><sub>ǵ</sub>* are postulated in (1b) below as hypothetical and are marked with an asterisk.

Presumably, the palatalisation of plain velars after \**u* and \**u*-diphthongs took place before the rise of fricatives and affricates from \**C<sub>ǵ</sub>*-clusters, and therefore plain velars could also be subject to the sound changes in (1b) in the specified environment. But there seem to be no clear examples.<sup>12</sup>

A special problem concerns the sound change PArm. \**t<sup>s</sup><sub>ǵ</sub>* > Arm. č’ which has been suggested to explain the origin of the IPFV č’(i)-stem. The PIE IPFV \**ske/o-*stem<sup>13</sup> yielded PArm. \**t<sup>s</sup>* (> Arm. c’) as is made clear by *harc’anem* ‘ask’ from \**pr(k)-ske/o-* (see § 2.5.1-2.19); altogether, the č’(i)-stem is best analysed as a recharacterisation of PArm. \**t<sup>s</sup>*- with \**ie/o-*, cf. PIE \**ǵnh<sub>3</sub>-ske/o-* > PArm. \**janac-* → \**janac-ie/o-* > Arm. *čanač’em* ‘recognise’. If correct, this analysis suggests that \**C<sub>ǵ</sub>*-clusters turned into affricates later than \**Cs*-clusters. Besides, it supports the sound changes outside brackets in (1b).

- |      |  |      |   |
|------|--|------|---|
| (1a) | PIE * <i>k<sup>(w)</sup><sub>ǵ</sub></i> > Arm. č’   | (1b) | PIE * <i>k<sub>ǵ</sub></i> > Arm. *č’ (less likely *c’)           |
|      | PIE * <i>ǵ<sup>(w)</sup><sub>ǵ</sub></i> > Arm. č    |      | PIE * <i>ǵ<sub>ǵ</sub></i> > Arm. *č (less likely *c)             |
|      | PIE * <i>ǵ<sup>(w)h</sup><sub>ǵ</sub></i> > Arm. *ǵ’ |      | PIE * <i>ǵ<sup>h</sup><sub>ǵ</sub></i> > Arm. *ǵ (less likely *j) |

Morphological reconstructions based on the sound changes in (1a) and (1b) will be considered probable in the present work.

In the case of \**C<sub>ǵ</sub>*-clusters with dentals, the sound change PIE \**d<sup>h</sup><sub>ǵ</sub>* > Arm. ǵ is secure, e.g. PIE \**med<sup>h</sup>-io-* > Arm. *měj* ‘middle’ (Skt. *mádhya-*, Lat. *medius*, etc.; see *EDAIL*: 467 on the source of *-ē-*); PIE \**ǵ<sup>wh</sup>eid<sup>h</sup>-io-* > Arm. *ǵěj* ‘moist’ (Russ. *židkij* ‘liquid’, *EDAIL*: 210f.); see Greppin 1993; Kortlandt 1994 = 2003: 104–106.

The development of PIE \**t<sub>ǵ</sub>* is more problematic. PIE \**ǵ<sup>w</sup>ot-ie-* > Arm. *koč’em* ‘call’ (Go. *qipan* ‘say’; Meillet 1936: 108; Godel 1965 = 1982: 22; *LIV*<sup>2</sup>: 212f.; *EDPG*: 319) is possible, but verbs of sound performance often have a stem in *-č’-* or *-(a)(n)č’-*, so that one may be

<sup>12</sup> Djahukian (1978: 123f.; 1982: 57f.) claimed that all velar series + \**ǵ* yielded č’, č, and ǵ. However, he did not cite examples for the palatal series. Arm. *p’č’em* ‘blow’ (next to *p’uk’* ‘wind; bellows’) is unreliable in view of its onomatopoeic nature, the initial *p’-*, and the final *-k’* after *u* in *p’uk’*.

<sup>13</sup> Here and below the suffix is reconstructed with a plain velar (see Lubotsky 2001).

dealing here with an analogical adjustment of the root auslaut in \*-c- (see fn. 11). By contrast, the Old Armenian suffix of abstract nouns *-t'iwñ-* most probably comes from PIE *\*-tiōn-*, cf. Lat. *-tiō-*, *-tiōnis-*, etc. (Meillet 1890 = 1977: 5). A way out of this controversy would be to assume PArm. *\*-tiHōñ-* as an intermediate reconstruction with the syllabic *\*i* which was not sufficient for palatalisation. The reconstruction of the laryngeal in the suffix allows to explain the instr. *-teamb* from *\*-tiHñ-b<sup>h</sup>i-* (Olsen 1999: 551).<sup>14</sup>

Neither is there good evidence for the outcome of PIE *\*d<sub>ǵ</sub>*. In my opinion, Arm. *oročam* (next to *oročem*) ‘chew’ can be formally derived from neither PIE *\*Hreh<sub>2</sub>d-* nor *\*Hreh<sub>3</sub>d-* which would yield PArm. *\*VraC-* and *\*VruC-* respectively (see *EDIAL*: 542 with ample references and an attempt to save the etymology by assuming an inner-Armenian lowering of the root vowel under the influence of the initial *\*a-* which turned into *\*o-* under the influence of the adjusted root vowel).<sup>15</sup> The prehistory of Arm. *mačar* ‘young wine’ is unclear since it may be an Iranian loanword, cf. *mačaraks kat'n* ‘cheeses’ next to MPers. *m'st'* ‘curds’, NPers. *maskah* ‘fresh butter’ (Olsen 1999: 247).

Thus, the reconstruction of sound changes in (2) relies mostly on structural reasons for PIE *\*t<sub>ǵ</sub>* > Arm. *č'* and PIE *\*d<sub>ǵ</sub>* > Arm. *č* in relation to PIE *\*d<sup>h</sup><sub>ǵ</sub>* > Arm. *ǰ* (cf. *EDAIL*: 718f.)

- (2) PIE *\*t<sub>ǵ</sub>* > Arm. *\*č'*  
 PIE *\*d<sub>ǵ</sub>* > Arm. *\*č*  
 PIE *\*d<sup>h</sup><sub>ǵ</sub>* > Arm. *ǰ*

An alternative analysis has been suggested, according to which PIE *\*t<sub>ǵ</sub>*, *\*d<sub>ǵ</sub>* and *\*d<sup>h</sup><sub>ǵ</sub>* yielded Arm. *c'*, *c*, and *j* respectively (Scheftelowitz 1905: 29f.; Godel 1965 = 1982: 22–24, 1975: 82; Olsen 1988: 11; Ravnæs 1991: 168f. among others). Nasal verbs aside, Greppin (1993) mentioned *atceal* ‘salty’, *ginj* ‘coriander’, and *mic* ‘mud’ as strong examples of the sound changes PIE *\*d<sub>ǵ</sub>* > Arm. *c* and PIE *\*d<sup>h</sup><sub>ǵ</sub>* > Arm. *j*.

The case of *atc-eal*, undoubtedly cognate to *att* ‘salt’ and derived from PIE *\*sh<sub>2</sub>(e)ld-* (Goth. *salt*, etc.; *EDAIL*: 37, 40f.), is ambiguous since *atc-* is a verbal stem, which in theory could contain the *\*ie/o-* or *\*s-* suffix (cf. Klingenschmitt 1982: 149 on the rarity of the PFV *\*s-* stem in denominal verbs). Moreover, *atc-eal* is poorly attested and may be a post-classical

<sup>14</sup> Klingenschmitt (1982: 100) supported the reconstruction of the laryngeal in *\*-ti-H-on-* by comparing it to Lat. *festināre* ‘hurry’ with *-tīn-* from *\*-ti-H-n-*. Olsen (1992; 1999: 551) argued in favour of the reconstruction of a PIE inflectional type with nom. sg. *\*-ti-h<sub>3</sub>ōn-*, gen. sg. *\*-ti-h<sub>3</sub>n-os* in which the “Hoffmann” suffix had been added to the abstract noun suffix.

<sup>15</sup> Djahukian (1982: 62) mentions a solution based on *\*d<sub>ǵ</sub>* > *č* for *oročem*. However, this is the only example and it is cited as a deviation from the default sound law *\*d<sub>ǵ</sub>* > *c*, postulated in Djahukian 1978: 125f.; 1982: 60f.

innovation (the only attestation in *NBHL* 1: 41 is from Eusebius of Caesarea, an undated early classical author).

Arm. *mic* ‘mud’ has been compared to PGrm. *\*smit(t)ōn-* ‘strike; smudge’, cf. OE *smitte* ‘stain’, etc. (see *EDPG*: 459 for Germanic cognates) and OCS *smědz* ‘dark’ (see *EDAIL*: 469 with references). The *\*io*-stem, suggested for the Proto-Armenian noun, has no external support and is introduced into the reconstruction with the only purpose to explain the root-final affricate, which renders the analysis circular. And yet, a *\*io*-stem seems to be more in place in a Proto-Armenian noun than an *\*s*-stem.<sup>16</sup>

Arm. *ginj* ‘coriander’ (*o*-stem, Bible+) has been derived from PArm. *\*uend<sup>h</sup>-io-* ‘twisted’ next to *gind* ‘earring’ and *gnd-ak* ‘vine’ from PArm. *\*uend<sup>h</sup>-eh<sub>2</sub>-* ‘id.’, all from PIE *\*uend<sup>h</sup>-* ‘wind’, cf. OHG *winda* ‘bindweed’, Skt. *vandhūr-* ‘seat of carriage’ (cf. Djahukian 1982: 61; *EDAIL*: 213f.). While the etymology of *gind* is rather convincing, that of *ginj* requires the reconstruction of the nominal *\*ie/o*-suffix without external support, and the semantic change ‘intertwined’ > ‘coriander’ is gratuitous. Moreover, Henning (1963) rather convincingly demonstrated that Arm. *ginj* may be an Iranian loanword with the “Median” metathesis *-zn-* > *-nz-* (as opposed to MPers. *gišnīč* ‘coriander’ (with the diminutive *-īč*) from *gišn* without the metathesis; for Arm. *j*, MPers. *z*, Parth. *ǰ*, cf. Arm. *anjuk*, Man. MPers. *hnzwwg* /hanzūg/, Parth. *’njwg-* /anǰūg/).<sup>17</sup> Olsen (1999: 936) classifies the word as belonging to the lexicon of unknown origin.

A few words were adduced in support of the sound change PIE *\*t<sub>ǵ</sub>* > Arm. *c’*: Arm. *xuc* ‘room’ has been derived from PIE *\*k<sup>(h)</sup>uh<sub>1</sub>t-i-eh<sub>2</sub>-* (cf. Grm. *Hütte* ‘hut’). This etymology is doubtful since the Old Armenian word can be a Semitic loanword, cf. Assy. *ḥuṣṣu* ‘hedge’, Aram. *ḥūṣ-* ‘hut, cell’ (*EDAIL*: 335). Olsen (1988: 7f.) suggested to derive Arm. *erkic*’s ‘twice’ and Arm. *eric*’s ‘thrice’ from PIE *\*duitio-* ‘second’ (Skt. *dvitīya-*) and *\*tritio-* ‘third’ (Skt. *trītiya-*, OPers. *šritiya-*, Lat. *tertius*, Lith. *trėčias*). There are alternative possible reconstructions — PIE *\*duisko-* and *\*trisko-* (cf. OHG *zwisk* ‘twice’; see de Lamberterie 1998: 887); see further discussion and up-to-date references in *EDAIL*: 718f.

It should be stressed that there seems to be no substantial evidence in favour of PIE *\*d<sub>ǵ</sub>* > Arm. *č*, which would contradict PIE *\*d<sub>ǵ</sub>* > Arm. *c*. Thus, although the conclusive evidence is missing for PIE *\*t<sub>ǵ</sub>* > Arm. *c’* and PIE *\*d<sup>h</sup><sub>ǵ</sub>* > Arm. *j*, a series of sound changes in (3) can be postulated. Note that these sound changes cannot be invalidated by proving that *\*Cs*-clusters yielded the same results (see below), since *\*Ci*-clusters and *\*Cs*-clusters could merge into one series of affricates, as postulated in Djahukian 1978: 125f.; 1982: 60f.

<sup>16</sup> The zero-grade of the suffix *\*s-* is not found in the Proto-Armenian continuants of PIE neuter *\*s*-stems, cf. *get* ‘river’ from *\*uéd-os-* (cf. Skt. *útsah* ‘spring’), or as *a*-stems *mit(-)k’* ‘mind’ from *\*méd-es-* (cf. Gk. *μήδεα* ‘plans’); see Olsen 1999: 44, 69.

<sup>17</sup> See Perixanjan 1993 on the Median layer of Iranian loanwords in Old Armenian.

- (3) PIE  $*t_i > \text{Arm. } *c'$   
 PIE  $*d_i > \text{Arm. } c$   
 PIE  $*d^h_i > \text{Arm. } *j$

On the structural level, the set of sound changes in (2) is stronger than that in (3). In Greek, the deaspiration of voiceless dentals took place in front of *yod* after the devoicing of the voiced aspirates, so that the reflex of  $*d^h_i$  merged with that of  $*t_i$  into  $*t^{(h)}_i$  (PGk.  $*ts > \text{Hom. } \sigma\sigma$ , Att.  $\tau\tau$ , etc.), while the voiced obstruent plus *yod* yielded a separate reflex ( $*d_i > *dz > \text{Att. } \zeta$ ); see Lejeune 1955: 146f.; Rix 1976: 90–93. In Proto-Armenian, the devoicing of the voiced aspirates did not take place, so one should expect three separate series of sound changes for the three series of dentals. In particular, the difference in the development of voiced and voiced aspirated obstruents can be illustrated by the development of PIE  $*g$  and  $*g^h$  which yielded PArm.  $*d' > *d^z > *t^s > \text{Arm. } c$  and  $*d^h > *d^z^h > *d^z > \text{Arm. } j$  respectively. Similarly, one expects the changes PIE  $*d_i > *d^z > \text{Arm. } \check{c}$  next to PIE  $*d^h_i > *d^z^h > \text{Arm. } \check{c}$  assumed in (2).<sup>18</sup> The suggested phonetic explanation is illustrated by the diagram below.

$*g^{19}$	$*gr^{20}$	$*g_i$	$*g_i$	$*d_i$	
↓	↓	↓	↓	↓	(palatalisation of velars)
$*d'$	$*dr$	$*d'_i$	$*d_i$	↓	
↓	↓	↓	↓	↓	(depalatalisation before $*r$ )
$*d^z$	$*dr$	$*d^z_i$	$*d_i$	$*d_i$	
↓	↓	↓	↓	↓	
$*d^z$	$*dr$	$*d^z$	$d^z$	$d^z$	
↓	↓	↓	↓	↓	( $*Cr > *rC$ ; consonant shift)
$c$	$rt$	$\check{c}$	$\check{c}$	$\check{c}$	

Morphological solutions that rely on sound changes in (2) will consequently be counted as probable, while those based on the sound changes in (3) will be considered doubtful.

<sup>18</sup> According to Kortlandt (2016: 118), the inherited PIE contrast between the voiceless, glottalic and voiced obstruents was retained in early Proto-Armenian. This phonetic specification does not seem to preclude that the latter series of obstruents could yield, when followed by  $*s$ , affricates of different place of articulation than the former two series.

<sup>19</sup> Cf. Kümmel 2007: 371f. with an outline of a similar evolution of the three series of palatovelars in Phrygian with references.

<sup>20</sup> Cf. PIE  $*h_2egros$  'field'  $> \text{Arm. } art$  'field'. This change does not concern the alternation of  $c/t$  in the root auslaut of *bucanem* 'feed' and *but* 'food', cf. § 2.5.1-2.10. De Lamberterie (1982a: 62–64) argued that PIE  $*g$  and  $*g^h$  changed to Arm.  $t$  and  $d$  after  $*r$ , based on *art* and Arm.  $(-berj)$  'high' next to *berd* 'fortress'. While *-berj* faithfully continues PIE  $*b^herg^h-$ , *berd* may be a Semitic loanword, cf. Syr. *bīrtā*, Akk. *birtu* 'palace, citadel, fortress' (see EDAIL: 176).

As we turn to \*Cs-clusters, the only clear example for the development of such clusters is PIE \**sueks* ‘six’ > Arm. *vec*’ (Beekes 2003: 201).<sup>21</sup> No evidence is available for \**ǵs* and \**ǵʰs*. The outcome of PIE \**ks* allows for two logical possibilities of analysis.

Firstly, the palatals could be devoiced and deaspirated in front of \**s* yielding a unified Proto-Armenian reflex \**c*, whence Arm. *c*’ (4a). Cf. the devoicing of all velars in front of \**s* in Greek and Sanskrit (Lejeune 1955: 99–101; Rix 1976: 94f.). The devoicing cannot be of PIE date since it would block Bartholomae’s law, cf. *RV* 3 sg. mid. aor. *gdha* ‘swallowed’ < \**gzdʰa* (Bartholomae’s law) < \**ǵʰs-ta* (Sihler 1995: 201, 204), unless one assumes an analogical restoration of voiced obstruents in Indo-Iranian before the operation of Bartholomae’s law. One might also assume that the devoicing took place at the common source of the Greek and Armenian branches.

Secondly, one can assume a set of sound changes represented in (4b). Verbal stems apart, the evidence in support of these changes is virtually non-existent. It seems to be supported by Arm. *merj* ‘near’ < PArm. \**meǰʰri* < PIE \**me-ǵʰsri* ‘at hand’ (Beekes 2003: 207; *EDG*: 940f.; cf. fn. 20). Yet, one may be dealing here with a simplification of the three-consonant cluster in dial. PIE common for Greek and Armenian yielding \**me-ǵʰ(s)ri* as an immediate protoform of Gk. μέχρι and Arm. *merj*.

The choice between (4a) and (4b) entirely depends on one’s view on devoicing of obstruents before \**s* in other \*Cs-clusters and on the morphological arguments considered in Chapter 2. Given that devoicing is unlikely in the case of \*Cs-clusters with dentals (see below), the set of sound changes in (4b) must be considered preferable.

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<sup>21</sup> Although the etymology is commonly accepted, it contains an enigmatic change \**sue-* > *ve-* (*EDAIL*: 594). The expected outcome of PIE \**sue-* is Arm. *k’e-*, and that of PIE \**ue-* is Arm. *ge-* (the latter sound change hinders the derivation of the Old Armenian numeral from a protoform without an initial \**s*-). Lubotsky (2000) demonstrated that the word for ‘six’ must be reconstructed as PIIr. \**šuećš* with the assimilation of \**s...š* to \**š...š* at least in the Proto-Indo-Iranian stage. The question arises whether a comparable phenomenon could take place in early Proto-Armenian. If one starts from dial. PIE \**sueks-dkmt* ‘sixteen’ one may assume that a dissimilation of \**k...k* to \**k...k* took place yielding \**sueks-dkmt* (as opposed to the change PIE \**ksd* > PArm. \**kšd* > \*(*s*)*št* > *št* suggested in Beekes 2003: 201) > \**suekš-dkmt* (see *EDAIL*: 709f. on the vestiges of the RUKI-rule in Proto-Armenian), whence \**suekš-dkmt* with \**s...š* > \**š...š* as in (or together with) Indo-Iranian, and, with the subsequent dissimilatory loss of the initial \**š-* and the loss of \**k* in front of a cluster, one arrives at PArm. \**ueš-dasam(t)* > Arm. *veštasan* ‘sixteen’. After the sound change \**suV-* > \**kV-* (*k’V-*) took place and PIE \**sueks* turned to PArm. \**kec*, the initial consonant was adjusted to that of PArm. \**ueš-dasam(t)*.

Another possibility consists in assuming a Lindeman variant \**su(w)ekš* with the loss of \**w* after \**u*, cf. Arm. *aluēs* from PArm. \**aluwis-* < \**h<sub>2</sub>lōpēk-*, cf. Gk. ἀλώπηξ ‘fox’ (Beekes 2003: 165).

- |   |  |
|---|--|
| (4a) PIE $*k_s > \text{Arm. } c'$<br>PIE $*g_s > \text{Arm. } *c'$<br>PIE $*g^h_s > \text{Arm. } *c'$ | (4b) PIE $*k_s > \text{Arm. } c'$<br>PIE $*g_s > \text{Arm. } *c'$<br>PIE $*g^h_s > \text{Arm. } *j/z$ |
|---|--|

In what follows, morphological solutions that rely on the sound changes in (4b) will be considered possible, whereas those that depend on (4a) will be counted as doubtful.

There is no proof that the PIE clusters  $*k^{(w)}s$ ,  $*g^{(w)}s$ , and  $*g^{(w)h}s$  developed in the same way as their respective clusters with palatals. Yet, some scholars have found it possible to operate with the set of sound changes in (5a); see Beekes 2003: 201. Moreover, Beekes assumed the palatalisation of  $*k^{(w)}s$  to  $\check{s}$  in front of  $*e$ ,  $*i$ , seen in Arm. *gišer* ‘evening’ < PArm. *\*uek<sup>w</sup>seros*, with the loss of  $*p$  in a three-consonant cluster, from PIE *\*uek<sup>w</sup>speros* (Gk. ἔσπερος, Lat. *vesper*, Lith. *vākaras*, OCS *večerz* ‘evening’; cf. Meillet 1898 = 1977: 45f.; Hamp 1966: 13–15; Beekes 2004; 2003: 201; *EDG*: 470f.).

And yet, an example of a plain voiceless velar +  $*s$  yielding  $\check{c}'$  is provided by Arm.  $\check{c}'or$  ‘dry’,  $\check{c}'ir$  ‘dried fruit’ next to Gk. ξηρός ‘dry’ and ξερόν ‘dry land’ from PIE *\*ksero-* (Pedersen 1905: 209; *EDAIL*: 546, 709f.; see also *EDG*: 1035 on the Greek word with no mention of the Old Armenian words; the etymology is not mentioned for the Old Armenian words in Beekes 2003). It seems plausible that PIE  $*ks$  yielded  $*k\check{s}$  following the RUKI-rule, and that the following chain of sound changes can be reconstructed (as a parallel to  $*k_s > c'$ ):  $*ks > *k\check{s} > *t\check{s} > \check{c}'$ . This sound change is supported by the analysis of *veštasan* ‘sixteen’ mentioned in fn. 21. The only thing that remains obscure is the loss of a velar in *gišer* (instead of  $^xgi\check{c}'er$  predicted by the sound change  $*k^{(w)}s > \check{c}'$ ).<sup>22</sup>

Given that  $*s > *š$  took place only after voiceless velars according to the RUKI-rule, one could assume that the rise of *alveolar* affricates did not occur when  $*s$  followed  $*g^{(w)}$  and  $*g^{(w)h}$ , and thus reconstruct a series of sound changes in (5b). PArm.  $*g^{(w)}s$  would either change to  $*dz > c$  or get devoiced in front of  $*s$  and undergo the RUKI-rule yielding  $\check{c}'$ , as in (5c); the same reasoning applies to  $*g^{(w)h}s$ .

- |  |   |   |
|--|---|---|
| (5a) PIE $*k^{(w)}s > \text{Arm. } *c'$<br>PIE $*g^{(w)}s > \text{Arm. } *c$<br>PIE $*g^{(w)h}s > \text{Arm. } *j$ | (5b) PIE $*k^{(w)}s > \text{Arm. } \check{c}'$<br>PIE $*g^{(w)}s > \text{Arm. } *c$<br>PIE $*g^{(w)h}s > \text{Arm. } *j$ | (5c) PIE $*k^{(w)}s > \text{Arm. } \check{c}'$<br>PIE $*g^{(w)}s > \text{Arm. } *c'$<br>PIE $*g^{(w)h}s > \text{Arm. } *c'$ |
|--|---|---|

Morphological solutions that rely on the sound changes in (5b) and (5c) will consequently be given preference, whereas the sound changes in (5a) will be left out of consideration. Note, in particular, that one need not assume the palatalisation of  $*g^w$  in *awcan-e/i-m* within the sound changes listed in (5b).

<sup>22</sup> Martirosyan (*EDAIL*: 709f.) argued that PIE  $*ks-$  > Arm.  $\check{c}'$  operated only in the word-initial position with PIE  $*-ks-$  > Arm.  $-\check{s}$  in the word middle-position as part of the RUKI-rule against the sound changes in (5a), (5b), and (5c); cf. Arm. *uši* ‘storax-tree’ next to Gk. ὀξύα ‘beech’.

In the case of \*Cs-clusters with dentals, one can assume the devoicing of dentals in front of \*s with PArm. \*c > Arm. c' (6a)<sup>23</sup> or reconstruct the sound changes in (6b).

- |                                  |                                 |
|----------------------------------|---------------------------------|
| (6a) PIE *ts > Arm. *c'          | (6b) PIE *ts > Arm. *c'         |
| PIE *ds > Arm. *c'               | PIE *ds > Arm. *c               |
| PIE *d <sup>h</sup> s > Arm. *c' | PIE *d <sup>h</sup> s > Arm. *j |

According to Pedersen (1906: 429), one must distinguish between two layers of \*Cs clusters within the Proto-Armenian period with distinct outcomes in Old Armenian. The first layer resulted in the following changes: 1) PIE palatals and dentals + \*s merged to PArm. \*c (whence Arm. c') according to sound changes listed in (4a) and (6a); PIE velars + \*s merged to PArm. \*č (whence Arm. č') according to sound changes in (5c). These sound changes were supported by the etymology of Arm. č'or 'dry' discussed above.

The second layer of \*Cs clusters, conditioned by the inner-Armenian spread of the PFV \*s-suffix over the inherited root stems, yielded the following outcomes: PArm. \*t-s, \*k<sup>(w)</sup>-s, \*k'-s > Arm. c'; PArm. \*d-s, \*g<sup>(w)</sup>-s, \*g'-s > Arm. c; PArm. \*d<sup>h</sup>-s, \*g<sup>(w)h</sup>-s, \*g<sup>h</sup>-s > Arm. z (j after l and r) in compliance with the sound changes in (4b), (5a), and (6b). Pedersen's solution with its two layers of \*Cs-clusters, was accepted by Kortlandt (most explicitly in 1994 = 2003: 105f.; see also 1987 = 2003: 80–82; 1995 = 2003: 107–109; 1996a = 2003: 110–119) and Viredaz 2018: 202. Currently, Kortlandt (*p. c.*) prefers the solution based on one layer of \*Cs-clusters that developed for dentals according to the sound changes in (6b).<sup>24</sup>

Pedersen's view on two layers of \*Cs-clusters is difficult to maintain primarily because it requires the premise that a substantial amount of PFV \*s-stems was retained after the rise of root-final affricates from the first layer of \*Cs-clusters. However, independent evidence on the PFV \*s-stem productivity after the loss of \*s in clusters will probably never be found.

Within an alternative view, a specific outcome is postulated for each cluster as represented in (6b); see Pedersen's own earlier account (1905: 206). Verbal stems aside, only very uncertain evidence can be offered in support of PIE \*ds > Arm. c and PIE \*d<sup>h</sup>s > Arm. j. Perhaps, the best one can find is *anic* 'nit, louse egg' < PIE \*knids (cf. Gk. κονίς, -ίδος 'id.', etc.). The precise reconstruction of this word is a matter of dispute (see a detailed discussion in *EDAIL*: 87). The comparison of Gk. κονίς (\*koníd-s) to Alb. thëri (\*kōnidā) allows to reconstruct the dial. PIE nom. \*kōnid-s (Kortlandt 1986 = 2003: 69). The expected Old Armenian outcome must have been <sup>x</sup>sanic. In order to arrive at *anic*, one has to start

<sup>23</sup> Cf. the devoicing of dentals in front of \*s in Greek and Sanskrit.

<sup>24</sup> In particular, Kortlandt rejects his earlier opinion (1994 = 2003: 105f.) that PIE \*ds, \*d<sup>h</sup>s, \*gs, \*g<sup>h</sup>s merged into PArm. \*c (Arm. c') and that, in verbal stems, PArm. \*c was "disambiguated on the basis of the root-final obstruent which was found elsewhere in the paradigm, so that we end up with -c', -c-, -z-, (-j-) reflecting \*-ts-, \*-ds-, \*-dhs-."

with the root shape *\*kníd-s*, as if levelled from the oblique case stem of the same word *\*kníd-*, attested e.g. in OE *hnitu*. But the sound change PIE *\*kn-* > Arm. *an-* is unsupported. An assumption that at the time of the split of the Greek and Armenian branches, the word, with its unusual root structure, had the ablaut nom. *\*koníd-s*, gen. *\*kníd-os* may be doubted as well (cf. Gk. gen. *κονίδος*). It is not impossible that *anic* and *κονίς* were indirectly borrowed from a common source (cf. Beekes 1969: 290).

Even less secure are such pairs as *xawarci* ‘tendril, offshoot’ / *xawart* ‘vegetables; greens’ and *xaycem* ‘ripen (of grapes)’ / *xayt* ‘spotted’ (Pedersen 1905: 206). It should be noted however that neither *xawarci* nor *xawart* are attested in the securely dated early classical texts (according to *NBHL* 1: 935, the former is attested in Movsēs Xorenac’i, Basil of Caesarea, John Chrysostom, while the latter is attested in Movsēs Xorenac’i, Cyril of Jerusalem, Evagrius of Pontus, *Paterica*). This pair has no good etymology and is unreliable (see *EDAIL*: 125). Nothing speaks in favour of the reconstruction of an *\*s*-stem in *xaycem*, as opposed to a *\*ie/o*-stem, even if the word is inherited. The pair of *xaycem* and *xayt* does not seem to be cognate at all. The former verb is found in the Biblical context referring to ripening grapes (*Amos* 9, 13), while the latter is found as the compound *xayt-axariw* ‘spotted’ referring to cattle in the Bible (e.g. *Gen.* 31, 12). Neither has an established etymology (see Olsen 1999: 963 on *xayt*).

I conclude that neither (6a) nor (6b) is supported by solid evidence. However, an apparent advantage of the sound changes in (6b) is that they allow to explain the verbal stems in dental affricates where a *\*Cj*-cluster would yield an alveolar affricate with sound changes in (2). The phonetic development is illustrated by a diagram below.

<i>*ǵ</i>	<i>*ǵs</i>	<i>*gs</i>	<i>*ks</i>	<i>*sk</i>	<i>*ds</i>	
↓	↓	↓	↓	↓	↓	(RUKI-rule)
<i>*ǵ</i>	<i>*ǵz</i>	<i>*gz</i>	<i>*kš</i>	<i>*ks</i>	<i>*dz</i>	
↓	↓	↓	↓	↓	↓	(palatalisation of velars)
<i>*dʲ</i>	<i>*dʲz</i>	<i>*dz</i>	<i>*tš</i>	<i>*ts</i>	<i>*dz</i>	
↓	↓	↓	↓	↓	↓	
<i>*dʲ</i>	<i>*dʲz</i>	<i>*dz</i>	<i>tš</i>	<i>*ts</i>	<i>dz</i>	
↓	↓	↓	↓	↓	↓	(consonant shift)
<i>c</i>	<i>c</i>	<i>c</i>	<i>č</i>	<i>c</i>	<i>c</i>	

Within the aforementioned analysis, *\*ǵʰ*, *\*ǵʰs*, and *\*dʰs* must have merged in a Proto-Armenian affricate *\*dzʰ*, which yielded *\*dz* after the consonant shift. Of these sound changes, only PIE *\*ǵʰ* > Arm. *z* relies on secure evidence, cf. Arm. *eʒr* ‘edge’ < PIE *\*h<sub>1</sub>eǵʰer-* ‘edge (of water); lake’, Arm. *ozni* ‘hedgehog’ < PIE *\*h<sub>1</sub>oǵʰi-*, etc. (Clackson 1994: 107; Schmitt 2007: 62).

Morphological solutions that rely on the sound changes in (6b) will consequently be given preference and considered possible, while those in (6a) will be counted as doubtful.



### § 1.4.3. Intervocalic reflexes of PIE *\*dʰ*

The outcome of PIE *\*VdʰV* is puzzling. Unlike the case of PIE *\*VǵʰV* > Arm. *VzV*, one cannot reconstruct the dental affricate *\*dz* as an intermediate stage in the intervocalic development of PIE *\*dʰ*, since the non-conditioned outcome of PIE *\*dʰ* is Arm. *d*, cf. PIE *\*dʰur-* > Arm. *durk* ‘doors’. In view of the intervocalic lenition of PIE *\*VbʰV* > PArm. *\*-VbV-* (consonant shift) > Arm. *VwV*, one may assume that the voiced dental also underwent lenition in the intervocalic position. The question arises what would the result of such lenition be. Some scholars expect *VzV* (e.g. Normier 1980: 19; Olsen 1999: 782), while others expect *VrV* with the *Paradebeispiel* Arm. *gerem* ‘enslave’ from PIE *\*(H)uedʰ-* ‘lead away’ (Praust 2005; Martzloff 2016). But *gerem* can be alternatively compared to Skt. *hárati* ‘take’ from PIE *\*ǵʰer-* (Martzloff 2016: 127 with hesitation) or Gk. *ἄειρω* ‘bind’ from PIE *\*h<sub>2</sub>uer-* ‘bind’ (Olsen 1999: 439; *EDAIL*: 210).<sup>25</sup> Both options will be taken into account as possible. If one accepts PIE *\*VdʰV* > Arm. *VrV*, Arm. *VzV* can only go back to *\*VdʰsV* with PIE roots in a dental. Altogether, no decisive evidence is available to justify such a distribution. Both options will be considered possible in the analysis of the relevant nasal verbs.

### § 1.4.4. Reflexes of PIE *\*ln* and *\*rn*

The change PIE *\*ln* > Arm. *t* was first proposed by Pedersen (1906: 354f.) in order to explain *hetum* and *t’otum* (see Meillet 1936: 48; Clackson 1994: 219, fn. 27; Klingenschmitt 1982: 242; *EDAIL*: 722 with further references). Meillet suggested the following chain of phonetic developments: PIE *\*-ln-* > PArm. *\*-tn-* (as part of the general change *\*-lC-* > *\*-tC-*) > PArm. *\*-tt-* (assimilation) > Arm. *-t-*. It should be noted, however, that *t* occurs in the intervocalic position without any relation to a nasal (e.g. Arm. *atawni* ‘pigeon’ < PArm. *\*(h)alawn-* or *\*(h)atawn-* < PIE *\*plh<sub>2</sub>bh-n-*), and Old Armenian has non-nasal verbs of the *a-* and *u-* conjugations. Thus, the nasal suffix can be postulated for *atam* ‘grind’, *hetum* ‘pour out’, and *t’otum* ‘let’ only on etymological grounds.

Arm. *atam* can be derived from PIE *\*h<sub>2</sub>leh<sub>1</sub>-* or *\*h<sub>2</sub>elh<sub>1</sub>-* tr. ‘grind’ (Gk. *ἄλέω*, Khot. *ārr-* ‘grind’; see Klingenschmitt 1982: 93; *EWAia* 1: 108; *LIV*<sup>2</sup>: 277; Cheung 2007: 166; *EDAIL*: 26f.

<sup>25</sup> Note that no weakening occurred in Arm. *awd* ‘footwear’, from PIE *\*h<sub>2</sub>eu-dʰo-s* (Av. *aoθra-* ‘footwear’, parallel to Gk. *ἔσθος* ‘clothing’ from PIE *\*ues-dʰo-s*). It can be explained by the difference in the development of the Proto-Armenian diphthongs *\*eu* and *\*ou* (whence Arm. *oy/u*), as opposed to *\*aw* (whence Arm. *aw*). Since *\*aw* had not monophthongised in Proto-Armenian, it did not provide the conditions for the weakening of the occlusion.

with references).<sup>26</sup> The following possibilities can explain *ata-*: 1) the IPFV root stem *\*h<sub>2</sub>elh<sub>1</sub>-* (on the assumption that *\*h<sub>1</sub>* vocalised to *\*a*, and the antevocalic *\*h<sub>2</sub>-* need not result in Arm. *h-*) or *\*h<sub>2</sub>lh<sub>1</sub>-* (given that every PIE *\*CRHC* yielded Arm. *CaRaC*, and that the zero-grade was generalised from the active plural part of the paradigm throughout the paradigm); 2) an IPFV infix stem *\*h<sub>2</sub>l-n(e)-h<sub>1</sub>-* (cf. Meillet 1924 = 1977: 212–214); 3) an IPFV *\*ie/o*-stem *\*h<sub>2</sub>lh<sub>1</sub>-ie-* (given the vocalisation of *\*h<sub>1</sub>* in that environment, see Normier 1980: 20; Barton 1990–1991: 45, fn. 58); 4) a sigmatic PFV stem PIE *\*h<sub>2</sub>elh<sub>1</sub>-s-* (Gk. aor. ἄλεσσας) > *\*at-*, which was secondarily introduced to the *a*-conjugation (cf. Kortlandt 1995 = 2003: 107–109).

Only (2) has external etymological support in Ir. *\*arnā-* (Khot. *ārr-* and Pashto *aṇəl*; see Bailey 1979: 22). Unlike the Iranian words, Arm. *ata-* cannot continue the full grade of the infix stem: PIE *\*h<sub>2</sub>l-ne-h<sub>1</sub>-* would yield Arm. *<sup>x</sup>ati-* (had *\*ln* > *t* operated). In the plural, 3 pl. *\*h<sub>2</sub>l-n-h<sub>1</sub>-enti* would yield *\*alanin*. Thus, as noticed by Klingenschmitt (1982: 93), PArm. *\*al-nā-* could only be expected in 1pl. *\*h<sub>2</sub>lnh<sub>1</sub>-me-* and 2pl. *\*h<sub>2</sub>lnh<sub>1</sub>-te-* given that *\*h<sub>1</sub>* vocalised to *\*a* in that position and *\*n* did not vocalise. Even here, the expected vocalisation is controversial, cf. *haraw* ‘south’ from PIE *\*prHuo-* (Skt. *pūrva-* ‘eastern’) with *\*CRHC* yielding Arm. *aRa*; thus, PIE *\*h<sub>2</sub>lnh<sub>1</sub>-me-* might yield Arm. *<sup>x</sup>alana-*. Therefore, it is difficult to tell which form of the paradigm could serve as the source for *t*. As the last resort, one can think of a secondary PArm. *\*al-nā-* that would replace the archaic IPFV athematic root stem (Lindeman 1982: 40).

Arm. *hetum* can be derived from *\*pelh<sub>1</sub>-u-* or *\*pelh<sub>1</sub>-nu-* depending on the acceptance of the sound change PIE *\*ln* > Arm. *t*. There is no comparative evidence for the PIE nasal stem *\*pelh<sub>1</sub>-nu-* (cf. Meillet 1915 = 1977: 162–164; *EDAIL*: 402f. with further references). Unless independent support is found in favour of the sound change, it is more economical to reconstruct *\*pelh<sub>1</sub>-u-*. In this particular case, the *-t-* may be explained by aor. *het-* from *\*pelh<sub>1</sub>-s-*, or from 3 sg. act. *\*pelh<sub>1</sub>-et* > *\*het* (with the word-final hardening of *\*l* in the 3 sg. form). Without external comparative support, the choice between morphological reconstructions must depend on the economy of the sound changes.

Arm. *t’otum* and its inner-Armenian cognate adj. *t’oyl* (*t’oyt*) ‘weak, soft’ point to the inherited root *o*-grade. There is no evidence for the Proto-Armenian derivational model, characterised by the root *o*-grade and *\*n(e)u*-suffix.<sup>27</sup> The IPFV stem may be derived from

<sup>26</sup> The place of the root vowel is not clear: *\*h<sub>2</sub>leh<sub>1</sub>-* in *LIV*<sup>2</sup> and, hesitantly, Clackson 1994: 92; against *\*h<sub>2</sub>elh<sub>1</sub>-* in *EDG* and *\*HalH-* in Cheung 2007.

<sup>27</sup> It should be noted that *t’ot(an)am*, aor. *t’otac’ay* (Bible+) is not derived from *t’oyl*, unlike *t’ulanam* (Bible) and its caus. *t’ulac’uc’anem* (Bible; Philo 1892: 183); *t’ot(an)am* is best explained as a blend of *t’ulanam* and *t’otum* (de Lamberterie 1978: 266). Inf. *t’otanim* (Cyril of Alexandria,

\**tot-u-* or \**tot-nu-* (< \**tol-nu-*). The root final *t* may be explained by a relatively recent word-final hardening of \**l* in the frequent adverbialised imperative form *t'ot* 'let alone, besides', or by the influence of adj. *t'oyt* found in the oldest manuscripts (cf. Meillet 1896 = 1977: 29, against Meillet 1936: 48; de Lamberterie 1978: 268). The root etymology is disputed. While some scholars derive it from PIE \**telh<sub>2</sub>-* 'rise; support' (Klingenschmitt 1982: 243f.; Olsen 1999: 205; LIV<sup>2</sup>: 622f.)<sup>28</sup> others reject this connection on semantic grounds and leave the verb without an etymology (de Lamberterie 1978: 266–269).

Much of the discussion of the aforementioned etymologies concerns the question of the distribution of *-l-* and *-t-* in the intervocalic position; cf. *atawni* 'pigeon' against *aliwr* 'flour', *teli* 'elm' against *ul* 'kid', etc. (cf. Ravnæs 1991: 90–93 and de Lamberterie 2005: 352 with further references). The distribution between *-l-* and *-t-* has been explained by a phonotactic rule that favoured the rise of the palatalised *l* next to front vowels and the velar *t* in other environments. A rather recent age of that phenomenon may be assumed on the evidence of Greek loanwords that often have such a distribution, cf. Arm. *balistr* 'catapult' and Arm. *delp'in* 'dolphin', although this may reflect the phonetics of Ancient Greek and not that of Old Armenian (Clackson 1994: 94f.). De Lamberterie (2005: 352) noticed that monosyllables with the root vocalism *-e-* tended to generalise *t* in the word final position, cf. *get* 'beauty', *met* 'sin', *tel* 'place', etc. In fact, most of these words had *o-* and *a-* stems, which requires further investigation on whether the [ $\pm$  front] feature of the following vowel played any role in the distribution of *-l-* and *-t-*.

Arm. *yli*, *ea*-stem 'pregnant' is often cited as proof of \**ln-* > *-t-*. Meillet (1936: 48) suggested to derive Arm. *yli* 'pregnant' from PIE \**i-polniyā*. Although the root etymology is rather convincing, the nasal suffix is not necessary. One can easily explain *-t-* by the adjacent *-y-*, cf. *gayt* 'wolf', *nšoyt* 'ray' (see Godel 1975: 10).<sup>29</sup>

Arm. *k'atem* tr. 'gather (of people), collect (so. from somewhere)' has been compared to *σάλλω* tr. 'mellow (of arable land)' (Herodotus+) and derived from PIE \*(*s*)*kl-ne/o-* (EDAIL: 113; Martirosyan 2013: 110, 113). Yet, the meaning of the Greek verb better fits Lith. *skélti* tr. 'split', for which one has to reconstruct the root-final laryngeal in PIE \**skelh<sub>2/3-</sub>* (EDBIL: 402; EDG: 134of.). Moreover, there are certain formal complications. Thus, *σάλλω* can be explained as a thematicised infixed stem \**skl-n-H-e/o-*. Even if one assumes

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undated, and Nerses Lambronac'i, 12<sup>th</sup> century apud NBHL 1: 817) is a post-classical replacement of *t'otum* motivated by the PFV root stem.

<sup>28</sup> Klingenschmitt assumed that the root *t'ot-* shows the analogical introduction of \**o* to \**tat-* (from the PIE infixed stem \**tl-n-h<sub>2-</sub>*; cf. Lat. *tollere* 'elevate; support', etc.); the source of \**o* was either \**tolh<sub>2</sub>-i-*, the prototype of *t'oyl*, or PIE perfect stem \**te-tolh<sub>2-</sub>* (cf. Lat. *tetuli*).

<sup>29</sup> Although the prefix of *yli* is a morphological parallel to Lat. *im-pleō* 'fill' (EDAIL: 494), the stem \**h<sub>2</sub>en-pleh<sub>2-</sub>* cannot be projected onto PIE; the Old Armenian form would be \**am(p)li*.

PArm. *\*kl-n-H-e/o-*, without an initial *\*s-*, it would yield Arm. *\*lane-* and not *k'ate-* (cf. *linim* 'become' from PIE *\*klei-n(H)e/o-* on the simplification of the word-initial *\*Kl-* cluster; see § 2.3.1-1.3). Thus, the lack of the initial *\*s-*, the unexpected vocalization of two interconsonantal resonants, the problematic sound law Arm. *-t-* < PIE *\*-ln-* (see § 1.4.4), and, above all, the loose semantic correspondence between the meanings 'collect' and 'mellow' do not allow to accept *k'atem* as a secure evidence of the inherited infix stem. On the contrary, the Greco-Baltic correspondence agrees in form and meaning with Arm. *c'elum* tr. 'split, tear'.

Insofar as the sound change PIE *\*rn* > Arm. *rn* / Arm. *r̄* is concerned, there is a difference of opinions on whether the nasal was retained or it was lost (in parallel to the alleged sound change PIE *\*ln* > Arm. *l*) and then restored, e.g. on the model of *hefjnum* intr. 'choke' and *erdnum* intr., tr. 'swear' (cf. de Lamberterie 2013: 16). Most of the examples are nasal verbs (e.g. *ar̄num* 'take'), which makes the explanation based on the analogy rather appropriate albeit not obligatory. Within the latter possibility, *yerum* 'fasten together' is taken as a result of the nasal loss without restoration (EDAIL: 492f.). But *yerum* may be alternatively derived from *\*ser-s-* (Gk. εἴρω 'knit together', Lat. *serō* 'string together'), which leaves the sound change PIE *\*rn* > Arm. *r̄* without actual support. PIE gen. sg. *\*h<sub>2</sub>nrós* 'of man' > Arm. *ar̄n* also proves that the sound change PArm. *\*rn* > Arm. *rn* took place after the metathesis PIE *\*-nr-* > PArm. *\*-rn-*, and that the nasal did not disappear. The restoration of *\*-n-* was impossible in the genitive given that there were no conditions for the metathesis in the direct cases (PIE nom. sg. *\*h<sub>2</sub>nēr* > PArm. *\*anir* > Arm. *ayr*).

Pairs like *ar̄num* (see § 2.1.1-1.1) and *kornč'im* 'be lost' from *\*kori-nč'* (see § 2.6.1-1.2) show that the sound change *\*rn* > *\*r̄n* ceased to operate before the weakening of unstressed *\*i* and *\*u*. Thus, nom. sg. *garun* 'spring', gen. sg. *garnan* are regular forms. In nom. sg. *gar̄n* 'lamb', gen. sg. *gar̄in*, the root shape analogically levelled on the analogy of the direct cases.

The weakening of *\*i* and *\*u* is observable in Parthian loanwords, but not in Sassanian loanwords (Ravnæs 1991: 61f.). It follows that *\*rn* > *\*r̄n* ceased to operate during the period when Parthian loanwords entered the Armenian language. This chronology is supported by the fact that early Parthian loanwords did undergo the sound change, cf. Arm. *xar̄nak* 'common, defiled' and *xotornaki* 'contrary' (Olsen 1999: 884f.). According to Dressler 1976: 311, this phonetic process was still going on in the time (or was posterior to) the early borrowings from Ancient Greek, cf. Arm. *pořnik* 'adulterer' from Gk. adj. πορνικός, πορνική 'adulterous'. Olsen (1999: 457) argues that *pořnik* was derived within Armenian by means of the Iranian loan suffix *-ik, -kac'* from the borrowed Gk. πόρνη, πόρνος. Whatever was the age of the Ancient Greek borrowing, that would mean that the sound change *\*-rn-* > *\*-r̄n-* was posterior to the weakening of the initial *\*p-* > *\*h-* > *ø-* in the word onset.

## Section 1.5. Source material

The present study is based on the following principal early Old Armenian texts (see *RADCA*:1–4 and Thomson 1995: 117–121 with an overview of the texts and selected bibliography on their editions, translations, and secondary literature):

- The Bible. The Old Testament is cited after the 1895 Constantinople edition, while the New Testament is cited after Künzle 1982.<sup>30</sup> On several occasions, the variant readings are taken into account from the Zohrapian's 1805 Venetian edition (the so-called Zorhab Bible; cf. the facsimile reproduction in 1984, edited by C. Cox, Delmar, NJ: Caravan Books). The *Book of Sirah* and *Epistle of Jeremia* are cited after Bargatuni's 1860 edition (see Hambardzumyan 2016 on the Old Armenian translations). See Anassian 1976, Thomson 1995: 239–249, Nersessian 2001 for details concerning the Bible editions and their manuscript support.

*The New American Standard Bible* (NASB) has been used for the English translation of the canonical books, while *The New Revised Standard Version* (NRSV) has been used for the Apocryphal books. Whenever the grammatical nuances required a word-by-word translation of the Biblical contexts, an alternative (marked as “NASB” or “NRSV”, respectively) or my own translation (marked as “PK”) is cited.

- Koriwn's *The Life of Mashtots*. 5<sup>th</sup> century. Source: Koriwn 2003; English translation: Norehad 1981.
- Eznik Kolbac'i's *Against the Sects*. 5<sup>th</sup> century. Source: Eznik Kolbac'i 2003; English translation: Blanchard & Young 1998.
- Agat'angelos' *The History of Armenia*. 5<sup>th</sup> century. Source: Agat'angelos 2003; English translation: Thomson 1976 (*The History of Armenia*) and Thomson 2001 (*The Teaching of Saint Gregory*).
- Łazar P'arpec'i. The 5<sup>th</sup> century. Source: Łazar P'arpec'i 2003; English translation: Thomson 1991.
- Grigor Lusaworič'. 5<sup>th</sup> century. Source: Grigor Lusaworič' 2003.
- P'awstos Buzand's *Buzandaran*. 5<sup>th</sup> century. Source: P'awstos Buzand 2003; English translation: Garsoïan 1989.
- Elišē's *The History of Vardan and the Armenian War*. The late 5<sup>th</sup> – early 6<sup>th</sup> centuries. Source: Elišē 2003; English translation: Thomson 1982.
- Movsēs Xorenac'i's *The History of the Armenians*. Disputed dating, ranging from the 5<sup>th</sup> to 9<sup>th</sup> centuries. (cf. *RADCA*: 7). Source: Movsēs Xorenac'i 2003; English translation: Thomson 2006.

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<sup>30</sup> Künzle's transliteration is cited with several systematic normalisations: <ow> is rendered as <u>; <e> is rendered as <ē> in *et'ē* and *t'ē* as well as in the imperfect tense endings.

Needless to say, the remaining corpus of the Old Armenian literature and the evidence of later Armenian idioms may contain relevant archaisms. The scope of the present study has allowed to systematically investigate only a selection of texts.

The early Old Armenian translations of the following ecclesiastical authors have been occasionally consulted: Basil of Caesarea (apud *NBHL*), Cyril of Jerusalem (apud *NBHL*), Ephrem (2001), Eusebius Pamphilius (1877), Hesychius of Jerusalem (1983), Gregory Nazianzenus (apud *NBHL*), Severian of Gabala (1827) as well as the later Hellenising translations of Philo (1826, 1892), Iraeneus (1910), and *The Book of Chries* (1865). References to translations are given in text.

The selection of nasal verbs, attested in the specified early Old Armenian texts, is based on *A Reverse Analytical Dictionary of Old Armenian* by P. Jungmann, J. J. S. Weitenberg (*RADCA*). Firstly, complete lists of nasal verbs with different nasal suffixes, indicated in *RADCA*, were restricted with regard to the selected corpus of texts. Then, the attestations were controlled according to the aforementioned critical editions. In some cases, the nasal verbs or their imperfective nasal stems proved to be non-existent in the indicated texts.

The description of the semantics of the selected verbal vocabulary owes a lot to the traditional lexicographic sources taken into account in *The Leiden Armenian Lexical Textbase* (*LALT*, edited by J. J. S. Weitenberg), including *The New Dictionary Armenian—English* by M. Bedrossian (first published in 1879), *Nor baḡirk' haykazean lezui* (*NBHL*; first published in 1836), and *Hayerēn armatakan baḡaran* by Hṛ. Ačāryan (*HAB*; first published in 1926–1935). The general issue of these dictionaries is that they are not restrictive to the early classical period of Old Armenian. That shortcoming has been overcome in two ways: firstly, by using complete lexicons of specific Old Armenian texts (Künzle 1982, 2 for the Gospels and Zeilfelder 2004 for Eznik Koḡbac'i's *Against the Sects*), and, secondly, by providing contextual meanings for nasal verbs with a few attestations in the selected corpus of texts. Given that most of the frequently used nasal verbs are attested in the Gospels and Eznik Koḡbac'i, it has been possible to control the meanings of the infrequent verbs outside these two sources manually.

All of the attested nasal verbs, except denominal *a*-verbs and morphological causatives, are illustrated by their contextual uses. Only significance of such illustrations decreases with the increase of frequency of a verb in the examined corpus. In the case of the frequently used and polysemous verbs, no attempt was made to illustrate specific lexical meanings and the preference was given to the most generic meanings.







## CHAPTER 2. OLD ARMENIAN NASAL VERBS

### Section 2.1. The *n*-stem of the *u*-conjugation

#### § 2.1.1. Evidence

The IPFV *n*-suffix characterises a relatively small stock of verbs of the *u*-conjugation. The following stems are attested in the examined corpus: *ar̄num* ‘take’, *ayt̄num* ‘swell’, *c’ac̄num* ‘refrain’, *c’as̄num* ‘be angry’, *erd̄num* ‘swear’, *əndel̄num* ‘come together’, *ənken̄num* ‘throw’, *ənt’er̄num* ‘proclaim’, *hel̄jnum* ‘choke’, *jēr̄num* ‘heat up’, *k’atc’num* ‘be(come) angry’, *ln̄num* ‘fill up’, *p’ax̄num* ‘flee’, *sks̄num* ‘begin’, *ur̄num* ‘be(come) puffed up’, *x̄num* ‘close’, *yen̄num* ‘rely on’, *zart’num* ‘awake’, *zbat̄num* ‘be occupied’, *zbaws̄num* ‘enjoy’, *zgen̄num* ‘wear’.

The following verbs, for which an *n*-stem is unattested even though cited in the dictionaries or is attested outside the examined early classical texts, are left out of consideration: *ənkal̄num* ‘receive’ (n/a; Aliffi 2002: 145), *hanḡnum* ‘relax’ (n/a; NBHL 2: 38), *hec̄num* ‘ride’ (Barseł Maškeronc’i, 14<sup>th</sup> century, apud NBHL 2: 82), *her̄jnum* ‘split’ (Bible commentaries, undated; Georg Skewrac’i, 13<sup>th</sup> century, apud NBHL 2: 94), *kal̄num* ‘seize’ (n/a; NBHL 1: 1033), *lk’num* ‘leave’ (Grigor Narekac’i, 10<sup>th</sup>–11<sup>th</sup> centuries, apud NBHL 1: 909), *mac̄num* ‘stick; be glued’ (John Chrysostom, undated, etc. apud NBHL 2: 190), *ost̄num* ‘jump’ (Kirakos Drazarkc’i, 11<sup>th</sup> century, etc., apud NBHL 2: 523), *sart̄num* ‘be(come) angry’ (n/a; NBHL 2: 702); *t’ak’num* ‘hide oneself’ (John Chrysostom, undated, etc. apud NBHL 1: 803), *t’r̄num* ‘fly’ (Eusebius of Emesa, undated, etc., apud NBHL 1: 823), *xr̄t̄num* ‘be(come) anxious’ (Severian of Gabala, 6<sup>th</sup> century, apud NBHL 1: 995), *zgac̄num* ‘be infected’ (John Chrysostom, undated, etc. apud NBHL 1: 724). Since many such verbs are hapaxes that have competing stems well attested in early classical texts, and since no etymological support can be provided for a PArm. *\*n(e)u*-stem, such verbs can be post-classical innovations.<sup>31</sup>

Whenever a verb is attested within the examined corpus of texts by its PFV stem, and its IPFV *n(u)*-stem is either not attested (e.g. aor. *ənkl̄ay* ‘sink’), or is attested outside the corpus (e.g. aor. *her̄jay* ‘split’), it is also not taken into account. Thus, post-classical *ost̄num* ‘jump’, attested in Kirakos Drazarkc’i in the 11<sup>th</sup> century (apud NBHL 2: 523) is left out of consideration in view of *ost’im* (Movsēs Xorenac’i) as a match to the early classical aor. *osteay*. Likewise, post-classical *pak̄num* (*Canon Law*, undated; Yovhannes Vanakan, 13<sup>th</sup>

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<sup>31</sup> In some cases, the relatively late age of a *n(u)*-formation is ascertained, cf. post-classical *kal̄num* tr. ‘obtain’ (aor. act. *kali*; NBHL 1: 1033), derived from aor. mp. *kalay* of *unim* tr. ‘obtain, hold, have’.

century; *NBHL* 2: 585) is left out in view of the Biblical *pakč'im* 'be amazed' next to aor. *pakeay*. Such verbs are mentioned in § 2.1.2-2 as verbs with competing IPFV stems. The reductionist approach to the selection of verbs aims to focus on the unambiguous early classical evidence.

There are three paradigmatic types of the *n*-class of the *u*-conjugation, each characterised by a distinct kind of the PFV stem:

- IPFV *-n-* : PFV *-Ø-* (see § 2.1.1-1);
- IPFV *-n-* : PFV *-c<sup>l</sup>-* (see § 2.1.1-2);
- IPFV *-n-* : PFV *-i-* (see § 2.1.1-3).

Besides, some *n*-stem verbs of the *u*-conjugation are not attested in their perfective forms in the examined corpus and are considered separately in § 2.1.1-4.

The verbs *hetum* 'pour out', *totum* 'allow' and *yerum* 'fasten together', sometimes cited as belonging together with the *n*-class of the *u*-conjugation in the diachronic perspective, are not taken into account (see § 1.4.4. on the validity of the changes *\*ln > t* and *\*rn > r*).

#### § 2.1.1-1. IPFV *-n-* : PFV *-Ø-*

§ 2.1.1-1.1. *Arnum* tr. 'take, obtain', 'take smb. somewhere; bring', 'receive': aor. act. *arī*, mp. *aray*, past ptc. *areal*, ipv. *ar*, caus. n/a (Bible+). *NBHL* 1: 309; *HAB* 1: 247ff.; Künzle 2: 83–87; *RADCA*: 144; Zeilfelder 2004: 35f.

- Transitivity: A<sub>(E)</sub>-O.

The lexicosyntactic properties of the subject may correspond to the RECIPIENT-like argument (3). These uses are secondary and do not affect the transitive syntax of the base verb.

- Actionality: ACHIEVEMENT (1, 2), ACCOMPLISHMENT (3).

The verb participates in numerous collocations including perception predicates like *hot arnum* 'smell' (4), which can be construed as ACTIVITY. Such atelic uses are marginal.

- (1) *2Sam. 2, 3: <...> Gitic'es zi aysawr arnu Tēr ztērd i glxoy k'ummē.* "Do you know that the Lord will take away your master from over you today?"
- (2) *Mk. 14, 33: Ew arnu and iwr zPetros ew zJakovbos ew zJovhannēs <...>.* "And He took with Him Peter and James and John <...>."
- (3) *Acts 8, 17: Yajnzam edin zjers i veray noc'a, ew arnuin Hogi Surb.* "Then they began laying their hands on them, and they were receiving the Holy Spirit."
- (4) *Job 39, 25: <...> i herastanē arnu zhot paterazmi <...>.* "<...> and he scents the battle from afar <...>."

ETYM: The verb is cognate with Gk. mp. ἄρτυμαι tr. ‘win, gain, acquire; receive (e.g. of wounds, cf. *Il.* 14, 130)’, them. aor. ἀρόμην, sigm. aor. ἡράμην (*DELG* 107f.; de Lamberterie 1978–1979, 2013: 16; *EDAIL*: 112f.; *EDG*: 136) and YAv. mp. *arənauu-* tr. ‘receive (benefits)’ (*Y.* 52, 3; 56, 3; 65, 17), act. *frārənao-/frārənu-* tr. ‘offer (homage)’ (*Yt.* 13, 46; 13, 146; *Y.* 11, 4). This evidence points to the core PIE verb *\*h<sub>2</sub>r-n(e)u-* act. ‘make smb. provided with so.’, mp. ‘be provided with so. by oneself or smb.’.<sup>32</sup>

The voice alternation reconstructed on the basis of Iranian expressed the active and reflexive/passive uses of the underlying extended transitive verb (with the promotion of the RECIPIENT to the subject position in the intransitive construction). The lexicalisation of the mediopassive form with the RECIPIENT subject may be considered a dialectal PIE development continued by Ancient Greek and Old Armenian (cf. de Lamberterie 2005: 344f.; 2013: 16). A subsequent change from the RECIPIENT to AGENT subject, which yielded the meanings ‘take; receive’ in Old Armenian and ‘gain; acquire’ in Ancient Greek, may be viewed as parallel innovations or a shared heritage. The semantic change was accompanied by the rise of the active/mediopassive alternation in the aorist of the Old Armenian verb.

Arm. PFV *ar-* is formally ambiguous: it can be etymological from PFV *\*h<sub>2</sub>er-s-* or analogical after IPFV *ar-nu-*. In the latter case, the older PFV root stem, thematic or athematic, can be reconstructed, cf. PFV *\*ar-e/o-* postulated as the common source of the Ancient Greek and Old Armenian PFV stems in de Lamberterie 2013: 16. Given that the Ancient Greek verb is attested with both thematic and sigmatic aorists, additional evidence is required in order to disambiguate the source of the Proto-Armenian PFV stem for this verb (see § 2.1.2-3).

§ 2.1.1-1.2. *Erdnum* intr., tr. ‘swear’: aor. mp. *erduay*, past ptc. *erdueal*, caus. n/a (Bible+). *NBHL* 1: 674; *HAB* 2: 44; Künzle 2: 214; *RADCA*: 143; Zeilfelder 2004: 90.

◇ Related words: n. *erdmn* ‘oath’ (Bible+); adj. *erdmni* ‘of swearing’, whence *erdmni linim* ‘swear’ (cf. *1Macc.* 7, 15; *erdmni etew noc’a* ‘he swore to them’ that translates Gk. 3 sg. aor. ind. act. ὤμοσεν ‘he swore’) and *erdmni arnem* ‘id.’ (cf. *2Macc.* 13, 23; *erdmni arar noc’a* ‘he swore to them’ again for Gk. ὤμοσεν ‘he swore’).

- Transitivity: S<sub>A</sub> (1); A-O (2); A-O-E (3).

<sup>32</sup> The lexicalised reflexive/passive alternation of the underlying transitive *\*n(e)u-*verb, reflected by ἄρτυμαι and *arnum*, shows how nasal affixes could be transferred from transitive verbs to intransitive ones and be isolated from the active voice morphology. I see no reason to consider the transitive Indo-Iranian verb as an innovation of that branch, which would presuppose that the PIE verb was mediopassive.

The verb is commonly used in the intransitive construction (1), and only rarely in the transitive construction with the direct object of content, cf. *figura etymologica* in (2); the only transitive use of the verb in non-Biblical texts is a Biblical passage, cited by Agat'angelos (2003: 1491); see (2). The verb is also used as an extended transitive predicate expressing a change of possession in the future (3). The causative *erdmnec'uc'anem* 'make swear' (Bible+) is derived from the denominal verb *erdumnem* 'swear' (first attested in John Chrysostom), itself derived from *erdumn* 'oath'.

- Actionality: ACHIEVEMENT/ACTIVITY.

- (1) *Gen.* 21, 24: *Ew asē Abraham: Es erdnum.* "Abraham said, «I swear it.»"
- (2) *Lk.* 1, 73: <...> *zerdumn zor erduaw Abrahamu hawr merum* <...>. "«...» the oath which he swore to our father Abraham <...>." (cf. *3Mac* 5, 23; *Num.* 30, 2; *Deut.* 7, 8; *Ezek.* 16, 8).
- (3) *Num.* 11, 12: <...> *yerkirn zor erduar harc'n noc'a.* "«...» to the land which You swore to their fathers."

ETYM: Etymology is uncertain. The following formal possibilities are available: IPFV *\*d<sup>h</sup>ru-nu-*, PFV *\*d<sup>h</sup>r(e)u-* or *\*d<sup>h</sup>reu-s-*. The latter option was given preference to in Pedersen (1906: 355) and Kortlandt (2018: 150).

Klingenschmitt (1982: 247) suggested to analyse the verb as as de-adjectival verb *\*d<sup>h</sup>ru-n(e)u-* derived from adj. *\*d<sup>h</sup>ru-uó-* 'firm' (Skt. *dhruvā-*, YAv. *druua-* 'firm; healthy', OPers. *duruva-* 'firm; sure' < Ir. *\*d<sup>h</sup>ruvā-*; see *EWAia* 1: 799) with the semantic change 'make firm, make sure' → 'affirm; make promise; swear'. But the Indo-Iranian adjectival stem is better explained by *\*d<sup>h</sup>r-uó-*, cf. OCS *sъdravъ* 'healthy' < PIE *\*h<sub>2</sub>su-d<sup>h</sup>or-uó-* (*EDSIL*: 478).

The identification of the root with PIE *\*d<sup>h</sup>reu-* 'scream; complain' (IPFV *\*d<sup>h</sup>reu-e/o-* > Gk. *θρόομαι* 'shriek (of women)'; see Bader 1979: 207; *LIV*<sup>2</sup>: 155f.; Cheung 2007: 77) can be objected to on semantic grounds. The derivation from PIE *\*urēd<sup>h</sup>u-* (Djahukian 2010: 222f.) is formally untenable.

Finally, it has been noticed that Arm. *erdumn* is similar to Oss. *ard* 'oath' in form and meaning (Abaev 1958–95, 1: 60ff.), so that one might think of an early Iranian loanword derived from Pr. *\*rta-* 'order', cf. OPers. *arta-*, YAv. *arata-* (to be further compared to Skt. *ṛtá-*). Note that the Elamic transmission *ir-da-*, e.g. in *Ir-da-ik-ša-iš-ša* 'Artaxerxes', points to the zero-grade of the root in Old Persian (cf. *EWAia* 1: 255).

§ 2.1.1-1.3. *Heljnum* intr. 'choke', aor. *heljay*, past ptc. *heljeal*, caus. *heljuc'anem* tr. 'suffocate' (Bible+), *heljum* tr. 'suffocate' (Eusebius Pamphilius). *NBHL* 2: 84; *HAB* 3: 78; Künzle 2: 411; *RADCA*: 143; Zeilfelder 2004: 165.

◇ Competing paradigmatic classes: *heljanim*; *heljum* 'choke' (Basil of Caesarea, undated, apud *NBHL*). The stem *heljani-* occurs once in early classical texts outside the examined

corpus (5). Although IPFV *hefju-* is only marginally attested in early classical literature (6),<sup>33</sup> it is opposed to *hefjnu-* as a causative to an anticausative and is a functional equivalent to the morphological causative derived from *hefjnu-*, cf. (4, 6).

◇ Potentially related words: *xetd* *i*-stem ‘rope, noose; strangulation’ (see below on the formal issues).

- Transitivity: S<sub>0</sub> (1–3).

The transitive counterpart is expressed by means of the morphological causative (4).

- Actionality: ACHIEVEMENT (1), ACCOMPLISHMENT (2, 3).

- (1) *Mk. 5, 13*: <...> *ew dimeac' eramakn i darē anti i covn, ēin ibrew erku hazark', ew hefjnuin i covun.* “<...> and the herd rushed down the steep bank into the sea, about two thousand of them; and they were drowned in the sea.”<sup>34</sup>
- (2) *Lk. 8, 14.* *Isk or i mēj p'šoc'n ankaw, nok'a en or ibrew lsen zbann, ew i hogs ew i mecut'iw n ew i c'ankut'iw n ašxarhis zbateal hefjnun, ew anptuť linin.* “The seed that fell among thorns stands for those who hear, and as they go on their way they are choked by life’s worries, riches and pleasures, and they do not mature.”<sup>35</sup>
- (3) *Ecclesiastical History* (Eusebius Pamphilius 1877: 643–644): *ew ē darjeal zi i barjuē zotic' noc'a kaxelov, ew hur mxaxar'n i nerk'oy noc'a edeal ew i cxoc'n hefjnuin <...>.* “<...> and also those that being raised on high by the feet, and gentle fire was burning beneath them, and they had been suffocating of smoke <...>.” (trans. McGiffert 1890: 332).
- (4) *Mt. 13, 7:* *Ew ayln ankaw i mēj p'šoy, ew elin p'ušk'n ew hefjuc'in zna.* “Others fell among the thorns, and the thorns came up and choked them out.”

<sup>33</sup> *LALT* erroneously identifies a citation in *NBHL* 2: 84 (*Znšans teseal, ew zbansn lueal hefjnuin* [v.l. *hefjuin*] *dpirk'n*) as belonging to Ignatius of Antioch (5<sup>th</sup> century). In fact, the citation refers to Ignatios Vardapet (12<sup>th</sup> century, apud *NBHL* 1: 12; Thomson 1995: 140). This post-classical evidence will not be taken into account here for chronological reasons. Apart from Eusebius Pamphilius, cited in *NBHL*, *RADCA* refers to *hefju-* in Irenaeus' *Adversus Haereses* (Leipzig 1910); I could not find this stem in the indicated edition.

<sup>34</sup> Cf. Nilus of Ancyra's *Advices*, ascribed to Eznik Koľbac'i and appended to *Against the Sects* in the 1826 Venice edition (Eznik Koľbac'i 1826: 300): *Krawnawor marmnasēr xoxi nman ē, i covac'eal metac'n hefjnu <...>.* “Le religieux sensuel est semblable au pourceau; dans une mer de péchés il se plonge” (trans. Le Vaillant de Florival 1853: 204).

<sup>35</sup> Cf. Łazar P'arpec'i's *The Letter to Vahan Mamikonean* (2003: 2391): *ayl ew et'ēy-ankarc šnorhi ban i mardasirē-n, hefjnun i naxanjuē.* “but if unexpectedly some word is granted by the Benevolent One, they choke with envy” (Thomson 1991: 263).

- (5) Basil of Caesarea (apud *NBHL*): *Zor ew i veray boc'oy ē tesanel, yāntani iwrmē cxoyn heljani*. “One can see through the fire that his family is choking from smoke.” (trans. *PK*).
- (6) *Ecclesiastical History* (Eusebius Pamphilius 1877: 656): *zi erbemn zkanays ytis heljōyr, ew zmatafacin ttayoc' zāndersn patarēr <...>*. “[And in his divinations] he cut open [*lit.* “suffocated” — *PK*.] pregnant women, and again inspected the bowels of newborn infants.” (trans. McGiffert 1890).

ETYM: Etymology is uncertain. The root *helj-* has been derived from PIE  $^{*}(s)pelǵ^{h}$ -, as if cognate with Lith. *speĩgti* ‘fade (of plant, person)’.<sup>36</sup> The velar of the Lithuanian verb was explained by Klingenschmitt (1982: 252f.) as an irregular *centum* reflex of the PIE aspirated palatal (cf. Stang 1966: 91f.). This assumption is rather problematic; see Kortlandt 1978 on the Balto-Slavic depalatalisation of palatals *before*  $^{*}r$ ,  $^{*}l$ ,  $^{*}m$ ,  $^{*}n$  and  $^{*}u$ . Moreover, the root structure  $^{*}T...D^{h}$  is dubious for a word of PIE origin.<sup>37</sup> Although the semantic correspondence is rather neat (note the metaphorical use of the verb to describe a man choking like a plant in (2) above), the aforementioned formal issue renders the etymology doubtful.

Despite a certain semantic similarity, it is difficult to account for *helj-* and *xetd* within one etymology. Thus, Djahukian’s suggestion (2010: 326, 456) to compare both words to Gk. *σκέλλω* ‘make dry’, from PIE  $^{*}(s)kel-$  ( $\rightarrow$  PArm.  $^{*}k^{(h)}el-d-$   $\rightarrow$  *xetd*), is dubious because of the irregular sound changes  $^{*}(s)k-$   $\rightarrow$  *x-*.

§ 2.1.1-1.4. *Ĵernum* intr. ‘heat up; warm up’, aor. mp. *Ĵeray*, past ptc. *Ĵereal*, caus. *Ĵeruc’anem* tr. ‘heat up’ (Bible+). *NBHL* 2: 671; *HAB* 4: 125; *Künzle* 2: 600f.; *RADCA*: 144.

◊ Related words: The verb is closely related to *Ĵeran-e/i-m* with a specialised meanings intr. ‘have a fever’ (aor. *Ĵeray*), tr. ‘suffer (illness)’ (aor. *Ĵeri*); see § 2.5.1-2.25.

- Transitivity:  $S_O[-E_A]$  (1);  $S_A$  (2).

In (1), the PATIENT-like subject presupposes an AGENT, although it is not expressed. Therefore, the verb is classified as an intransitive verb unspecified for agentivity. This interpretation is consistent with the intransitive reflexive (agentive) use of the verb in (2).

- Actionality: ACTIVITY (2), STATE (1).

The stative meaning in (1) results from the passive alternation of the basically agentive dynamic verb.

<sup>36</sup> The Lithuanian verb was further compared to Hsch. *φελγύνει· άσυντεεί, ληρεί* ‘be slow-witted’ (Hoffmann 1892: 154) and Skt. *phalgú-* ‘weak, vain, tiny’ (Persson 1893: 258; Fraenkel 1962, 2: 870). Both comparisons are dubious; see *DELG*: 1185f.; *EWAia* 2: 203.

<sup>37</sup> The same complication concerns the solution based on the reconstruction of the root-final  $^{*}d^{h}$  based on the comparison with *xetd* ‘rope’; cf. Kortlandt 1987 = 2003: 80; 1994 = 2003: 105.

- (1) *Zech. 13, 9: Ew anc'uc'ic' zerrord masn and hur, ew j̄eruc'ic' znosa orpēs j̄er̄nu arcāt' <...>.*  
 “And I will bring the third part through the fire, refine them as silver is refined <...>.”
- (2) *Jn. 18, 25: Ew Simovn Petros kayr and ew j̄er̄noyr <...>.* “Now Simon Peter was standing and warming himself.”

ETYM: The verb goes back to PIE  $*g^{wh}er-$  ‘be(come) warm’ (Klingenschmitt 1982: 224; *EDAIL*: 556f.; *LIV*<sup>2</sup>: 219f.).

In order to explain the origin of *j̄er̄num* and *j̄eranim*, Klingenschmitt (*loc. cit*) suggested that the two verbs resulted from a paradigmatic split:

IPFV. *j̄er̄-nu-* : PFV. *j̄er-*:

- IPFV. *j̄er̄-nu-* → PFV. *j̄er̄-*;
- PFV. *j̄er-* → IPFV. *j̄er-ani-*.

Within this scenario, the  $*nu$ -stem is older than the  $*ani$ -stem, the latter being derived from PFV *j̄er-* before the sound change  $*rn > *r̄n$  and the subsequent levelling of the root shape *j̄er̄-*.

Alternatively, one may assume two competing Proto-Armenian IPFV stems  $*j̄er-nu-$  and  $*j̄er-ane-$  already at the stage of Proto-Armenian preceding the sound change  $*rn > *r̄n$ . These two stems could have shared PFV root stem  $*j̄er-$ . After  $*rn > *r̄n$ ,  $r̄$  could spread from the IPFV to the PFV stem of the *nu*-verb (cf. *ar̄num* ‘take’, aor. *ar̄i*), a change supported by the differentiation of the lexical meaning of the two verbs characterised by different IPFV stems — *j̄er̄nu-* ‘warm up’ and *j̄erani-* ‘have a fever’.

Klingenschmitt’s analysis may be supported by Skt. *ghṛṇoti* (attested in *Dhātupāṭha*) that allows to reconstruct PIE  $*g^{wh}r-n(e)u-$  (*LIV*<sup>2</sup>: 220). The Old Armenian *nu*-stem can be derived from  $*g^{wh}r-n(e)u-$  on the assumption that the root shape was secondarily provided with the full grade on the analogy of the PFV stem or cognate substantives. Yet, the late Sanskrit attestation can be an inner-Indic innovation, in which case the nasal stem of *j̄er̄-nu-* loses its comparative match and the reconstruction of the  $*n(e)u-$ -stem becomes ungrounded for this verb.

Two Old Armenian substantives derived from PIE  $*g^{wh}er-$  can be securely reconstructed for PIE: 1) PIE n.  $*g^{wh}ér-e/os-$  ‘warmth’ (Skt. n. *hāras-* ‘flame’, Gk. n. *θέρως* ‘summer’) > Arm. *j̄er* *o*-stem ‘warmth’; 2) PIE adj.  $*g^{wh}or-mó-$  or  $*g^{wh}er-mó-$  ‘warm’ (Skt. *gharmá-* ‘heat, warmth’, Av. *garəma-* ‘warm, warmth’, Alb. *zjarm* ‘fire’, Gk. *θερμός* ‘warm’) > Arm. *j̄erm*, *-oy* ‘warm; ardent, fervid’ (*EWAia* 1: 513, 515–516; 2: 804; *NIL*: 196–199; de Lamberterie 2013: 19f.). To these can be added Arm. *j̄ermn* ‘heat; fever’, as if from PIE  $*g^{wh}ér-mn-$ . These substantives had the full *e*-grade in the root at least since the common stage of Greek and Armenian (the root vocalism of the adjectival stem is ambiguous in Indo-Iranian). Rau (2009: 150) provided evidence in favour of the derivational pattern for building transitivity pairs based on a property concept root, in which the transitive

member was marked by the nasal suffix, while the intransitive member was suffixless in the present tense, cf. Skt. adj. *javás-* ‘quick’, mp. *jávate* intr. ‘go swiftly’, act. *junáti* tr. ‘make go swiftly’. According to that pattern, one might suggest (dial.) PIE *\*g<sup>wh</sup>ér-e/os-* next to intr. *\*g<sup>wh</sup>ér-e/o-* (Gk. *θέρομαι*) and tr. *\*g<sup>wh</sup>r-n(e)u-* (Arm. *ǰernum*, ? Skt. *ghṛṇoti*). In Proto-Armenian, the intransitive thematic stem could be replaced by the mediopassive forms of the transitive nasal stem; cf. the matches in the passive uses of Gk. *θέρομαι* and Arm. *ǰernum* in (1) and (3):

- (3) *Il.* 11, 666: <...> ἦ μένει εἰς ὃ κε δὴ νῆες θοαὶ ἄγχι θαλάσσης // Ἀργείων ἀέκητι πυρὸς δηΐοιο θέρωνται <...>. “Is he going to wait then till the running ships by the water are burned with consuming fire for all the Argives can do <...>.” (trans. R. Lattimore; <http://homer.library.northwestern.edu>).

If the aforementioned analysis is correct, *ǰeranim* ‘have a fever’ must be considered an inner-Armenian derivative from PFV *\*ǰer-* (or *\*g<sup>wh</sup>er-*) built as a verbal match to the inherited prototype of *ǰerm* (and *ǰermn*) ‘fever’. The semantic contrast between the autocausative meaning intr. ‘warm oneself up’ and the anticausative meaning intr. ‘become warm’ and ‘have a fever’ was maintained by means of the morphological contrast between the inherited *\*n(u)-*stem and the secondary *\*an(i)-*stem. A partial parallel to the outlined process is provided in the synchrony of Old Armenian by *ǰer* ‘warmth’ → *ǰer-anam* ‘become warm’ next to *ǰerm* ‘warm, fervid’ → *ǰerm-anam* ‘have a fever’.

See further discussion in Solta 1960: 73; Hamp 1975: 103; Klingenschmitt 1982: 160, 224, 248, 257, 278; Clackson 1994: 179f.; *EWAia* 1: 512f.; *LIV<sup>2</sup>*: 219f.; Rau 2009: 136–160; *EDAIL*: 556f.; Djahukian 2010: 651; de Lamberterie 2013: 19f.; Kortlandt 2018.

### § 2.1.1-2. IPFV *-n-* : PFV *-c’-*

§ 2.1.1-2.1. *ǰnkenum*, *ǰngenum* tr. ‘throw, cast’, aor. act. *ǰnkec’i*, 3sg. *ǰnkēc’*, aor. mp. *ǰnkec’ay*, past ptc. *ǰnkec’ eal*, ipv. *ǰnkea*,<sup>38</sup> caus. n/a (Bible+). *NBHL* 1: 779; *HAB* 2: 128; Künzle 2: 264; *RADCA*: 143; Zeilfelder 2004: 105.

◇ Prefixal verbs: *z-ǰnkenum* ‘reject (obligation)’ (*Job.* 40, 3 = 40, 8 in Cox 2006; Eznik Kołbac’i).<sup>39</sup>

<sup>38</sup> In view of 3 sg. aor. *ǰnkēc’*, the imperative form cannot be taken as original. Rather we are dealing here with an analogical replacement of ipv. *\*ǰnkē*, parallel to ipv. *gitea* (instead of *\*gita*) next to 3 sg. aor. *gitac’* (cf. Godel 1969 = 1982).

<sup>39</sup> Cox 2006: 256: *mi zǰnkenur zdatastan im* “do not shrug off my judgment” (trans. *EDAIL*: 280); Eznik Kołbac’i 2003: 444: <...> *ew nora ansasteal, zǰnkēc’* [ms. *zǰngēc’*; Maries & Mercier 1959: 434] *zpatuirann*. “<...> and man disobeyed Him and rejected His command.” (trans. Blanchard & Young



- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2).

- Actionality: ACHIEVEMENT.

- (1) *Sir.* 21, 18 (*LXX* = *Sir.* 21, 15): *Angoroyynn ibrew lsē thač lini, darjuc'anē zeres, ew zayn yets ankenu.* “<...> when a fool hears it, he laughs at it and throws it behind his back.”
- (2) *Dan.* 6, 24: <...> *ew acin zarsn č'araxawss zDanielē, ew ankec'an i gubn ariwcuc' <...>.* “<...> those men who had maliciously accused Daniel, and they cast them, their children and their wives into the lions' den.”

ETYM: Several etymologies have been proposed (see *EDAIL*: 280).

In my opinion, the verb can be derived from PArm. *\*and-kes-nu-* (Frisk 1944: 20–25). The root *ke-* can be derived from PIE *\*ges-*, cf. ON *kasta* ‘throw’, *kqstr* ‘pile’ (where *-t-* has been explained as a trace of a nominal suffix; see Klingenschmitt 1982: 249; cf. de Vries 1962: 342f.; the verb is missing in *EDPG*) and, less probably, Lat. *gerō* ‘bear, carry’ (cf. *aggerō* ‘pile up’, *congestus* ‘pile’) which is semantically distant and can be alternatively derived from PIE *\*h<sub>2</sub>g-es-* (*EDL*: 259).

The reconstruction of PArm. *\*and-kes-nu-* is further supported by the semantics; the verb describes a dislocation of a THEME-like participant from SOURCE to TARGET. While the TARGET is regularly expressed by the prepositional phrase *i/y- + acc.*, the preposition *and-* marks the ablative manner of motion originating in SOURCE, cf. *and-eluz-anem* ‘pro(-)duce (of sound)’ and *an-t'er-num* ‘pro(-)nounce; read aloud’.

The PFV stem can be formally explained by early PArm. PFV *\*ges-* or PFV *\*ges-s-*. See § 2.1.2-3.2 on the rise of *-c'*. The problem of the lengthened vowel in the 3sg. of the aorist *ankēc'* remains unsolved.

Ačaiyan (*HAB* 1: 128) derived *ankenum* from PIE *\*seng<sup>w</sup>-* ‘fall, sink’ (*LIV*<sup>2</sup>: 531f.). This reconstruction was supported by Godel (1965 = 1982: 24; 1969 = 1982: 41f.; 1975: 128), who analysed it as the reflex of PIE caus. *\*song<sup>w</sup>-e(ie)-*, and insisted that the verb originally had the meaning tr. ‘make fall’ and was the causative counterpart to the prototype of *ankanim* intr. ‘fall’ derived from the same PIE root. This etymology is accepted in Djahukian 2010: 249 and Viredaz 2003b: 76.<sup>40</sup> Although this solution is semantically acceptable, it is dubious in terms of morphology. If a new *\*n(u)-*stem had been added to *\*song<sup>w</sup>-eie-* before the disappearance of the intervocalic glide, the result would have been either *\*song<sup>w</sup>-eie-*

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1998: 60). It is noteworthy that the preverb *z-* accompanies the semantic shift from physical action to mental/emotional state; cf. a parallel shift in *gam* ‘come’ → *z-gam* ‘feel’.

<sup>40</sup> Viredaz notes, however, that the Ačaiyan and Godel’s etymology contradicts the rule proposed by Meillet (1903a = 1977: 311–314), according to which the initial *\*i-* and *\*u-* were not reduced to *ə-* before *-nk-*, *-ng-* and *-nk'*.

*nu-* (with the addition of the suffix) or *\*song<sup>w</sup>-ei-nu-* (with the replacement of the thematic vowel): these protoforms would have yielded *\* $\acute{a}nknu-$*  or *\* $\acute{a}nkinu-$* , respectively (cf. Kortlandt 1987 = 2003: 81). If the morphological innovation had taken place after PIE *\*sonk<sup>w</sup>-eie-* had changed to *\* $\acute{a}nkem$*  or *\* $\acute{a}ngem$* , one would expect *\* $\acute{a}nknum$*  and not  *$\acute{a}nke-num$* ; the *nu-* suffix is never added to a thematic vowel.<sup>41</sup> Another problem with Godel's analysis is the irregular 3 sg. aor. ind.  *$\acute{a}nk\acute{e}c'$* . Godel derived it from *\*sonk<sup>w</sup>-e(ie)-ske-t* and explained the vowel length with the final syllable lengthening, which he also assumed for *atuēs* 'fox' and *etēgn* 'reed' (Godel 1969 = 1982: 42). While *etēgn* does not have a good etymology (Olsen 1999: 936), the vocalism of Gk. *ἄλωπιξ* 'fox', Skt. *lopāsā-* 'a kind of jackal', and Arm. *atuēs* does not allow for an accurate reconstruction, in spite of the apparent semantic and formal similarity between these words (*EDAIL*: 42 with literature). Besides, the case of PIE *\*treies* 'three' > Arm. *erek'* 'id.' makes the final syllable lengthening highly problematic (Kortlandt 1987 = 2003: 81). Thus, by bringing together the etymologies of  *$\acute{a}nkenum$*  and *ankanim*, one is left with two morphological puzzles.

Kortlandt proposed to derive  *$\acute{a}nk\acute{e}c'$*  from PIE *\*g<sup>w</sup>elh<sub>1</sub>-* 'throw' (Gk. *βάλλω*).<sup>42</sup> According to him, PIE *\*g<sup>w</sup>elh<sub>1</sub>-* formed the "subjective" athematic aorist *\*g<sup>w</sup>(e)lh<sub>1</sub>-* beside the "objective" thematic aorist *\*g<sup>w</sup>lh<sub>1</sub>-e/o-* (see Kortlandt 1983b = 2010: 91–103 on the functional distribution of these two types). In 3 sg. aor. *\*g<sup>w</sup>elh<sub>1</sub>-t*, the vocalisation of the root-final laryngeal and the loss of *\*t* yielded PArm. 3 sg. aor. *\*g<sup>w</sup>ela*, which was replaced by the inner-Armenian sigmatic aorist PArm. 3 sg. aor. *\*g<sup>w</sup>el-s*. Then, the sequence *\*ls* changed to *\*lc*, whence PArm. 3 sg. aor. *\*kelc*, cf. *stelcanem* 'create' from PArm. *\*stel-s-* (Gk. *στέλλω* 'prepare'; Pedersen 1906: 427). Later on, the epenthetic *\*y* developed in front of *\*l* in the word-final syllable yielding *\*keylc*. This rule operated before the apocope next to the epenthesis of *\*w* in front of *\*l* after the apocope that one finds in *ewt* 'oil' from PArm. *\*elpos* (cf. Kortlandt 2008 = 2010: 333). The epenthesis did not happen in 1 sg. aor. *\*kelc-u* from *\*kelc-om* (that replaced the older athematic *\*kelc-m*; cf. Kortlandt 1981 = 2003: 36) because *\*l* was not in the final syllable. After the apocope, the 1 sg. ending *\*-i* was added, whence 1 sg. aor. *\*kelc-i* beside 3 sg. aor. *\*keylc*. Then, the *\*l* was lost in front of *\*c* in the three-consonant cluster in parallel to the loss of *\*l* before *\*t* in *kat'n* 'milk' < *\*katt'n* < acc. *\*glktm* beside dial. *kaxc'* < *\*katc'* < nom. *\*glkts* (Kortlandt 1985 = 2003: 65). Thus, 3 sg. aor. *\*keylc* yielded *\*keyc*. After that, the word-final *\*c* was replaced by the sigmatic aorist marker *\*c'* on the analogy of stems with roots in a vowel, cf. *\*dh<sub>3</sub>-s-* > aor. subj. 3 sg. *tac'ē* (Kortlandt 1995 =

<sup>41</sup> Godel's justification of the morphological change by evoking Gk. act. *ἔννυμι* 'dress smb.' seems unsuccessful since exactly this lexical item can be reconstructed with the *\*nu-* stem and the mediopassive voice (see § 2.1.1-2.6).

<sup>42</sup> The scenario outlined below has been kindly presented to me by Kortlandt (*p. c.*) and replaces his earlier account of the etymology in Kortlandt 1987 = 2003: 81.

2003: 109). This replacement only happened in 3 sg. aor. \*keyc → \*keyc' but not in the other forms of the aorist because \*keyc was an isolated form (cf. 1 sg. \*kelc-i) and \*c was not word-final in the other forms. At this point, the \*lc was analogically replaced by \*c' throughout the aorist paradigm, thus, 1 sg. aor. \*kelc-i → \*kec'-i beside 3 sg. aor. \*keyc'. This way, with the addition of the preverb *and-*, one arrives at Arm. 1 sg. aor. *ənkec'i*, 3 sg. *ənkēc'*.

In the present stem, PIE \*g<sup>w</sup>l-ne/n-h<sub>1</sub>- changed to PArm. \*kal-nu-, then \*kel-nu- (on the analogy of the vocalism of the aorist), then \*ket-u- (with \*ln > \*t; cf. Pedersen 1906: 355) and, finally, *ən-ke-nu-* with the reanalysis of the root boundary based on the aorist stems 1 sg. aor. *ən-ke-c'-i*.

Concerning *stetcanem*, aor. *stetci*, which would be an immediate counter-example to the analysis outlined above, Kortlandt assumes that \*stelc > \*steylc changed back to \*stelc (without the replacement of \*c by \*c') on the analogy of other forms of the aorist where no epenthesis of \*y occurred; that levelling did not happen to the prototype of *ənkēc'* due to the higher frequency of the latter.

Semantically, Kortlandt's solution is very convincing. Altogether, this etymology, based on the assumption of three weakly supported sound laws and a set of analogical levellings, remains disputable.

§ 2.1.1-2.2. *Ənt'erinum* tr. 'proclaim, read aloud', aor. mp. *ənt'erc'ay*, past ptc. *ənt'erc'eal*, caus. n/a (Bible+). *NBHL* 1: 777; *HAB* 2: 126f.; *Künzle* 2: 262; *RADCA*: 144.

- Transitivity: A-O (1).
- Actionality: ACHIEVEMENT/ACTIVITY.

(1) *Ex. 24, 7: Ew areal zgir uxtin ənt'erc'aw yakanjš žotovrdeann <...>. "Then he took the book of the covenant and read it in the hearing of the people <...>."*

ETYM: The dissimilation of -c'c'- to -sc'-, which occurred only in recent Proto-Armenian polysyllabic stems, is not observable in aor. subj. *ənt'erc'c'i-*, which points to an underlying monosyllabic root (Meillet 1936: 122, 131; Jensen 1959: 98). Meillet was certainly correct in assuming that one deals here with a prefixal verb in *and-*. The derivational semantics of *and-* is motivated given that the verb designates a trajectory of THEME (message) from SOURCE (speaker) to TARGET (listeners); cf. *ənkenum* (see § 2.1.1-2.1).<sup>43</sup> Note the frequent use of the explicit TARGET argument with this verb, cf. *yakanjš* 'to the ears' in (1).

In my opinion, the best solution is to derive Arm. IPFV *o't'ernu-* and PFV *o't'erc'-* from PArm. \*terK-nu- and \*terK-s-, respectively. PArm. \*terK-, perhaps, goes back to PIE \*terK-

<sup>43</sup> *Ən(d)-kenum* (aor. subj. *ənkesc'i-*) should be older than *ən(d)-t'erinum* 'read' (aor. subj. *ənt'erc'c'i-*) as it should have been derived at the stage prior to the dissimilation rule \*c'c' > \*sc'.

tr. ‘release; let go’ (where *\*K* is any velar) attested in Hitt. *tarna-* tr. ‘release; permit’, Toch. B *tärkäna-* tr. ‘let go; emit; utter’, OCS *istręgnęti* ‘emit; let go; utter’. PIE *\*terg<sup>(w)</sup>-*, reconstructed for OCS in *LIV*<sup>2</sup>: 631, is perhaps the best option. The velar was lost in the IPFV stem within the three-consonant cluster, cf. PIE *\*b<sup>h</sup>erǵ<sup>h</sup>-* > PArm *\*b<sup>h</sup>arǵ<sup>h</sup>-naH-* > Arm. *bar<sup>h</sup>nam*. The PFV *c*’-stem can be explained by a PArm. *\*s*-stem. The stem-final *\*-g<sup>(w)</sup>s-* would perhaps yield *-c-* with a subsequent analogical adjustment of the affricate to the productive aorist marker *-c’-* (see § 1.4.2; contrary to the direct change to *-c’-* proposed in Kocharov 2017). Such analysis is supported by the fact that there was no secondary spread of *\*-c’-* to roots ending in a consonant.

An alternative etymology that derives the verb from PIE *\*ter-* ‘talk’ (Djahukian 2010: 249) does not take into account the issue of the PFV *c*’-stem.

§ 2.1.1-2.3. *Lnum* tr., intr. ‘fill up; augment’, *fig.* ‘accomplish’ (2*Mac.* 3, 36), aor. act. *lc’i*, mp. *lc’ay*, ptc. *lc’eal*, caus. *lc’uc’anem* tr. ‘fill up’ (Bible+). *NBHL* 1: 891; *HAB* 2: 278ff.; Künzle 2: 318f.; *RADCA*: 143; Zeilfelder 2004: 125.

◇ Related words: adj. *li* ‘full’ (Bible+).

◇ Prefixal verbs: *ar’-lnum* tr. ‘fill up’ (Eznik Kořbac’i), ptc. *ar’-lc’eal* (Agat’angelos+). The only occurrence of the IPFV stem *ar’-lnu-* (7) is found in the 1826 Venice edition (Eznik Kořbac’i 1826 = *LALT*).<sup>44</sup> In Mariès & Mercier 1959, the reading *ar’-lnu-* is changed to *lnu-* without any indication of a variant reading. As one can see in (7), there seems to be no particular aspectual contrast between the prefixal and simplex verbs.

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2); A<sub>O</sub>-O<sub>E</sub> (3); S<sub>E</sub>-E<sub>O</sub> (4); S<sub>O</sub> (5).

The verb is used in a figurative sense for different types of fulfillment, e.g. temporal (5). The morphological causative is synonymous to the active voice form of the base verb (6).

- Actionality: ACHIEVEMENT/ACCOMPLISHMENT.

- (1) *Prov.* 28, 8: Or *l<sup>nu</sup> ztun iwr i tokoseac’ ew i vařxic’ řožovē aynmik or ořormi ařk’atac’*. “He who increases his wealth by interest and usury gathers it for him who is gracious to the poor.”
- (2) *2Sam.* 4, 6: *Minč’ew lc’an amank’n, ew asē c’ordisn iwr*. “When the vessels were full, she said to her son <...>.”
- (3) *1Sam.* 22, 35: <...> *ew hosēr ariwnn i virē anti ew lnoyr zcoc’ kařac’n* <...>. “<...> and the blood from the wound ran into the bottom of the chariot.”

<sup>44</sup> See Ačaryan & Ter-Mkrč’ean 1904 on the manuscript basis of Eznik Kořbac’i 1826.

- (4) *Gen. 6, 11: Ew apakanec'aw erkir arāji Astucoy, ew lc'aw erkir anirawut'eambk'.* “Now the earth was corrupt in the sight of God, and the earth was filled with violence.”
- (5) *Esther 2, 15: Ew ibrew lnoyr žamanakn Est'eray <...>.* “Now when the turn of [*lit.* “the time fulfilled for” — PK.] Esther <...>.”
- (6) *Ps. 15, 11 (LXX = Ps. 16, 11): <...> lc'uc'er zis uraxut'eamb eresac' k'oc' i k'atc'rut'enē <...>.* “<...> in Your presence is fullness of joy <...>.”
- (7) *Eznik Kołbac'i 2003: 484: Ard, oč' et'ē hakaṛak inč' mimeanc' en Girk', ayl zor mioyn t'oteal ē, miwsn lnu novin hogwov <...>.* “Now it is not the case that any of the scriptural quotations contradict one another, but whatever has been left out by one, the other supplies by means of the same Spirit.” (trans. Blanchard & Young 1998: 152).

ETYM: Arm. pres. *lnu-* from \**li-nu-* (cf. 3sg. aor. *elic'*) continues PArm. \**pleh<sub>1</sub>-nu-* from PIE \**pleh<sub>1</sub>-* act. ‘make full’, mp. ‘be(come) full’ (Godel 1965 = 1982: 20; Klingenschmitt 1982: 253ff.; LIV<sup>2</sup>: 482f.; EDAIL 309f.; Djahukian 2010: 295f.).

There is circumstantial evidence in favour of the PIE IPFV nasal stem. The Indo-Iranian data point to an infixated Proto-Indo-Iranian stem \**p<sub>l</sub>-né/n-h<sub>1</sub>-* and its thematicised variant \**p<sub>l</sub>-nh<sub>1</sub>-e/o-*, cf. Skt. athem. *pṛṇāti* and them. *pṛṇāti*, OAv. them. ipv. *pərənā* (*EWAia* 2: 89f.; *AiW*: 850; Kellens 1984: 177; 1995: 33). In Avestan, the nasal stem is attested once in *Y* 28, 10: *aēibyō pərənā āpanāiš kāməm* “for them do Thou fulfill their longing with these attainments” (Insler 1975: 26f.). Kellens (1984: 181) noted the close parallelism between the cited Avestan context and *RV* 1.16.9 (*sémam naḥ kāmam á pṛṇa góbhīr ásvaiḥ śatakṛato* “Fulfill this desire of ours with cows and horses, o you of a hundred resolves.” trans. Jamison & Brereton 2014: 109). The Indo-Iranian evidence alone is not sufficient to reconstruct the infixated stem for core PIE. OIr. *línaid* ‘make full’ is either a remake of the PIE nasal stem or a denominal derivative of *lín* ‘full’. The nasal stem behind Lat. *polleō* ‘be potent’ is uncertain. Alb. *m-blon* (dial. *plonj*) ‘fill’ may reflect a nasal suffix stem \**p<sub>l</sub>h<sub>1</sub>-n<sub>je</sub>-*. An immediate reconstruction of Arm. *lnum* is dial. PIE pres. \**pleh<sub>1</sub>-nu-*, aor. \**pleh<sub>1</sub>-(s)-* (see § 2.1.2-3 for further discussion of the PFV stem). This paradigmatic type could replace the older PIE infixated type, or be derived from the adjectival stem (cf. Mid. Arm. *li-anam* ‘become full’ derived from adj. *li* ‘full’ by a productive derivational model).

§ 2.1.1-2.4. *Xnum* tr., intr. ‘close’, aor. act. *xc'i*, mp. *xc'ay*, past ptc. *xc'eal*, caus. n/a (Bible+). *NBHL* 1: 955, 995; *HAB* 2: 371; *RADCA*: 143.

- Transitivity: A-O (1); S<sub>0</sub>-E<sub>A</sub> (2); S<sub>0</sub> (3).
- Actionality: ACHIEVEMENT.

Personal verb forms with a *n(u)*-stem are attested only two times in the Bible, both times with the habitual meaning.

- (1) *Acts* 7, 56 (NA28 = *Acts* 7, 57): *Ałatakeal i jayn mec, xc'in zakanjš iwreanc', ew dimec'in ar hasarak i veray nora.* “But they cried out with a loud voice, and covered their ears and rushed at him with one impulse.”
- (2) *Rom.* 3, 19: <...> *aynoc'ik or and awrinawk'n en, asen: zi amenayn beran xc'ci' <...>.* “<...> it speaks to those who are [h]under the Law, so that every mouth may be closed <...>.”
- (3) *Gen.* 8, 2: *Ew xc'an atbewrk' andndoc' ew sahan' erknic' <...>.* “Also the fountains of the deep and the floodgates of the sky were closed <...>.”

ETYM: The verb has no established etymology (Klingenschmitt 1982: 250). The comparison to Gk. *σχάω* ‘cut open, tear open’, as if from PIE *\*(s)kei-(d/t-)* ‘cut’ (Djahukian 2010: 332), seems dubious for semantic and formal reasons. Semantically, it requires polysemy ‘cut; fig. stop’. Gk. *σχάω* cannot be separated from Skt. *chyāti* ‘cut (especially of skin)’ (see Kulikov 2012: 661f. for lexicographical details) and must go back to PIE *\*sk<sup>(h)</sup>eh<sub>2</sub>(i)-* (*LIV*<sup>2</sup>: 547), which would yield Arm. <sup>x</sup>*xa-*.

§ 2.1.1-2.5. *Yenum* intr. ‘rely on (smb.), lean upon (so.), hope’, aor. act. *yec'i*, aor. mp. *yec'ay*, past ptc. *yec'eal*, caus. n/a (Bible+). *NBHL* 2: 355; *HAB* 3: 395f.; *RADCA*: 143.

- Transitivity: S<sub>A</sub>-E.

The verb shows the variation of the active and mediopassive forms in the intransitive construction. The active voice is marginally found in the *ac'*-aorist of stative verbs, cf. *kam*, aor. *kac'i* ‘stand’, *mnam*, aor. *mnac'i* ‘remain’, etc. (cf. Meillet 1910–1911a = 1962: 85–104). This phenomenon may tentatively be explained by the autocausative uses of such verb, where the subject’s control over the state is reflected by the active voice assignment.

The peripheral argument, expressing the SUPPORT argument, is commonly marked by the prepositional phrase *i/y-* + acc. The preverb *y-* copies the preposition with *yenum* from *\*y-(h)enum*.

- Actionality: ACHIEVEMENT/ACTIVITY.

- (1) *2Sam.* 18, 4: <...> *ew ekac' ark'ay yec' ar drann <...>.* So the king stood [*lit.* “stood and leaned” — PK.] beside the gate <...>.”
- (2) *Judg.* 16, 29: *Ew buřn ehar Samp'son zerkoc'unc' seanc'n mijnoc', yoroc' veray tunn hastateal kayr, ew yec'aw i nosa <...>.* “Samson grasped the two middle pillars on which the house rested, and braced himself against them <...>.”

ETYM: The verb is prefixal, as one can see from 3sg. aor. act. *yec'* without an augment, perhaps from PArm. *\*y-(h)es-* (Klingenschmitt 1982: 249ff.). This reconstruction does not lead to any reliable etymology. One may tentatively compare PArm. *\*hes-* to Hitt. *āšš-* ‘remain, stay’; see Kloekhorst 2008: 214f., where PIE *\*h<sub>1</sub>eNs-* is reconstructed in order to account for the vocalism of the Hittite verb. Djahukian (2010: 552) derives the verb from the root *\*es-* ‘sit’ without further etymological details.

§ 2.1.1-2.6. *Zgenum* tr., intr. ‘wear’; *fig.* ‘put on (moral, social obligations)’, aor. mp. *zgec'ay*, past ptc. *zgec'eal*, ipv. *zgec'ir*, caus. *zgec'uc'anem* ‘put so. on smb.’ (Bible+). *NBHL* 1: 727; *HAB* 2: 88; Künzle 2: 243f.; *RADCA*: 143; Zeilfelder 2004: 99.

◇ Related substantives: *zgest*, *u*-stem ‘clothes’.

- Transitivity:  $S_A = S_E - E_O$  (1);  $A - O = A_E - O$  (2).

The transitive use of the verb represents the reflexive construction derived from the underlying extended transitive verb ‘put so. on smb., clothe smb. with so.’, the latter being synchronically expressed by the morphological causative (3). The reflexive derivation encodes co-reference of the obligatory E argument with the A argument. The reflexive derivation is marked by the preposition *z-* added to the verbal stem.

- Actionality: ACHIEVEMENT (2), ACTIVITY (1).

In (1), *zgec'aw* does not express a momentary event localised in time and rather expresses a typical practice of Solomon at a certain time period. By contrast, *zgec'aw* describes a momentary event in a series of reported events in (2).

- (1) *Mt.* 6, 29: <...> *ew oč' Sotomovn yamenayn p'aršn iwrum zgec'aw ibrew zmi i noc'anē.* “<...> not even Solomon in all his glory clothed himself like one of these.”
- (2) *Gen.* 37, 34: *Ew pata'reac' zhanderjs iwr, ew k'urj zgec'aw i veray mijoy iwroy <...>.* “So Jacob tore his clothes, and put sackcloth on his loins <...>.”
- (3) *Ex.* 28, 41: *Ew zgec'usc'es zayn Aharoni etbawr k'um <...>.* “You shall put them on Aaron your brother <...>.”

ETYM: The IPFV stem *\*ues-nu-* can be securely reconstructed for the PIE dialectal ancestor of the Greek and Armenian branches, cf. Gk. ἔννυμι, -μαι (Clackson 1994: 178–180; *EDAIL*: 274; Djahukian 2010: 235f.). The expected *\*zginum* (cf. Arm. *gin* ‘price’ from PIE *\*ues-no-*) was restored to *zgenum* on the analogy of the aorist (*zgec'ay*) or/and the noun (*zgest*, *u*-stem; PArm. *\*ges-tu-* or *\*ges-ti-* ‘clothes’, cf. Hsch. γέστια ‘clothing’, Lat. *vestis* f. ‘clothes, garment’, Go. *wasti* ‘garment’); see §2.1.3-3.1 on the formation of the PFV *c'*-stem.

In PIE, the intransitive or reflexive alternation of the verb with the meaning ‘wear so.’ and lexical aspectual features [+dynamic] / [–telic] / [+durative], was probably expressed

by mp. *\*ues-*, cf. Hitt. mp. *weš-*, Skt. mp. *váste*, and Gk. *ἐπί-εσται*.<sup>45</sup> The corresponding extended transitive meaning ‘clothe smb. with so.’ was expressed by the PIE *\*eie/o-*causative, cf. Hitt. *waššiya-*,<sup>46</sup> Skt. *vāsáyati*, Go. *wasjan*, Alb. *vesh* (see *LIV*<sup>2</sup>: 692f.).<sup>47</sup> The causative derivation was accompanied by a change in the telicity parameter from [– telic] to [+ telic]. Presumably, a *\*n(e)u-*suffix was introduced into the IPFV stem in the common source of Ancient Greek and Old Armenian in order to form an ambitransitive verb tr. ‘clothe smb.’ (Gk. *ἔννυμι*), intr. ‘clothe oneself’ (Gk. *ἔννυμαι*, Arm. *zgenum*) with the lexical aspectual features [+ dynamic], [+ telic], and [+durative].<sup>48</sup> In Proto-Armenian, after the loss of the inherited voice endings, the reflexive intransitive form of the prototype of *zgenum* became the default one, while its transitive counterpart was replaced by a derived morphological causative *zgec’-uc’anem* ‘clothe smb. with so.’

### § 2.1.1-3. IPFV *-n-* : PFV *-i-*

§ 2.1.1-3.1. *C’acnum* intr. ‘refrain of so.; withdraw from so.’, aor. mp. *c’aceay*, ptc. intr. *c’acuc’eal*, caus. *c’acuc’anem* tr. ‘turn away’ (Bible, Łazar P’arpec’i). *NBHL* 2: 910; *HAB* 4: 447; *RADCA*: 143.

◇ Related words: adj. *c’ac*, *c’acun* ‘low; modest’.

In view of *c’acun* ‘low; modest’, the lexical meaning of the verb is described as ‘become or grow low, go down, subside, fall, diminish, lower, be humbled; calm, stoop, be appeased’ in (Bedrossian 1875–1879), ‘humiliate oneself, calm down’ (Olsen 1999: 604), ‘become low; subdue; cease, become calm’ (*EDAIL*: 621). The verb has a core oblique valency to the SOURCE argument expressed by the ablative *i/y-* phrase; cf. *i č’areac’n* ‘from (doing) evil things’ in (1) and *yeresac’ erkrē* in (3) ‘from the face of the earth’, and the ablative value of the first clause in (2). The original meaning of the verb must have been ‘refrain (from); retreat (from)’, wherefrom *c’acun* ‘reserved; cautious’. This reading is supported by the meaning of the causative *c’acuc’anem* ‘turn so. away from smb.’, cf. (4) with expressed core oblique SOURCE argument. Therefore, the meaning ‘be calm, modest’ is a result of the semantic shift from a motion verb to a psych verb.

<sup>45</sup> See Clackson 2007: 150 on the evaluation of the original lexical meaning based on the reconstructions of the stative (3 sg. *\*ues-o*) and reflexive (3 sg. *\*ues-to*) forms.

<sup>46</sup> See *EDHIL*: 1006f. and Tischler 2016: 509–519 for discussion and attestations.

<sup>47</sup> The active transitive construction was encoded for this verb either with the double accusative construction (e.g. in Hittite, Sanskrit, Ancient Greek, and Old Armenian), or with accusative marking of O and dative marking of E (e.g. in Hittite, Sanskrit, and Old Armenian).

<sup>48</sup> The use of the *\*n(e)u-*stem for derived transitive verbs is compatible with the causative derivational semantics of the suffix in other branches, particularly in Anatolian. It finds parallel in the formation of Hitt. *unu-* tr. ‘adorn’ from *\*h<sub>3</sub>u-n(e)u-* (Shatskov 2017: 203f.).



- Transitivity: S<sub>A</sub>-E (1, 2); S<sub>O</sub>-E (3).
  - Actionality: ACHIEVEMENT (1), ACTIVITY (2).
- (1) *Ex. 32, 14: Ew c'aceaw Tēr i č'areac'n zor asac' arnel žoťovrdean iwrum.* "So the Lord changed His mind about the harm which He said He would do to His people."
  - (2) Łazar P'arpec'i (2003; 2205): <...> *ew parteal erandeann č'arut'iwnn andēn ew and dadareal c'acnun.* "<...> and having overcome the yesterday's misfortune they remain there and refrain (of it)." (trans. PK.; the fragment is omitted in Thomson 1991: 39).
  - (3) *Gen. 8, 8: Ew arjakeac' zatawnin zhet nora tesanel t'ē c'acuc'eal ic'ē žurn yeresac' erkrē.* "Then he sent out a dove from him, to see if the water was abated from the face of the land <...>."
  - (4) *Num. 25, 11: P'eneēs, ordi Etiazaru, ordwoy Aharoni k'ahanayi, c'acoyc' zsrmtut'iw n im yordwoc'n Israyeli <...>.* "Phinehas the son of Eleazar, the son of Aaron the priest, has turned away My wrath from the sons of Israel <...>."

ETYM: According to the traditional etymology, the verb goes back to *\*(s)k(e)h<sub>2</sub>d-&-* (*\*kad-* in *LIV*<sup>2</sup>: 318); cf. Lat. *cadō*, Skt. *śad-* 'fall down' (*EWAia* 2: 607). Martirosyan (*EDAIL*: 621) derives *c'ac-* from the sigmatic aorist *\*skēh<sub>2</sub>d-s-*, against the previous attempts to explain the root auslaut as a reflex of *\*ie/o-*-present (*IEW*: 516; Djahukian 2010: 741). In my view, the etymology is unreliable for semantic reasons, even if one assumes that the verb had an *\*s-*mobile variant that was inherited into Proto-Armenian.

§ 2.1.1-3.2. *C'asnum* intr. 'be angry', aor. *c'aseay*, past ptc. intr. *c'asuc'eal*, caus. *c'asuc'anem* tr. 'anger' (Bible+). *NBHL* 2: 910; *HAB* 4: 451; *Künzle* 2: 668; *RADCA*: 143; *Zeilfelder* 2004: 262. ◇ Related words: *c'asumn* 'anger'.

- Transitivity: S<sub>O</sub> (S<sub>A</sub>).
- As is often the case with mental process verbs, a variable degree of subject's control can be implied by the context. It is difficult to draw a line between the agentive and non-agentive readings of a predicate. In particular, such predicates allow to form imperatives (3), unlike prototypical non-agentive predicates.
- Actionality: ACHIEVEMENT/STATE (ACTIVITY).
- The choice between the STATE and ACTIVITY construals depends on the interpretation of the subject as non-agentive or agentive, respectively. The attested uses of aor. *c'aseay* do not allow to unambiguously distinguish between the punctive and stative readings ('got angry at once' or 'was angry for a while'), cf. (2). No contexts have been found with the [+dynamic] use of the IPFV stem and the meaning 'become (gradually) angry'.

- (1) *1Esdras 4, 31: Ew ar̄ ays t'agaword oč' c'asnoyr <...>. "And for this the kind was not angry <...>." (trans. PK).*
- (2) *Rev. 12, 17: Ew c'aseaw višapn ənd knoĵn <...>. "So the dragon was enraged with the woman <...>."*
- (3) *Tob. 5, 19 (LXX = Tob. 5, 14): Oĵ ekir etbayr ew mi c'asnur inj zi xndrec'i zazgatoĥmn k'o gitel <...>. "Welcome! God save you, brother. Do not feel bitter toward me, brother, because I wanted to be sure about your ancestry."*

ETYM: Pedersen (1905: 199; 1906: 426) compared *c'asnum* and *c'aw* 'pain' to Skt. *kṣāpayati* 'burn' and derived the verb from the sigmatic aorist \**kṣāp-s-*. The etymology was accepted by Djahukian in 1982: 185, but abandoned in 2010: 742. It is also accepted in Kortlandt (1994 = 2003: 105f.). But Arm. *c'aw* must be rather compared to Go. *skapis* 'harm' (PIE \**skh<sub>1</sub>th<sub>2</sub>o-*, as per Klingenschmitt 1982: 83, or PIE \**skeh<sub>1</sub>-te/o-*, as per Olsen 1999: 180) and Skt. *kṣāpáyati* is a secondary causative, in which *-p-* etymologically does not belong to the root, perhaps, from PIE \**d<sup>h</sup>g<sup>wh</sup>-eh<sub>1</sub>-* (EWAia 1: 423f., 430; LIV<sup>2</sup>: 133f.). It follows that Arm. *c'asnum* does not have a secure etymology.

§ 2.1.1-3.4. *K'atc'num* intr. 'be hungry, starve', aor. mp. *k'atc'eay*, past ptc. *k'atc'eal*, caus. n/a (Elišē). NBHL 2: 972; HAB 4: 545; Künzle 2: 684; RADCA: 144.

◇ Competing paradigmatic classes: *k'atc'enam* (Bible).

◇ Related words: *k'atc'o-*, *i*-stem 'hunger; hungry' (Bible+).

- Transitivity: S<sub>0</sub>.
- Actionality: STATE.

- (1) Elišē 1957: 176. *Et'ē šat matuc'anēm k' nma zkerakurn, yoyž k'atc'nu, ew et'ē bnaw č'tamk', amenewin anc'anē <...>. "Even if we give it [fire] much nourishment, it is greatly hungry; and if give none at all, it goes out completely." (trans. Thomson 1982: 223).*
- (2) *Phil. 4, 12: <...> yamenayni amenewin xelamut em ew yagel ew k'atc'enal, ew arawelul ew nuazel <...>. "In any and all circumstances I have learned the secret of being well-fed and of going hungry, of having plenty and of being in need."*

ETYM: Reconstructing the IPFV and PFV stems is complicated by the generalisation of one root shape for the verb and noun, so that it is not clear whether the root-final affricate should be explained by a verbal or nominal stem.

Klingenschmitt (1982: 84) reconstructed PIE \**sulks-* for the verb, without further morphological explanation. Djahukian (1982: 185, 2010: 774) considered the verb as derived from the noun *k'atc'*, which, in turn, came from \**sulđ-sk-*, a suffixed stem derived from PIE

\**sueld-* ‘burn; have hunger’, cf. ON *sultr* ‘hunger’ (see also Olsen 1999: 56; *LIV*<sup>2</sup>: 609).<sup>49</sup> Kroonen (*EDPG*: 499) draws attention to the variation of the root shape within Germanic, cf. OE *sweltan* ‘perish’ (PIE \**sueld-*) vs. OE *swelan* ‘burn’ (PIE \**suelh<sub>1</sub>-*), and argues that the Germanic words are semantically too distant from the putative Old Armenian cognate *k’atc’*-. Although the semantic change ‘burn’ → ‘feel hunger’ seems trivial, details of the phonological (PArm. \**Rdsk-* > Arm. *-Rc’-*) and morphological (no comparative evidence for a \**ske/o*-stem in this root; no model for a denominal *n(u)*-stem) analysis of the Old Armenian noun and verb are obscure.

§ 2.1.1-3.5. *P’axnum* intr. ‘flee’, aor. mp. *p’axeay*, past ptc. *p’axuc’eal*, caus. *p’axuc’anem* tr. ‘make flee’ (Bible). *NBHL* 2: 923f.; *HAB* 4: 470; *RADCA*: 143.

◇ Competing paradigmatic classes: *p’axč’im*, aor. *p’axeay* ‘flee’.

The *n(u)*-stem occurs in the source material in the present subjunctive form (1) which co-occurs with its competing *č’(i)*-stem in one sentence.<sup>50</sup> Here, the IPFV *n(u)*-stem is used in the narrative past to describe a punctive event in a series of past events. The grammatical contrast between the *č’(i)*- and *n(u)*-stems can be tentatively described as marking the durative phase of atelic ablative motion (‘ran away from a lion’; *φύγη έκ*), and telic allative motion (‘run into a house’; *είσπηδήση είς*), respectively. See § 2.1.2-2.2 on the stem variation pattern. Although the present subjunctive of the *n(u)*-stem is used with an ablative phrase in (2), it describes a [+telic] event in the future. This use is contrasted with the use of the *č’(i)*-stem in (3), where the present indicative form is not specified as telic.

◇ Related words: *p’axust*, gen. sg. *p’axusti*, *p’axustean* ‘flight; escape’ (Bible+).<sup>51</sup>

- Transitivity: *S<sub>A</sub>*-E.
- Actionality: ACHIEVEMENT.

(1) *Amos* 5, 19: *Zor awrinak t’ē p’axic’ē mard yeresac’ ariwcu, ew patahesc’ē nma arj, ew p’axnuc’u i tun, ew yec’usc’ē zjers iwr yormn, ew harkanic’ē zna awj <...>*. “<...> as if someone fled from a lion, and was met by a bear; or went into the house and rested a hand against the wall, and was bitten by a snake.”

<sup>49</sup> Pedersen (1906: 429) reconstructed adj. \**sułd-su-s* ‘hungry’ whence n. *k’atc’* ‘hunger’ and adj. *k’atc’r* ‘sweet’ with the semantic chain ‘hunger’ > ‘appetising’ > ‘sweet’.

<sup>50</sup> According to *NBHL* 2: 923, the *n(u)*-stem is attested in the post-classical texts (Grigor Magistros, Grigor Narekac’i, Nerses Shnorhali, and John Climacus).

<sup>51</sup> Note the difference in the choice of the suffix vowel between *p’ax-u-st* and *hing-i-st* ‘repose’ (next to *hangč’im*, aor. *hangeay* ‘take rest’). According to Weitenberg (1980), *p’axust* is a relatively late formation, derived in the period of the moderate productivity of the suffix *-ust-*.

- (2) *Mt. 23, 33: Awjk', cnundk' iżic', ziard p'axnuc'uk' i datastanē gehenin?* “You snakes, you brood of vipers! How can you escape being sentenced to hell?”
- (3) *1Sam. 22, 17: Matik' ew spanēk' zk'ahanaysn Tearn, zi jeṛn noc'a and Dawt'i ē, zi gitac'in et'ē p'axč'i na, ew oč' yaytnec'in yunkn im.* “Turn and kill the priests of the Lord, because their hand also is with David; they knew that he fled, and did not disclose it to me.”

ETYM: The etymology is unknown; see Pedersen 1906: 356; Klingenschmitt 1982: 72, 255; Olsen 1999: 617ff.; Djahukian 2010: 755.

§ 2.1.1-3.6. *Pšnum* intr. ‘watch; stare’ (\*Bible, see below; Elišē; John Chrysostom [*Timoty; Isaia*]; Severian of Gabala; *Book of Chries*); aor. mp. *pšey* (Severian of Gabala), past ptc. *pšuc'eal* (Bible, Elišē), caus. *pšuc'anem* tr. ‘make watch’ (Eznik Kołbac'i, Elišē, P'awstos Buzandac'i, but not in the Bible, against *RADCA*: 118). *NBHL* 2: 658; *HAB* 4: 83f.; *RADCA*: 144; Zeilfelder 2004: 238.

*Pšnum* is found in *Sir.* 9, 5 (*mi pšnur* “do not look at”) in some of the Bible editions. In fact, this passage reflects Voskan Erevanc'i's Armenian translation of the *Book of Sirah* from the Latin Vulgate (Amsterdam 1666); this translation was reproduced by Mkhitar Sebastac'i in his Bible edition (Venice 1733). In the codex copied in the 15<sup>th</sup> century, first published in Zohrapian's 1833 edition (p. 37) and reproduced in Bagratuni's 1860 edition (p. 685), instead of *mi pšnur*, one finds *mi znner*, which may well be the original reading. Whatever is the status of the manuscript, on which Zohrapian's 1833 edition is based, *mi pšnur* is no more than a 17<sup>th</sup> century translation of Lat. *ne conspicias*.

Four out of six attestations of the verb in the Bible are participles modifying the main verb *hayim* with the agentive meaning ‘watch’ (*Dan.* 7, 8; *Acts* 1, 10; *Acts* 11, 6; *Jas.* 1, 23).

◇ Competing paradigmatic classes: *pšnem*, aor. *pšey*. The imperfective stem *pšne-* is attested in the form of gerunds *i pšneloy* (*Sir.* 41, 26),<sup>52</sup> *pšnelov* (*Book of Chries*; Severian of Gabala; Gregory of Nyssa, 8<sup>th</sup> century, apud *NBHL*) and participle *pšneal* (Basil of Caesarea apud *NBHL*). Of these, the Bible context is missing in the Zohrab Bible (1805) and is found in Zohrapian's 1833 edition, p. 149 (*Sir.* 41, 21–26): *Amač'ec'ek' <...> i pšneloy arnakin knoĵ.* (lit.) “Be ashamed of <...> gazing at another man's wife.”

- Transitivity: S<sub>A</sub>-E.

The verb has an obligatory peripheral argument expressing the TARGET argument, marked by the prepositional phrase *and* + acc.

<sup>52</sup> *LALT* erroneously cites *Sir.* 41, 28 instead of 26 and *pnč'eloy* instead of *pšneloy* in the Zohrapian 1833 edition.

• Actionality: ACTIVITY.

- (1) Elišē 2003: 617: *Ew amenayn vzurkk'n ew patuakan naxarark'n, or nstēin yatenin ew unkn dnēin yeŷyetuk lezui nora, amač'ec'eal koranayin ew ənd erkir pəšnuin, ew zglux i ver oč' karēin hambarnal.* “All the great and honorable nobles who were sitting in the Council and attending to his disingenuous speech bent down in shame and stared at the ground, unable to lift up their heads.” (trans. Thomson 1982: 136).
- (2) *Book of Chries* 1865: 471: <...> *ənd or xelac'norealk' anjanjroyt' pšnun zborol gišers zawrēn yimareloc'.* “<...> at which [stars] raving people diligently stare all nights like mad.” (trans. PK).

ETYM: No secure etymology. Djahukian (2010: 637) may be right in assuming an East-Caucasian source, cf. Abaza *pšra* ‘look’. An Indo-European origin is complicated by the initial *p-*, as if from PIE *\*b-* that was admittedly a particularly rare anlaut in PIE.

Klingenschmitt (1982: 258f., 239) suggested that *\*pš-nu-* is a loanword from Ir. *\*pac-nu-* comparable to Av. *\*spašnu-* in a corrupted *spašnuθā* (Y 53.6) < *\*spašnuθā* from *\*spac-* otherwise attested in Skt. *paśya-*, Av. *spasiia-* ‘see, stare’ (Geldner 1890: 520; Bartholomae 1904: 1614). It would be a unique Iranian loanword among the *nu-*verbs. This is not impossible, since *n(u)*-stems remained a moderate source of analogy until the classical period and later on. A *\*n(e)u-*stem is attested for Ir. *\*spac-* in Yt. 11, 5 inj. *auui-spašnaoŷ* (Kellens 1984: 170f., 174; 1995: 65). However, Klingenschmitt’s etymology requires: a) the unparalleled shift from Ir. *\*paš-* to Arm. *piš-*; b) borrowing after the sound change PArm. *\*p-* > Arm. *h-* (cf. Hübschmann 1897: 231).

Bailey (1987: 459) compared the Old Armenian verb to Av. *piš-* and YAv. adj. *a-pišma(n)* ‘not seeing’ (Yt. 10; and V. 13, 47 in ambiguous semantic contexts). Av. *piš-* is deduced from the present stem *pišūia-* attested in OAv. 3 pl. pres. ind. act. *pišūieinti* in Y 44.20 and loc. pl. m. ptc. pres. act. OAv. *pišūiasū* in Y 50.2.<sup>53</sup> However, the traditional interpretation of the semantics of Av. *piš-* (Bartholomae 1879: 85) was questioned by de Vaan (2000), who reconstructed PIr. pres. *\*pičjanti* in view of the consistent writing *pišūia-* (with *-š-* and not *-š-*) and further compared the Iranian preform to Skt. *pec-* ‘contract’ (EWAia 2: 166); Cheung (2007: 290) postulated Ir. *\*paič-* ‘pinch’. If OAv. *pišūia-* did not mean ‘see’ there is no semantic reason to see it as the source of PArm. *\*piš-* > Arm. *pšnum*.

<sup>53</sup> Klingenschmitt (1982: 150) compared OAv. *pišūia-* to Arm. *hayim* ‘see’ and Alb. aor. *pāe* ‘I saw’ from PIE *\*pəs-ie/o-* derived from *\*peHs-* ‘see’ (LIV<sup>2</sup>: 459). This etymology was developed by de Lamberterie (1986: 52f.), who suggested the following derivation: PIE *\*peh<sub>2</sub>(-s)-* ‘look after; protect’ (Hitt. *paḥš-* ‘protect’, Toch. B *pāsk-* ‘guard’, Lat. *pāscō* ‘pasture’, etc.) → *\*ph<sub>2</sub>s-ie/o-* whence PArm. *\*hayem* → *hayim* (cf. also Skt. *ní pati*, Av. *nipāiti*, Arm. *nayim* ‘look at’).

Attempts to explain Arm. *piš-* from PIE *\*spek-* (Skt. *áspaṣṭa*, Gk. *σκέψατο*, Lat. *spexī*, cf. *LIV*<sup>2</sup>: 576), despite obvious semantic reasons, remain speculative insofar as the form is concerned; the initial *p-*, medial *-i-*, and final *-š-* deviate from the regular sound changes.

§ 2.1.1-3.7. *Urnum* intr. ‘puff up’, aor. mp. n/a, past ptc. *uruc’eal*, caus. *uruc’anem* tr. ‘fill up’ (Bible+), caus. mp. impers. *uruc’anim* intr. ‘filled up’ (*Is.* 34, 6). *NBHL* 2: 554; *HAB* 3: 607; Künzle 2: 565; *RADCA*: 144.

Although no aorist forms were found in the source material, the appurtenance of the verb to this paradigmatic class is warranted by the *-uc’eal* past participle (Bible) and the forms with the PFV *i*-stem attested outside of the source material (Ephrem; Eusebius Pamphilius, apud *NBHL*). These later aorist forms illustrate the spread of *-r-* across the verbal paradigm.

- Transitivity: S<sub>0</sub>.
- Actionality: ACTIVITY.

- (1) *Lk.* 8, 23: *Ew minč’deř nawēin, i k’un emut, ew eř mrrrik hořmoy i covakn, ew urnoyr, ew tagnapēin.* “As they sailed, he fell asleep. A squall came down on the lake [and was raging — PK.], so that the boat was being swamped, and they were in great danger.”
- (2) Eznik Kořbac’i 2003: 483: *Ew zayn oč’ giten, t’e zawdoyn, or c’ayg urnu i xonawut’enē ĵurc’ <...>.* “And what they do not know is that with regard to the air which nightly absorbs the moisture of the water <...>.” (trans. Blanchard & Young 1998: 150).

ETYM: The etymology is unclear. The derivation from PIE *\*Hu(e)rH-* (Skt. *urú-*, Av. *vouru-*, Gk. *εὐρύς* ‘wide’; see Klingenschmitt 1982: 257) is formally problematic. The expected Old Armenian outcome would be *\*ger-/gar-*.

Regardless of the etymology, the nasal stem must have been formed before the sound law *\*rn > \*rn* ceased to operate (see § 1.4.4).

§ 2.1.1-3.8. *Zart’num* intr. ‘awake’ (Bible),<sup>54</sup> aor. mp. *zart’eay*, ptc. *zart’uc’eal*, caus. *zart’uc’anem* tr. ‘awaken’. *NBHL* 1: 719; *HAB* 2: 83; Künzle 2: 240; *RADCA*: 144.

◊ Competing paradigmatic classes: *zart’č’im*. The imperfective stem *zart’č’i-* occurs twice in the early non-Biblical texts in the form of the infinitive (2). The verb is further attested in *Yačaxapatum*, a collection of homilies traditionally attributed to Grigor Lusaworič’ or Maštoc’ and dated to the 7<sup>th</sup> century in *LALT* (Abelyan 1975: 81–83; Thomson 1995: 126f.). The passage from *Yačaxapatum* is a quote from *Ps.* 2, 12 that deviates from the standard

<sup>54</sup> Not in Agat’angelos, P’awstos Buzand, Elišē, and Movsēs Xorenac’i against *RADCA*: 143.

Bible edition in the use of 3 sg. pres. subj. *zart'č'ic'i* instead of 3 sg. aor. subj. *borbok'esc'i* to translate Gk. 3 sg. aor. subj. ἐκκαυθή 'shall be kindled' (3).

◇ Related words: *zart'umn* 'awaking' (Agat'angelos); *art'un* 'awake, watchful, vigilant' (Bible+); possibly also *\*hart'num* and/or *\*hart'č'im* 'retreat'.

• Transitivity: S<sub>0</sub>.

• Actionality: ACHIEVEMENT.

- (1) *Zech. 4, 1: Ew darjaw hreštakn or xawsēr, ew zartoyc' [caus.] zis, zor awrinak yoržam zart'nuc'u ayr i k'noy iwrmē.* "The angel who talked with me came again, and wakened me, as one is wakened from sleep."
- (2) *Movsēs Xorenac'i 2003: 1834: Ayl ew i čanaparhi nñjeln Hrudenay, ew Biwraspeay k'aršeln i blurn, ew zart'č'eln [mss. variants: (i) zart'(n)č'el(n)] Hrudenay, ew tanel zna yayrs inč' lerinn ew kapel <...>. "<...> and [how] on the journey Hrudēn fell asleep and Biurasp dragged him to the hill; and Hrudēn woke up and led him to a cave in the mountain and bound him <...>." (trans. Thomson 2006: 123).*
- (3) *Grigor Lusaworič' 2003: 80: Ənkalaruk' zxrat nora zi mi barkasc'i Tēr, ew kornč'ijik' i čanaparhac'n ardarut'ean i žamanaki yorum zart'č'ic'i barkut'iwn nora.* (δράξασθε παιδείας, μήποτε ὀργισθῆ κύριος καὶ ἀπολείσθε ἐξ ὁδοῦ δικαίας. ὅταν ἐκκαυθῆ [ἐν τάχει] ὁ θυμὸς αὐτοῦ). "Accept correction, lest at any time the Lord be angry, and ye should perish from the righteous way: whensoever his wrath shall be [suddenly] kindled." (trans. PK).

ETYM: It is a prefixal verb derived from *\*hart'num* and/or *\*hart'č'im* 'retreat; start off' (see § 2.1.2-2.2 for the attestations of the simplex). In the synchrony of Old Armenian, *zart'num*, on the one hand, and *\*hart'num* and/or *\*hart'č'im*, on the other hand, might have been perceived as containing different verbal roots. However, there is little doubt that both verbs go back to one Proto-Armenian motion verb which has the same polysemy as OCS *vzsprenqti* 'leap up, come to one's senses' (cf. Djahukian 2010: 89).

According to the traditional etymology, the verb is derived from PArm. *\*pr-t<sup>h</sup>*-, an extended variant of the PIE root *\*(s)per-* 'jump, rush' (Djahukian 1982: 185, 2010: 451).<sup>55</sup> However, PIE *\*(s)per-* is the result of an internal reconstruction based on reconstructed

<sup>55</sup> Perhaps, one might further elaborate this etymology by assuming that *\*-t<sup>h</sup>*- is a trace of the PArm. iterative *\*tāie*-formation, which may be postulated for other Old Armenian motion verbs, cf. § 2.4.2-3.2 (against Meillet 1900a = 1977: 66, where *\*-t<sup>h</sup>*- is either treated as the allophone of PIE *\*-d<sup>h</sup>*-, which he reconstructs for OCS *prędati* 'jump', or as a root extension). Elsewhere, Meillet (1928 = 1977: 253) suggested connecting *zart'num* with *yarnem* 'rise'. Although this comparison is semantically attractive, it lacks an appropriate explanation for *-t<sup>h</sup>*-.

root variants with extensions: *\*sper-ǵʰ-*, Gk. σπέρχομαι ‘rush’ and Skt. *spr̥hayati* ‘make an effort’ (*LIV*<sup>2</sup>: 581), and *\*(s)pr-end-* ‘jump’, cf. ON *spretta-* ‘jump up’ and OCS *vъspr̥enęti* ‘leap up, come to one’s senses’ (*LIV*<sup>2</sup>: 583). Klingenschmitt (1982: 258) rejects this etymology as formally problematic.

#### § 2.1.1-4. IPFV *-n-* : PFV *n/a*

The following five verbs cannot be securely attributed to one of the paradigmatic classes in §§ 2.1.1.-1–2.1.1.-3, since their PFV stem is not attested: *aytnum* ‘swell’, *andelnum* ‘come together’, *sksnum* ‘begin’, *zbatnum* ‘be(come) occupied’, *zbawsnum* ‘take a rest’.

§ 2.1.1-4.1. *Aytnum* intr. ‘swell’, aor., past ptc., caus. *n/a* (Bible+). The PFV stem *ayte(a)-* cited in *NHBL* is not attested in the examined corpus. *NBHL* 1: 97; *HAB* 1: 172; *RADCA*: 144.

◇ Related words: *aytk’* ‘cheek’ (Nersēs Lambronac’i, 12<sup>th</sup> century, apud *NBHL*).

- Transitivity: *S*<sub>0</sub>.
- Actionality: ACHIEVEMENT/ACCOMPLISHMENT.

The verb is attested in the form of the gerund (1) and the aspectual value of its IPFV stem is not immediately clear. In the cited example, the predicate behind *aytnloy* is presumably telic, since it expresses the expected outcome of an action — Paul’s swelling as a result of a viper’s attack, mentioned in *Acts* 28, 3; this favours the ACHIEVEMENT and ACCOMPLISHMENT interpretations.

- (1) *Acts* 28, 6: *Ew nok’ a akn unēin nma aytnloy kam ankaneloy ew yankarcaki meraneloy.*  
 “They were expecting him to swell up or drop dead <...>.”

ETYM: The verb is related to PIE *\*h<sub>2</sub>eid-* ‘swell’ (*EDAIL*: 61; Djahukian 2010: 49).

In Homer, one finds οἰδέω intr. ‘swell’ next to οἰδάνω tr. ‘cause to swell’ (*Il.* 9, 554) / οἰδάνομαι intr. ‘be swollen’ (*Il.* 9, 646). Gk. οἰδέω may be old and can be derived from the PIE iterative/durative *\*h<sub>2</sub>oid-eie/o-*. By contrast, the nasal stem with the root in the *\*o*-grade must be an innovation. The root of *aytnum* cannot go back to *\*h<sub>2</sub>oid-* and, therefore, the reconstruction of a shared nasal stem must be excluded.

Despite its late attestation, Arm. *aytk’* ‘cheek’ can be compared to Gk. οἶδος ‘swelling’ and derived from a neuter *\*s*-stem. The vocalism of *aytk’* is best explained by the oblique stem *\*h<sub>2</sub>id-es-* (Olsen 1999: 203; *EDAIL*: 61, 752).

§ 2.1.1-4.2. *Endelnum* intr. ‘be(come) familiar’, aor. mp., ptc. *n/a* (Łazar P’arpec’i), caus. *andeluc’anem* tr. ‘bring together’ (2*Mac.* 10, 5 apud *NBHL*; the Zohrab Bible has *andeluzanem*; Eznik Kořbac’i 1826: 149), *andeluzanem* tr. ‘align; embed; fix together’ (Bible, Ehišē); *andeluzac* ‘insertion’ (Bible). *NBHL* 1: 770; *HAB* 2: 8; *RADCA*: 115, 143. In view of its



lexical meaning, *andeluzanem* should be considered a causative derived from *andelnum* and not as a prefixal verb derived from *eluzanem* ‘produce (of sound)’.

The PFV stem *andel-*, cited in *NHBL* 1: 770, has no textual support. The *-z-*, instead of the expected *-c-*, in the causative *andeluzanem*, is analogical after *elanem* ‘go out’, *eluzanem* ‘produce (of sound)’. The origin of *-z-* in *eluzanem* is disputed, see *eluzanem* (see § 2.5.1-3.3).

- Transitivity: *S<sub>O</sub>/S<sub>A</sub>*.

The preverb *and-* copies the preposition of the complement phase *and* + acc. marking the peripheral SOURCE argument (1). It is unclear whether the verb *andelnum* has the PURPOSE grammatical feature in the cited context.

- Actionality: ACCOMPLISHMENT.

(1) Łazar P'arpec'i 2003: 2304: *Ew i tesanel znaxararsn hayoc' Yəzativšnaspay ew ar sakaw sakaw andelnul and nosa* <...>. “As Yəzativšnasp frequented the Armenian nobles he gradually became familiar with them.” (trans. Thomson 1991: 159).

(2) Łazar P'arpec'i 2003: 2240: *Ew et'ē ew meroc' awrinac' antanec'uc'anēk' znosa, ew andelnun, ew karen čanač'el* <...>. “Now if you were to render them familiar with our region, and they were to accept it and be able to recognize that <...>.” (trans. Thomson 1991: 79).

ETYM: It is a prefixal verb derived from *elanem* (see § 2.5.1-2.15). The *n(u)*-stem was formed after the sound change *\*-ln- > -tn-*.

§ 2.1.1-4.3. *Sksnum* tr. ‘begin’ (Agat'angelos). *NBHL* 2: 722; *HAB* 4: 231; *RADCA*: 144.

The *n(u)*-stem is a hapax, attested in Agat'angelos as a variant reading (1). It has a competing *an(i)*-stem, common since the Bible. Forms derived from the PFV root stem can belong together with the *an(i)*-stem and, therefore, *sksnum* cannot be unambiguously attributed to one of *n(u)*-classes.

- Transitivity: A-O.
- Actionality: ACHIEVEMENT.

(1) Agat'angeghos 2003: 1508: *Ew sksnu aynuhetew zaraksn anc'uc'anel, t'ē* <...>. “And then He began to surpass the examples <...>.” (Thomson 1970: 101).<sup>56</sup>

ETYM: See *sksanim* (see § 2.5.1-2.40).

<sup>56</sup> *Sksnu* is attested in mss. Mat. 1920 and 2639, while Mat. 1479 has *sksanē*, and Mat. 1481 has *sksani*: <...> *ew zaraksn anc'uc'eal sksani aynuhetew usuc'anel, t'ē* <...>. “<...> and by surpassing the examples he then begins to teach that <...>.” Unfortunately, the passage is absent in the Venice palimpsest (Venice, 1911), and cannot be adequately controlled.

§ 2.1.1-4.4. *Zbatnum* intr. ‘be occupied’, aor. n/a, past ptc. *zbateal*, caus. n/a (Bible+). *NBHL* 1: 723; *HAB* 2: 86; *Künzle* 2: 242f.; *RADCA*: 144.

◇ Competing paradigmatic classes: *zbatim*. The IPFV stem *zbat-e/i-* is attested by the infinitive (3) and the causative *zbatec’uc’anem* tr. ‘make busy’ (4). In (3), the verb renders a calque of the Greek *figura etymologica*, which may be responsible for the transfer of the base *n(u)*-verb into the synchronically productive denominal conjugation.

The participle *zbateal* (*Lk.* 10, 40; *Koriwn*; *Agat’angelos*) is morphologically ambiguous. It is either derived from the PFV root stem of the *n(u)*-class or from the IPFV stem of the *e/i*-class as commonly happens to psych verbs, cf. *sir-em* ‘love’ → ptc. *sir-eal* next to *sirec’-eal* (Abrahamyan 1953: 170ff.).

◇ Related words: *zbatumn* ‘occupation’.

- Transitivity:  $S_A/S_O$
- Actionality: ACTIVITY/STATE

The verb can have an agentive or non-agentive interpretation. This entails the ambiguity of the actional interpretation of the verb as ACTIVITY and STATE, respectively.

- (1) *Eznik Kołbac’i* 2003: 479: *Ē inč’, zor c’erek and beran acic’ē mardn, i noyn ew i dadarel marmnoyn ew i k’unn zbatnun mitk’n*. “There is something which by day man repeats incessantly. In the same way also while his body is at rest, his mind is busy in sleep.” (trans. Blanchard & Young 1998: 142).
- (2) *Lk.* 12, 29: *Ew duk’ mi xndrēk’ zinč’ utic’ēk’ kam zinč’ əmpic’ēk’, ew mi zbatnuk’ <...>*. “And do not set your heart on what you will eat or drink; do not worry about it.”
- (3) *Eccl.* 1, 13: *<...> zi zbatumn č’ar et Astuac ordwoc’ mardkan zbatel and aregakamb*. “<...> it is an unhappy business that God has given to human beings to be busy with.”
- (4) *Jas.* 1, 26: *Et’ē ok’ kamic’i krawnawor linel ew oč’ sanjharic’ē zlezu iwr, ayl zbatec’uc’anic’ē zsirtn iwr, aynpiswoyn vayrapar ē krawnaworut’iwnn*. “If any think they are religious, and do not bridle their tongues but deceive their hearts, their religion is worthless.”

ETYM: The etymology is unclear (Klingenschmitt 1982: 242, 253). The connection with *batem* ‘join’, suggested in Djahukian 2010: 114, is semantically very dubious.

§ 2.1.1-4.5. *Zbawsnum* intr. ‘take a rest; take a walk’ (Movsēs Xorenac’i), aor., part ptc., caus. shared with *zbawsanim* (Bible+). *NBHL* 1: 724; *HAB* 1: 86; *RADCA*: 144.

◇ Competing paradigmatic classes: *zbawsanim* (see § 2.5.1-2.53).

A hapax *n(u)*-stem is attested in Movsēs Xorenac’i (arguably a post-classical 8–9<sup>th</sup> century text, at least in part). A competing *an(i)*-stem is commonly used since the Bible.

Forms derived from the PFV root stem can belong together with the *an(i)*-stem, and therefore *zbawsnum* cannot be unambiguously attributed to the paradigmatic class characterised by the PFV root stem (see § 2.1.1-4.5). Possibly, *zbawsnum* ‘take rest’ was formed on the analogy of the antonymous *zbatnum* ‘be occupied’, cf. the use of the reflexive preverb *z-* in both verbs and their comparable grammatical profiles.

- Transitivity:  $S_A$ .

- Actionality: ACTIVITY.

- (1) Movsēs Xorenac’i 2003: 1796: <...> *Šamiramay* <...> *elanē i leṛnakotmans erkri harawakotmann, k’anzi žamanak amarnayin ēr, zbawsnuł kamelov i hovits ew i dašts calkawēts*. “<...> Semiramis <...> went out to the mountainous region on the southern side of the land because it was summertime and she wishes to enjoy the flowering meadows and plains” (trans. Thomson 2006: 95) [*lit.* “<...> with the wish to relax (intr.) in plains and flowering meadows.” (trans. PK)].

ETYM: The etymology is unknown; see *zbawsanim* (see § 2.5.1-2.53).

## § 2.1.2. Evaluation

### § 2.1.2-1. Grammatical features

Table 3. Transitivity alternations of *n(u)*-verbs

Verb	Agentivity	Intransitive	Transitive	Extended transitive	Type
IPFV <i>-n-</i> : PFV <i>-Ø-</i>					
<i>aṛnum</i>	+	lab/mp	lab/act	—	L/E
<i>erdnum</i>	+	lab/mp	lab/mp	mp	L/L <sub>MP</sub>
<i>heljnum</i>	–	lab/mp	caus	—	C
<i>jeṛnum</i>	±	lab/mp	caus	—	C
IPFV <i>-n-</i> : PFV <i>-c’-</i>					
<i>ənkenum</i>	+	lab/mp	lab/act	—	L/E
<i>ənt’ernum</i>	+	—	lab/mp	—	L/L <sub>MP</sub>
<i>lnum</i>	±	lab/mp	lab/act, caus	—	L/E, C
<i>xnum</i>	±	lab/mp	lab/act	—	L/E
<i>yenum</i>	+	lab/mp, lab/act	—	—	?
<i>zgenum</i>	+	lab/mp	lab/mp	caus	L/L <sub>MP</sub>

IPFV <i>-n-</i> : PFV <i>-i-</i>					
<i>c'acnum</i>	±	lab/mp	caus	—	C
<i>c'asnum</i>	–	lab/mp	caus	—	C
<i>k'atc'num</i>	–	lab/mp	—	—	?
<i>p'axnum</i>	+	lab/mp	caus	—	C
<i>pšnum</i>	+	lab/mp	caus	—	C
<i>ur'num</i>	–	lab/mp	caus	—	C
<i>zart'num</i>	–	lab/mp	caus	—	C
IPFV <i>-n-</i> : PFV <i>n/a</i>					
<i>aytnum</i>	–	lab/—	—	—	?
<i>andelnum</i>	±	lab/—	caus	—	C
<i>sksnum</i>	+	lab/—	—	—	?
<i>zbatnum</i>	±	lab/—	—	—	?
<i>zbawsnum</i>	+	lab/—	—	—	?

The *n*-classes of the *u*-conjugation include non-agentive (intransitive) and agentive (intransitive, transitive, and ambitransitive) verbs as well as verbs unspecified for agentivity (intransitive and ambitransitive); see §§ 2.1.2-1.1–2.1.2-1.5.

As indicated in Table 2 of § 1.3.1-2, the majority of nasal verbs of the *u*-conjugation mark the voice category in the aorist indicative, aorist subjunctive, and imperative, while the rest of the paradigm is labile. A few verbs from Table 3 use mediopassive forms in the transitive construction (*erdnum*, *ant'er'num*, *sksnum*, *zgenum*). One verb, i.e. *yenum* intr. 'lean', on the contrary, uses active forms next to mediopassive forms in the intransitive construction. The rest of the verbs have a straightforward correspondence between voice and transitivity in non-labile forms.

Patterns of marking transitivity pairs can only be specified for verbs that are attested in the non-labile forms of the *u*-conjugation in both intransitive and transitive constructions or have an attested morphological causative (negative for *aytnum*, *k'atc'num*, *sksnum*, *yenum*, *zbatnum*, and *zbawsnum*). The causative pattern is the most frequent with the nasal verbs of the *u*-conjugation. It comprises most of the verbs with the PFV *i*-stem and a few verbs from other classes, including *heljnum* and *jer'num* with the PFV root stem, and *lnum* with a PFV *c'*-stem, in which the causative pattern is combined with the equipollent pattern. The mixed labile–equipollent pattern is found in five verbs (*ar'num*, *ankenum*, *lnum*, *xnum*, *yenum*). Finally, four verbs combine the labile forms of the *u*-conjugation with the labile uses of the mediopassive form (*erdnum*, *ant'er'num*, *zgenum*) and active form (*yenum*).

## § 2.1.2-1.1. Non-agentive intransitive verbs

PFV -Ø: *heļnum* ‘choke’.

PFV -i: *c’asnum* ‘be(come) angry’; *k’alc’num* ‘be(come) hungry’; *ur’num* ‘puff up’;  
*zart’num* ‘awake’.

PFV n/a: *aytnum* ‘swell’.

See other non-agentive intransitive nasal verbs in §§ 2.3.2-1.1 (-*n-e/i-*), 2.4.2-1.1 (-*an-a-*), 2.5.2-1.2 (-*an-e/i-*), and 2.6.2-1.1 (-*nč’-i-*).

The transitive counterparts of the listed verbs are expressed by means of competing verbal classes (*heļnum/heļjum*), the derived causative (*c’asnum/c’asuc’anem*, *heļnum/heļjuc’anem*, *ur’num/ur’uc’anem*, *zart’num/zart’uc’anem*) or are simply missing (*aytnum*, *k’alc’num*).

The aspectual profile of this lexicosyntactic category is rather well-defined. The verbs of this category can be [- durative] or [+ durative] depending on their lexical meaning and context. Being non-agentive, these verbs can have RESULT but not PURPOSE lexical feature. Context not always allows to distinguish the durative ([+ dynamic]) and stative ([- dynamic]) meanings expressed by the IPFV stem of the [+ durative] *n(u)*-verbs, cf. IPFV IPFV *c’asnu-* ‘become (increasingly) angry (over time) / be angry’.<sup>57</sup> The IPFV stem of the [- durative] *n(u)*-verbs, like IPFV *zart’nu-*, expresses the secondary aspectual meanings (habitual, iterative, distributive, etc.). No ACTIVITY verbs are attested in this category.

There are no non-agentive verbs with the PFV *c’*-stem in the *n(u)*-class. This is probably due to the phonological shape of the above-listed roots — none of them ends in a vowel.

## § 2.1.2-1.2. Agentive intransitive verbs

PFV -*c’*’: *yenum* ‘lean’.

PFV -*i*’: *c’acnum* ‘refrain’; *p’axnum* ‘flee’; *pšnum* ‘stare’.

PFV n/a: *zbatnum* ‘be occupied’; *zbawsnum* ‘take a rest’.

See other agentive intransitive nasal verbs in §§ 2.2.2-1.1 (-*n-a-*), 2.3.2-1.3 (-*n-e/i-*), 2.4.2-1.3 (-*an-a-*), 2.5.2-1.5 (-*an-e/i-*), and 2.6.2-1.2 (-*nč’-i-*).

The PFV root stem is not attested for the agentive intransitive *n(u)*-verbs. By contrast, the PFV *c’*-stem is not attested for the non-agentive intransitive *n*-verbs. There could be a

<sup>57</sup> Here can also belong *\*sartnum*, aor. *sarteay* ‘be(come) angry’, if it is a genuine *n(u)*-verb and not a *č’(i)*-verb (NBHL 2: 702; HAB 4: 192; RADCA: 144), cf. *Judg* 19, 2: *Ew sarteaw i nmanē harčn iwr, ew gnac’ i nmanē i tun hawr iwroy* <...>. “And his concubine became angry with him, and she went away from him to her father’s house.” The verb derives from a nominal stem *\*krd-* or *\*krd-i-* (Gk. καρδιά ‘heart’), cf. Pisani 1934: 189; Godel 1975: 73, 1965 = 1982: 34; Djahukian 2010: 673.

correlation between the values of the agentivity parameter and the type of the PFV stem within the intransitive  $n(u)$ -verbs.

Except for *zbatnum* and *zbawsnum*, the paradigmatic class of which is not defined, the intransitive  $n(u)$ -verbs have an obligatory peripheral valence for SOURCE (*c'acnum* and *p'axnum*), STIMULUS (*pšnum*), or GOAL (*yenum*). Thus, agentive  $n(u)$ -verbs with the PFV  $c'$ - and  $i$ -stems include only directed processes.

Only verbs with the PFV  $i$ -stem — *c'acnum* ‘refrain’, *p'axnum* ‘flee’, and *pšnum* ‘stare’ — have an attested morphological causative. It is peculiar that morphological causatives could be derived from agentive intransitive verbs. One finds the periphrastic causative construction with *ar̄nem* ‘do’ + agentive intransitive verb (cf. *ara mtanel* ‘make them come in’ in *Lk.* 14, 23). Synthetic and periphrastic causatives are not expected for verbs that occupy the same slot on the spontaneity scale in a given language and contradict the typologically justified expectations argued for in Haspelmath 2018.

The aspectual profile of this lexicosyntactic class falls into two parts. There are four ACTIVITY verbs, the IPFV stem of which typically expresses the durative aspectual meaning (*pšnum*, *yenum*, *zbatnum*, and *zbawsnum*). The lack of the perfective forms of *zbatnum* and *zbawsnum* are may be connected to their imperfective semantics. One verb can be construed as ACHIEVEMENT (*p'axnum*), and its IPFV  $n(u)$ -stem has secondary aspectual meanings (habitual, iterative, etc.). The verb *c'acnum* takes an intermediate position and can be construed as ACHIEVEMENT or ACTIVITY. No ACCOMPLISHMENT construals of the mentioned verbs were detected in the examined corpus.

### § 2.1.2-1.3. Intransitive verbs unspecified for agentivity

PFV -Ø-: *jer̄num* ‘warm up’.

PFV  $n/a$ : *andelnum* ‘become familiar’.

See other intransitive nasal verbs unspecified for agentivity in § 2.5.2-1.7 (*-an-e/i-*).

The lexicalised passive use in the sense ‘be heated’, illustrated in § 2.1.1-1.4 (1), is based on the underlying transitive verb ‘heat so. up’. One may assume that originally, this verb was basically agentive and could be used primarily in the transitive and reflexive constructions (cf. the agentive ambitransitive verbs in § 2.1.2-1.5). Later on, the intransitive member of the syntactic alternation lexicalised and the transitive received a new expression in the form of the morphological causative.

### § 2.1.2-1.4. Agentive ambitransitive verbs

PFV -Ø-: *ar̄num* ‘take’; *erdnum* ‘swear’.

PFV - $c'$ -: *ankenum* ‘throw’; *ant'er̄num* ‘read’; *zgenum* ‘put on (oneself) so.; wear (so.)’.

See other agentive ambitransitive nasal verbs in §§ 2.2.2-1.2 (*-n-a-*), 2.3.2-1.4 (*-n-e/i-*), 2.4.2-1.5 (*-an-a-*), 2.5.2-1.6 (*-an-e/i-*), and 2.7.2-1.1 (*-anč<sup>c</sup>-e-*).

The fact that this lexicosyntactic class includes verbs with the PFV root stem and *c'*-stem does not explain the distribution of the *c'*-suffix added to stems in a vowel by the peculiarities of the argument structure or aspectual features (see details in § 2.1.2-3.2).

The listed verbs do not have non-agentive uses. The active/passive syntactic alternation is expressed by voice endings where applicable (*aṛnum*, *ənkenum*). The morphological causative is attested only for *zgenum*.

The active/antipassive syntactic alternation of *erdnum* and *ənt'ərnum* is not contrasted by voice endings — both constructions are marked by mediopassive endings. Presumably, *ənt'ərnum* could be used in the passive construction, although it is not attested in the source material.

The verb *zgenum* tr. ‘wear’ is a lexicalised reflexive alternation of the underlying early Proto-Armenian extended transitive verb ‘clothe smb. with so.’. Its antipassivised intransitive version (intr. ‘be clothed’) coincides with the base verb, while the transitive counterpart is expressed by the synchronic morphological causative. Like the non-agentive verbs, considered in § 2.1.2-1.1, *zgenum* has the causative transitivity marking pattern.

This lexicosyntactic class includes ACHIEVEMENTS, ACCOMPLISHMENTS, and ACTIVITIES, but no STATES.

### § 2.1.2-1.5. Ambitransitive verbs unspecified for agentivity

PFV *-c'*: *lnum* ‘fill; become filled’; *xnum* ‘close; become closed’.

PFV *n/a*: *sksnum* ‘begin’.

See other ambitransitive nasal verbs unspecified for agentivity in §§ 2.4.2-1.6 (*-an-a-*), and 2.5.2-1.8 (*-an-e/i-*).

In the case of *lnum* and *xnum*, the agentive and non-agentive meanings are combined in one verbal paradigm. The agentive meaning is represented by the active/passive syntactic alternation expressed by voice endings. Besides, the non-agentive meaning is represented in the causative/anticausative alternation, the intransitive member of which is expressed by the base verb and the transitive member is marked by the morphological causative. The active voice of the agentive construal and the causative counterpart to the non-agentive construal coincide in these verbs. Along with the transitive construction ‘A fills up O’ (*Gen.* 24, 16: <...> *ējyatbewrn ew elic' zsap'orn iwr ew el.* “<...> and she went down to the spring and filled her jar and came up.”), these verbs can participate in the extended transitive constructions ‘A fills O with E’ (*Gen.* 21, 19: <...> *ew č'ogaw elic' ztikh jrov* <...>. “<...> and she went and filled the skin with water <...>.”) and its reflexive alternation ‘A fills

up O (with oneself/itself)' (*Gen. 1, 28: Ačec'ēk' ew bazmac'aruk' ew lc'ēk' z-erkir <...>. "Be fruitful and multiply, and fill the earth <...>."*).

The agentive transitive uses typically construe as ACHIEVEMENTS (with the secondary imperfective meanings) or ACCOMPLISHMENTS (with a durative meaning as well as secondary imperfective meanings); no ACTIVITIES and STATES are found in this lexicosyntactic class.

#### § 2.1.2-1.6. Derivational morphology: participles

A peculiar morphological feature of the paradigmatic classes, characterised by the PFV *i*-stem (classes with the IPFV *n(u)*- and *č'(i)*-stems, and a few irregular verbs) is the past participle *-uc'-eal*, which is identical to the past participle of the morphological causative of other classes. This peculiarity can be explained by the fact that these verbs are largely non-agentive intransitive verbs, to which the morphological causative serves as an active voice counterpart. The mediopassive forms of the causatives are thus synonymous to the intransitive base verbs, cf. (1).

- (1) *Is. 34, 6: Sur Tearn lc'aw areamb, uruc'aw čarpov garanc' ew čarpov c'luc' ew xoyoc' <...>. "The sword of the Lord is filled with blood, it is sated with fat, with the blood of lambs and goats <...>."*

Another approach is to explain *-uc'-eal* by the labile aor. mp. *caneay* (pres. *čanač'em* tr. 'recognise, understand'). In order to disambiguate the active and passive voices, a secondary passive form was derived from the causative past ptc. *can-uc'-eal* (Meillet 1910–1911a = 1962: 90f.).

#### § 2.1.2-1.7. Derivational morphology: preverb *z-*

The preverb *z-* found in *zgenum* 'wear', *zart'num* 'awake', *zbatnum* 'be occupied', *zbawsnum* 'take a rest', and *zankenum* 'reject (obligation)', calls for attention. In two of these verbs, *zgenum* and *zankenum*, the preverb accompanies a reflexive construction in which the RECIPIENT and SOURCE arguments are co-referential to the agent ('dress oneself, 'throw from oneself'). The preverb *z-* perhaps cumulatively expressed the lexicalised co-referential link between the AGENT argument of the subject and the argument behind the syntactic object (direct, indirect, or oblique). Similarly, the preverb *ənd-* occurs in verbs with a core peripheral argument marked by the prepositional phrase *ənd* + acc., cf. (1).<sup>58</sup>

<sup>58</sup> Cf. the secundative alignment of core arguments in the reflexivised transitive construction, where the E argument of the extended transitive construction is marked by the verb in the same way as the O argument of the transitive construction (Malchukov & al. 2010: 37f.; Bickel 2011: 404).



- (1) Լազար Քարեպետի 2003: 2240: *Էւ et'ē ew meroc' awrinac' antanec'uc'anēk' znosa, ew andelnun, ew karen čanač'el <...>*. “As Yēzatzšnasp frequented the Armenian nobles he gradually became familiar with them.” (trans. Thomson 1991: 159).

One can assume a further spread of *z-* from agentive reflexives to agentive intransitive verbs (*z-batnum*, and *z-bawsnum* via the autocausative interpretation ‘make oneself busy’ = ‘be busy’) and to non-agentive intransitive verbs (*z-artnum* \*‘wake oneself up’ ≈ ‘wake up’).

### § 2.1.2-2. Stem variation patterns

#### § 2.1.2-2.1. *-n-u-* vs. *-an-e/i-*

- (a) PFV  $\emptyset$ : *heljnum* vs. *heljanim*; *jer̄num* vs. *jer̄anim*; ? \**ergicnum* vs. *ergicanem*; *macnum* vs. *macanim*; ? \**meṛnum* vs. *meṛanim*; ? \**p'rcnum* vs. *p'rcanim*; ? \**sp'acnum* vs. *sp'acanim*.
- (b) PFV *-c'*: *ant'er̄num* vs. *ant'erc'anim*.
- (c) PFV *-i-*: —.
- (d) PFV *n/a*: *andelnum* vs. *andelanim*, *sksnum* vs. *sksanim*, *zbawsnum* vs. *zbawsanim*.

In (a), *jer̄num* vs. *jer̄anim* show the morphemic split between the older PFV *jer̄-* preserved in the secondary verb *jer̄anim*, and PFV *jer̄-* (with the expected generalisation of the auslaut *-r̄-*). This morphemic split was supported by a lexical split (‘become warm’ vs. ‘have a fever’). If *jer̄anim* was formed as part of the \**-nu-* → \**-an-e/i-* pattern of stem substitution, it must have happened before the sound change \**rn* > \**rn* began to operate.

In three cases, the variation pattern can be postulated for Proto-Armenian with the reserve that the supporting evidence is either ambiguous or insecure. Thus, *meṛanim* could be a replacement of \**meṛnum*, in which the lost \**-nu-* suffix could have left its trace in the root-final *r̄*; however, see § 2.5.1-2.32, where PFV *meṛ-* is derived from PArm. \**mers-*. Similarly, Arm. *sp'acanim* tr. ‘put on (an apron)’ could be a replacement of PArm. \**z-p'ac-nu-* from dial. PIE \**peh<sub>2</sub>ǵ-nu-* ‘fix (so.)’ (cf. Gk. πήγνυμι, πήγνυμαι), if one accepts the sound change PArm. \**zpV-* > Arm. *spV-*; see § 2.5.1-2.43. One more potential case of the \**-nu-* → \**-an-e/i-* transfer is *ergicanim* intr. ‘tear apart (of heart); burst (with emotions)’, if from dial. PIE \**ureh<sub>2</sub>ǵ-nu-* (cf. Gk. ῥήγνυμι, ῥήγνυμαι); see § 2.5.1-2.17. In *tesanem* intr. ‘see’, the Proto-Armenian nasal stem was introduced to recharacterise the older IPFV stem of the underlying non-agentive verb and can hardly be considered a substitution of PIE \**dek-nu-* tr. ‘welcome’, even if such a stem existed in the proto-language (see § 2.5.1-2.47).

In the pair *macnum* vs. *macanim*, the *n(u)-*stems are post-classical, while *an(i)-*stems are well attested in early classical texts, and there are no arguments in favour of the reverse chronology. Thus, *macnum* better aligns with *heljnum* as a replacement of *heljanim*.

The listed pairs of verbs do not show any contrastive distribution concerning their argument structure: *heljnum* [S<sub>O</sub>] vs. *heljanim* [S<sub>O</sub>]; *ĵernum* [S<sub>A/O</sub>] vs. *ĵeranim* [S<sub>O-E</sub>; A-O]; *macnum* [S<sub>O</sub>] vs. *macanim* [S<sub>O</sub>]; \**ergicnum* [?] vs. *ergicanem* [S<sub>O-E<sub>A</sub></sub>; A-O]; \**meṛnum* [S<sub>O</sub>] vs. *meṛanim* [S<sub>O</sub>]; \**p'rcnum* [S<sub>A</sub>] vs. *p'rcanim* [S<sub>A</sub>]; \**sp'acnum* [A-O] vs. *sp'acanim* [A-O]. Altogether, intransitive verbs are prominent in this kind of variation.

While the listed verbs have an invariant ACHIEVEMENT construal, primarily associated with the PFV root stem, they may be additionally construed as ACCOMPLISHMENTS, ACTIVITIES, or STATES. The primary durative aspect is attested for both stems (e.g. *heljnum* 'be choking' and *ĵeranim* 'be having fever').

Most probably, the paradigm variation was based on a formal analogy, based on the shared PFV root stem. This assumption is supported by the bi-directionality of the morphological change  $-n(u) \leftrightarrow -an(e/i)-$ .

In the type (b), the direction of the morphological innovation is certain in the case of *ant'er-num*, aor. *ant'erc'-ay* → *ant'erc'-anem*, aor. *ant'erc'-ay*. There is no clear grammatical contrast in the use of *ant'er-num* and *ant'erc'anem*.

- (1) *Jer. 36, 8: Ew arar Baruk' ordi Nereay ast amenayni zor patuireac' nma Eremia margarē, ant'erc'anel i matenēn zpatgams Tearn i tan Tearn.* "Baruch the son of Neriah did according to all that Jeremiah the prophet commanded him, reading from the book the words of the Lord in the Lord's house."

In (1), *ant'erc'anel* translates the Greek aorist infinitive ἀναγνῶναι. Three other occurrences of Gk. ἀναγνῶναι are translated by *ant'er-nul* in the Bible: *oč' karem ant'er-nul* / *oũ dúnamai ἀναγνῶναι* (*Is* 29, 11); *oč' karēin ant'er-nul* / *oũk ἠδύναντο ἀναγνῶναι* (*Dan.* 5, 8); *et ē karic'es zgird ant'er-num* / *oũv ἐὰν δυνῆθῆς ἀναγνῶναι* (*Dan.* 5, 16). Another example of this kind, although involving a post-classical form, is the pair *x-num* 'close', aor. *xc'-i* → *xc'-anem* (the latter is first attested in Yovhannes Awjnec'i, 8<sup>th</sup> century, apud *NBHL* 1: 995).

Presumably, the morphological change was conditioned by the tendency to eliminate the irregular aorist suffix  $-c'$  added to a root-final consonant (as opposed to  $-ec'$  and  $-ac'$ ). Another factor might have been the tendency of  $n(u)$ -stems to mark intransitive verbs.

The evidence for the type (c) is limited to *t'ṛnum* vs. *t'ṛanim*. Although *t'ṛnum* is not attested in the examined sources (Cyril of Alexandria, undated; Xosrov Anjewac'i, 10<sup>th</sup> century, apud *NBHL* 1: 823), it may be old. It could explain the root final  $-r'$  as being generalised from the IPFV stem whence analogically aor. *t'ṛeay*, pres. *t'ṛanim* and *t'ṛč'im*. No levelling of  $-r'$  occurred in *yarnem* 'arise', aor. *yareay* (see § 2.3.1-2.1). One can tentatively suggest that the levelling took place only in the case of PFV root stems where the segmentation of the root was synchronically transparent. Then, the PFV stem of *tṛ-num* could have originally been \**tṛ-ay*, which changed to *t'ṛeay* on the analogy of the verbs described in § 2.1.1-3, and the paradigmatic class of *t'ṛč'im*, which was competing with the

paradigmatic classes of *tr̄num* and *tr̄anim* (see §§ 2.1.2-2.2 and 2.5.2-2.1). However, the *r̄* can be alternatively explained by the PFV \**s*-stem (see § 2.5.1-2.49).

The contrast between *tr̄num* and *tr̄anim* might express the allative motion (where the PFV stem marks its final phase) and ablative motion (where the PFV stem marks its initial phase), respectively.

In type (d), the change from a *n(u)*-stem to a *an(i)*-stem is justified for *ændelnum* vs. *ændelanim* by secure instances of the derivational model *ænd-...-nu-* → *ænd-...-an-e/i-* seen in *æn(d)t'ēr-num* 'read' → *æn(d)t'erc'-anem*. This variation fits the overall drift of intransitive verbs from the *-n(u)*- to *-an(i)*- paradigmatic class in the type (a); note that even though the PFV stem is not attested for *ændelnum* and *ændelanim*, the simplex *elanem* has a PFV root stem, and the prefixal verb must perhaps be ascribed to the type (a). The hapaxes *sksnum* (next to common *sksanim*) and *zbawsnum* (next to common *zbawsanim*) are perhaps secondary. The choice of a *n(u)*-stem might be determined by the markedly telic value of the hapaxes used in the function of the historical present (*sksnu* 'began' in the example (1) of § 2.1.1-4.3) and as part of a frame predicate of PURPOSE (*kamelov zbawsnul* 'wishing to enjoy'; § 2.1.1-4.5).

To conclude, one may tentatively assume that pre-classical and early classical *n(u)*- and *an(i)*-stems still retained the aspectual contrast [+telic] (the durative phase of a telic process or secondary aspectual meanings) vs. [-telic] (the durative phase of an atelic process or state, including resultatives), e.g. \**mer̄num* ('become dead') vs. *mer̄anim* ('be dead'), *tr̄num* ('fly towards') vs. *tr̄anim* ('fly from').

Two other verbs without attested *n(u)*-stems and with PFV root stems can be mentioned here as well, given that they can be ascribed to both the *n(u)*- and *an(e/i)*-classes: aor. *ænklay* intr. 'sink; fall down', *fig.* 'be lost' (pres. \**ænklnum* or \**ænklanim*)<sup>59</sup> and *herjay* intr. 'be split' (\**herjnum* or \**herjanim*). Both verbs have lexicalised [+telic] aspectual feature, which favours the IPFV *n(u)*-stem.

#### § 2.1.2-2.2. *-n-u-* vs. *-č'-i-*

Some of the *n(u)*-verbs with PFV *i*-stems and participle in *-uc'eal* have by-forms derived from IPFV *č'(i)*-stems (Meillet 1936: 110, Djahukean 1987: 378). The variation pattern is often overrated due to the tendency of the 19<sup>th</sup> century lexicographers to classify forms with the PFV *i*-stem as belonging to the *n(u)*-class even when only a *č'(i)*-stem is attested, and *vice versa*. In fact, only forms of *p'axnum* and *p'axč'im* 'flee' co-occur in the Bible. No other verb

<sup>59</sup> The IPFV stem is not attested in the source material, including the Bible, although it has been postulated as *ænklnum* for the Biblical and non-Biblical attestations (*NBHL* 1: 780; Meillet 1913a: 26; 1920 = 1977: 170; *HAB* 2: 654; *RADCA*: 143).

shows variation of the *n(u)*- and *č'(i)*-stems within the securely dated 5<sup>th</sup> century texts (Eznik Kołbac'i, Koriwn, Agat'angelos, Łazar P'arpec'i, and P'awstos Buzandac'i, apud *RADCA*: 5). Three verbs show the variation pattern on a wider chronological scale in texts dated up to Grigor Narekac'i in *RADCA* and *LALT*: *c'asnum* 'be angry' (Bible+) vs. *c'asč'im* 'id.' (Hesychius of Jerusalem+); *t'ak'num* 'hide' (John Chrysostom+) vs. *t'ak'č'im* 'id.' (Bible+); *t'num* 'fly' (Cyril of Alexandria+) vs. *t'řč'im* 'id.' (Bible+); *xrtnum* 'be(come) anxious' (Severian of Gabala apud *NBHL* 1: 995) vs. *xrtč'im* 'id.' (Movsēs Xorenac'i); *zart'num* 'awake' vs. *zart'č'im* 'id.'.<sup>60</sup> See further details on the *č'(i)*-class in Kocharov 2014.

Within the source material, the variation is confined to agentive intransitive verbs.

There is moderate evidence pointing to the relation between the choice of the IPFV stem and the value of the [ $\pm$  telic] aspectual feature. In (1)–(3), the use of the *n(u)*-stem may be tentatively associated with the [+ telic] aspectual feature, while the use of the *č'(i)*-stem accompanies the [– telic] aspectual feature.

- (1) Severian of Gabala's *Homilia* III (1827: 126): *Bayc' ē ew ayl inč' awrinak tesanel; yoržam urkan arkanic'i, juknn hart'nu, ew i miřin coc'n dimē <...>*. (Caeterum et aliud exemplum videre est; quum rete immittatur, piscis resilit, et in sinus interiorem tendit <...>.) "But we can see another example; when the net is set, a fish retreats and hides into the depth of waters <...>." (trans. PK).
- (2) Severian of Gabala's *Homilia* III (1827: 126): *Ew tēs zsk'anč'elisin, zi zarařinn satanay arkanēr urkan ařxarhi, ew dewk'n jgēin, ew ardark'n hart'nuin, ew artak's k'an zurkann elanēin <...>*. (Vide autem mirum, quoniam olim diabolus mittebat rete in mundum, et daemones trahebant, atque iusti resilientes extra sagenam egrediebantur <...>.) "And see the marvel: when the devil casts a net into the world, and devs drag it, the righteous people retreat and escape the net <...>." (trans. PK).
- (3) Movsēs Xorenac'i 2003: 2085: *T'oteal i bac' zkatakeld yanc'anel ənd hurd darjaw zk'ez, or ew es kni k'o, k'anzi yarařeln jis im xrtč'i*. "Stop your mocking, cross the fire so that I can follow. Because if I go first my horse will shy." (Thomson 2006: 319).

<sup>60</sup> The stems *ostnu-* (*NBHL* 2: 523; *HAB* 3: 569 and *RADCA*: 144) and *paknu-* (*NBHL* 2: 585; *HAB* 4: 7; *RADCA*: 143) are not attested within the early classical literature that is taken into account in *RADCA*. No *t'ak'nu-* is attested in the Armenian translation of Ireneus' *Adversus Haereses* (Iraeneus 1910), dated to the 7<sup>th</sup>–8<sup>th</sup> century, and mentioned in *RADCA*: 144; instead, we find forms derived from the IPFV *č'*-stem (p. 8) and the PFV stem (pp. 61, 76, 85, 106, 109, 162, 173, 204). Similarly, no IPFV *sartnu-* 'be(come) angry' is attested in the Bible and Eznik Kołbac'i (as per *NBHL* 2: 702; *HAB* 4: 192; *RADCA* 144). Instead, one finds the aorist (*sarteay*) and past participle (*sartuc'eal*) in the mentioned sources, which could be supplanted with the IPFV *\*sartnu-* or IPFV *\*sartč'i-*.

§ 2.1.2-2.3. *-n-u-* vs. *-an-a-*

- (a) PFV -Ø: *əndelnum* vs. *əndelanam*.  
 (b) PFV -i-: *k'atc'num* vs. *k'atc'anam*.

The formal analogy based on a shared PFV stem can be excluded. In (b), the morphological contrast can be ascribed to the difference in the Aktionsarts of temporary state (*-num*) and inchoative process (*-anam*). The clear grammatical motivation for the variation in (a) has been found.

§ 2.1.2-2.4. *-n-u-* vs. *-i-*

- (a) PFV -i-: *k'atc'num* vs. *k'atc'im*.  
 (b) PFV n/a: *zbatnum* vs. *zbatim*.

A surprisingly small number of *n(u)*-verbs drifted to the productive *e/i*-class. One observes much more variation between suffixed IPFV stems than between suffixed and suffixless IPFV stems.

Direct evidence for the variation between the *n(u)*-class and the suffixless *e/i*-class is limited to *zbatnum* vs. *zbatim*. The aorist form *k'atc'ec'ay* attested outside the examined corpus in Yovhannēs Mandakuni (apud *NBHL* 1: 723) presupposes the existence of *\*k'atc'im* next to *k'atc'num*, aor. *k'atc'eay*, which would be another case of the variation.

No difference has been detected for these two variants, insofar as their argument structure and aspectual features are concerned.

## § 2.1.2-3. PIE outlook

§ 2.1.2-3.1. The class with IPFV *\*CRC-n(e)u-* and PFV *\*CeRC(-s)-* stems

The evidence revised in § 2.1.1 suggests that Old Armenian *nu*-verbs were created at different chronological levels since PIE.

The oldest layer of *nu*-verbs can be traced back to the PIE *\*n(e)u*-verbs. The PIE *\*n(e)u*-stem is traditionally derived from the infix stem with roots in *\*-u-*. This assumption, put forward as early as de Saussure 1879: 244, is based on a very fragile evidence.<sup>61</sup> All securely

<sup>61</sup> Out of the six examples which de Saussure provided to illustrate infix stems with roots in *\*-u-* (protoforms of Skt. *śṛṇóti* 'hear', *vanóti* 'win', *sanóti* 'win', *vṛṇóti* 'roll', *kṛṇóti* 'make', *τρωννύω* 'hurt') only *śṛṇóti* is derived from an infix stem *\*kl-n(é)-u-* in *LIV*<sup>2</sup>, and even there the reconstruction of the infix stem can arguably be replaced by *\*klu-n(é)-u-* (cf. Milizia 2004). In *LIV*<sup>2</sup>, none other root in *\*-u-* is reconstructed with an infix stem out of 17 roots of the *\*CR(e)u-* type, and no infix stems are reconstructed for the 12 roots of the *\*C(e)Ru-* type.

reconstructed PIE *\*n(e)u*-formations represent suffixed stems (cf. Brugmann 1913: 324–336; *LIV*<sup>2</sup>: 17f.), e.g. PIE act. *\*h<sub>3</sub>r-neu-* tr. ‘urge; set in motion’ (Gk. ὀρνῦμι, aor. ὤρσα; Skt. ṛṇóti) / PIE mp. *\*h<sub>3</sub>r-nu-* intr. ‘come to motion’ (Gk. ὀρνυμαι, aor. ὤρμηγ; Skt. ṛṇváti; cf. *LIV*<sup>2</sup>: 299–301); PIE act. *\*tn-neu-* tr. ‘stretch; strain’ (Gk. τανύω, aor. ἔτεινα < *\*h<sub>1</sub>e-ten-s-*; Skt. tanóti, aor. átan < *\*h<sub>1</sub>e-ten-*) / PIE mp. *\*tṇ-nu-* intr. ‘stretch, strain oneself; become stretched, strained’ (Gk. τάνυται, Skt. tanuté, aor. 3pl. átnata; *LIV*<sup>2</sup>: 626). The aforementioned examples show that the *\*n(e)u*-verbs could have active and mediopassive forms in PIE after the split of the Anatolian branch.<sup>62</sup> The situation might have been different in core PIE, where the *\*n(e)u*-suffix could be part of the transitivity morphology (cf. the Hittite *nu*-causatives).

The ablauting PIE *\*n(e)u*-stem with the zero-grade of the root was replaced by *\*-nū/nu-* in Proto-Greek (cf. Gk. act. -νῦμι). The rise of *\*-nū/nu-* is often explained as analogical to PGk. *\*-nā/na-* < PIE *\*-n(e)h<sub>2</sub>-* (Chantraine 1961: 218; Schwyzler 1939: 695; Rix 1976: 210). By contrast, it was retained in Indo-Iranian (Gotō 2013: 105f.; Hoffmann & Forssman 1996: 213–216). It is tempting to align Arm. *-nu-* with PGk. *\*-nū/nu-* rather than with the ablauting PIE *\*n(e)u*-suffix. PIE *\*-neu-* plus athematic active singular endings would yield Arm. <sup>x</sup>*-noy-*. However, neither of the securely reconstructed PArm. *\*nu*-verbs of PIE origin had the active voice that would condition the rise of <sup>x</sup>*-noy-*. Thus, *ar̥num* goes back to dial. PIE mp. *\*h<sub>2</sub>r-nu-* tr. ‘take for oneself’ with the zero-grade suffix (Gk. ἄρνυμαι ‘gain’; see § 2.1.1.1.1).<sup>63</sup>

See further details on the PIE *\*n(e)u*-formations in Anatolian (Hoffner & Melchert 2008: 175, 178f.; *EDHIL*: 608; Shatskov 2017), Indo-Iranian (Hoffmann & Forssman 1996: 213–216; Gotō 2013: 105f.), Ancient Greek (van de Laar 2000: 348–353; Sihler 1995: 225–227), Balto-Slavic (Stang 1942: 54–60), and Celtic (Sjoestedt 1926: 36ff.; Pedersen 1909–1913, II: 339; McCone 1991: 13) as well as some general remarks in Teijeiro 1970: 51–56 and Bader 1979 among others.

<sup>62</sup> The following types of argument structure and its alternations are found in the Homeric Greek *νυ*-class: 1) agentive intransitive (mp.) / agentive transitive (act.): mp. δαίνυμαι ‘feast’ (*Il.* 1, 602) / act. δαίνυμι ‘make a feast’ (*Il.* 9, 70); mp. ὀρνυμαι ‘stand up’ (*Il.* 3, 265) / act. ὀρнуμι ‘incite’ (*Il.* 17, 546); 2) agentive reflexive transitive (mp.) / agentive active transitive (act.): mp. ἔννυμαι ‘clothe’ (*Il.* 7, 207 reflexive transitive) / act. ἔννυμι ‘put smth. on smb.’ (*Il.* 18, 451 transitive); mp. ὀμόργνυμαι ‘wipe (oneself tears)’ (*Od.* 11, 527) / act. ὀμόργνυμι ‘wipe smth. from somewhere’ (*Il.* 5, 416); mp. ῥήγνυμαι ‘break (oneself) in’ (*Il.* 12, 291); mp. ἄρνυμαι ‘gain’ (*Il.* 1.159 reflexive benefactive transitive); 3) active agentive transitive (act.) / passivised agentive intransitive (mp.): act. ζεύγνυμι ‘yoke’ / mp. ζεύγνυμαι ‘be yoked’; act. ὀρέγνυμι ‘stretch’; 7) agentive intransitive: act. ὀμνῦμι ‘swear’ (*Il.* 14, 278); 8) non-agentive intransitive (mp.) / agentive transitive (act.): mp. πήγνυμαι ‘become fixed’ (*Il.* 15, 315) / act. πήγνυμι ‘make fixed’ (*Od.* 23, 276); mp. ὀλλυμαι ‘become ruined’ (*Il.* 24, 725) / act. ὀλλῦμι ‘ruin’ (*Il.* 7, 360); 9) non-agentive intransitive (mp.): mp. τάνυμαι ‘stretch’ (*Il.* 17, 393).

<sup>63</sup> The *νυ*-stem of the semantically close Gk. αἴνυμαι tr. ‘take’ (PIE *\*h<sub>2</sub>ei-*; *EDG*: 40; *LIV*<sup>2</sup>: 229) may be an Ancient Greek morphological innovation analogical to the inherited ἄρνυμαι. Note the use of the mediopassive voice to mark the reflexive alternation of the basically transitive predicate, just

Altogether, there is no counter-evidence for the assumption that *\*-n(e)u-* was replaced by *\*-nū/nu-* in the common ancestor of the Greek and Armenian branches. Alternatively, the allomorph *\*-nu-*, expected in the active plural and mediopassive forms, could have been generalised in Proto-Armenian (cf. Klingenschmitt 1982: 246; Clackson 1994: 84, 217).

PIE *\*n(e)u-* stems could be thematised to *\*-neu-e/o-* in Greek (Gk. *-νέω*; Schwyzer 1959: 696) and *\*-nu-e/o-* in Greek and Indo-Iranian (Skt. *-nvá-*, Gk. *-νῶ*; Brugmann 1913: 325; Schwyzer 1939: 698; Rix 1976: 210f.). There is no evidence for either of these two thematised stems in Old Armenian. The expected outcomes would be *<sup>x</sup>-nog-* (cf. PIE *\*sreu-e/o-* > *oroganem* ‘flow’, see § 2.5.1-2.37) and *<sup>x</sup>-ng-* (cf. PIE *\*ǵonu-i-* > Arm. *cung-k’* ‘knees’, cf. *EDAIL*: 343), respectively.

Old Armenian *n(u)*-stems neither include recognised loanwords nor denominal verbs. Perhaps this Proto-Armenian class ceased to be productive rather early (cf. Meillet 1900a = 1977: 66). Altogether only few *nu*-stems have the Proto-Armenian reflex of the expected zero-grade of the root, namely, *ar̄num* ‘take’, *erdnum* ‘swear’, and *zbat̄num* ‘be occupied’.

It remains a matter of dispute whether the Proto-Armenian *\*nu*-class was characterised by the PFV root or sigmatic stems. On formal grounds, the PFV stem *ar̄-* of *ar̄num* ‘take’ can be plausibly analysed as an inherited athematic root stem, the root shape of which had levelled to that of the IPFV stem after *\*rn* > *rn*, or as a sigmatic stem with an etymological stem-final *-r̄-* from *\*-r-s-* (cf. Gk. *ἀρόμην* next to sigmatic *ἤρατο*). The inherited root stem could be sigmaticised in dialectal PIE or early Proto-Armenian. The latter process can be illustrated by *mer̄-aw* ‘died’ from PArm. *\*mer-s-* ← PIE *\*mer-* (see §§ 2.5.1-2.32 and 2.5.2-3.2.2). Similar ambiguity concerns *zbat̄num* from PArm. IPFV *\*bal-nu-* or PFV *\*bal-s-* (whatever be the ultimate etymology of this verb). Formally ambiguous is the PFV stem *erduay* (pres. *erdnum* ‘swear’) from *\*d<sup>h</sup>reu-* or *\*d<sup>h</sup>reu-s-*.

Due to the formal ambiguity, it is difficult to establish the direction of the root levelling across the tense-aspect stems in *ar̄num* and *zbat̄num*. No root levelling took place in *erdnum*. If the levelling of the root shape *ar̄-* took place starting with the IPFV stem, it must have happened at a relatively late date, given that the sound change *\*rn* > *rn* dates back to the age of early Parthian loanwords (see § 1.4.4). Such scenario requires that the IPFV stem could be pivotal in verbs with the [ $\pm$  durative] and [+ telic] aspectual features, like *ar̄num*, at that chronological level.

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like in the case of *ἀρνυμαι*. See Kulikov 2013 on the reflexivising function of the PIE mediopassive voice. Like in Old Armenian and Ancient Greek, the 1 sg. mp. *\*-mai* can be reconstructed for Proto-Albanian (Matzinger 2012: 150f.; Schumacher 2017: 386). Therefore, the introduction of *\*-m-* into the mediopassive ending, that was due to the analogy with the active voice ending *\*-mi*, cannot be viewed as a Greek-Armenian isogloss.

§ 2.1.2-3.2. The class with IPFV \*CeRC-nu- and PFV \*CeRC(-s)- stems

The Old Armenian *n(u)*-verbs with the PFV root stem and *c'*-stem emerged from one Proto-Armenian nasal class. The *c'*-suffix goes back to PArm. \*-c- that was added to older stems in a vowel by analogy to denominal verbs with the PFV stems in \*-Vc- from \*-V-ske/o-. Like the Old Armenian PFV root stems, the underlying stems in a vowel can continue PIE PFV root or sigmatic stems.

The \**n(e)u*-stem with roots in the full grade, comparable to Ancient Greek verbs like Gk. δείκνυμι ‘show’, aor. ἔδειξα (Schwyzer 1939: 697), is the majority type in the Old Armenian *n(u)*-class. In both languages, the full grade of roots is best explained as analogical to the PFV root or \*s-stems.

It has been argued that the \**n(e)u*-stem with roots in the full grade replaced the older infixed stem in Ancient Greek, cf. Gk. ζεύγνυμι next to Skt. *yunákti* ‘yoke’; Gk. ὀρέγνυμι next to Skt. *rñjāti* ‘stretch’; Gk. πηγνυμι next to Lat. *pangō* ‘fasten’ (Pedersen 1893: 289; Meillet 1934: 216; Rix 1976: 210; Clackson 1994: 84).<sup>64</sup>

Table 4. Distribution of the \**n(e)u*-stem and infixed stem across IE languages

PIE root	Gk. and Arm. verbs	Infixing stem in other branches
* <i>ieug-</i>	Gk. ζεύγνυμι	Skt. <i>yunákti</i> , Lat. <i>iungō</i>
* <i>h<sub>3</sub>merǵ-</i>	Gk. ὀμόργνυμι	Skt. <i>mṛñjata</i>
* <i>h<sub>3</sub>reǵ-</i>	Gk. ὀρέγνυμι	Skt. <i>rñjāti</i>
* <i>peh<sub>2</sub>ǵ-</i>	Gk. πηγνυμι	Lat. <i>pangō</i>
* <i>pleh<sub>1</sub>-</i>	Arm. <i>lnum</i>	Skt. <i>pṛñāti</i> , OAv. <i>pəṛənā-</i> , Alb. <i>plonj</i>
* <i>terK-</i>	Arm. <i>ən-t'eṛnum</i>	Toch. B <i>tārkana-</i> , Toch. A <i>tārnā-</i> , Hitt. <i>tarna-</i>

One can assume some kind of iso-functionality of the secondary \**n(e)u*-stem and original infixed stem (note that all three aforementioned examples involve transitive verbs) that produced a replacement pattern supported by formal analogy (the shared PFV root stem). Such a pattern of morphological variation could develop in the common source of the Greek and Armenian branches. It explains, among other things, the change from PIE \**pl-ne-h<sub>1</sub>-* (Skt. *pṛñāti* ‘fill’; cf. Meillet 1990a = 1977: 66) to dial. PIE \**pleh<sub>1</sub>-nu-*, whence Arm.

<sup>64</sup> Skt. *sanóti* and Gk. ἄνυμι may be considered a shared replacement of PIE \**sñ-né-h<sub>2</sub>-* (LIV<sup>2</sup>: 532f.). However, the existence of stem variation within the Sanskrit 5<sup>th</sup> and 7<sup>th</sup> classes allows to treat Skt. *sanóti* as an inner-Indic innovation, cf. *ṛ-ṇa-dh-* (RV 1.84.16) next to *ṛdh-nó-* (RV 1.18.8), *tṛ-m-p-* (RV 8.4.12) next to *tṛp-nu-* (RV 3.42.2).



*lnum*.<sup>65</sup> Lat. *sternuō* ‘sneeze’ (next to Gk. πτάρνυμαι ‘id.’) is perhaps an independent Italic innovation.

The exact etymological match between Arm. *zgenum* and Gk. ἔννυμαι represents a special case. Here, the full grade is best explained by the underlying IPFV and not PFV stem. PIE stative verb *\*ues-*, perhaps, did not have a zero-grade. One might argue that the dynamic nasal verb was derived from that stative verb after the ablaut had been abandoned and inherited its root vocalism. That dialectal PIE innovation can be tentatively associated with the immediate source of the Greek and Armenian branches given that no other branch derived a *\*n(e)u*-stem from that root.<sup>66</sup>

The PArm. *\*n(e)u*-stem with roots in the *e*-grade is found in the few verbs with the equipollent transitivity marking pattern in Old Armenian: *ankenum* tr. ‘throw’, *ant'ernum* ‘read’, *lnum* tr. ‘fill’, and *xnum* tr. ‘close’. Unlike verbs with the causative transitivity marking pattern, such verbs have the pivotal transitive member of a pair with the passive alternation marked by the mediopassive inflection. Nothing prevents us from counting these verbs as archaic Proto-Armenian (or dialectal PIE) representatives of the *\*n(e)u*-class with roots in the *e*-grade. If the etymology suggested in § 2.1.1-2.2 is correct, the *\*n(e)u*-stem of *ant'ernum* is older than the sound change PArm. *\*rKn* > PArm. *\*rn*. According to the etymology accepted in § 2.1.1-2.1, *ankenum* tr. ‘throw’ must be older than the sound changes *\*sn* > *\*n* and *\*dk* > *k*.<sup>67</sup> As mentioned above, *lnum* can represent a dialectal PIE replacement of the core PIE infixed verb. Thus, the transitive argument structure may be considered an archaism, characteristic of the dial. PIE *\*n(e)u*-class with roots in the *e*-grade. One may argue that the older layer of PArm. *\*n(e)u*-verbs agrees with the Anatolian *nu*-causatives and Sanskrit causative verbs of the 5<sup>th</sup> class.

<sup>65</sup> The following distribution is observable in Ancient Greek: roots in *\*-h<sub>2</sub>-* grouped in the  $v\bar{\alpha}/v\check{\alpha}$ -class (cf. aor. δαμάσαι, pres. δάμνημι ‘tame’ ← PIE *\*demh<sub>2</sub>-* ‘id.’; aor. περάσαι, pres. πέρνημι ‘sell’ ← PIE *\*perh<sub>2</sub>-* ‘id.’; aor. πέλαισαι, pres. πιλναμαι ‘approach’ ← PIE *\*pelh<sub>2</sub>-* ‘id.’), roots in *\*-h<sub>3</sub>-* grouped to the  $v\bar{u}/v\check{u}$ -class (cf. aor. ὀλέσαι, pres. ὄλλυμι ‘ruin’ < PGk. *\*ōllunmi* ← PIE *\*h<sub>3</sub>elh<sub>3</sub>-* ‘destroy’; aor. στορέσαι, pres. στόρνυμι ‘stretch out’ ← PIE *\*sperh<sub>3</sub>-* ‘spread out’; aor. ὀμόσαι, pres. ὀμνυμι ‘swear’ ← PIE *\*h<sub>3</sub>emh<sub>3</sub>-* ‘insist, urge’; see EDG: 1078 on the reconstructed meaning), while roots in *\*-h<sub>1</sub>-* tended to thematise the nasal stem, cf. τέμνω ‘cut’ from *\*temh<sub>1</sub>-* ‘id.’ On the evidence of *lnum*, one may consider Old Armenian together with Ancient Greek with regard to that distribution.

<sup>66</sup> In my opinion, there is not enough evidence for reconstructing the PIE ablaut pattern act. sg. *\*ues-nu-* / mp. sg. *\*us-nu-*, suggested by Strunk 1985: 236 and mentioned in Clackson 1994: 179f., as a way to disprove the close affinity between Arm. *zgenum* and Gk. ἔννυμαι. Arm. *zgenum*, with its reflexive meaning, goes back to the mediopassive form identical to Gk. mp. ἔννυμαι.

<sup>67</sup> In some, presumably later, prefixal verbs no simplification occurred, cf. *and-grkem* ‘embrace’, *and-harkanim* ‘knock’ (see Meillet 1910–1911: 126f.; RADCA: 460, 649).

An intermediate step in the transition from the agentive transitive to anticausative argument structures is provided by *ǰer̄num* intr. ‘warm (oneself) up; be(come) heated’. This verb is attested in the passive construction that presupposes an underlying transitive argument structure; cf. example (1) in § 2.1.1-1.4. Along similar lines, *l̄num* and *x̄num* developed anticausative construals marked by the mediopassive inflection (‘become filled’ and ‘become closed’, respectively). Transitive counterparts for such anticausative uses are expressed by the morphological causative. The following chain may be suggested for dial. PIE *\*pleh<sub>1</sub>-nu-*: act. ‘fill’ : pass. ‘be filled’ → anticaus. ‘become filled’ → caus. ‘fill’. As a result, the active voice of the base verb became co-referential with the derived causative. This case of competing equipollent and causative transitivity marking patterns illustrates how intransitive verbs could be introduced into the Arm. *n(u)*-class.

Ditransitive verbs provide an additional facet for the described shift towards the intransitive argument structure and mediopassive morphology of the Arm. *nu*-class. Gk. πῆγνυμι, mentioned above as an instantiation of the replacement of the PIE infix (Lat. *pangō* ‘fasten’) by the *\*nu*-suffix, has an Old Armenian cognate within the *an(e/i)*-class — *sp’acanim* ‘put on, fix (a garment)’ from PArm. *\*z-pac-* < PIE *\*p(e)h<sub>2</sub>ǵ-* (see § 2.5.1-2.43). It is possible that dial. PIE *\*peh<sub>2</sub>ǵ-nu-* was formed before the split of the Greek and Armenian branches, and was subsequently replaced by PArm. *\*pac-ane/o-* (see § 2.1.2-2.1 on the inner-Armenian variation pattern). Like *ar̄num*, discussed in § 2.1.1-1.1, *zgenum* and *sp’acanim* represent reflexive alternations of the underlying extended transitive verbs. All three verbs are lexicalised mediopassive members of their transitivity pairs, as part of the aforementioned change from the equipollent to causative transitivity marking pattern in the PArm. *\*n(e)u*-class. Perhaps, due to that pattern, the Proto-Armenian *\*n(e)u*-class was extended to agentive intransitive verbs with an autocausative (reflexive) meaning.<sup>68</sup> Such secondary *\*nu*-stems can be illustrated by extended intransitive (reflexive) *yenum* ‘lean (oneself) upon so.’

A relatively recent incorporation of anticausative verbs into the *n(u)*-class is witnessed by *heł̄jnum* ‘choke’, the nasal stem of which was formed later than the sound change PArm. *\*Rjn* > PArm. *\*Rn* as well as *əndel̄num* intr. ‘become familiar’, derived from *elan̄im* intr. ‘go out’ and younger than the sound change PArm. *\*ln* > PArm. *\*ln̄*. The intransitive usage of the *n(u)*-stem extends to the early Old Armenian texts, insofar as hapaxes *sksnum* and *zbawsnum* allow to conclude.

In core PIE, *\*n(e)u*-verbs were characterised by the athematic PFV root stem. However, other types of aorists are attested next to the *\*n(e)u*-stem in the daughter languages. In

<sup>68</sup> A comparable shift can be observed in verbs of the Old Armenian *a*-conjugation, cf. *stanam* ‘receive; gain’, a contextual synonym of *ar̄num*, which may be a lexicalised reflexive of caus. *\*sth<sub>2</sub>-n(e)h<sub>2</sub>-* ‘make stand; expose (for sale)’, cf. Lat. *dē-stināre* (see § 2.4.1-2.13 for an alternative solution).

particular, Ancient Greek *vu*-verbs used a variety of aorist types, including the athematic and thematic root stems,<sup>69</sup> reduplicated, sigmatic and a few alpha-thematic aorists, aorists in *-η-*, and thematic aorists in *-αθ-* (see van de Laar 2000: 348–354). The PFV *\*s*-stem was by far the most productive type, whereas other types of aorists are only marginally attested. Given that the spread of the sigmatic type may be assumed already for the dialectal PIE ancestral to the Greek and Armenian branches, the Old Armenian evidence of Proto-Armenian types of the PFV stem of the *\*n(e)u*-verbs becomes significant.

Meillet (1913a: 103), followed by Jensen (1959: 109) and Klingenschmitt (1982: 251), acknowledged a rule, according to which the PArm. PFV *\*c*'-suffix was added to roots in a vowel or diphthong.<sup>70</sup> That rule must have operated after the loss of postvocalic laryngeals and intervocalic *\*s*. Thus, Arm. *li-c*' can be derived from PArm. *\*(p)lē-*, itself from dial. PIE *\*pleh<sub>1</sub>-* or *\*pleh<sub>1</sub>-s-* (Gk. aor. ἔπλησασ, Skt. aor. *apras*), and Arm. *z-ge-c*' can be derived from PArm. *\*ge-* < PIE *\*ues-*.

The derivation of *\*c*' from *-s-s-* (as if *z-ge-c*' from *\*ues-s-*), suggested in Klingenschmitt 1982: 286f., is problematic in view of 2 sg. *es* 'you are' from dial. PIE *\*h<sub>1</sub>es-si*. The cluster *\*ss* had simplified to *\*s* already in PIE yielding 2 sg. *\*h<sub>1</sub>esi* (Mayrhofer 1986: 121). The expected outcome of PIE *\*h<sub>1</sub>esi* would be Arm. *\*e*. The attested *es* is best explained from the restored dial. PIE *\*h<sub>1</sub>es-si* (together with Gk. ἐσσί, along with the expected εἶ). It provides the counterevidence, albeit very limited, against the alleged sound change PIE *\*-ss-* > Arm. *-c*'. Given that dial. PIE *\*-ss-* yielded Arm. *-s-* in *es*, PFV *\*ues-s-* would yield Arm. *\*z-ges-ay* (cf. Godel 1965 = 1982: 35), and therefore the most straightforward explanation for aor. *zgec'ay* would be to derive it from the PFV athematic root stem (cf. asigmatic mp. ἔσαμην e.g. in *Il.* 14, 178). However, in view of Gk. ἔσσα 'clothe smb.' (e.g. in *Il.* 5, 905) and aor. mp. ἔσσαμην 'clothe oneself' (e.g. in *Il.* 14, 350), one may assume that the dialectal PIE sigmatic stem yielded PArm. PFV *\*ues-s-* > *\*ues-*, and its stem-final *\*-s-* was replaced by the PFV suffix *\*c-* (Arm. *-c'*) on the analogy to denominal verbs (see Martirosyan frth. § M 507.6 with ample references).

<sup>69</sup> The paradigmatic class characterised by the asigmatic athematic aorist and the *vu*-present is represented in epic Greek by two verbs which also have the thematic aorist. Taken together, the *vu*-verbs with the PFV athematic and thematic root stems include: 1) agentive intransitive verbs: mp. θάρνυμαι 'spring; mount'; mp. κίνυμαι 'go, move' (*Il.* 4, 332); 2) agentive transitive: mp. ἄρνυμαι 'gain' (*Il.* 1, 159 reflexive benefactive transitive); 3) agentive intransitive verbs (mp.) / agentive transitive (act.): mp. ὀρνυμαι 'stand up' (*Il.* 3, 265) : act. ὀρνυμι 'incite' (*Il.* 17, 546); 4) active agentive transitive / passivised agentive intransitive: act. ὀλλυμι 'destroy' / mp. ὀλλυμαι 'be destroyed' (see van de Laar 2000: 348f.).

<sup>70</sup> The rule is reminiscent of the Sanskrit aorist suffix *-siṣ-*, which substitutes *-iṣ-* in a few roots in a plain or nasalised vowel, cf. *á-yā-siṣ-am* 'I went' (see Macdonnell 1916: 166f.).

Meillet's rule can be applied to the protoforms of PFV *ənkec'*- (pres. *ənkenum*), PFV *xic'*- (pres. *xnum*) and PFV *yec'*- (pres. *yenum*) as well as to the introduction of \*-c'- to verbs of other paradigmatic classes, including PFV *ba-c'*- (pres. *banam* 'open' from PIE *\*b<sup>h</sup>(e)h<sub>2</sub>-*) and morphological causatives in *-oyc'/uc'*-.

In *zgenum*, *yenum*, and possibly *ənkenum*, one has to take into account the root levelling from the PFV stem to the IPFV stem after *\*en > \*in*.<sup>71</sup> Whether or not the underlying PFV stems were sigmatic or asigmatic, the levelling must have happened after the introduction of the \*-c'-suffix, which made the segmentation of the root transparent in two stems of the paradigm. The direction of the levelling seems to be trivial in the case of *ənkenum* with the lexicalised [-durative] aspectual feature. It is peculiar that *zgenum* and *yenum*, unspecified for telicity and durativity, used the PFV stem as the source of analogy.

It should be born in mind that Meillet's rule has some counter-examples, including PFV *erdu-* (pres. *erdnum* 'swear'), presumably from PIE *\*d<sup>h</sup>reu(s)-*, PFV *lu-* (pres. *lsem* 'hear') from PIE *\*kleu(s)-*, PFV *ed-* (pres. *dnem* 'put') from PIE *\*d<sup>h</sup>eh<sub>1</sub>-*, PFV *eti-* (pres. *linim*) from PIE *\*klei-* as well as the Arm. PFV *i*-stem derived from the PIE *\*eh<sub>1</sub>-*stem. These examples indicate that Meillet's rule must not be considered a regular Proto-Armenian morphological phenomenon. It is peculiar that the root levelling did not take place in either of the aforementioned verbs, as if \*-c- (> \*-c'-) was introduced only into PFV stems that contained a root in a vowel that was transparently segmentable throughout the paradigm.

The contrast between PIE *\*d<sup>h</sup>eh<sub>1</sub>- > ed-* and PIE *\*pleh<sub>1</sub>(s)- > lic'* may lead to an alternative assumption that \*-c- analogically replaced \*-s- in parallel to the restoration of the lost intervocalic PGk. \*-s- by analogy to the outcomes of PGk. *\*Ts*, *\*ss* (-( $\sigma$ ) $\sigma$ -), and *\*Ks* (- $\xi$ -) (cf. Chantraine 1961: 177f.; Kortlandt 1996a = 2003: 108). However, it is unlikely that the rise of the affricates from the inherited *\*Cs*-clusters or *\*sk* predated the loss of *\*s* in an intervocalic environment. Therefore, while *\*ues-s- > \*ues-c-* (> *z-gec'*-) would make sense, *\*pleh<sub>1</sub>-s- > \*plē-s- > \*pleh<sub>1</sub>-c-* (> *lic'*-) is anachronistic.

The PArm. PFV *\*-c-* (Arm. *-c'*-) originated in the denominal PArm. PFV *\*āc-* and *\*ec-* stems, going back to the iterative-durative (also called "iterative-intensive") preterite IPFV *\*ske/o*-stem (see Meillet 1899–1900 = 1977: 76f.; Schwyzer 1939: 71of.; Clackson 1994: 75ff.; and, in particular, Zerdin 2002 on the grammatical features of the formation in Ancient Greek with literature).<sup>72</sup> It is commonly acknowledged that denominal verbs did not have an aorist in PIE (Meillet 1934: 196). Such verbs could utilise the imperfect tense in order to

<sup>71</sup> Alternatively, the vocalism of the present stem has been explained by the lowering of *-i-* before the following *-u-* (cf. Clackson 1994: 95, 179; Viredaz 2017).

<sup>72</sup> The denominal imperfect in *\*-ske/o-* must be distinguished from the primary IPFV *\*ske/o-* stem found in aor. 3sg. *e-harc'*- from PIE *\*h<sub>1</sub>e-pr<sub>3</sub>(k)-ske/o-* 'ask' (Kieckers 1915: 110; Meillet 1936: 115f.; Godel 1965 = 1982: 35).

express the past. When the imperfect and aorist tenses merged into one syncretic preterite category in Proto-Armenian, the IPFV *\*ske/o*-stem was generalised as the default preterite suffix of denominal verbs.<sup>73</sup>

Kortlandt (1987 = 2003: 81; 1996a = 2003: 11) argues that the Ancient Greek iterative *σχε/o*-formations cannot be compared to the Old Armenian *c'*-aorist because they are post-PIE.<sup>74</sup> In fact, the iterative forms are found already in Homer (*Il.* 6, 191); see now Zerdin 2002. Nothing seems to contradict the idea that the denominal imperfect in *\*ske/o*- was a morphological feature of the dialectal PIE common for the Greek and Armenian branches. The assumption that *-c'*- originated in denominal verbs in *\*e-ske/o*- and *\*ā-ske/o*- may be further supported by the fact that PArm. *\*-c*- analogically spread to roots in a vowel within the *n(u)*-class.<sup>75</sup>

<sup>73</sup> The reanalysis of the denominal PArm. *\*Vc*-stems as aoristic could be one of the triggers of the re-characterisation of the inherited IPFV stems in *\*Vc*- with the *\*ie/o*-suffix: PIE *\*ǵnh<sub>3</sub>-ske/o*- > PArm. *\*janace-* > *\*janac-ie/o-* > *\*janac'e-* > *\*canač'e-* > Arm. *čanač'em* 'know'. The same can be assumed for PIE stems in *\*eh<sub>1</sub>-ske/o-* > PArm. *\*ē-c-* → Arm. *-(i)č'*.

<sup>74</sup> According to Kortlandt (1987 = 2003: 81), mediopassive aorists in *-eay* go back to the PIE stative suffix *\*eh<sub>1</sub>-*, found in the Greek and Slavic intransitive and mediopassive aorists (cf. Godel 1975: 121) which secondarily adopted the sigmatic suffix: thus, PIE *\*eh<sub>1</sub>-* → PArm. *\*ē-s-* > Arm. *-e-ay*. According to Kortlandt (*p. c.*), the replacement of *\*-s-* by PArm. *\*-c-* (> Arm. *-c'*) did not occur, and thus there were no conditions for the rise of mp. *<sup>x</sup>-(i)c'ay* from PArm. *\*ē-s-*. In denominal stems, which had no aorist in PIE, the new aorist in *\*-c-* was formed by analogy to sigmatic aorists of roots in *\*-t-* and *\*-k-*. Within this analysis, Arm. aor. *mnac'* (*mnam* 'remain') goes back to PArm. aor. *\*mVn-ā-c-*, based on PArm. pres. *\*mVn-ā-ie/o-* without the intermediation of aor. *\*mVn-ā-s-*.

Previously, Kortlandt (1995 = 2003: 108f.), mentioned PArm. *\*-H-s-* as one more source of PArm. *\*-c-* (> *-c'*), cf. e.g. *\*pleh<sub>1</sub>-s-* > *lnum*. However, the sound change PArm. *\*VHs-* > Arm. *-Vc'* overlaps with the rule, according to which PArm. *\*-c-* would be added to a Proto-Armenian PFV stem ending in a vowel after the loss of *\*s*. Moreover, the sound change is contradicted by the reconstruction of dial. PIE *\*deh<sub>3</sub>-s-om* > Arm. *etu* 'I gave' and dial. PIE *\*d<sup>h</sup>eh<sub>1</sub>-s-om* > Arm. *edi* 'I put', where the sigmatic stem is reconstructed for the 1 sg. to explain the retention of the final vowels and finds comparative support in OCS *daxъ* and *děxъ*, respectively (see Kortlandt 1987 = 2003: 79, 1996a = 2003: 114 among others).

The sigmatic stems of roots in *\*-t-* and *\*-k-* constitute a very limited source of analogy for the rise of the default PFV suffix, which would spread to all denominal stems. Note that the hypothesis according to which all dentals and velars devoiced before *\*s* and merged in *\*c > c'* (see § 1.4.2 for discussion) provides a more substantial basis for the rise of the PFV *c'*-suffix out of early Proto-Armenian sigmatic stems.

<sup>75</sup> Kortlandt argues that verbs of the *n(u)*-class do not have the 3 sg. act. in *-(e)ac'* and thus must be original. However, the contamination between the Proto-Armenian denominal *\*-e-c'* and

The formal ambiguity between the PFV root and \*s-stem extends to the verbs with roots in *-r-* (*aṛnum*, *jeṛnum*, *uṛnum*), which can be derived from PIE \*rs (see Dressler 1976: 311; Ravnæs 1991: 87f. on the sound change) and \*r with the sound change of PIE \*rn > Arm. *rn* taking place in the PArm. IPFV \*nu-stem. The solution depends on the direction of analogical the root levelling which one assumes for such verbs.

In *aṛi* (pres. *aṛnum*), the direction of the root levelling remains ambiguous. Both reconstruction options are supported by external evidence (cf. Greek aorists ἀρόμην and ἠράμην). The aspectual constraints do not apply since the verb is telic and has a variable [ $\pm$  durative] aspectual feature.

The neat distribution of IPFV *jeṛnu-* : PFV *jeṛ-* vs. IPFV *jeṛani-* : PFV *jeṛ-* speaks in favour of the analogical nature of *-r-* from the IPFV to the PFV stem of *jeṛnum*. This possibility is further supported by the fact that *jeṛnum* has the lexicalised [ $-$  telic] aspectual feature. The only aoristic form of Gk. θέρομαι ‘become warm; warm up oneself’ is aor. subj. θερέω (*Od.* 17, 23); the only cognate sigmatic formation in other languages is Old Irish *fo-gert* ‘heated’, which may well be a Celtic innovation (cf. Watkins 1962: 163f.).

The case of *uṛnum* ‘puff up’ is equally unambiguous: the IPFV stem root shape had clearly spread to the PFV *uṛeay*. Again, the lexicalised [ $-$  telic] aspectual feature goes in line with the expectations.

Another possible continuant of the PArm. \*s-stem is aor. *ant’erc’ay* (pres. *ant’eṛnum* ‘read; pronounce’) from PIE \*terg<sup>(w)</sup>-s-; see § 2.1.1-2.2 for the discussion of a formal complication related to such reconstruction. No root levelling took place in this verb. Note that this verb is unspecified for telicity and durativity so that neither of the two stems can *a priori* be considered pivotal.

According to a widespread opinion, the lengthened \*ē-grade must be reconstructed in the root of the PFV \*s-stem in the active singular forms (*LIV*<sup>2</sup>: 20f.). Only two PFV stems of *n(u)*-verbs, *lic’-* and *xic’-*, can in theory be derived from the lengthened grade forms PArm. act. \*plēH-s- and \*k<sup>h</sup>ēH-s-, respectively. From the rest, two verbs may have inherited the *e*-grade from the mediopassive forms: *aṛ’-* (if from mp. \*h<sub>2</sub>er-s- ‘take for oneself’) and *jeṛ’-* (if from mp. \*g<sup>wh</sup>er-s- ‘warm up oneself’). However, the *e*-grade of a basically transitive verb *ant’erc’-* tr. ‘read’ (from tr. \*‘produce; let go’) does not fit the expected PIE pattern. It reminds of the generalised *e*-grade of the PGk. PFV \*s-stem. Within the traditional reconstruction of the PIE \*ē/e ablaut in the sigmatic stem, the Ancient Greek *e*-grade is plausibly explained by the shortening of the \*ē-grade due to the Osthoff’s law in \*CeRC-roots with the posterior complete elimination of the rare \*ē/e ablaut (recently Willi 2018:

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\*-a-c’-, on the one hand, and the spread of \*-c’- to PFV stems ending in a vowel, on the other hand, might have been parallel processes.

490). Such explanation would not work for Proto-Armenian, where the sound law did not operate, cf. *sirt* from PIE *\*kērd-* (Olsen 1999: 21, 88).<sup>76</sup>

Table 5. Grammatical features of the *n(u)*-verbs with inherited roots or *\*s*-stems

	Transitivity	Agentivity	Lexical Aspectual Features
<i>ar̄num</i>	[+ transitive]	[+ agentive]	[+ telic], [± durative], [+ dynamic]
<i>erdnum</i>	[± transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>an̄kenum</i>	[± transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>ant'er̄num</i>	[+ transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>hel̄jnum</i>	[– transitive]	[– agentive]	[+ telic], [± durative], [+ dynamic]
<i>jēr̄num</i>	[– transitive]	[+ agentive]	[± telic], [± durative], [± dynamic]
<i>ln̄um</i>	[± transitive]	[± agentive]	[+ telic], [± durative], [+ dynamic]
<i>xnum</i>	[± transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]
<i>yenum</i>	[– transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>zgenum</i>	[± transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]

Taking the aforementioned considerations into account, the PFV stem of all of the verbs listed in Table 5 can be derived from either the early Proto-Armenian PFV root stem or *\*s*-stem on formal grounds. Altogether, their grammatical features do not provide straightforward arguments in favour of a specific morphological type. The grammatical features of *ant'er̄num* ([+ transitive], [+ agentive], [± telic], [± durative], [+ dynamic]) next to those of *meranim* ([– transitive], [– agentive], [+ telic], [– durative], [+ dynamic]; see § 2.5.1-2.32), that certainly contained the early Proto-Armenian sigmatic stem, do not allow to restrict the scope of sigmatic stem productivity to a specific value of the features [± transitive], [± agentive], [± telic] or [± durative]. Note that all likely continuants of the PFV *\*s*-stem are [+ dynamic]. If there ever was a correlation between the sigmatic PFV stem and transitivity (cf. Gk. tr. ἔπλησα next to intr. πλῆτο), it was abandoned in early Proto-Armenian by the time when PArm. *\*mer-s-* replaced the PFV root stem.

### § 2.1.2-3.3. The class with IPFV *\*CRC-n(e)u-* and PFV *\*CRC-eh,-* stems

The PFV *i*-stem, found in many *n(u)*-verbs, continues the PIE *\*eh,-* stem (Godel 1975b = 1982: 77f.; Klingenschmitt 1982: 78f. against the attempt to explain it by PIE *\*is-* offered in Meillet 1934: 214). PIE *\*eh,-* was an inchoative/stative suffix that characterised primary and

<sup>76</sup> Watkins's theory (1962), according to which an *e*-grade must be reconstructed for all the forms of the PIE PFV *\*s*-stem (cf. Gk. ἔσ-, OIr. *sess-* 'sit', etc.), is based on the Sanskrit evidence alone and must, perhaps, be abandoned.

denominal anticausative verbs (see Jasanoff 2002–2003 and Yakubovich 2014 for a review of the controversies concerning the original function of PIE *\*eh<sub>1</sub>-* and its alleged derivatives *\*eh<sub>1</sub>-ie/o-*, *\*h<sub>1</sub>-ie/o-*, and *\*eh<sub>1</sub>-s-*). In my opinion, Latin atelic verbs like *sedēre* ‘sit’ and the Ancient Greek passive aorist ultimately continue one PIE morphological type. The grammatical meaning of PIE *\*eh<sub>1</sub>-* developed in the direction of resultative perfect in the Greek and Armenian branches. While Ancient Greek retained the non-agentive quality of the resultative suffix, Proto-Armenian extended its use of intransitive agentive (reflexive) verbs. Secondary IPFV *\*ske/o-* and *\*ie/o-* stems derived from the underlying agentive (subject-oriented) resultative can explain IPFV *č'(i)*-stem (cf. *t'ak'č'im* ‘hide’) and the suffixless *i*-conjugation (cf. *nstim* ‘sit’), respectively.<sup>77</sup>

According to van de Laar 2000: 349, πήγνυμαι and ῥήγνυμαι are the only two verbs that contain the combination of stems IPFV -νυ- : PFV -η-. Both of them are anticausative mediopassive verbs and have transitive counterparts marked by the active voice in the present and the PFV *\*s*-stem, cf. mp. pres. πήγνυμαι, aor. ἐπάγην intr. ‘be(come) fixed’ / act. pres. πήγνυμι, aor. ἔπηξα tr. ‘fix’; mp. pres. ῥήγνυμαι, aor. ἐρραγην intr. ‘be(come) broken’ / act. pres. ῥήγνυμι, aor. ἔρρηξα tr. ‘break’. These two verbs have likely cognates within the Old Armenian *an(e/i)*-class — *sp'acanim* tr. ‘put on’ and *ergicanim* intr. ‘tear apart’, respectively (§§ 2.5.1-2.43, 2.5.1-2.17). If the rare Ancient Greek paradigmatic type reflects an archaism and the Old Armenian verbs underwent a change from the *nu-* to *an(e/i)*-class (see § 2.1.2-2.1), the following tentative reconstruction can be suggested:

- (1) Dial. PIE *\*peh<sub>2</sub>ǵ-nu-* tr. ‘fix so.’ → Arm. *sp'acanim* tr. ‘put on’

	Act.		Mp.
PIE	IPFV <i>*peh<sub>2</sub>ǵ-nu-</i> (trans.)		IPFV <i>*peh<sub>2</sub>ǵ-nu-</i> (intrans.)
	PFV <i>*peh<sub>2</sub>ǵ-s-</i>		PFV <i>*ph<sub>2</sub>ǵ-eh<sub>1</sub>-</i>
PArm.	IPFV <i>*pac-nu-</i> (trans.)		IPFV <i>*pac-nu-</i> (intrans.)
	PFV <i>*pac-</i>		PFV <i>*pac-i-</i>
	IPFV <i>*pac-nu-</i> (trans.)	→	IPFV <i>*z-pac-nu-</i> (refl. trans.)
	PFV <i>*pac-</i>		PFV <i>*z-pac-</i>
			Cf. <i>z-genum</i> ‘put on (clothes)’
Arm.	—	→	IPFV <i>sp'ac-ani-</i>
	—		PFV <i>sp'ac-</i>

<sup>77</sup> Alternatively, the *i*-conjugation can be derived from the unextended IPFV/PFV *\*eh<sub>1</sub>-* stem and not from the IPFV *\*eh<sub>1</sub>-ie/o-* stem, cf. the Ancient Greek presents in -η-, e.g. Aeol. θερσήμι ‘be bold’ (Ruijgh 2004). Like Ancient Greek, Old Armenian could have preserved the double value of the original inchoative/stative suffix.



(2)	Dial. PIE <i>*ureh<sub>1</sub>ǵ-nu-</i> → Arm. <i>ergicanim</i> intr. ‘tear apart’	
	Act.	Mp.
PIE	IPFV <i>*ureh<sub>1</sub>ǵ-nu-</i> (trans.)	IPFV <i>*ureh<sub>1</sub>ǵ-nu-</i> (intrans.)
	PFV <i>*ureh<sub>1</sub>ǵ-s-</i>	PFV <i>*urh<sub>1</sub>ǵ-eh<sub>1</sub>-</i>
PArm. →	IPFV <i>*ergic-ane-</i> (trans.)	IPFV <i>*ergic-nu-</i> (intrans.)
	PFV <i>*ergic-</i>	PFV <i>*ergac-i-</i>
Arm.	IPFV <i>ergic-ane-</i> (trans.)	→ IPFV <i>ergic-ani-</i> (intrans.)
	PFV <i>ergic-</i>	PFV <i>ergic-</i>

The outlined scenario brings together the agentive *nu*-verbs with the PFV *\*-s-* and the non-agentive *nu*-verbs with the PFV *\*-eh<sub>1</sub>-*. It presents a single pattern of morphosyntactic alternation that could have been preserved in Ancient Greek πήγνυμι / πήγνυμαι and ῥήγνυμι / ῥήγνυμαι.

The Old Armenian PFV *i*-stem can be derived from PArm. *\*-ēs-* < PIE *\*-eh<sub>1</sub>-s-*. The sigmatised *\*eh<sub>1</sub>-* suffix, *\*-eh<sub>1</sub>-s-*, is found in the Ancient Greek paradigmatic class IPFV *-νυ-* : PFV *-ησ-*, represented by only one verb in epic Greek (van de Laar 2000: 411) — non-agentive mp. pres. ἄχνομαι, aor. ἀκάχησα intr. ‘be troubled’. This verb shows functional similarity to Old Armenian verbs with the anticausative PFV *i*-stem.<sup>78</sup> It offers support, albeit very limited, for the derivation of Arm. PFV *i*-stem together with Gk. *-ησ-* from dial. PIE *\*-eh<sub>1</sub>-s-*.

Non-agentive verbs of the Old Armenian IPFV *-n(u)-* : PFV *-i-* class include *c’asnum* ‘be(come) angry’, *k’atc’num* ‘be(come) hungry’, *ur’num* ‘be(come) puffed up’, *zart’num* ‘become awake’, and possibly *aytnum* ‘be(come) swollen’. The subject argument of these verbs corresponds to the semantic role of EXPERIENCER rather than PATIENT. They denote processes or states, the realisation of which does not necessitate an external AGENT to come about. A broader look at Ancient Greek verbs with the PFV *η-* and *ησ-* stems that co-occur with IPFV stems other than the IPFV *νυ-* stem, shows a functional overlap between the EXPERIENCER and PATIENT non-agentive verbs, cf. ἐτραπήν ‘amused’, ἐμάνην ‘became mad’, ἐχάρην ‘rejoiced’, etc.

Old Armenian agentive intransitive verbs include *c’acnum* ‘refrain’, *hart’num* ‘retreat’, *p’axnum* ‘flee’, and *pšnum* ‘stare’. The first three verbs are extended intransitive verbs with an obligatory peripheral argument expressing SOURCE or STIMULUS. The verb *c’acnum* ‘refrain; be intimidated’ shows that the boundary between SOURCE and STIMULUS interpretations of the peripheral argument is rather fuzzy, which makes it difficult to draw

<sup>78</sup> Cf. also deagentival anticausative Hittite verbs in *-eš-* (e.g. *mekki-* ‘great’ → *makkē-* ‘become great’) from *\*-eh<sub>1</sub>-s-* (Watkins 1962: 76f.; 1973).

the line between the agentive and experiential interpretation of the respective predicates. It is probably due to the obligatory peripheral argument that these verbs were absorbed by the paradigmatic class characterised by the PFV *i*-stem. In the diachronic perspective, here also belongs *yarnem* intr. ‘arise’, aor. *yareay*, the IPFV stem of which goes back to *\*yar-nu-* (Gk. ὀρνυμαι intr. ‘come to motion’, Skt. ṛṇvāti ‘come to motion’; § 2.3.1-2.1). The agentive verb *pšnum* also has an obligatory peripheral TARGET argument. Thus, we observe the functional continuity of the subject’s roles PATIENT ↔ EXPERIENCER ↔ AGENT within the extended intransitive verbs of the paradigmatic class IPFV *-nu-* : PFV *-i-*, which may explain the spread of the early PArm. *\*ē*-suffix from non-agentive intransitive verbs (like its Ancient Greek cognate passive aorist suffix) to agentive intransitive verbs.<sup>79</sup>

Table 6. Grammatical features of the *nu*-verbs with inherited *\*eh,(-s)*-stems

	Transitivity	Agentivity	Lexical Aspectual Features
<i>aynum</i>	[– transitive]	[– agentive]	[+ telic], [± durative], [+ dynamic]
<i>c’acnum</i>	[– transitive]	[± agentive]	[± telic], [± durative], [+ dynamic]
<i>c’asnum</i>	[– transitive]	[– agentive]	[– telic], [+ durative], [– dynamic]
<i>k’atc’num</i>	[– transitive]	[– agentive]	[– telic], [+ durative], [– dynamic]
<i>paxnum</i>	[– transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>pšnum</i>	[– transitive]	[+ agentive]	[– telic], [– durative], [+ dynamic]
<i>ur’num</i>	[– transitive]	[– agentive]	[± telic], [± durative], [± dynamic]
<i>zart’num</i>	[– transitive]	[– agentive]	[+ telic], [– durative], [+ dynamic]

Whatever the exact source of the PFV *\*i*-stem, *\*eh,-* or *\*eh,-s-*, one expects a zero-grade root next to a full-grade suffix, e.g. dial. PIE *\*pt<sub>3</sub>k-eh,(-s)-* > Arm. *t’ak’ey* ‘I am hidden’. On the surface, a salient feature of Old Armenian verbs with aorists in *-ey*, as compared to the previously discussed *n(u)*-verbs, is their root *a*-vocalism (*c’acnum*, *c’asnum*, *k’atc’num*, *p’axnum*, *zart’num*) with two exceptions (*pšnum*, *ur’num*). In *k’atc’num* and *zart’num*, the *a* clearly results from the syllabic resonants in the zero-grade of the roots.

The cases of *c’asnum*, *c’acnu-* and *p’axnu-* are more complicated given that none has an established etymology. In *c’acnu-* and *p’axnu-*, the *a* may result from *\*(e)h<sub>2</sub>* or *\*o* in an open pretonic syllable; the *a* of *c’asnum* may be from *\*(e)h<sub>2</sub>*, *\*o*, or *\*N*. The root auslaut of *c’acnum* and *c’asnum* can theoretically reflect *\*-C-s-*, however, both verbs lack an established etymology. Moreover, based on the theoretical assumption that atelic verbs levelled the IPFV stem root shape, the sigmatic origin of *c’asnum* can be doubted.

<sup>79</sup> A reverse shift can be illustrated by the derivation of non-agentive *zart’num* intr. ‘awake’ (*\*z-hart’num*) from the agentive *hart’num* intr. ‘rush away’.

## Section 2.2. The *n*-stem of the *a*-conjugation

### § 2.2.1. Evidence

A pair of verbs, *bařnam* ‘take up; carry’ and *dařnam* ‘turn’, has a clearly segmentable IPFV *n*-suffix in the *a*-conjugation; their PFV stem has no suffix. Due to the consonant cluster simplification which took place in the IPFV stem, both verbs have the weak suppletion of the root shape across the paradigm, e.g. *bař-* vs. *barj-*. This kind of root variation is transparent for segmentation analysis and will be neglected.

*Ornam* ‘yell’, with no attested PFV stem, can be attributed to the *n(a)*-class on etymological grounds. *Spařnam* (aor. *spařnac’i*) ‘threaten’ synchronically belongs to the suffixless *a*-conjugation, but can also be derived from a *\*na*-stem on etymological grounds, and will be adduced to the diachronic analysis below.

While the IPFV *an(a)*- and PFV *ac’*-suffixes can be securely identified in the stems of verbs derived from nouns or adjectives (cf. *ariwn* ‘blood’ → *ariwn-an-am* intr. ‘become like blood’), no clear criterion is available for the segmentation of the root and suffix in the case of some primary verbs like *banam* ‘open’, aor. *bac’i*, in which the first *-a-* may be ascribed to the root or the suffix. There are no deverbal substantives that would facilitate the choice. Thus, *bac’* adj. ‘open’, *ant’ac’* n. ‘course’ are back formations from the PFV stem, and are thus as ambiguous as the personal verb forms. In the present work, all verbs with the IPFV stem in *-ana-* and the PFV stem in *-ac’* will be treated in Section 2.4 no matter whether the internal *-a-* etymologically belongs to the root or not.

The PArm. *\*na*-suffix was assumed in *atam* ‘grind’, aor. *atac’i*, which belongs to the suffixless *a*-conjugation in the synchrony of Old Armenian. Unlike *spařnam*, *atam* probably goes back to a PArm. IPFV *\*a*-stem (see § 1.4.4) and will be left out of consideration.

#### § 2.2.1-1. IPFV *-n-* : PFV *-Ø-* (suppl.)

§ 2.2.1-1.1. *Bařnam* tr. ‘carry, bear; carry off; lift; raise (voice; eyes)’, intr. ‘pass away’, aor. act. *barji*, mp. *barjay*, past ptc. *barjeal*, caus. *barjuc’anem* tr. ‘carry away’ (Bible+). *NBHL* 1: 440; *HAB* 1: 413–415; *Künzle* 2: 130f.; *RADCA*: 104; *Zeilfelder* 2004: 56f.

- Transitivity: A-O (1); S<sub>0</sub>-E<sub>A</sub> (2); S<sub>0</sub>[-E<sub>A</sub>] (3).

The agentive use of the verb is the basic one, while the non-agentive use derives from the agentless passive construction: A-O → S<sub>0</sub>-E<sub>A</sub> → S<sub>0</sub>.

The morphological causative is found only in a *figura etymologica* with the gerund in the instrumental case — *bařnalov barjusjik’*, a calque from Greek (the direct object expressed by the genitivus partitivus), and has the same argument structure as the transitive uses of *bařnam* (4).

- Actionality: ACHIEVEMENT (2, 3), ACTIVITY (1).

- (1) *Deut.* 31, 9: <...> *ew et zayn c'k'ahanaysn, c'ordisn Łeweay, or bařnayin ztapanak uxtin Teařn* <...>. “So Moses wrote this law and gave it to the priests, the sons of Levi who carried the ark of the covenant of the Lord <...>.”
- (2) *Num.* 4, 27: <...> *ew arasřik' noc'a handēs yanuanē, ew amenayni or inč' bařnaysc'i i noc'anē*. “<...> and you shall assign to their charge all that will be carried by them.” (trans. PK).
- (3) *Acts* 20, 9: <...> *ankaw yerrord dstikonēn i vayr, ew barjaw meřeal*. “<...> [he] fell down from the third floor and was picked up dead.”
- (4) *Ruth* 2, 16: *ayl ew bařnalov barjusřik', ew arkanelov arkřik' arajři nora i p'oxndoc'n xařneloc'* <...>. (καὶ βαστάζοντες βαστάξατε αὐτῇ καὶ γε παραβάλλοντες παραβαλεῖτε αὐτῇ ἐκ τῶν βεβουνημένων). “Also you shall purposely pull out for her some grain from the bundles and leave it that she may glean <...>.”

ETYM: Arm. *bařna-* continues *\*b<sup>h</sup>rǵ<sup>h</sup>-n(e)h<sub>2</sub>-* tr. ‘make high’ from PIE *\*b<sup>h</sup>erǵ<sup>h</sup>-* intr. ‘be(come) high’, tr. ‘make high’ (Klingenschmitt 1982: 107–110; LIV<sup>2</sup>: 78f.; EDAIL: 171f.; Djahukian 2010: 118; ). Since PIE *\*b<sup>h</sup>erǵ<sup>h</sup>-* has an *anit*-root, the *\*n(e)h<sub>2</sub>-*stem must have been formed when the nasal suffix was no longer a subtype of the PIE infix stem.

The simplification of PArm. *\*rjn-* to *-řn-* requires a comment. It is tempting to derive Arm. *barjr* ‘high’, together with Toch. B *pärkare* ‘long’, from PIE *\*b<sup>h</sup>rǵ<sup>h</sup>-rós* ‘high’. Note that no cluster simplification occurred in *barjr*. Either the simplification took place after the loss of the word final syllable, which yielded the resyllabification PArm. *\*barjros* > PArm. *\*barj<sup>ř</sup>r*, or the simplification did not apply to the intervocalic *\*rjr*-cluster.<sup>80</sup>

The inherited *barjr* suggests that a property concept adjective derived from PIE *\*b<sup>h</sup>erǵ<sup>h</sup>-* existed throughout the entire Proto-Armenian period. The nasal stem recharacterised the causative/anticausative transitivity pair.<sup>81</sup>

<sup>80</sup> Alternatively, *barjr* may be considered a continuant of PIE *\*b<sup>h</sup>rǵ<sup>h</sup>-u-*, attested in Hitt. *parku-* ‘high’ (see de Lamberterie 2005–2007: 49f.). The change from *\*-u-* to *\*-r-* might be later than the *\*rjr*-cluster simplification.

<sup>81</sup> Hittite has *parkiya-* tr. ‘raise, lift; take away, remove’, intr. ‘rise, go up’, and *park-* intr. ‘rise, go up’, along with adj. *parku-* ‘high’, caus. *parknu-*, *parganu-* tr. ‘make high’, *parkuēšš-* intr. ‘become high’, and some abstract nouns meaning ‘height’ (CHD, P/2: 155–157). Kloekhorst (EDHIL: 636f.) suggested that the more frequent act. *parkiya-* tr. ‘lift; make high’ was originally a transitive counterpart to the original unextended intransitive mp. *park-* ‘rise, become high’ (note a comparable semantic relation between the synchronic de-adjectival anticausative *parkuēšš-* ‘become high’ and factitive *parknu-* ‘make high’ as well as Arm. adj. *barjr* ‘high’ → anticausative *barjr-anam* intr. ‘become high’). Indeed, the intransitive primary verb is found in Tocharian PToch.

Had Sievers' law operated in Proto-Armenian, one would expect PArm. *\*b<sup>h</sup>rǵ<sup>h</sup>-n(e)h<sub>2</sub>-* (*\*barjnā-*) to yield Arm. *\*barjana-*. One might assume that Sievers' law operated before the formation of the Proto-Armenian nasal stem in *baṛnam*, *daṛnam*, etc., e.g. PIE *\*b<sup>h</sup>rǵ<sup>h</sup>-ie/o-* (Hitt. *parkiya-*) → PArm. *\*b<sup>h</sup>rǵ<sup>h</sup>-n(e)h<sub>2</sub>-* (after Sievers' law). This hypothesis seems superfluous. The source of analogy for the replacement of the IPFV suffix is unclear. There are no traces of the operation of Sievers' law in the *nu*-stems, cf. *anternum* 'proclaim' for a possible counter-evidence (§ 2.1.1-2.2).

Traces of PIE PFV *\*b<sup>h</sup>erǵ<sup>h</sup>-* or *\*b<sup>h</sup>erǵ<sup>h</sup>-s-* can be seen in *barjr-a-berj* 'high' and *erkn-a-berj* 'sky-high', subordinate compounds of the type *mets-a-ber* 'sinner' (Meillet 1913b = 1962: 170).<sup>82</sup> The best way to explain the root vocalism of PFV *barj-* is to assume an analogical spread of the root shape from the IPFV stem before *\*rjn > \*rn*.

§ 2.2.1-1.2. *Daṛnam* intr. 'turn; return', aor. mp. *darjay*, past ptc. *darjeal*, caus. *darjuc'anem* tr. 'return' (Bible+). *NBHL* 1: 596–597; *HAB* 1: 639; Künzle 2: 178f.; *RADCA*: 104; Zeilfelder 2004: 75.

◇ Related words: *durn* 'potter's wheel', and, perhaps, *derj-ak* 'tailor', *han-derj* 'clothes' if from a verbal noun *\*derj* 'wrap; clothes' (Olsen 1999: 291).

- Transitivity:  $S_A$  (1, 2).

The morphological causative denotes a derived transitive verb with an inanimate O argument (3).

- Actionality: ACHIEVEMENT (1), ACCOMPLISHMENT (2).

(1) *Lk. 22, 61: Darjaw Tēr ew hayec'aw i Petros.* "The Lord turned and looked at Peter."

pres. mid. *\*pärk-*, pret. act. *\*pärka-* intr. 'rise' (the attestations, cited in Malzahn 2010: 144, 708; Peyrot 2013: 774; Adams 2013: 399, illustrate non-agentive intransitive uses with inanimate subjects like the Sun, the Moon, or the wisdom). However, one finds a Hittite context where the primary and derived verbs are attested in one sentence without a contrast of their argument structure and transitivity — KUB 33.68 ii 1–2: *nu šankuš alil mahḥan pâr-ki-ia-at tuell=a ŠA<sup>d</sup>U ZI=KA alil pâr-ak-ta-ru* "Just as the *šanku*-flower grew, so may your, the Stromgod's, soul grow (like) a flower" (*CHD*, P: 156).

<sup>82</sup> Attempts to derive Arm. PFV *barj-* from the thematic IPFV root stem *\*h<sub>2</sub>é-b<sup>h</sup>rǵ<sup>h</sup>-e-* are based on the alleged Skt. *bṛhāti* 'be strong, elevated' (cf. de Lamberterie 2005–2007: 50; Martirosyan frthc. § M 507.3). However, no such form is attested in Vedic Sanskrit (cf. *EWAia* 2: 212f.; Werba 1997: 209; Cheung 2007: 13).

Klingenschmitt (1982: 107–109) suggested that PIE *\*b<sup>h</sup>erǵ<sup>h</sup>-* derived its middle voice forms from the IPFV thematic root stem and the active voice forms from the PFV root stem — a paradigmatic type proposed for PIE *\*uert-* intr. 'turn' in (Hoffmann 1975: 248).

- (2) *Lk. 23, 48: Ew amenayn žotovurdk'n or ekeal ēin, ew tesanēin ztesiln zayn ew zgorcs, baxēin zkurcs ew darñayin.* “And all the crowds who came together for this spectacle, when they observed what had happened, began to return, beating their breasts.”
- (3) *Mt. 26, 52: <...> darjo zsur k'o i teti iwr <...>.* “Put your sword back into its place <...>.”

ETYM: *Darñam* is parallel to *barñam* in many ways. The root *darj-* goes back to  $*d^hrǵ^h-$  in IPFV  $*d^hrǵ^h-n(é)h_2-$  from PIE  $*d^hreg^h-$  intr. ‘turn; rotate’ (Klingenschmitt 1982: 110f.; *LIV*<sup>2</sup>: 146; *EDAIL*: 234; Djahukian 2010: 184f.). The underlying verb is *aniṭ*, so that the IPFV stem cannot be derived directly from an infixated stem. The nasal stem must be older than the Proto-Armenian  $*rjn-$ -cluster simplification.

De Lamberterie (Létoublon & de Lamberterie 1980; de Lamberterie 2015) derives PArm.  $*darj-na-$  from the PIE IPFV  $*d^hrǵ^h-e/o-$  on the evidence of Gk. Dor. (Pi.)  $\tau\rho\acute{\alpha}\chi\omega$ , next to the common  $\tau\rho\acute{\epsilon}\chi\omega$  intr. ‘run’ ( $*roll$ ), and Alb. *dredh* intr. ‘turn, wind’ (cf. Klingenschmitt 1982: 110f.; Demiraj 1997: 143f.; Orel 1999: 73). Note that the Proto-Armenian change of the assumed thematic stem to the nasal one must have been accompanied by a lexical change from intr. ‘rotate’ (iterative motion)<sup>83</sup> to intr. ‘turn back’ (single act), or, in terms of lexical aspectual features, from [– telic] to [+ telic].

The PFV stem *darj-* could result from the root levelling from the IPFV stem before the  $*rjn-$ -cluster simplification. The Proto-Armenian verbal noun  $*derj-$  ‘wrap, clothes’ as represented in *han-derj* ‘clothes’ and *derj-ak* ‘tailor’ can go back to the older PFV stem  $*derj-$ . PArm.  $*derj-$  could, in turn, be derived from PFV  $*d^herǵ^h-$  or  $*d^herǵ^h-s-$ . The full grade of  $*derj-$  can be explained by active or mediopassive forms of the root or sigmatic stems, respectively. The former possibility is supported by many active intransitive verbs of motion such as *gam*, aor. act. *eki* intr. ‘come’, *yenum*, aor. act. *yec'i* intr. ‘lean upon so.’, act. *anc'anem* intr. ‘pass by’, etc.

Given that Gk.  $\tau\rho\acute{\epsilon}\chi\omega$  and Alb. *dredh* are intransitive, the argument structure of their Old Armenian cognate might be an archaism at least of the dialectal PIE age. However, the action noun  $*derj-$  ‘wrap, clothes’ suggests that the Proto-Armenian verb could have a transitive realization with an AGENT-like subject. One might furthermore assume that the introduction of the nasal suffix changed the underlying [– telic] verb meaning ‘rotate’ to its [+ telic] derivative meaning intr. ‘make a turn’, tr. ‘turn so.’

The ablaut structure  $*d^herǵ^h-$ , as opposed to  $*d^hreg^h-$  of the Greek and Albanian verbal cognates, reminds that of the inner-Armenian cognate *durgn* ‘potter’s wheel’ next to Gk. m.

<sup>83</sup> Gk. Dor. (Pi.)  $\tau\rho\acute{\alpha}\chi\omega$  and Att.  $\tau\rho\acute{\epsilon}\chi\omega$  ‘run’ belong to the actional class of activities ([– telic]) and are often bounded with prefixes or are substituted by forms of  $\delta\rho\alpha\mu\epsilon\acute{\iota}\nu$  ‘run up to’ in telic contexts (*DELG*: 1135). The meaning intr. ‘roll; rotate’ [– telic] is further supported by the derived designation of the potter’s wheel Gk.  $\tau\rho\omicron\chi\acute{o}\varsigma$  ‘wheel; potter’s wheel’.

τροχός ‘wheel; potter’s wheel’, OIr. m. *droch* ‘wheel’ from *\*d<sup>h</sup>roǵ<sup>h</sup>-o-* (see *EDAIL*: 245f. with references; de Lamberterie 2015). Altogether, the reconstruction of *durgn* is problematic; *\*d<sup>h</sup>ōrǵ<sup>h</sup>-* implies an enigmatic “centum” reflex of PIE *\*ǵ<sup>h</sup>*; PIE *\*uorǵ-* > *gorc* ‘work’ does not allow postulating a depalatalisation after *\*r*.

### § 2.2.1-2. IPFV *-n-* (?) : PFV *n/a*

§ 2.2.1-2.1. *Ornam* intr. ‘yell’, aor., past ptc., caus. *n/a* (Bible). *NBHL* 2: 517; *HAB* 3: 565; *RADCA*: *n/a*. An *ac*<sup>1</sup>-stem is indicated in *NBHL* without reference to contexts. Since there is no direct evidence of the PFV stem, *or<sup>h</sup>nam* can be synchronically interpreted as either an *n(a)*-stem or a suffixless stem of the *a*-conjugation. The only Biblical attestation of *or<sup>h</sup>nam* is attributed to the *Book of Baruch* in *NBHL* (1). However, it is missing in the Zohrab Bible (1805) and comes from Zohrapian’s 1833 edition of the *Epistle of Jeremia* reproduced in the Bagratuni Bible (1860). Thus, the attestation is very insecure.

- Transitivity: *S<sub>A</sub>*.
- Actionality: ACHIEVEMENT/ACTIVITY.

(1) *Ep. Jer.* 6, 32 (the Bagratuni Bible, Venice 1860: 1217): *Ornan ew otban ew gužen ibrew kmaxis mereloy.* (ὠρῶνται δὲ βοῶντες [ἐναντίον τῶν θεῶν αὐτῶν] ὥσπερ τινὲς ἐν περιδείπνῳ νεκροῦ. — Ziegler 1957: 498). “They roar and cry [before their gods], as men do at the feast when one is dead.”

ETYM: The origin of the verb is unclear. Traditionally, it is compared to Skt. *ruvāti*, Gk. ὠρῶμαι ‘howl, wail’, Ru. *revet* ‘cry’, as if from PIE *\*HreuH-* intr. ‘cry’ (*LIV*<sup>2</sup>: 306; Djahukian 2010: 603). The comparison to Gk. ὠρῶμαι ‘howl, wail’, which *or<sup>h</sup>nam* translates in the Biblical context cited in (1), is invalidated by the fact that the initial *ω-* is unexplained. Moreover, *or<sup>h</sup>nam* must be derived from PArm. *\*or-na-* and not *\*oru-na-*, since the weakening of *\*-i-* and *\*-u-* postdates the sound law *\*rn > \*r̄n* (see § 1.4.4).

The root in *o*-grade is unexpected in an inherited *\*n(e)h<sub>2</sub>-*stem, and therefore, the nasal stem is an inner-Armenian innovation. The root vocalism and meaning point to PSl. *\*orati* ‘yell’ (Ru. *orat*’) as a possible cognate; see *ESSJa* 32:109 with the reference to an early Armeno-Slavic comparison.

### § 2.2.1-3. The verbs the *a*-conjugation with etymological *n*-stems

§ 2.2.1-3.1. *Spar<sup>h</sup>nam* tr. ‘threaten’, aor. act. *spar<sup>h</sup>nac’i*, aor. mp. *spar<sup>h</sup>nac’ay*, ptc. *spar<sup>h</sup>nac’eal*, caus. *n/a* (Bible+). *NBHL* 2: 735; *HAB* 4: 261; *RADCA*: 104; Zeilfelder 2004: 245.

- Transitivity: A-O-E (1–2); *S<sub>A</sub>-E-E<sub>O</sub>* (3); *S<sub>A</sub>-E* (4); *S<sub>E</sub>-E<sub>A</sub>* (5); *S<sub>E</sub>* (6).

The extended transitive predicate (A = Speaker; O = Message; E = Addressee) can undergo multiple syntactic alternations, including the encoding of the O argument by oblique cases (3), its omission (4), promotion of the E argument to the subject position in the passive (5) and anticausative (6) constructions. Note that the agentive subject of the intransitive construction is in the active voice.

• Actionality: ACHIEVEMENT/ACTIVITY.

- (1) Eznik Kołbac'i 2003: 477: *Darjeal yařařagoyñ sparnac'eal gerut'iwn žotovrdeann* <...>. "Again, beforehand when He threatened His people with captivity <...>." (trans. Blanchard & Young 1998: 137).
- (2) Eznik Kołbac'i 2003: 510: *Ayl «Mek', — asen, — yayñ saks p'axeak' yArdaroyñ, zi ahagin sparnalis sparnay yAwrēnsn iwr* <...>. "«But we», they say, «for that reason we fled from the Just One, because he threatened awful threats in his Law» <...>." (trans. Blanchard & Young 1998: 210).
- (3) Agat'angelos 2003: 1331: *Ew or sparnasd inj mahu* <...>. "And as for your threatening me with death <...>." (trans. Thomson 1976: 67).
- (4) *Ezek. 3, 17*: <...> *ew luic'es yinēñ zpatgams, ew sparnasc'es noc'a ibrew yinēñ*. "«...» whenever you hear a word from My mouth, warn them from Me."
- (5) *Is. 66, 14*: <...> *ew canic'i jeřñ Tearñ erkiwtacac' iwroc', ew sparnasc'i anhawatic'n*. "«...» and the hand of the Lord will be made known to His servants, and will become matter of threat to the unbelievers." (trans. PK).
- (6) *1Sam. 15, 29*: <...> *zi oč' et'ē ibrew zmard ē i zřjanal, ink'nin sparnasc'i*. "«...» for He is not like a mortal to regret, threaten himself." (trans. PK).

ETYM: The verb is cognate with Gk. σπέρχομαι, σπέρχω intr. 'be upset, impassioned', Skt. *sprhayati* intr. 'be zealous', OAv. *spərəz-* intr. 'strive' from PIE *\*sperǵh-* intr. 'be(come) excited (positively or negatively)' (cf. *LIV*<sup>2</sup>: 581; Cheung 2007: 353; *EDG*: 1381).<sup>84</sup>

It is possible that the nasal causative verb tr. 'make stressed; threaten' was derived from the underlying anticausative one in Proto-Armenian: PIE *\*sprǵh-n(e)h<sub>2</sub>-* > PArm. *sparj-na-* > Arm. *sparna-*.

<sup>84</sup> It is tempting to connect Arm. *sparna-* to Lat. *spernō* and PGrm. *\*spurna-* from PIE *\*sperH-* 'spurn, kick', cf. Hitt. *išparra-* 'trample', Skt. *sphurāti* 'kick', etc. (*EDPG*: 471). The semantic derivation tr. 'spurn' > tr. 'threaten' is not obvious but conceivable; see Djahukian 1982: 66; 2010: 69; Klingenschmitt 1982: 111, followed by *LIV*<sup>2</sup>: 585; *EDHIL* 408f.; see Lubotsky 2006 on semantics.



## § 2.2.2. Evaluation

## § 2.2.2-1. Grammatical features

Table 7. Transitivity alternations of *n(a)*-verbs

Verb	Agentivity	Intransitive	Transitive	Extended transitive	Type
IPFV <i>-n-</i> : PFV <i>-Ø-</i> (suppl.)					
<i>baṛnam</i>	+	lab/mp	lab/act	caus	L/E
<i>daṛnam</i>	+	lab/mp	caus	—	C
IPFV <i>-n-</i> (?) : PFV <i>n/a</i>					
<i>oṛnam</i>	+	lab/—	—	—	?
Etymological * <i>n</i> -stem					
<i>sparaṛnam</i>	+	lab/mp	lab/act	—	L/E

The *n*-verbs of the *a*-conjugation together with *oṛnam* and *sparaṛnam* include agentive intransitive verbs (*daṛnam* and *oṛnam*) and ambitransitive verbs unspecified for agentivity (*baṛnam* and *sparaṛnam*).

Only parts of the verb forms in the *a*-conjugation distinguish the voice (see § 1.3.1-2). All the verbs considered in Table 7 above have a straightforward correlation between voice and transitivity in the non-labile part of the paradigm.

The mixed labile-equipollent transitivity marking pattern is found in *baṛnam* and *sparaṛnam*, while *daṛnam* follows the causative pattern. The pattern of *oṛnam* cannot be specified since it is not attested in a transitive construction or the causative form.

## § 2.2.2-1.1. Agentive intransitive verbs

PFV *-Ø-*: *daṛnam* ‘turn’.

PFV *n/a*: *oṛnam* ‘yell’.

See other agentive intransitive nasal verbs in §§ 2.1.2-1.2 (*-n-u-*), 2.3.2-1.3 (*-n-e/i-*), 2.4.2-1.3 (*-an-a-*), 2.5.2-1.5 (*-an-e/i-*), and 2.6.2-1.2 (*-nč<sup>c</sup>-i-*).

Perhaps, *daṛnam* reflects the inner-Armenian change from the equipollent to causative transitivity marking pattern (see § 2.2.1-1.2). The intransitive argument structure of *oṛnam* also represents an inner-Armenian innovation.

Unlike the agentive intransitive motion verbs of the *n(u)*-class, *daṛnam* has no core peripheral SOURCE/STIMULUS or GOAL arguments, and unlike the agentive intransitive motion verbs of the *an(a)*-class, it is [+telic]. *Oṛnam* is characterised by the variable [±telic] aspectual feature.

### § 2.2.2-1.2. Agentive ambitransitive verbs

PFV *n/a*: *baṛnam* ‘lift; pass away’; *sparṇam* ‘threaten’.

See other agentive ambitransitive nasal verbs in §§ 2.1.2-1.4 (*-n-u-*), 2.3.2-1.4 (*-n-e/i-*), 2.4.2-1.5 (*-an-a-*), 2.5.2-1.6 (*-an-e/i-*), and 2.7.2-1.1 (*-anč<sup>ʿ</sup>-e-*).

The equipollent pattern of marking of the transitivity pair characteristic for *baṛnam* suggests that the transitive construal of the verb is pivotal.

The verb *sparṇam* ‘threaten’ is synchronically one of the suffixless verbs of the *a*-conjugation. The reanalysis of the verb as belonging to the suffixless *a*-conjugation might have been triggered by its semantic affinity to emotion verbs typical for the *a*-conjugation, cf. *zgam* ‘feel’, etc. (cf. Barton 1990–1991). This verb, together with *baṛnam* and *daṛnam*, can be part of the PArm. *\*na*-formations later. Given that *sparṇam* is a lexical causative with an underlying extended transitive structure, its nasal suffix may be associated with Proto-Armenian causative derivation.

The verb has a lexicalised aspectual feature [+dynamic] and is unspecified for the parameters [±durative] and [±telic].

### § 2.2.2-2. Stem variation patterns

Among the verbs discussed in Section 2.2, *sparṇam* presumably underwent the shift from the *n*-verbs of the *a*-conjugation to the suffixless verbs of the *a*-conjugation by means of levelling of the IPFV *n*-stem across the paradigm. The same may be true of *oṛnam*.

### § 2.2.2-3. PIE outlook

The IPFV stems of *baṛnam*, *daṛnam*, and, perhaps, *sparṇam* are older than the sound change PArm. *\*rjn* > *\*rn* and *\*rn* > *\*rn*. These stems were formed to PIE *aniṭ*-roots and cannot be derived from the PIE infix stem. Correspondences like Skt. *kṣiṇāti* ‘destroy’ next to PGrm. *\*dwīnan-* ‘diminish’ (cf. *LIV*<sup>2</sup>: 150–152; *EDPG*: 112f.) confirm that the *\*n(e)h<sub>2</sub>-* stem existed already in PIE independently from roots in *\*-h<sub>2</sub>-*. Given that the laryngeals disintegrated in the individual history of separate branches, it is clear that the reanalysis from the infix to suffixed nasal stems was not due to the laryngeal loss.

The primary verbs of the *an(a)*-class can belong to the paradigmatic class with IPFV *-n-* : PFV *-c’-* from Proto-Armenian roots in *\*-a-*. Such analysis is justified only in case of roots in *\*-H-* like *ba-nam* ‘open’, *sta-nam* ‘acquire’ (see § 2.4.1-2.13), and *t’a-nam* ‘melt’ (see § 2.4.1-2.16). Then, the addition of the *\*c’-* suffix to an inherited PFV root stem was analogical to the PFV *\*c’-* stem of denominatives (from the IPFV *\*ske/o-* suffix) or to sigmatic stems from roots in obstruents; see § 2.1.2-2 for discussion.

A low number of Old Armenian *n(a)*-verbs, next to the moderately productive *n(u)*-class, is peculiar. It points to a tendency to eliminate the PArm. *\*na*-suffix from the verbal system. One of possible factors which could determine the retention of a few inherited *n(a)*-stems is the phonetic blurring of the morphemic boundary between the root and the *\*na*-suffix, cf. IPFV *bařna-* / PFV *barj-*, IPFV *bana-* / PFV *bac'i-* (with an ambiguous segmentation *ba-na-* or *b-ana-*), IPFV *spařna-* / PFV *spařn-ac'*.

Where did the remaining PArm. *\*na*-verbs go? One may assume an interchange between the iso-functional athematic and thematised variants of the stem, which introduced the inherited PArm. *\*na*-verbs to the *an*-verbs of the *a*- and *e/i*-conjugations (cf. Sections 2.4 and 2.5). This change finds parallel in Ancient Greek: δάμνημι → δαμνάω tr. 'tame'; πέρνημι → περνάω tr. 'sell'; πίλναμαι intr. 'approach; touch (the ground)' (Hom.) → πιλνάω tr. 'bring near; make fall down' (Hes. *WD* 510); πίτνημι → πιτνάω intr. 'spread out'.

Another possible model may be suggested on the evidence of PIE *\*trK-n(e)h<sub>2</sub>-* 'let go' > Arm. *ant'ernum* 'read' (see § 2.1.2-2.2), where a *\*n(e)h<sub>2</sub>-* stem with the root in zero grade was replaced by a *\*nu*-stem with a root in the full grade derived from an older PFV root stem. This morphological change finds structural parallel in Ancient Greek, where secondary *vū/vu*-stems based on the PFV *\*s*-stem replaced older *νη*-stems: κίρνημι, aor. ἐκέρασα tr. 'mix' → κεράννυμι tr. 'id.', κρίνημι, aor. ἐκρέμασα tr. 'hang' → κρεμάννυμι tr. 'id.'; etc.

The Old Armenian evidence, scanty as it is, conforms to the reconstruction of the PIE paradigmatic class IPFV *\*R(∅)-n(e)h<sub>2</sub>-* : PFV *\*R(e/∅)-∅-*, cf. 1sg. *\*-néh<sub>2</sub>-mi* (Skt. *gr̥bhñāmi* 'I grab', Gk. δάμνημι 'I tame', PGrm. *\*tukōmi* 'I pull'), 3pl. *\*-nh<sub>2</sub>-énti* (Skt. *gr̥bhñānti* analogically from *\*gr̥b<sup>h</sup>ananti*, Gk. δάμνασι analogically from *\*damanāsi*, PGrm. *\*tugunanpi*).<sup>85</sup>

In the synchrony of Old Armenian, the direct and indirect witnesses of the *\*n(e)h<sub>2</sub>-* class are unspecified for agentivity and transitivity. Such argument structure is found in other IE branches. Insofar as the transitive value is concerned, one can mention the Sanskrit 9<sup>th</sup> class, which takes part in the expression of transitive members in such causative/anticausative pairs as act. *riñāti* tr. 'make flow' and Skt. mp. *rīyate* intr. 'flow' (see Insler 1972: 100ff.; Jamison 1983: 36f.; Kulikov 2012: 727f.). Factitive verbs ("make X", where X is an adjectival base) are also found in the 9<sup>th</sup> class, cf. Skt. *stabhnāti* tr. 'support; make firm' along with YAv. *staβra-* 'strong; firm'. It has been suggested that the nasal infix was part of the Caland System built around the property concept adjectives (see Rau 2009: 143–160 with further references). The destruction verbs of the 9<sup>th</sup> class point in the same direction, cf. PIIr. *\*dar-* tr. 'tear, split' (Skt. act. *dṛñāti* 'split', YAv. *dərən-* 'tear apart'; Cheung 2007: 59),

<sup>85</sup> The general presentation of the evidence is found in Brugmann 1913: 296–312. *LIV*<sup>2</sup> does not mention the *\*n(e)h<sub>2</sub>-* stem as a distinct type, and treats matching evidence of distinct branches for *\*n(e)h<sub>2</sub>-* stems from *aniṭ*-roots as parallel innovations. See Kroonen 2012 on the Germanic data.

PIIr. *\*jaiH-* tr. ‘destroy’ (Skt. act. *jīnāti* ‘overpower’, YAv. *jinā-* ‘destroy’; Cheung 2007: 223), PIIr. *\*uraiH-* (Skt. act. *vrīṇāti* ‘crush’, YAv. *uruuīn-* ‘id.’; Cheung 2007: 436), Skt. act. *badhnāti* tr. ‘bind’, act. *grathnāti* tr. ‘tie’, act. *kṣiṇāti* tr. ‘destroy’, act. *mināti* tr. ‘damage’, act. *mṛṇāti* tr. ‘crush’, act. *sināti* tr. ‘bind’, act. *śṛṇāti* tr. ‘crush’. As argued in Haspelmath 1987, destruction verbs form a distinct lexical group of verbs that allow for the causative/anticausative alternation. With such verbs, the causative morphology is expected when a language chooses for the causative transitivity marking pattern.<sup>86</sup> This grammatical value aligns well with Arm. *baṛnam* (along with *barjr*, gen. sg. *barju* ‘high’, cf. Hitt. *parku-* ‘high’, etc.), *banam* ‘make opened’ and *t’anam* ‘make wet’. The equipollent pattern of transitivity marking reveals that the transitive form was the pivotal one for these three verbs (as opposed to the causative pattern, which is characteristic for the basically intransitive verbs).

Altogether, there is some evidence for PIE *\*n(e)h<sub>2</sub>-*verbs with a non-agentive subject, intransitive argument structure, or mediopassive voice. An example of a nasal verb with a non-agentive subject has been suggested by Schrijver (1999), who argued that Skt. act. *grbhṇāti* tr. ‘(passively) receives’ had a RECIPIENT subject as opposed to the AGENT subject of act. *grbhāyāti* tr. ‘(actively) grasp’. Here one can mention Indo-Iranian transitive nasal verbs with autobenefactive semantics marked by the mediopassive voice, such as Skt. mp. *vṛṇitē*, OAv. mp. *vərəntē* tr. ‘choose’ and Skt. act. *aśnāti* next to mp. *aśnitē* tr. ‘eat’.

The agentive intransitive motion verbs of the *\*n(e)h<sub>2</sub>-*class may be assumed for PIE on the evidence of several branches. In Greek, one finds *πίλναμαι*, aor. *ἐπλήμην* intr. ‘draw near’ (*Od.* 12, 41) next to *πίλνημι*, aor. *ἐπέλα(σ)σα* tr. ‘bring near’ (*Il.* 21, 93), *λίναμαι* intr. ‘incline’ (Hsch. *λίναμαι: τρέπομαι*), etc. (Debrunner 1917: 85f.; Chantraine 1961: 217f.; van de Laar 2001: 340–342). The agentive intransitive motion verbs are found among the few continuants of the athematic *\*n(e)h<sub>2</sub>-*stem in Celtic: PCelt. *\*k<sup>w</sup>el-na-* intr. ‘turn’ (OIr. *cell-*), PCelt. *\*el-na-* intr. ‘go’ (OIr. *ell-*); see Sjøestedt 1926: 4, 26–35. Note that PCelt. *\*k<sup>w</sup>el-na-* intr. ‘turn’ finds an exact semantic match in Arm. *daṛnam*.

The Proto-Armenian paradigmatic class under discussion was characterised by a PFV root stem (*\*b<sup>h</sup>erǵ<sup>h</sup>|b<sup>h</sup>rǵ<sup>h</sup>-* and *\*d<sup>h</sup>erǵ<sup>h</sup>|d<sup>h</sup>rǵ<sup>h</sup>-*) or PFV *\*s-*stem (*\*b<sup>h</sup>ērǵ<sup>h</sup>-s-|\*b<sup>h</sup>erǵ<sup>h</sup>-s-* and *\*d<sup>h</sup>ērǵ<sup>h</sup>-s-|\*d<sup>h</sup>erǵ<sup>h</sup>-s-*, if there was no difference in the Proto-Armenian outcomes of PIE *\*ǵ<sup>h</sup>* and *\*ǵ<sup>h</sup>s*; see § 1.4.2). The PFV thematic root stem *\*b<sup>h</sup>rǵ<sup>h</sup>-e/o-*, which has been suggested to account for the zero-grade, remains without a comparative support.

The full *e*-grade, attested in compounds and derivatives (e.g. *erknaberj*, *derjak*, etc.) can be explained by active voice forms in the case of the inherited root stem or by the

<sup>86</sup> In Armenian, basic destruction verbs are found among the *an*-verbs of the *e/i*-conjugation (e.g. *bekanem* tr. ‘break’, etc.; see § 2.5.1-2.9). It may be taken as an additional indirect argument in favour of analysing the *an(e/i)*-stem as a reflex of thematicised *\*-nH-e/o-* from *\*-n(e)h<sub>2</sub>-*, many of which retained the inherited PFV root stem.

mediopassive voice in the case of the sigmatic stem (or by a generalization of the *e*-grade in the sigmatic aorist parallel to Greek).

Most of Ancient Greek verbs in *-νη/να-*, together with their thematicised by-forms in *-ναο/ναε-*, had PFV *\*s*-stems in the epic language, cf. δάμνημι, aor. ἐδάμα(σ)σα tr. ‘tame’ (van de Laar 2001: 340–342). If one assumes that the sigmatic aorist represents an archaism in the transitive verbs of that nasal class in Greek, the aforementioned Proto-Armenian reconstructions *\*b<sup>h</sup>ērǵ<sup>h</sup>-s- / \*b<sup>h</sup>erǵ<sup>h</sup>-s-* and *\*d<sup>h</sup>ērǵ<sup>h</sup>-s- / \*d<sup>h</sup>erǵ<sup>h</sup>-s-* receive circumstantial comparative support.

Although *dar̄nam* is synchronically intransitive, the derivatives from the verbal noun *\*derj* ‘wrap; clothes’ point to an underlying ambitransitive verb tr. ‘wrap; turn so. round so.’, reflexive mp. intr. ‘turn oneself’. Thus, the prototypes of *bārnam* and *dar̄nam* could have had a comparable argument structure and voice assignment in Proto-Armenian, which would explain the identical analogical remodelling of the root vocalism.

The surface zero-grade of the PFV stem (aor. *barj-i* and *darj-ay*) can be explained by the root levelling based on the IPFV stem before the *\*rjn*-cluster simplification in the IPFV stem: IPFV *\*barj-na-* : PFV *\*berj-* → IPFV *\*barj-na-* : PFV *\*barj-* > IPFV *bārna-* : PFV *barj-*. The cluster was simplified before the sound change *\*rn > \*r̄n*, which dates back to the age of early Parthian loanwords. The second round of levelling that would have eliminated the weak suppletion of roots within the paradigm did not take place.

Table 8. Grammatical features of the *n(a)*-verbs with inherited root stems or *\*s*-stems

	Transitivity	Agentivity	Lexical Aspectual Features
<i>banam</i>	[± transitive]	[± agentive]	[± telic], [± durative], [+ dynamic]
<i>bārnam</i>	[± transitive]	[± agentive]	[± telic], [± durative], [+ dynamic]
<i>dar̄nam</i>	[– transitive]	[+ agentive]	[+ telic], [± durative], [+ dynamic]
<i>ōrnam</i>	[– transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>spārnam</i>	[± transitive]	[± agentive]	[± telic], [± durative], [+ dynamic]
<i>stanam</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>t’anam</i>	[± transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]

None of the *n(a)*-verbs considered so far has the lexicalised [– telic] or [– durative] aspectual features to prove or disprove the hypothesis that these features determined the direction of the root levelling between the IPFV and PFV stems. The observed levelling pattern allows to assume that the [+ durative] construal was frequent.

As argued in § 2.4.2-3.1, the *c*'-suffix is secondary in *ba-c*'- (*banam*), *sta-c*'- (*stanam*), and *t'a-c*'- (*t'anam*); see further § 2.1.2-3.2 on the spread of *-c*'. The PFV stem of these verbs can be derived from *\*b<sup>h</sup>(e)h<sub>2</sub>-*, *\*st(e)h<sub>2</sub>-*, *\*t(e)h<sub>2</sub>-* or *\*b<sup>h</sup>ēh<sub>2</sub>-s- / \*b<sup>h</sup>eh<sub>2</sub>-s-*, *\*stēh<sub>2</sub>-s- / \*steh<sub>2</sub>-s-*, *\*tēh<sub>2</sub>-s- / \*teh<sub>2</sub>-s-*. There seems to be no strong correlations between the type of the PFV stem and

grammatical features indicated in Table 8 that would allow to disambiguate the morphological structure of the Proto-Armenian paradigmatic class.

The variable [ $\pm$  transitive] and [ $\pm$  agentive] features of the verbs in Table 8 point to a change from the causative value of the *\*n(e)h<sub>2</sub>*-suffix in PIE (Meiser 1993) to the equipollent pattern in Proto-Armenian.

## Section 2.3. The *n*-stem of the *e/i*-conjugation

### § 2.3.1. Evidence

Two paradigmatic classes can be distinguished: one is characterised by weakly suppletive PFV stems<sup>87</sup> and the other one by PFV *i*-stems.

#### § 2.3.1-1. IPFV *-n-* : PFV *-Ø-* (suppl.)

§ 2.3.1-1.1. *Aṛn-e/i-m* tr. ‘make; do’, aor. act. *arari*, aor. mp. *araray*, past ptc. *arareal*, caus. n/a (Bible+). *NBHL* 1: 308f.; *HAB* 1: 261f.; Künzle 2: 76–83; *RADCA*: 125; Zeilfelder 2004: 33–36.

- Transitivity: A-O (1, 2); S<sub>O</sub>-E<sub>A</sub> (3).
- Actionality: ACHIEVEMENT/ACCOMPLISHMENT.

The verb is used in light verb factitive construction and in collocations like *yayt aṛnel* tr. ‘make clear’, *catr aṛnel* tr. ‘ridicule’, *ašxat aṛnel* tr. ‘trouble’, etc. As part of the collocations, the verb may be construed as an intransitive ACTIVITY.

- (1) *Mk.* 11, 29: <...> *ew es asac’ic’ jez orov išxanut’eamb aṛnem zays*. “<...> and then I will tell you by what authority I do these things.”
- (2) *Gen.* 1, 1: *I skzbanē arar Astuac zerkin ew zerkir*. “In the beginning God created the heavens and the earth.”
- (3) *Eccl.* 1, 9: *Zinč’ ē or etewn noyn ink’n or lineloc’n ē, ew zinč’ ē or ararawn, noyn ink’n or aṛneloc’n ē <...>*. “That which has been is that which will be, And that which has been done is that which will be done <...>.”

ETYM: The verb goes back to PIE *\*h<sub>2</sub>er-* tr. ‘fit together’ (*LIV*<sup>2</sup>: 269f.; *EDAIL*: 112; Djahukian 2010: 75); Gk. ἀρᾶρῖσχω tr./intr. ‘fit together, construct, etc.’, intr. ‘fit’ (*DELG*: 101f.; *EDG*: 123), Skt. *arā-* ‘spoke (of a wheel)’, *ṛtá-* ‘order’, *ṛtú-* ‘proper time’ (*EWAia* 1: 107, 254f., 257), etc. Arm. *aṛnem* underwent the change *\*‘construct’* → *‘create’* → *‘make’* → *‘do’*.

Klingenschmitt (1982: 162f.) considered the possibility to reconstruct PIE IPFV *\*h<sub>2</sub>r-neu-* for this verb on the evidence of Skt *ṛṇó-* tr. ‘fit together’ (*RV* 1.30.14).<sup>88</sup> It requires postulating

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<sup>87</sup> Wodtko (2004–2005: 114) applies the terms “irregular paradigm” for *aṛnem* (aor. *arari*), which has no significant difference in the root shape within the two tense-aspect stems, “weak suppletion” for *tanim* (aor. *taray*), which has only minor difference in the root shape, and “strong suppletion” for *unim* (aor. *kalay*), which has no similarities in the root shape within the two stems, and hesitates to classify *dnem* (aor. *edi*) and *linim* (*etew*) as cases of “weak” or “strong” suppletion. Although these terminological nuances are relevant, I use the general term “suppletion” (suppl.) for all these verbs. See Kölligan 2012 for details on the Old Armenian verbal suppletion patterns.

the morphological change PIE  $*h_2r\text{-neu-}$  → PArm.  $*h_2r\text{-nHe/o-}$  parallel to PIE  $*h_3r\text{-neu-}$  ‘rise’ → PArm.  $*h_3r\text{-nHe/o-}$  (*yaṛnem*). This suggestion largely depends on the interpretation of the Vedic attestations, which can otherwise be taken as forms of  $\sqrt{AR}$ - ‘set in motion’ or  $\sqrt{AR}$ - ‘reach’, both of which had the stem *ṛṇó-*.

Given the ambiguity of the Vedic comparative evidence, the Old Armenian nasal stem can be counted as an inner-Armenian innovation. A neat formal correspondence between Arm. *arar-* and Gk. aor. ἀραρεῖν (Meillet 1934: 182; most recently Willi 2018: 80),<sup>89</sup> is commonly taken as evidence for the reconstruction of dial. PIE PFV  $*h_2(e)r\text{-}h_2(e)r\text{-}e/o-$  with full reduplication.<sup>90</sup> By accepting this equasion, one leaves the inner-Armenian nasal stem without an explanation. There is no evidence for inherited Proto-Armenian verbs with the IPFV nasal stem and the PFV reduplicated stem that could serve as the source of analogy for the rise of PArm.  $*ar\text{-}n(H)e-$ . A way out of this complication would be to assume that the PFV root or sigmatic stem existed in early Proto-Armenian (along with the reduplicated stem) that served as the derivational basis for the secondary nasal stem. Such PFV stems might be related to Gk. ἄρμενος ‘appropriate’ or Gk. aor. ἄρσα.

Instead of Gk. aor. ἀραρεῖν, Arm. *arar-* can be formally compared to Gk. perf. ἄρηρα intr. (passive) ‘be fixed’, cf. also Myc. ptc. perf. act. f. sg. *a-ra-ru-ja* = Hom. ἀραρυῖα, ptc. perf. act. n. pl. *a-ra-ru-wo-a* = Hom. ἀρηρώς) from dial. PIE  $*h_2re\text{-}h_2or-$  /  $*h_2re\text{-}h_2r-$ .<sup>91</sup> This explanation has been rejected in Willi 2018: 80, because it leaves the Ancient Greek reduplicated aorist with its short vowel isolated. However, this counterargument can be turned into a more

<sup>88</sup> Gk. ἄρσα, with the sense tr. ‘fit; provide with; make fitting, pleasing’ (*Il.* 1, 135–136: ἀλλ’ εἰ μὲν δώσουσι γέρας μεγάθυμοι Ἀχαιοὶ // ἄρσαντες κατὰ θυμὸν ὅπως ἀντάξιον ἔσται. ‘Either the great-hearted Achaians shall give me a new prize chosen according to my desire to atone for the girl lost <...>.’), may serve as an intermediate meaning connecting tr. ‘fit together’ and intr. ‘receive; gain; take’ (attested in Arm. *arnum* ‘take; receive’, Gk. ἄρνωμαι, Av. *arənauuainti*; § 2.1.1-1.1). However, this possibility is rather speculative and I refrain from reconstructing one polysemous verb with the IPFV  $*h_2r\text{-neu-}$  and PFV  $*h_2er-$  stems.

<sup>89</sup> It has been suggested that the secondary IPFV stem  $*ar\text{-}ar\text{-}iske/o-$  was derived from this stem yielding Gk. pres. ἀράρισκω and Arm. aor. subj. *araric*´ (Godel 1965: 35f.; Klingenschmitt 1982: 162f.; de Lamberterie 2013: 18). However, given the productivity of Arm. aor. subj.  $*-ic$ ´, its formal match to  $-ίσκω$  is not conclusive.

<sup>90</sup> Klingenschmitt explains the full reduplication as a way to compensate for the deformation of a regular reduplicated stem after the loss of the laryngeals: dial. PIE  $*h_2e\text{-}h_2r-$  > PArm.  $*Hār-$ . Given that the reduplicated stem is attested in both Ancient Greek and Old Armenian, the loss of the internal laryngeal and its analogical restoration must have happened before the split of these two branches, according to Klingenschmitt’s account.

<sup>91</sup> See Kuryłowicz 1927; Krisch 1996; Kulikov 2005; Kocharov 2012b on the PIE evidence for the “Attic” reduplication.



general statement: the Old Armenian cognate renders one of the two Ancient Greek reduplicated stems isolated for that particular verb. In my opinion, the question of which one is inherited from the common dialectal PIE and which one is a Proto-Greek innovation can still be debated. A probatory argument against the mentioned formal comparison is that Gk. ἄρηρα is intransitive unlike the transitive ἀραρεῖν. It has to keep in mind, however, that ἄρηρα is found in passive constructions in Homer, cf. *Il.* 10, 265: <...> μέσση δ' ἐνὶ πῖλος ἄρηρει. “<...> a felt was set in the centre.” Such uses presuppose an AGENT participant (e.g. a felt in the cited passage is reported to be set [= made] in the centre [by a craftsman]). Although the syntactic structure is intransitive, the underlying predicate is still causative, and a surface transformation of the kind ‘have so. made/done’ → ‘make/do so.’ can be envisaged. This possibility, admittedly less straightforward than the direct comparison of Arm. *arari* to Gk. ἀραρεῖν, would allow reconstructing a stable dial. PIE paradigmatic pattern with a characterised present, root or sigmatic aorist (whence the secondary Proto-Armenian nasal present), and reduplicated perfect.

§ 2.3.1-1.2. *Dn-e/i-m* tr. ‘put’, aor. act. *edi*, aor. mp. *eday*, past ptc. *edeał*, caus. n/a, ipv. *dir* (Bible+). *NBHL* 1: 637; *HAB* 1: 675–676; Künzle 2: 186–189; *RADCA*: 124; Zeilfelder 2004: 79f.

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2).

- Actionality: ACHIEVEMENT/ACCOMPLISHMENT.

(1) *Gen.* 1, 17: *Ew ed znosa Astuac i hastatut'ean erknic' lusatu linel yerkir.* “God placed them in the expanse of the heavens to give light on the earth <...>.”

(2) *Mk.* 15, 47: *Isk Mariam Magdalēnac'i ew Mariam Yakovbay ew Yovsey tesin ztetin ur edaw.* “Mary Magdalene and Mary the mother of Joses [and Joseph] were looking on to see where He was laid.”

ETYM: The verb goes back to PIE *\*d<sup>h</sup>eh<sub>1</sub>-* tr. ‘put’ (*LIV*<sup>2</sup>: 136ff.; *EWAia* 1: 785f.; *EDAIL*: 240f.; Djahukian 2010: 201), for which the PFV root stem and IPFV reduplicated stem are securely reconstructed. While the lexical meaning was preserved intact in Old Armenian, the stem-formation was remodeled.

The IPFV *dne-* goes back to PArm. IPFV *\*dē-ne-*, which replaced the PIE reduplicated stem.<sup>92</sup> PArm. *\*dē-* reveals that a new IPFV stem was derived from the inherited PFV root

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<sup>92</sup> In theory, one may reconstruct a more complicated scenario, according to which the PIE reduplicated stem first underwent de-reduplication yielding the IPFV root stem and then was extended by the nasal suffix. However, this scenario requires a stage when both IPFV and PFV stems were non-characterised. In my view, it is more economical to assume that the contrast between the IPFV and PFV stems of this verb had been continually maintained, and the loss of reduplication

stem. The most economical solution is to derive PArm. *\*dē-* from the active singular of the PIE PFV root stem *\*d<sup>h</sup>eh<sub>1</sub>-* in the full grade (Skt. *ádḥāt*, Gk. Beot. (ἀν)έθῆ, OCS *-dě*; see Kerns 1939: 29; de Lamberterie 2013: 39). Alternatively, PArm. *\*dē-* can be derived from the sigmatic aorist PIE *\*d<sup>h</sup>ēh<sub>1</sub>-s-/\*d<sup>h</sup>eh<sub>1</sub>-s-*, or even from a mixed aorist paradigm as an isogloss with Slavic (OCS 1 sg. *-děxǔ* next to 3 sg. *-dě*; Bonfante 1942; Viredaz 2018: 178f.).<sup>93</sup>

§ 2.3.1-1.3. *Linim* intr. ‘become’, aor. mp. *etē*, past ptc. *leal, lieal, lial, eteal*, caus. n/a, ipv. *ler* (Bible+). *NBHL* 1: 887; *HAB* 2: 284; *Künzle* 2: 311–318; *RADCA*: 140; *Zeifelder* 2004: 123–125.

◇ Competing paradigmatic classes: *etanim* (a post-classical IPFV stem derived from the PFV *ete-*; cf. Godel 1970 = 1982: 15–18; Greppin 1981b).

- Transitivity:  $S_0$ .
- Actionality: ACHIEVEMENT/ACCOMPLISHMENT.

(1) *Jn.* 1, 14: *Ew bann marmin etew ew bnakeac’ i mez.* ‘And the Word became flesh, and dwelt among us <...>.’

ETYM: The verb goes back to PIE *\*klei-* intr. ‘incline’, cf. especially Alb. *qe, kle* ‘was’ (Kortlandt 1987 = 2003: 80; Djahukean 2010: 297f.). Despite Hübschmann’s doubts (1895–1897: 451f.), the change from the non-agentive intransitive meaning ‘incline’ to ‘tend’ and ‘become’ seems acceptable to me.

The IPFV stem *lini-* can be derived from PArm. *\*klei-nHe/o-*, a replacement of the PIE nasal formation behind YAv. *ni-srinaoiti* < *\*kli-n(e)u-*, Gk. *κλίνω* < *\*kli-n-ie/o-*, Lat. *dē-clīnō* < *\*klei-n(e)h<sub>2</sub>-*, OHG *hlinēn* < ? *\*kli-n-eh<sub>1</sub>-*, Lith. *šlinù* < *\*kli-ne-* ‘lean’ (Brugmann 1913: 382f.; Sihler 1995: 517f.; *LIV*<sup>2</sup>: 332; *EDPG*: 231). It is difficult to establish the exact shape of the PIE nasal stem. Kroonen (*EDPG*: 231) suggests *\*kli-n(e)h<sub>2</sub>-* or *\*kli-n(e)u-*. The full grade of the root reflected by the Latin and Old Armenian nasal verbs perhaps results from

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was repaired by means of a competing IPFV nasal stem. Among the factors which might have conditioned the replacement, one can assume the Proto-Armenian change of *\*d<sup>h</sup>* to *\*z* in the intervocalic position (one expects the change of PArm. *\*d<sup>h</sup>i-d<sup>h</sup>ē-* to *\*d<sup>(h)</sup>ize-*; see § 1.4.3 for counter-arguments on the operation of the sound law) or the later reduction of unaccented *\*-i-* in the reduplicated syllable (which would change PArm. *\*di-dē-*, with the analogically restored intervocalic *\*-d-*, to *\*də-dē-*).

<sup>93</sup> According to de Lamberterie 2005–2007: 33f., the forms of the aorist subjunctive with the atonic first syllable (e.g. 2sg. *dic’es*) may point to subj. PArm. *\*dēc’-* < *\*d<sup>h</sup>ē-iske/o-*, derived from the PFV root stem (see also Godel 1980 = 1982). Alternatively, one could postulate a much later formation *\*di-ic’-*, in which the double vowel would result in an atonic *-i-* unlike 2sg. aor. subj. *berc’es* < *\*ber-ic’-*. However, the development *\*-ii-* > *-i-* (atonic) has no parallels.

independent changes. The Proto-Armenian PFV root would be the most plausible source of analogy in Old Armenian.

The PFV stem continues PIE *\*k̑lei-* or *\*k̑lei-s-*. While the former is the active voice form of the PIE athematic PFV root stem, the former is the mediopassive form of the PIE PFV *\*s-* stem. Given that the PIE verb could have the agentive intransitive meaning ‘lean’, both the active and mediopassive forms can be justified. The reconstruction of the sigmatic stem, perhaps, finds parallel in the Albanian cognate (see Pedersen 1900a: 341; Kortlandt 2018). Presumably, the *-t-* of the PFV stem results from a consonant cluster simplification in intervocalic position (preceded by the augment), which contrasted with the cluster simplification to *l-* in the word initial position: *\*V̑k̑lV > V̑tV* vs. *\*#k̑lV > #lV*.

It is tempting to compare the verb to Gk. Hsch. λίναμαι· τρέπομαι intr. ‘turn’, Hom. λιάζομαι ‘collapse, incline, recoil, sink’ (EDG: 859), Skt. *lināti* (grammarians) intr. ‘lean against’ from PIE *\*lei(h₂)-* (LIV<sup>2</sup>: 406).<sup>94</sup> This etymology is semantically attractive and would justify the antiquity of the nasal stem, but it leaves the *l* of the PFV stem without explanation and does not offer any advantage on the semantic part over the aforementioned solution with *\*k̑lei-*.

Klingenschmitt (1982: 164) suggested to derive aor. *ete-* and ipv. *le-* from the middle thematic aorist PArm. *\*k<sup>w</sup>l-e/o-*, a thematicised form of the root stem PIE *\*k<sup>w</sup>elh₁-* tr. ‘turn’ (LIV<sup>2</sup>: 386–388); IPFV *li-ni-* is then explained as a secondary imperfective to PArm. PFV *\*lei-*, created on the analogy of such forms as aor. 1sg. mp. *\*e-lé-i* (*etē*) and aor. subj. 1sg. *\*e-leic<sup>h</sup>* (*etēc<sup>h</sup>*). Apart from the fact that this scenario requires an unsupported analogy, it does not explain why *\*-t-* is absent in the IPFV stem.

§ 2.3.1-1.4. *Tanim* tr. ‘bring smb./so.’ (Bible+), aor. mp. *taray*, past ptc. *tareal*, caus. n/a, ipv. *tar*. NBHL 2: 843; HAB 4: 368; Künzle 2: 649f., RADCA: 140; Zeilfelder 2004: 255f.

- Transitivity: A-O.

Peculiarly, although *tanim* is transitive, it consistently takes the mediopassive voice in the present and aorist indicative tenses.

- Actionality: ACHIEVEMENT/ACCOMPLISHMENT.

(1) *Jn.* 19, 17: *Ew nok’a areal tanēin zna* <...>. “And they took and brought him out <...>.” (trans. PK).

ETYM: The traditional etymology derives the verb from the mediopassive voice of PIE *\*deh₃-* tr. ‘give’ (cf. Meillet 1936: 133; Klingenschmitt 1982: 200f.; LIV<sup>2</sup>: 106; skeptical Godel 1975a: 123; Djahukian 2010: 720). The active forms preserved the original meaning and

<sup>94</sup> OIr. *lenaid* ‘follow’ and OE *linnan* ‘cease’ do not belong here, cf. EDPG: 339, EDPC: 239.

yielded Arm. *tam*, aor. *etu* tr. ‘give’. The semantic shift from tr. ‘give’ to tr. ‘take = \*give for oneself’ can be explained by the conversive function of the middle voice in dialectal PIE. The final step in the semantic change from ‘give/take for oneself’ to ‘take so. somewhere’ may be taken as an internal Proto-Armenian development. In theory, the change from the RECIPIENT to AGENT reading of the subject might have been responsible for the introduction of the nasal suffix into the word structure of *tanim*, if from PArm. *\*dH-nHe/o-*.

The PFV *tar* could result from the reanalysis of the imperative form *ta-r* (cf. ipv. *lu-r* from *lsem* ‘hear’) as a PFV root stem *tar-*, in which *-r-* served as a hiatus breaker in a mediopassive form *\*ta-ay*. The conventional hiatus breaker *-c-* (the type of *ba-nam*, aor. *ba-c-i* ‘open’) would render the PFV stem of *tanim* homonymous to the active voice cognate PFV *tac-* of *tam* ‘give’.<sup>95</sup>

### § 2.3.1-2. IPFV *-n-* : PFV *-i-* (suppl.)

§ 2.3.1-2.1. *Yarnem* intr. ‘stand up, arise’, *fig.* ‘rise against smb.’, aor. *yareay*, past ptc. *yaruc’eal*, ipv. *ari*, caus. *yaruc’anem* tr. ‘raise’ (Bible+). *NBHL* 2: 338; *HAB* 3: 384; Künzle 2: 493f.; *RADCA*: 125; Zeilfelder 2004: 199.

◇ Related words: *arm(n)* ‘root; stem’.

- Transitivity:  $S_A$ .
- Actionality: ACHIEVEMENT.

- (1) *Gen.* 28, 18: *Ew yareaw Yakob and arawawtn* <...>. “So Jacob rose early in the morning <...>.”
- (2) *Mt.* 8, 25: *Ew matuc’eal ašakertk’n yaruc’in zna* <...>. “And they came to Him and woke Him <...>.”

ETYM: The verb goes back to PIE *\*h<sub>3</sub>er-* intr. ‘rise’ (*LIV*<sup>2</sup>: 269f.; Djahukian 2010: 548). The two stems IPFV *\*yarn-* and PFV *\*y-ar-i-*, must be older than the sound change *\*rn > \*rn*, whence the split of the root shape in IPFV *yar-n-* and PFV *yar-i-*.

Note that *yarne-* cannot be derived from *\*yari-ne-*, since the weakening of *\*i* postdates the sound law *\*rn > \*rn* (see § 1.4.4). Therefore, the IPFV nasal stem cannot be derived from the PIE IPFV *\*i-* stem attested in Hitt. *arāi-* intr. ‘rise’, tr. ‘raise’, Lat. *orior* ‘arise’, etc. (Meillet 1936: 115; Godel 1965 = 1982: 37; Jasanoff 1981: 17; see *EDHIL*: 200 on the reconstruction of the PIE paradigmatic type). At best, *\*h<sub>3</sub>(e)r-i-* can be taken as the ancestor of PFV *yari-*, if one assumes that the inherited IPFV stem was introduced into the preterite part of the paradigm when the imperfect merged with the aorist into one early Proto-Armenian preterite

<sup>95</sup> A comparable change of the root shape is found in the dialects. Thus, in Agulis, *dnel* ‘put’ has been replaced by *dril* ‘suppose, assume’; the *-r-* is found in the aorist of this verb in the Kesab dialect, cf. 1sg. *dərü* (*EDAIL*: 240).

category (cf. Godel 1965 = 1982: 33). Then, the IPFV nasal stem must be taken as a parallel stem and not a derivative from PFV *yari*-.

In my opinion, a more plausible solution is to derive the IPFV nasal stem from PIE. Gk. mp. ὄρνυμαι intr. ‘come to motion’ (next to act. ὄρνυμι tr. ‘urge, set in motion’) and Skt. ṛṇvāti intr. ‘come to motion’ (next to Skt. act. ṛṇóti tr. ‘set in motion’, Av. act. arənao- tr. ‘set in motion’)<sup>96</sup> point to dial. PIE *\*h<sub>3</sub>r-n(e)u-*. Presumably, Proto-Armenian lexicalised the mediopassive form of that verb with the antipassive meaning, cf. *arnum* from *\*h<sub>2</sub>r-nu-* ‘receive’ (see § 2.1.1-1.1) and *zgenum* from *\*ues-nu-* ‘clothe oneself’ (see § 2.1.1-2.6).

One may thus assume that the IPFV *n(e/i)*-stem is a relatively recent replacement of an older PArm. *\*nu*-stem conditioned by the analogical pressure of the intransitive agentive motion verbs of the *e/i*-conjugation like *elanem* intr. ‘go out’ and *mtanem* intr. ‘enter’, on the one hand, and the homonymy with the prototype of *arnum* tr. ‘take’, on the other. Within this solution, the PFV *i*-stem must be a Proto-Armenian innovation, unrelated to the IPFV *\*i*-stem of Hittite and Italic; it could be introduced into this verb on the analogy of verbs of ablative motion like *c’acnum*, aor. *c’aceay* intr. ‘refrain of so.’ and *p’axnum*, aor. *p’axeay* intr. ‘flee’ (see § 2.1.1-3). Note also *anc’anem* ‘pass by’, aor. *anc’i* → *yanc’anem* ‘transgress; commit a fault’, aor. *yanc’eay* with a characteristic interchange of the PFV stems accompanying the derivation of a prefixal verb in *y*-.

The latter solution is supported by the equation of Gk. ὄρ-μενος ‘shoot, stalk’ and Arm. *ar-mn* ‘root’ with PIE *\*h<sub>3</sub>rC-* > PArm. *\*arC-* (see Kocharov 2018b on the pattern of laryngeal vocalisation), and Gk. aor. ὄρ-μην. These nouns represent substantivised participles derived from the PFV root stem otherwise attested in Skt. *árta*, Gk. ὄρτο. Within Old Armenian, the replacement of a PIE PFV athematic root stem with an PArm. PFV *\*i*-stem finds parallel in Arm. *caneay* ‘I know’ from PIE PFV *\*ǵneh<sub>3</sub>-* ‘recognise’.

The preverb *y-* can be explained by the lexicalised valency on the SOURCE argument, commonly expressed by the prepositional phrase *i/y-* + ablative, e.g. *yareaw i mereloc* ‘he is risen from the dead’ (Bible), and the avoidance of the homonymy with *arnem* ‘make’.

Ipv. *ari* can be explained as a bare stem active voice imperative, that aligned to the active voice of *yarnem*. The mismatch between the mediopassive voice of the aorist tense and the imperative is found in other frequent Old Armenian verbs, cf. act. *utem* ‘eat’ with aor. mp. *keray* and ipv. act. *ker*, act. *unim* ‘have’ with aor. act. *kalay* and ipv. act. *kal* or *ka*.<sup>97</sup>

<sup>96</sup> Note that the thematic conjugation of Skt. *ṛṇvāti* is the only formal marker of intransitivity when compared to *ṛṇóti*.

<sup>97</sup> Martirosyan (frthc. § M.502.11) suggested to derive Arm. *yar-n-* from PArm. *\*(i)yar-* < *\*Hi-H(e)r-* (cf. Skt. *íyarti*). The advantage of this solution is that it provides an interesting diachronic explanation for the lack of *y-* in ipv. *ari*. However, secure cases of the morphological shift from a PIE reduplicated IPFV stem to an Arm. *n(e/i)*-stem show that the derivational base was always

The rise of *ari* might have been supported by the active voice imperatives of the agentive intransitive motion verbs such as act. *gna* ‘go!’ (gnam ‘go’). Ipv. *ari* must be older than the lexicalisation of the prefixal verb *\*y-ar-*; the mismatch between the root shape of the PFV stem and that of the imperative finds parallel in *ar̄nem* ‘make; do’ with aor. *arari* and ipv. *ara*.

### § 2.3.1-3. IPFV *-n-* (?) : PFV *n/a* or suppletive

§ 2.3.1-3.1. *\*Arcn-e/i-m* tr. ‘enamel’, aor., ptc., caus. *n/a* (Bible). The verb is a hapax attested in the Bible in the form of infinitive of purpose (1). *NBHL* 1: 362; *HAB* 1: 318; *RADCA*: 124.

◇ Related words: *arcarc-e/i-m* tr. ‘kindle’, intr. ‘inflamm’ (Bible).

- Transitivity: A-O.

The direct object is implicit by the context in (1). The infinitive does not allow determining the voice assignment pattern. However, the underlying transitive argument structure presumes that active and mediopassive forms could be used in the active and passive constructions respectively.

- Actionality: ACTIVITY.

The infinitive form in (1) only allows to define the verb as dynamic.

- (1) *2Mac.* 2, 30 (*LXX* = *2Mac.* 2, 29): *Orpēs vasn hasarakac’ šinut’ean aparanic’, bazmac’ zgorc bažaneal, bayc skizbn ew kataracn šinuacoc’n i bun čartarapet andr hayi, ayl cep’eln ew guneln ew arcneln ew nkareln, ayn i zardarič’ andr hayi.* “For as the master builder of a new house must be concerned with the whole construction, while the one who undertakes its plastering, colouring, enembling, and painting has to consider what is suitable for its adornment.” (trans. *PK*).

ETYM: Its root *arc-* can be identified on the basis of the internal cognate *arcarc-e/i-m* tr. ‘kindle’, intr. ‘inflamm’ (Bible). The root goes back to PIE *\*h<sub>2</sub>(e)rg-* ‘glitter, shine; white, shining’, cf. Gk. *ἀργός* ‘white’, etc. (Djahukian 2010: 91).

The nasal stem must be secondary, since *\*nHe/o-* would have yielded Arm. *<sup>x</sup>(h)arc-ane-* or *<sup>x</sup>(h)ar̄ne-* with PArm. *\*rcn* > Arm. *rn* parallel to PArm. *\*rjn* > Arm. *rn* (cf. Arm. *bar̄nam* from PArm. *\*b<sup>h</sup>rg<sup>h</sup>nā-*).

The verb meaning probably derives from the factitive meaning ‘make glow; illuminate’. In this respect, it is comparable to *ar̄nem* in the factitive construction ‘make (like) X’, and the introduction of the nasal suffix can be analysed as the transitivity marker.

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provided by the PFV root stem and not by the IPFV reduplicated stem, cf. PIE IPFV *\*d<sup>h</sup>i-d<sup>h</sup>eh<sub>1</sub>-* → *\*d<sup>h</sup>eh<sub>1</sub>-nHe/o-* > Arm. IPFV *dne/i-* ‘put’. See § 2.5.1-3.7 against PIE *\*pi-pd-* in *hiwcanim* ‘wane’.

§ 2.3.1-3.2. *Unim* tr. ‘have; hold’, aor. mp. *kalay*, past ptc. *kaleal*, caus. n/a (Bible+). *NBHL* 2: 550–51; *HAB* 3: 601–2; Künzle 2: 560–564; *RADCA*: 140; Zeilfelder 2004: 222f. In Old Armenian, unlike in many modern European languages, the verb never reached the stage of a grammaticalised auxiliary in the *HAVE*-perfect, but is attested in a semi-grammaticalised resultative construction, see Kocharov 2016b.

◇ Derived verbs: Aor. act. *kali* as well as pres. *kalum*, *kallum*, *kalnum* (*NBHL* 1: 1033f.), must be secondary (Djahukian 1982: 168, 177; Olsen 1999: 538f.; de Lamberterie 2005: 334f.).

◇ Related words: *oľ-oyñ* ‘salute!’ (Bible+).

- Transitivity: A-O.
- Actionality: ACHIEVEMENT/STATE.

The stem IPFV *uni-* is reserved for the stative construal of the verb, as opposed to the ACHIEVEMENT construal of PFV *kal-*.

- (1) *Mt.* 3, 4: *Ew ink'n Yovhannēs unēr handerj i stewo[y] uttu <...>*. ‘Now John himself had a garment of camel's hair.’

ETYM: Given the suppletive PFV stem, it is difficult to decide whether the IPFV stem belongs to the suffixless class of the *i*-conjugation with the root *oyñ-/un-*, or the *n*-class of the *i*-conjugation with the root *oy-/u-*. Noun *oyñ(k')* ‘habit’, which can be a back-formation derived either from the root or from the nasal stem, does not disambiguate the analysis.

The imperative form of *unim* is preserved in *oľ-oyñ* ‘salute!’, literally ‘have health!’ (de Lamberterie 1978: 278–282; 2005: 338). Given that *oľ er* often contains the IPFV form of the suppletive verb *em* ‘be’/*linim* ‘become’ in the Gospels next to *oľ ler* (Meillet 1910–1911a = 1962: 94f.), *oyñ* can again be considered derived from either the nasal IPFV stem or PFV root stem from a root in *-n-*.

The two aforementioned possibilities evoke two etymologies. On the one hand, *oyñ-* can be derived from PIE *\*h<sub>1</sub>ep-* ‘grasp; obtain’ (Meillet 1929 = 1977: 258; 1936: 47f.). Next to the base root stem (cf. Hitt. *epp-* ‘grasp’; cf. *EDHIL*: 242), one finds secondary IPFV stems, cf. Hitt. *app-ešk-*, Skt. *āp-nó-ti*, Lat. *ap-isc-or* ‘reach; acquire’ connected to *coepiō* (Plaut.) and *-apiō* (Ivanov 2007: 72–74). Within this etymology, Arm. *uni-* can be explained as a secondary nasal stem based on RES *\*(h<sub>1</sub>e-)h<sub>1</sub>op-* (cf. Skt. *āpnóti* derived from perf. *ápa*). This scenario requires that the perfect stem was lexicalised in this verb, cf. *busanim* (see § 2.5.1-2.11). In order to explain why no prevocalised allomorph of the nasal suffix developed (PArm. *\*Hop-nHe/o-* > *\*opane-* > *\*owani-*), one has to assume that the perfect stem was thematicised first: thus PIE *\*(h<sub>1</sub>e-)h<sub>1</sub>op-* → PArm. *\*h<sub>1</sub>op-e/o-* (cf. PIE *\*uoid-* → PArm. *\*uoid-e/o-* > Arm. *gitem*) > *\*ow-e/o-* → *\*ow-ni-*. Within this analysis, the nasal suffix remained productive until after the sound change PIE *\*VpV* > PArm. *\*VwV*.

On the other hand, there was an attempt to compare the Old Armenian verb to Hitt. *šanḫ-* ‘look for, attempt, desire’ and Ved. *sanóti* ‘reach’. Again, a lexicalised resultative is postulated to explain the Old Armenian verb: PIE RES *\*(se-)sónh<sub>2</sub>-*, from PIE *\*senh<sub>2</sub>-* tr. ‘gain, obtain’ (Schindler 1976; Klingenschmitt 1982: 157; *LIV*<sup>2</sup>: 532f.; Ivanov 2007: 78). Thus, one may posit PIE RES *\*(se-)sónh<sub>2</sub>-* → PArm. IPFV *\*honH-e/o-* → Arm. *uni-* with an aberrant retention of the unstressed initial *u-* (instead of *\*ə-*). Although formally acceptable, this solution is weaker with regard to semantics. The meaning ‘have so. obtained’ is a more plausible forerunner of ‘have’ than ‘have so. reached; have so. desired’.

Both etymologies fit within the chain of semantic shifts suggested in Meillet 1923: 10: ‘take, grasp’ (expressed by Arm. *əndunim* as a parallel to Lat. *capiō* ‘take’ → *accipiō* ‘receive’) → ‘hold’ → ‘possess’ → ‘have’. The latter option excludes *unim* from the Arm. *n(e/i)*-class.

### § 2.3.1-4. The verb of the *e/i*-conjugation with an etymological *n*-stem

§ 2.3.1-4.1. *Han-e/i-m* tr. ‘drive away; bring forth; take away, take somewhere’, aor. act. *hani*, aor. mp. *hanay*, ptc. *haneal*, caus. n/a (Bible+). *NBHL* 2: 45; *HAB* 3: 33; Künzle 2: 396–398; *RADCA*: 116; Zeilfelder 2004: 159f.

Synchronically, the verb belongs to a residual paradigmatic type, in which the IPFV *-e/i-* is matched by the PFV root stem; the other three verbs that belong to this group are *acem* ‘drag’, *berem* ‘bear’, and *nstim* ‘sit’.

- Transitivity: A-O (1); S<sub>0</sub>[-E<sub>A</sub>] (2).
- Actionality: ACHIEVEMENT/ACCOMPLISHMENT.

- (1) *Mt.* 12, 27: *Ew et’e es Beetzebulaw hanem zdews, ordik’n jer iw hanic’en.* ‘If I by Beelzebul cast out demons, by whom do your sons cast them out?’
- (2) *Dan.* 6, 23: <...> *hanaw Daniël i gboy anti <...>.* ‘So Daniel was taken up out of the den <...>.’

ETYM: Klingenschmitt (1982: 132), suggested to derive *hanem* from PArm. *\*pā-ne-*, a secondary IPFV stem from PFV *\*pā-*, itself from PIE *\*(s)peh<sub>2</sub>-* tr. ‘draw’ (Gk. *σπάω* tr. ‘draw’). Furthermore, García Ramón (2011) suggested to add Skt. (*ut*) *pipīte* ‘rise against’ and Hitt. *pippa-* ‘tear down’ to the comparison (see also *EDHIL*: 676f.). If the etymology is correct and the reduplicated IPFV stem can be reconstructed, one might think of the same stem replacement pattern as in the case of PIE *\*d<sup>h</sup>i-d<sup>h</sup>eh<sub>1</sub>-* → PArm. *\*dē-ne-* → Arm. *dnem* (see § 2.3.1-1.2) on the basis of the inherited PArm. *\*pā-* (wherfrom PArm. *\*pā-ne-*).

At a later period, the IPFV *\*n(e)*-stem lexicalised by way of an extensive use of the imperfect in the preterite, cf. *acem* ‘lead’ < PIE IPFV *\*h<sub>2</sub>eǵ-e/o-*, *berem* ‘carry’ < PIE IPFV *\*b<sup>h</sup>er-e/o-*, *nstim* ‘sit’ < PArm. IPFV *\*ni-si-sd-e/o-* (cf. Godel 1965 = 1982: 20; de Lamberterie 1985: 207). The lexicalisation of the nasal suffix is found in *sparnam* (§ 2.2.1-3.1).



## § 2.3.2. Evaluation

## § 2.3.2-1. Grammatical features

Table 9. Transitivity alternations of *n(e/i)*-verbs

Verb	Agentivity	Intransitive	Transitive	Extended transitive	Type
IPFV <i>-n-</i> : PFV <i>-Ø-</i> (suppl.)					
<i>ar̄n-e/i-m</i>	+	mp	act	—	E
<i>dn-e/i-m</i>	+	mp	—	act	E
<i>linim</i>	–	mp	—	—	S
<i>tanim</i>	–	mp	mp	—	L <sub>MP</sub>
IPFV <i>-n-</i> : PFV <i>-i-</i>					
<i>yarnem</i>	+	act/mp	—	caus	L <sub>ACT/C</sub>
IPFV <i>-n-</i> (?) : PFV <i>n/a</i>					
<i>arcnem</i>	+	—	act	—	E
<i>unim</i>	–	—	mp	—	L <sub>MP</sub>
Etymological * <i>n</i> -stem					
<i>han-e/i-m</i>	+	mp	act	—	E

The *n*-verbs of the *e/i*-conjugation include non-agentive verbs (intransitive and transitive) and agentive verbs (intransitive and ambitransitive). The correlation between transitivity and voice is straightforward in *arcnem*, *ar̄n-e/i-m*, *dn-e/i-m*, *han-e/i-m*, and *linim*. Two verbs, *tanim* and *unim*, use mediopassive forms in the transitive construction, while *yarnem* uses the active and mediopassive voice in the intransitive construction.

The equipollent pattern is the most frequent one in the *n*-verbs of the *e/i*-conjugation (*arcnem*, *ar̄n-e/i-m*, *dn-e/i-m*, *han-e/i-m*). The verb *linim* may be viewed as a member of a transitivity pair with *ar̄n-e/i-m* marked by the suppletive pattern. The verbs *tanim* and *unim* follow the labile pattern with mediopassive marking, while *yarnem* takes competing causative and labile (with active marking) patterns.

## § 2.3.2-1.1. Non-agentive intransitive verbs

PFV *-Ø-* (suppl.): *linim* ‘become’.

See other non-agentive intransitive nasal verbs in §§ 2.1.2-1.1 (*-n-u-*), 2.4.2-1.1 (*-an-a-*), 2.5.2-1.2 (*-an-e/i-*), and 2.6.2-1.1 (*-nč<sup>ʰ</sup>-i-*). In view of the etymological connection to the *an(e/i)*-class (see below § 2.3.2-2), *linim* belongs together to the non-agentive intransitive

verbs *hiwcanim* ‘wane’, *macanim* ‘curdle’, and *p’lanim* ‘collapse’, etc. (§ 2.5.2-1.2). Especially close is *hiwcanim* without a derived causative.

The verb has no transitive counterpart. It has the lexicalised [+ telic] and [+ dynamic] aspectual features, while the [+ durative] parameter is unspecified.

### § 2.3.2-1.2. Non-agentive transitive verbs

Etym. *-n-*: *unim* ‘have; hold’.

See other non-agentive transitive nasal verbs in §§ 2.4.2-1.2 (*-an-a-*) and 2.5.2-1.3 (*-an-e/i-*).

The suppletive IPFV stem is restricted to the STATE actional class and expresses the durative, atelic, stative aspectual meaning.

### § 2.3.2-1.3. Agentive intransitive verbs

PFV *-i-*: *yaṛnem* ‘stand up’.

See other intransitive nasal verbs unspecified for agentivity in §§ 2.1.2-1.2 (*-n-u-*), 2.2.2-1.1 (*-n-a-*), 2.4.2-1.4 (*-an-a-*), 2.5.2-1.5 (*-an-e/i-*), and 2.6.2-1.2 (*-nč’-i-*).

The PFV *i-* stem of *yaṛnem* can be compared to *yanc’anem* ‘transgress’, aor. *yanc’ey*. Note that both are prefixal verbs in *y-*. Besides, the PFV *i-* stem finds a parallel in the motion verbs of the *n(u)*-class, cf. *p’axnum*, aor. *p’axeay* intr. ‘flee’.

The verb is a lexicalised ACHIEVEMENT, and its IPFV stem expresses the secondary aspectual meanings (habitual, iterative, etc.).

### § 2.3.2-1.4. Agentive ambitransitive verbs

PFV  $\emptyset$ - (suppl.): *aṛn-e/i-m* ‘make; do’; *dn-e/i-m* ‘put’; *tanim* ‘bring’.

PFV *n/a*: *arcn-e/i-m*.

Etym. *-n-*: *han-e/i-m* ‘drive away’.

See other agentive ambitransitive nasal verbs in §§ 2.1.2-1.4 (*-n-u-*), 2.2.2-1.2 (*-n-a-*), 2.4.2-1.5 (*-an-a-*), 2.5.2-1.6 (*-an-e/i-*), and 2.7.2-1.1 (*-anč’-e-*).

All of the listed verbs are dynamic and allow for telic uses except for the hapax *arcnel* with unspecified actionality.

## § 2.3.2-2. PIE outlook

Klingenschmitt (1982: 16of.) argued that the Old Armenian *n(e/i)*-verbs continue the PIE infix stems. None of the verbs discussed in § 2.3.1 confirms that hypothesis. Altogether, at least two verbs, *linim* and *yaṛnem*, can reflect the PIE nasal suffix.

The *n(e/i)*-stem is found in verbs that contain Proto-Armenian roots in a vowel (*dnem*, *hanem*) or a consonant of the lower sonority than *\*n* — *\*l* (*linim*), *\*w* (*unim* ?; see § 2.3.1-3.2), and *\*r*- (*arnem*, *yaʀnem*).<sup>98</sup> The only exception is *arcnem*, which can be a recent innovation (see § 2.3.1-3.1).

Such a distribution is parallel to that of Gk. *νε/ο*-verbs. Klingenschmitt (1982: 106f.) pointed out that Hom. *-νε/ο*- (when not from *\*nie/o*- or *\*nue/o*-) follows roots in *-αμ-* (κάρμνω ‘work’ < PIE *\*km-n-h<sub>2</sub>-*, τάρμνω ‘cut’ < PIE *\*tm-n-h<sub>1</sub>-*), *-αλ-* (βάρλλω ‘cast’ < PIE *\*g<sup>h</sup>l-n-h<sub>1</sub>-*) or *-ι-* (πίνω ‘drink’ < PIE *\*pih<sub>3</sub>-ne/o*-). Like δάρκνω ‘bite’ and πίτνω ‘fall’, the *-ίνω* type requires a nasal suffix not an infix and represents a nasal formation derived from the inherited PFV root stem.

It is tempting to explain the similarity in the distribution of Arm. *-ne/i-* and Gk. *-νε/ο-* by their common origin — dial. PIE *\*-n-e/o-* or *\*-nH-e/o-*. The latter stem could be the result of the thematisation of the infixed stem from roots in a laryngeal (cf. κάρμνω, presumably, from *\*km-n(e)-h<sub>2</sub>-*, Skt. *śamñite* ‘work’; van de Laar 2000: 178), or of the thematicised *\*n(e)h<sub>2</sub>-*stem. See § 2.5.2-3 for further justification of reconstructing *\*-nHe/o-* rather than *\*-ne/o-*.

Table 10. Grammatical features of *n(e/i)*-verbs

	Transitivity	Agentivity	Lexical Aspectual Features
<i>arcn-e/i-m</i>	[+ transitive]	[+ agentive]	[– telic], [+ durative], [+ dynamic]
<i>arn-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [± durative], [+ dynamic]
<i>dnem</i>	[+ transitive]	[+ agentive]	[+ telic], [± durative], [+ dynamic]
<i>han-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [± durative], [+ dynamic]
<i>linim</i>	[– transitive]	[– agentive]	[+ telic], [± durative], [+ dynamic]
<i>tanim</i>	[+ transitive]	[+ agentive]	[+ telic], [± durative], [+ dynamic]
<i>unim</i>	[+ transitive]	[– agentive]	[± telic], [± durative], [± dynamic]
<i>yaʀnem</i>	[– transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]

Both verbs, the nasal stem of which may be inherited, *linim* and *yaʀnem*, are intransitive. By contrast, all the secondary nasal verbs from PIE roots, including *arnem* and *dnem*, are transitive. *Yaʀnem* most probably originally belonged to the PArm. *\*nu*-class and is not valid for establishing the grammatical semantics of the PArm. *\*ne/i*-class. By contrast, the intransitive argument structure of *linim* is an archaism that aligns with *hiwcanim* intr. ‘wane’, *macanim* intr. ‘curdle’, and intr. *pʻlanim* ‘collapse’. It provides evidence that dial. PIE *\*nHe/o*-verbs were unspecified for transitivity and agentivity.

<sup>98</sup> The verb *lkn-im*, aor. *lkn-ecʻay* ‘behave licentiously’, in which a nasal is part of the root, may be derived from a Proto-Armenian nominal *n*-stem, cf. Gk. λάρνος ‘lustful’ (see Djahukian 2010: 299; EDAIL: 765). Thus, it does not disturb the indicated distribution.

As argued in § 2.5.2-3, the spread of the IPFV *\*nHe/o-* stem originated in the dialectal PIE paradigmatic pattern IPFV *\*-nHe/o-* : PFV *\*-e/o-*. Thus, the nasal suffix could originally recharacterise the IPFV stem of verbs with the thematic PFV root stem. The formal analogy could be supported by the lexicalised grammatical features of telicity and dynamicity (see Table 10). The nasal stem of two verbs, *dnem* and *hanem*, could replace the older reduplicated stems. Meillet (1934: 204) argued that the reduplicated IPFV stem characterised telic verbs. If so, the use of the secondary nasal suffix had to be consistent with that grammatical meaning.

Additionally, the spread of the nasal stem could be facilitated by the core lexical meaning. Note that *ar̥nem* and *arcnem* are verbs of creation, while *dnem*, *hanem*, and *tanim* are verbs of dislocation. Similarly, *yar̥nem* could change the conjugation (from *\*arnu-*) on the analogy to the motion verbs of the *an(e/i)-* class (e.g. *elanem* 'go out').

## Section 2.4. The *an*-stem of the *a*-conjugation

### § 2.4.1. Evidence

All *an*-verbs of the *a*-conjugation belong to one verbal class with the PFV *ac*'-stem.

The class contains an open list of change-of-state verbs derived from adjectives, nouns, adverbs, primary verbs, pronouns, and numerals (see § 2.4.1-1), and some primary verbs for which no base word is attested in early classical texts (see § 2.4.1-2).

In some cases, it is difficult to say whether an *ana*-verb is derived or not. Thus, Klingenschmitt (1982: 124f.) interprets *armanam* 'be(come) astonished' as derived (even though no base word <sup>x</sup>*arm* is attested as an adjective 'stunned' or a noun 'astonishment') and hesitates about *hianam* 'be(come) amazed', *imanam* 'understand', *moʿanam* 'forget', and *uranam* 'deny'. Greppin (1973: 197) and Hamp (1975: 104) argue that *gotanam* 'steal' is inherited even though *got* 'thief' is attested. A formal approach is accepted in the present section: verbs without an attested derivational base will be considered primary even when they do not have an etymology that would prove that they continue an original verbal stem. Verbs that do have a substantival correspondence will be treated as derived.

### § 2.4.1-1. Derived *an*-verbs of the *a*-conjugation

#### § 2.4.1-1.1. Attestations

In § 2.4.1-1, the derived *an*-verbs of the *a*-conjugation are listed. They are attested in the source material (cf. *RADCA*: 99–104). The derivational model remained productive in the course of the 5<sup>th</sup> century, but it is certainly older than the first written texts. Such verbs include derivatives from inherited words (e.g. *ariwn* 'blood' → *ariwnanam* 'become like blood') or borrowings from Iranian (e.g. *dašt* 'field, plain' → *daštanam* 'become a plain'), Syriac (e.g. *k'ahanay* 'priest' → *k'ahanayanam* 'become a priest'), and Greek (e.g. *martiros* 'martyr' → *martirosanam* 'become a martyr').

Many such verbs are only attested in one author and can be nonce words. For instance, the substantive *ē* 'truly existent (of God or the Trinity)' was created by Eznik Kołbac'i as a theological term (Mariès 1928: 51), which was then adopted by Agat'angelos in his *Teaching of St. Gregory* (see § 377). It is not surprising that the derived verb *ēanam* 'become existent (equal to God)' only occurs in Eznik Kołbac'i's writing and Agat'angelos' *Teaching*. Agat'angelos used the verb in the Biblical context (*Phil.* 2, 6) instead of *linel* 'be(come)' (Thomson 2001: 16). This proves that the derivational model remained active in the course of the 5<sup>th</sup> century. Given that the model remained productive in the 5<sup>th</sup> century, verbs that are attested in one particular author can be occasionalisms.

An important issue is the fact that many such verbs are attested only in forms that are derived from the PFV stem. Given that the PFV *ac'*-stem characterises verbs of the *a*-conjugation with and without the IPFV *an*-suffix, verbs with that stem can be attributed to either of the two classes (see § 2.4.1-1 and § 2.4.1-2). Some verbs are attested with the nasal suffix in some texts and only with the PFV *ac'*-stem in others. For instance, *culanam* 'become lazy' is attested in Łazar P'arpec'i (2003: 2300, 2343), while *culam* 'stay idle' is attested in Eznik Kołbac'i (2003: 442, 479); besides, PFV *culac'*- is found in the past participle (Agat'angelos 2003: 1536, P'awstos Buzandac'i 2003: 359) and aorist subjunctive (Eznik Kołbac'i 2003: 454). If the evidence were limited to the writings of Eznik Kołbac'i, Agat'angelos and P'awstos Buzandac'i, the existence of IPFV *culana-* in the 5<sup>th</sup> century language could be doubted.

#### § 2.4.1-1.2. Derivational semantics

The following types of derivational semantics can be distinguished for *an(a)*-verbs derived from substantives:

**Qualitative anticausatives:** 'become X', where X is a quality expressed by a property concept adjective (see § 2.4.1-1.4a; *canr* 'heavy' → *canranam* 'become heavy'), noun (see § 2.4.1-1.4b: *amusin* 'spouse' → *amusnanam* 'become a spouse'), pronoun (see § 2.4.1-1.4d: *inč'* 'something' → *ənč'anam* 'come into being'), or a numeral (see § 2.4.1-1.4e: *mi* 'one' → *mianam* 'become united'). Qualitative anticausatives may have stative equivalents expressed by the construction  $X_{\text{NOM}} + \textit{linel}$  'be X', where X is a derivational base.

**Similitive anticausatives:** "become like X", where X is a standard of comparison expressed by a substantive (see § 2.4.1-1.4b: *etbayr* 'brother' → *etbayranam* 'become like a brother'). Similitive anticausatives may have a stative equivalent expressed by the construction *linel* + *ibrew*  $X_{\text{ACC}}$  'be like X'.

**Locative anticausatives:** "be(come) at X; get to X", where X is a location expressed by a substantive. Cf. § 2.4.1-1.4b: *leārn* 'mountain' → *leṛnanam* 'become mountainous; get to mountains' (the context does not allow a periphrase \*'become (like) a mountain'); *t'aluk* 'a fainting' → *t'alkanam* 'faint' (no periphrase is possible \*'become a fainting' or \*'become like fainting'); *c'ank* 'a desire' → *c'ankanam* 'desire' (no periphrase is possible \*'become a desire' or \*'become like desire'). The derivational semantics of the locative anticausatives is close to that of verbs derived from adverbs (see § 2.4.1-1.4c).

#### § 2.4.1-1.3. Derivational patterns

In most cases, the derived verb adds the IPFV *an*-suffix and the PFV *ac'*-suffix to the stem of the direct cases, subtracting the thematic vowel of the oblique stem, cf. nom-acc. *c'ank-*, obl. *c'ank-o-* 'a desire' → *c'ank-an-am* 'desire'.

A group of verbs underwent subtraction of the suffixes *-i-* and *-ac'-i-* of a base word before adding the verbal suffixes IPFV *an-* and PFV *ac'*, cf.:

nouns: *eketec'-i* 'church, assembly' → *eketec'-an-am* 'assemble'; *hovan-i* 'shadow' → *hovan-an-am* 'become (like) a shadow'; *t'snam-i* 'enemy' → *t'snam-an-am* 'become an enemy';

adjectives: *attet-i* 'dirty' → *attet-an-am* 'become dirty'; *kendan-i* 'living' → *kendan-an-am* 'become alive'; *vayren-i* 'wild' → *vayren-an-am* 'become savage'; *yoř-i* 'wicked' → *yoř-an-am* 'become wicked'; *israyēl-ac'-i* 'Israelite' → *israyēl-an-am* 'become an Israelite';

adverbs: *mekus-i* 'aside' → *mekus-an-am* 'go aside'.

In some cases, however, the suffix *-i-* is retained; cf. *xnam-i* 'related' → *xnam-en-am* 'become related'. The suffix can also be retained in the case of deverbative formations, cf. *\*arb-i-an-a* > *arb-en-am* 'become drunk', *\*k'atc'-i-an-a* > *k'atc'-en-am* 'become hungry'.

*Yt-en-am* and *ył-an-am* 'become pregnant' from adj. *ył-i* 'pregnant' show the variation of the two patterns.

An aberrant case of substitution is presented by n. *hor-an* 'flock' → *yor-anam*, aor. *yor-ac'-ay* (*\*y-hor-an-am*, *\*y-hor-ac'-ay*) 'form a flock', which is best explained by haplogy: *\*y-horan-an-am* → *y-or-an-am*.

#### § 2.4.1-1.4. Lexical and syntactic properties

This verbal class predominantly consists of intransitive change-of-state verbs with varying degrees of the subject's control over the change-of-state event and allow for a range of interpretations of the first argument in terms of the thematic roles including AGENT, RECIPIENT, UNDERGOER, etc. For example, while *arofjanam* 'become healthy' is basically non-agentive, *canawt'anam* 'become acquainted' can have a reciprocal agentive reading.

In a few cases, the resulting verb is transitive (agentive, non-agentive, and unspecified for agentivity); cf. *gohanam* 'thank', *c'ankanam* 'desire', etc.

##### a. Anticausatives derived from adjectives

Due to the extensive derivation between nouns and adjectives in Old Armenian, it can be difficult to say from which of the two parts of speech the secondary verb is derived. For example, *awtaranam* 'become remote' can be considered a derivative of adj. *awtar* 'foreign' or a noun *awtar* 'foreigner'. In such cases, preference has been given to adjectives.

The IPFV *an-*stem is attested in the following verbs: *atł'atanam* 'become poor' (*atł'at* 'poor'); *attetanam* 'become dirty' (*atteli* 'dirtied' from *att* 'dirt'; see Olsen 1999: 409 on the adjectives in *-eli*); *amayanam* 'become deserted' (*amay* 'deserted'); *amranam* 'become solid' (*amur* 'solid'); *angitanam* 'become ignorant' (*angēt* 'ignorant'); *anjkanam* 'become desirable' (*anjuk* 'narrow'); *anmahanam* 'become immortal' (*anmah* 'immortal');

*aṛak'īnanam* 'become brave' (*aṛak'ini* 'brave'); *aṛatanam* 'become abundant' (*aṛat* 'abundant'); *ardaranam* 'become justified' (*ardar* 'just'); *aṛoḷjanam* 'become healthy' (*aṛoḷj* 'healthy'); *awaganam* 'ennoble one's self' (*awag* 'noble'); *awtaranam* 'become a stranger, to become remote' ('foreign, distant'); *azatanam* 'become free' (*azat* 'free'); *barjranam* 'become high' (*barjr* 'high, elevated'); *barkanam* 'become angry' (*bark* 'sharp'); *bazmanam* 'increase in numbers' (*bazum* 'several, many'); *bnakanam* 'become indigenous' (*bnak* 'indigenous'); *bṛnanam* 'become violent' (*bṛn* 'violent'); *canawt'anam* 'become acquainted' (*canawt'* 'known'); *canranam* 'become heavy' (*canr* 'heavy'); *ceranam* 'become old' (*cer* 'old'); *culanam* 'become lazy' (*coyl* 'lazy'); *c'rtanam* 'become cold' (*c'urt* 'cold'); *čoxanam* 'become rich, arrogant' (*čox* 'wealthy; great'); *č'aranam* 'become bad' (*č'ar* 'bad'); *daṛnanam* 'become bitter' (*daṛn* 'bitter'); *datarkanam* 'become empty' (*datar* 'empty'); *deṭnanam* 'become yellow' (*deṭin* 'yellow'); *diwranam* 'become convenient' (*diwr* 'easy, convenient'); *erewut'anam* 'become visible' (*erewut'* 'visible'); *əmbostanam* 'become resistant' (*əmbost* 'resistant, disobedient'); *ənddimanam* 'become opposed' (*ənddēm* 'opposed'); *əndunaynanam* 'be in vain' (*unayn* 'empty'); *əntanenam* 'become familiar, tamed' (*əntani* 'familiar, tamed'); *gawsanam* 'become dry' (*gaws* 'dry'); *gitanam* 'get knowing; involve into relations with someone' (adj. *gēt* 'knowing; learned'); *gohanam* 'thank' (*goh* 'content'); *hamestanam* 'become decent' (*hamest* 'decent'); *hamranam* 'become dumb' (*hamr* 'dumb'); *harstanam* 'become powerful' (*harust* 'powerful'); *hastanam* 'become solid' (*hast* 'solid'); *heṛanam* 'become spiteful; to withdraw' (*heṛ* 'spiteful'); *hiwandanam* 'become sick' (*hiwand* 'sick'); *hnanam* 'grow old' (*hin* 'old'); *hovanam* 'become cool' (*hov* 'fresh') whence *z-ovanam* 'refresh oneself; *hov* 'fresh' (*hpart* 'proud, arrogant'); *israyēlanam* 'become an Israelite' (*israyēlac'i* 'Israelite' from *israyēl* 'Israel'); *janjranam* 'become tired' (*janjir* 'tired'); *kakṭanam* 'become soft' (*kakuṭ* 'soft'); *kanač'anam* 'become green' (*kanač'* 'green'); *karawtanam* 'become necessitous' (*karawt* 'necessitous'); *karcranam* 'become hard' (*karcr* 'hard'); *kendananam* 'become alive' (*kendani* 'living, alive'); *koranam* 'become bent, crooked' (*kor* 'bent, crooked'); *kuranam* 'become blind' (*koyr* 'blind'); *k'atc'ranam* 'become sweet' (*k'atc'r* 'sweet'); *lawanam* 'become good' (*law* 'good'); *meṭmanam* 'grow mild' (*meṭm* 'soft, mild'); *merkanam* 'become naked' (*merk* 'naked'); *mt'anam* 'become dark' (*mut* 'dark'); *oḷjanam* 'become healthy' (*oḷj* 'healthy'); *patuakananam* 'become noble' (*patuakan* 'noble'); *paycaṛanam* 'become bright' (*paycaṛ* 'bright'); *perčanam* 'become proud, arrogant' (*perč* 'famous, distinguished'); *p'ap'kanam* 'become soft' (*p'ap'ik* 'tender, soft'); *p'tanam* 'become rotten' (*p'ut* 'rotten'); *sastkanam* 'become excessive' (*sastik* 'excessive'); *sk'anč'anam* 'admire' (*sk'anč'eli* 'admirable' with the truncation of the gerundival suffix *-eli*); *snanam* 'become empty' (*sin* 'empty'); *sranam* 'become sharp' (*sur* 'sharp'); *šatanam* 'become satisfied' (*šat* 'satisfied'); *šk'etanam* 'become glorious' (*šk'et* 'glorious'); *tattkanam* 'become weary' (*tattuk* 'wearisome'); *tamkanam* 'become wet' (*tamk* 'wet'); *telekanam* 'inquire'



(*teleak* ‘well informed’); *tgetanam* ‘become ugly’ (*tget* ‘ugly’); *tgitanam* ‘become ignorant’ (*tgēt* ‘ignarant’); *tkaranam* ‘become incapable’ (*tkar* ‘incapable’); *t’anjranam* ‘become thick’ (*t’anjr* ‘thick’); *t’suařanam/č’uařanam* ‘become miserable’ (*t’suař/č’uař* ‘miserable’); *t’ulanam* ‘become weak’ (*t’ulanam* ‘become weak’); *uraxanam* ‘rejoice’ (*urax* ‘joyful’); *vatanam* ‘become bad’ (*vat* ‘bad’); *vatt’aranam* ‘become bad’ (*vatt’ar* ‘bad’); *vayelč’anam* ‘become enjoyable’ (*vayeluč* ‘enjoyable’, itself from *vayelel* ‘enjoy’); *vstahanam* ‘trust’ (*vstah* ‘trustful’); *xatařanam* ‘calm down’ (*xatař* ‘calm’); *vstahanam* ‘begin to trust’ (*vstah* ‘trusty’); *xarteřanam* ‘become fair, flaxen’ (*xarteař* ‘fair, flaxen’); *xraxčanam* ‘become joyful’ (\**xraxič* ‘joyful’, cf. adj. *xrax* ‘joyful’); *xrt’nanam* ‘become obscure’ (*xrt’in* ‘obscure’); *xstanam* ‘become hard’ (*xist* ‘hard, strict’); *yagenam* ‘become satiated’ (*yag* ‘satiated, full’); *yamenam* ‘become late’ (*yam* ‘late’, next to the noun *yam* ‘delay’); *yamranam* ‘become slow’ (*yamr* ‘slow’); *yařařanam* ‘become the first’ (*yařař* ‘front, previous’); *yřanam, yřenam* ‘become pregnant’ (*yři* ‘pregnant’); *yulanam* ‘become lazy’ (*yoyl* ‘lazy’); *zetřanam* ‘become intemperate’ (*zetř* ‘intemperate’); *zgastanam* ‘become vigilant’ (*zgast* ‘vigilant’); *zgawnanam* ‘become wise’ (*zgawn* ‘wise’); *zguřanam* ‘become considerate, take care’ (*zgoyř* ‘considerate’); *zuarčanam* ‘become joyful’ (adj. \**zuarč* ‘joyful’ in *zuarčut’iwn* ‘joy’) next to *zuart’anam* ‘rejoice’ (*zuart* ‘joyful’);<sup>99</sup> *žantanam* ‘become wicked’ (*žant* ‘wicked’).

The IPFV *an*-stem is not attested for the following deadjectival verbs of the *a*-conjugation and is marked by the asterisk: \**atuanam* ‘become soft’ (*atu* ‘soft’); \**amparřtanam* ‘become impious’ (*ampariřt* ‘impious’); \**anapatanam* ‘become deserted’ (*anapat* adj. ‘deserted’ next to n. ‘desert’); \**anhawatanam* ‘become an unbelieving’ (adj. *anhawat* ‘unbelieving’); \**anhoganam* ‘become negligent’ (*anhog* ‘negligent’); \**ankaranam* ‘become incapable’ (*ankar* ‘incapable’); \**ankřitanam* ‘become dissolute’ (adj. \**ankřēt* ‘dissolute’); \**anmtanam* ‘become senseless’ (*anmit* ‘senseless’); \**anpitananam* ‘become spoiled’ (*anpitan* ‘spoiled’); \**anřnč’anam* ‘become inanimate, die’ (*anřsunč* ‘inanimate, senseless’); \**anyusanam* ‘become desperate’ (*anyoys* ‘desperate’); \**ařanjnanam* ‘retire’ (*ařanjn* ‘solitary’); \**ařžananam* ‘become worthy’ (*ařžan* ‘worthy’); \**atok’anam*

<sup>99</sup> The etymologies of *zuarč* and *zuart* are unknown and, consequently, little can be said about the variation between the extensions *-č-* and *-t-*. Cf. Koriwn 2003: 239: *Ew oč’ aynpēs mecn Movsēs zuarčanayr yēřs Sinēakan lerinn* <...>. “Even Moses the Great was not as happy when he descended from Mount Sinai <...>.” (trans. Norehad 1981: 280). It has a variant reading *zuart’agoyrn c’ncayr* ‘was merrily joyful’, supported by P’awstos Buzand’s fragment (2003: 288), borrowed from the cited Koriwn’s text. Thus, *zuarčanayr* may well be a later interpolation in this context. The two verbs *zuart’anam* and *zuačanam* co-occur in Agat’angelos (2003: 1323): *Ew etew ibrew luaw zays amenayn t’agaworn Parsic’*: *zuarčanayr, zuart’anayr, tawn mec uraxut’ean ařnēr zawrn zayn* <...>. “And it happened that when the Persian king heard of all this he greatly rejoiced, and he made that day a great and joyous festival <...>.” (trans. Thomson 1976: 51).

‘become full’ (*atok* ‘full, abundant’); *\*bawakananam* ‘become satisfied’ (*bawakan* ‘sufficient’); *\*bokanam* ‘become barefooted’ (*bok* ‘barefooted’); *\*brtanam* ‘become rough’ (*birt* ‘rough’); *\*č’oranam* ‘become dry’ (*č’or* ‘dry’); *\*dalaranam* ‘become green’ (*dalar* ‘green’); *\*eraštanam* ‘become dry’ (*erašt* ‘dry’); *\*erjākanam* ‘become happy’ (*erjānik* ‘happy’); *\*erkbayanam* ‘become doubtful’ (*erkbay* ‘doubtful’); *\*garšanam* ‘become ugly’ (*garš* ‘ugly’); *\*gičanam* ‘become lascivious’ (*\*gēč* ‘humid’) next to *\*gijanam* ‘become humid’ (*gēj* ‘humid’); *\*giranam* ‘become fat’ (*gēr* ‘fat’); *\*gončanam* ‘become scurfy’ (*gonč/gonj* ‘scurfy’); *hawatarmanam* ‘become faithful’ (*hawatarim* ‘faithful’); *\*hetganam* ‘become idle’ (*hetg* ‘idle’); *\*hawatarmanam* ‘become faithful’ (*hawatarim* ‘faithful’); *\*hmtanam* ‘become instructed’ (*hmut* ‘erudite, instructed’); *\*hzawranam* ‘become strong’ (*hzor* ‘strong’); *\*jermanam* ‘get fever’ (*jerm* ‘warm; fig. buring’); *\*karmranam* ‘become red’ (*karmir* ‘red’); *\*k’ājanam* ‘become courageous’ (*k’āj* ‘courageous’); *\*laynanam* ‘become large’ (*layn* ‘large’); *\*lktenam* ‘become shameless’ (*lkti* ‘shameless’); *\*lrjānam* ‘become sprightly’ (*lurj* ‘sprightly’); *\*matałanam* ‘grow young again’ (*matał* ‘young’); *\*metkanam* ‘soften, become weak’ (*metk* ‘soft, weak’); *\*matałanam* ‘grow young again’ (*matał* ‘young’); *\*menanam* next to *\*miaynanam* ‘become alone’ (*miayn* ‘alone’); *\*nanranam* ‘become useless’ (*nanr* ‘useless’); *\*nsemanam* ‘become dark’ (*nsem* ‘dark’); *\*pałanam* ‘freeze’ (*pał* ‘cold’); *\*parartanam* ‘become fat’ (*parart* ‘fat’); *\*p’ok’rkanam* ‘become very small’ (*p’ok’rik* ‘very small’); *\*sakawanam* ‘lessen’ (*sakaw* ‘few’); *\*setmanam* ‘become dense’ (*setm* ‘dense’); *\*sewanam* ‘become black’ (*sew* ‘black’); *\*sonk’anam* ‘become fat’ (*sonk* ‘big, fat’); *\*spitakanam* ‘become white’ (*spitak* ‘white’); *\*stuaranam* ‘become large’ (*stuar* ‘large’); *\*šlanam* ‘become short-sighted; to grow dim (of gold)’ (*šil* ‘dim-sighted’); *\*tnankanam* ‘become poor’ (*tnank* ‘poor’); *\*trtmanam* ‘become sad’ (*trtum* ‘sad’); *\*txranam* ‘become grieved’ (*txur* ‘grieved’); *\*t’awanam* ‘become hairy’ (*t’aw* ‘hairy’); *\*t’xanam* ‘darken’ (*t’ux* ‘dark’); *\*t’et’ewanam* ‘become lightened’ (*t’et’ew* ‘light, active’); *\*ucanam* ‘be estranged; to cool down’ (*oyc* ‘cold’); *\*unaynanam* ‘become empty’ (*unayn* ‘empty’); *\*určanam* ‘grow; expand’ (adj. *\*urič* ‘plentiful’ itself from *urnum* ‘puff up, be swollen’, see § 2.1.1-3.7); *\*vayrenanam* ‘become savage’ (*vayreni* ‘wild, savage’); *\*vsemanam* ‘surpass’ (*vsem* ‘sublime’); *\*xawlanam* ‘become thoughtless’ (*xawl* ‘foolish’); *\*xawt’anam* ‘become ill’ (*xawt* ‘ill’); *\*xlanam* ‘become deaf’ (*xul* ‘deaf’); *\*xnamenam* ‘become related, allied’ (*xnami* ‘related’); *\*xoranam* ‘become deep’ (*xor* ‘deep’); *\*xořoč’anam* ‘become empty, hollow’ (*xořoč* ‘hollow’); *\*xraxanam* ‘rejoice’ (*xrax* ‘joyful’); *\*xtanam* ‘become thick’ (*xit* ‘thick’); *\*yap’ranam* ‘become tired’ (adj. *\*yap’r* ‘exhausted’);<sup>100</sup> *\*yerkaranam* ‘become long’ (*yerkar* ‘long’); *\*yořanam* ‘become wicked’ (*yori* ‘wicked’); *\*zazranam* ‘become dirty’ (*zazir* ‘dirty’); *\*žranam* ‘become diligent’ (*žir* ‘diligent’).

<sup>100</sup> Cf. *yap’č’im*, aor. *yap’ēay* ‘be exhausted’ (Basil of Caesarea), caus. *yap’uc’anem* ‘exhaust’ (Ephrem); adj. in *-r-* along with *i-*aorist probably constitute an archaic pattern related to the PIE Caland-system, cf. *k’atc’r* ‘sweet’, *k’atc’num*, aor. *k’atc’ēay* ‘be hungry’).

The listed verbs are predominantly derived from primary adjectival stems. A few secondary adjectival *uč*-stems can serve as derivation bases for secondary verbs, cf. *vayeluč* ‘enjoyable’ → *vayelč’anam* ‘become enjoyable’.<sup>101</sup> One adjectival *ik*-stem is attested in *p’ok’rik* ‘small’ → *p’ok’rkanam* ‘become small’.

#### b. Anticausatives derived from nouns

The IPFV *an*-stem is attested in the following denominal verbs: *amusnanam* ‘marry’ (*amusin* ‘spouse’); *arawawtanam* ‘dawn’ (*arawawt* ‘morning’); *ariwnanam* ‘become like blood’ (*ariwn* ‘blood’); *arjananam* ‘become like a statue’ (*arjan* ‘statue’); *astuacanam* ‘become like a god’ (*astuac* ‘God’); *axtanam* ‘get ill’ (*axt* ‘illness’); *ayganam* ‘dawn’ (*ayg* ‘dawn’); *barekamanam* ‘become a friend’ (*barekam* ‘friend’); *boc’anam* ‘enflame’ (*boc* ‘fire’); *cařanam* ‘become like a tree; grow up’ (*cař* ‘tree’); *cařayanam* ‘become a servant’ (*cařay* ‘servant’); *covanam* ‘turn into a sea’ (*cov* ‘sea’); *cranam* ‘become like a circle (said of moon)’ (*cir* ‘circle’);<sup>102</sup> *c’ankanam/c’anganam* ‘get into desire’ (*c’ank/c’ang* ‘desire’); *c’olanam* ‘become reflexing; sparkle (of fog)’ (\**c’ol* ‘reflex’ apud *HAB* 4: 460, cf. post-classical *c’olumn* ‘reflection’ attested in Philo, 6<sup>th</sup> century); *dařtanam* ‘become a plain’ (*dařt* ‘field, plain’); *diaknanam* ‘turn into a dead body’ (*diakn* ‘dead body’); *dizanam* ‘turn into a heap’ (*dēz* ‘heap’); *etbayranam* ‘become like a brother’ (*etbayr* ‘brother’); *erekanam* ‘amuse one’s self until the evening’ (*erek* ‘evening’); *ēanam* ‘become existent (equal to God)’ (*ē* ‘existence’, cf. Bible, *Ex.* 3, 14); *əljanam* ‘desire’ (*itj* ‘desire’); *ənjayanam/əncayanam* ‘become a gift, be presented’ (*ənjay* ‘present’); *gotanam* ‘steal’ (*got* ‘thief’); *gořozanam* ‘become proud’ (‘tyrant’); *goyanam* ‘come to being’ (*goy* ‘existence’); *handisanam* ‘become distinguished’ (*handēs* ‘demonstration’); *harawranam* ‘get to plough (fig. of birds)’ (*harawr/arawr* ‘plough’); *harsnanam* ‘become a bride’ (*harsn* ‘spouse, bride’); *himnanam* ‘become a foundation’ (*himn* ‘foundation’); *hořtanam* ‘return to dust’ (*hoř* ‘earth, dust’); *hovanoc’anam* ‘become a shelter’ (*hovanoc* ‘a shady location, shelter’); *iganam* ‘become effeminate’ (*ēg* ‘female’); *imastnanam* ‘become a wizard’ (*imastun* ‘wisard’); *jewanam* ‘take shape’ (*jew* ‘shape, form’); *jmeřnanam* ‘become winter’ (*jmeřn* ‘winter’); *kčłanam* ‘become like a hoof

<sup>101</sup> Next to *vayel-uč* ‘enjoyable’, the adjectival suffix *-uč* is attested in *tes-uč* ‘overseer; bishop’ and compounds *ən-kal-uč* ‘receiver’ (Elišē) and *tn-kal-uč* ‘housekeeper’ (Movsēs Xorenac’i), see Olsen 1999: 616 with bibliography. *Tes-uč* and *ən-kal-uč* have a clear derivational structure — these are agent nouns derived from the PFV stems *tes-* of *tes-anem* ‘see’ and *kal-* of *unim* ‘have’. Likewise, *vayel-uč* should be a derivative from *vayel-em* ‘to enjoy’ and not from adverb *vayel* ‘proper’ (*vayel linel* ‘be proper’). Note that, whereas *tes-uč* and *ən-kal-uč* are functional equivalents of active participles, the semantics of *vayel-uč* (‘enjoyable; one that evokes delight’) derives from the agentive verb *vayel-em* ‘enjoy’.

<sup>102</sup> Attested once in Eznik Kořbac’i’s *On God* as a variant reading (accepted as the main reading in Mariès 1924: 160).

(*kčtak* ‘hoof’ with the subtraction of the diminutive suffix; see *HAB* 2: 604); *knčanam* ‘become like a boar’ (*kinč/kinj* ‘boar’); *k’ahanayanam* ‘become a priest’ (*k’ahanay* ‘priest’); *lusanam* ‘dawn’ (*loys* ‘light’); *mankanam* ‘become like a child’ (*manuk* ‘child’); *mardanam* ‘incarnate, be born as a man’ (*mard* ‘man’); *margarēanam* ‘prophecy’ (*margarē* ‘prophet’); *marmnanam* ‘become incarnate’ (*marmin* ‘body’); *martirosanam* ‘become a martyr’ (*martiros* ‘martyr’); *muranam* ‘beg’ (*mojr* ‘begging’); *ordianam* ‘become a son’ (*ordi* ‘son’); *oxanam* ‘become angry’ (*ox* ‘rancor’); *pandxtanam* ‘become a foreigner’ (*panduxt* ‘foreigner, pilgrim’); *patkeranam* ‘become an image’ (*patker* ‘image’); *p’esayanam* ‘become a groom or son in law’ (*p’esay* ‘groom, son in law’); *p’ut’anam* ‘haste’ (*p’oyt* ‘hast; care’); *salanam* ‘become petrified’ (*sal* ‘paving stone’); *strkanam* ‘become a servant’ (*struk* ‘servant’); *šabat’anam* ‘enjoy Sabbath’ (*šabat* ‘Sabbath’); *tapanam* ‘become hot’ (*tap* ‘heat’); *tawt’anam* ‘become hot (of weather)’ (*tawt* ‘hot weather’); *t’alanam* ‘become insensible, faint’ (*\*t’al* ‘fainting’, see *HAB* 2: 139: *t’alt’al* ‘acre’ attested in Cyril of Jerusalem, *t’aluk* ‘fainting’ attested in John Chrysostom); *t’eranam* ‘become deficient’ (*t’er* ‘side, part’); *višapanam* ‘become a dragon’ (*višap* ‘dragon’); *vštanam* ‘become afflicted’ (*višt* ‘discomfort, trouble’); *xopananam* ‘become desert’ (*xopan* ‘desert’); *xostanam* ‘make a promise’ (*xost* ‘confession, promise’); *xoyanam* ‘dart forward (of eagle)’ (*xoy* ‘ram’; the verb has undergone a semantic change from ‘become like a ram’ to ‘rush forward (of ram)’ and further to a more generic designation of rapid motion; see *HAB* 2: 390); *yawdanam* ‘master’ (*yawd* ‘articulation, joint’); *yawranam* ‘become abundant’ (*horan* ‘flock’); *yerazanam* ‘dream’ (*eraz* ‘dream’); *zarganam* ‘mature, grow, improve’ (*yarg* ‘value’); *zawranam* ‘become strong’ (*zawr* ‘strength’); *zayranam* ‘become angry’ (*\*ayr-* ‘fire’; see *EDAIL*: 63; Szemerényi 1977: 25, 28, 32); *złjanam* ‘become sorry, repent’ (*ziłj/zelj* ‘regret’).

The IPFV *an*-stem is not attested in the following denominal verbs of the *a*-conjugation: *\*atberanam/atbiwranam* ‘become a fountain’ (*atbiwr* ‘fountain’); *\*ampanam* ‘become a cloud’ (*amp* ‘cloud’); *\*ariwcanam* ‘become like a lion’ (*ariwc* ‘lion’); *\*armatanam* ‘become rooted’ (*armat* ‘root’); *\*awananam* ‘become a village’ (*awan* ‘village’); *\*berananam* ‘form a mouth’ (*beran* ‘mouth’); *\*bk’anam* ‘become a storm’ (*buk* ‘storm’); *\*catkanam* ‘become like a flower (of sea waves)’ (*catik* ‘flower’); *\*c’nc’łkanam* ‘spout out’ (n. *\*c’nc’utik* from *c’nc’ut* ‘pipe’); *\*eketec’anam* ‘assemble’ (*eketec’i* ‘church, assembly’); *\*eramanam* ‘assemble into a troop’ (*eram* ‘troop, flock’); *\*erekoyanam* ‘become late (of an hour)’ (*erekoy* ‘evening’); *\*eritasardanam* ‘become young, young-looking’ (*eritasard* ‘young man’); *\*gazatanam* ‘become ashes; to burn down’ (*gazat* ‘embers’); *\*gazananam* ‘become like a wild beast’ (*gazan* ‘wild beast’); *\*hiwranam* ‘become a guest’ (*hiwr* ‘guest, visitor’); *\*hovananam* ‘become a shadow’ (*hovani* ‘shadow’); *\*hreštakanam* ‘become like an angel’ (*hreštak* ‘angel’); *\*išxananam* ‘become a sovereign’ (*išxan* ‘prince; sovereign’); *\*jiwnanam* ‘become like snow’ (*jiwn* ‘snow’); *\*jovanam* ‘become like a leafy branch, to shoot forth’ (*šov*

'leafy branch'); \**kčłakanam* 'become like a hoof (*kčłak* 'hoof'); \**k'aranam* 'become like stone' (*k'ar* 'stone'); \**leānanam* next to *leīnanam* 'get to mountains; become mountainous' (*leān* 'mountain'); \**lśnanam* 'become like a moon' (*lśnin* 'moon'); \**orjanam* 'get to a lair' (*orj* 'lair'); \**petanam* 'become a chief' (*pet* 'chief'); \**poīnkanam* 'become an adulterer' (*poīnik* 'adulterer'); \**sxranam* 'be(come) astonished; appreciate so. as having value' (perhaps, related to *sxur* in *san-sxur* 'price (for a prostitute)', cf. *Deut.* 23: 18; see *HAB* 4: 225); \**srtanam* 'be amorous' (*sirt* 'heart'); \**šnanam* 'become like a dog; fig. to commit adultery' (*šun* 'dog'); \**tiranam* 'become a lord' (*tēr* 'lord'); \**tlayanam* 'become a child' (*tlay* 'child, lad'); \**t'alkanam* 'become insensible, faint' (*t'aluk* 'a fainting'); \**t'šnamanam* 'become an enemy' (*t'šnami* 'enemy'); \**varazanam* 'become like a boar' (*varaz* 'boar'); \**vaštanam* 'be divided in batallions' (*vašt* 'batallion'); \**vimanam* 'become a rock' (*vēm* 'stone; rock'); \**vkayanam* 'become a martyr' (*vkay* 'witness; martyr'); \**xorxanam* 'toughen like leather' (*xorx* 'slough; skin'); \**xozanam* 'become like a pig' (*xoz* 'pig'); \**xozananam* 'become like stubble (of hair)' (*xozan* 'stubble').

The denominal verbs contain derivatives from the following suffixed nominal stems: *-an-* (*arjan* 'statue' → *arjananam* 'turn into a statue'); *-ik-* (*c'nc'ut* 'pipe' → \**c'nc'ulik* → *c'nc'tkanam* 'spout out'; *catik* 'flower' → *catkanam* 'become like a flower (of sea waves)'); *-uk-* (*t'aluk* 'a fainting' → *t'alkanam* 'faint'); *-st-* (*imastun* 'wizard' → *imastanam* 'become of knowledge'); *-oy-* (*erekoy* 'evening' → *erekoyanam* 'become late (of an hour)'). Note that suffixes with synchronically transparent substantivising meaning (like *-ut'iwn-*) did not participate in the formation of denominal verbs. Unlike *-ut'iwn-*, the derivational meaning of *-ik-* and *-uk-* is diminutive and not substantivising.

In the case of *yawranam* 'become abundant', from *hawran* 'flock', a reduction of the nominal *an*-suffix was caused by haplology. For the use of the prefix *y-* with the IPFV *an(a)*-stem, cf. *yerkuanam* 'double' from *erku* 'two'.

The prefix *z-* is involved in the derivation when the denominal verb qualifies animate subjects, cf. *zayranam* 'become angry' (from n. \**ayr* 'fire' or *ayrem* 'burn'), *zarganam* 'mature' (n. *yarg* 'value'), *zovanam* 'become refreshed' (from *hovanam* 'become cold').

### c. Anticausatives derived from adverbs

The intransitive *an(a)*-verbs derived from adverbs denote the subject's entering into the state described by the base adverb. Here, the subject's coming into a new state can be controlled by the subject. The state is marked by the prepositional phrase *i/y-* + acc.

Like nouns, adverbs were subject to conversion into adjectives and vice versa. Cases when a word is attested as an adverb have been classified here as deadjectival derivation given that this was the most productive type of secondary anticausative verbs formation. Thus, for instance, *zuarč* 'merrily' is only attested in post-classical texts and as an adverb.

However, its existence in the classical language as an adjective ‘joyful’ is suggested by the abstract noun *zuarčut’iwn* ‘joy’ (Olsen 1999: 962). This adjective was probably the source for *zuarčanam* ‘become joyful’ attested in the classical texts.

A few IPFV *an(a)*-verbs, however, are unambiguously derived from adverbs: *hetewanam* ‘follow’ (\**hetew* ‘in the following’ in *aysu-hetew* ‘following now, afterwards’); *mekusanam* ‘go aside, withdraw’ (*mekusi* ‘aside’ — with the aforementioned substitution of *-i-* to *-ana-*); *veranam* ‘get above, rise’ (*ver* ‘above’); *merjanam* ‘approach’ (*Num.* 4, 19; *2Mac.* 12, 17) along with commonly attested *merjenam* < \**merj-i-anam* (*merj* ‘near’).

#### d. Anticausatives derived from pronouns

Two anticausative verbs formed from pronouns are attested in forms derived from PFV *ac*-stems: *ənč’anam* ‘become something, come into being’ (*inč’* ‘something’; Elišē; see (1) below); *ink’nanam* ‘become oneself’ (*ink’n* ‘self’; Movsēs Xorenac’i; see (2) below).

- (1) Elišē 2003: 552: <...> *zi inč’ na miayn ē, ew ayls amenayn i nmanē ənč’ac’aw*. “<...> for He alone is something, and everything else received its being from Him.” (trans. Thomson 1982: 84).<sup>103</sup>
- (2) Movsēs Xorenac’i 2003: 2101: <...> *ew oč’ ankatar varžmamb i yang eal aruestic’ ink’nac’ay*. “<...> nor was my study incomplete through which I became accomplished in the arts.” (trans. Thomson 2006: 333).

#### e. Anticausatives derived from ordinal numerals

Two anticausative verbs are derived from ordinal numerals: *mianam* ‘become united’ (*mi* ‘one’) and *yerkuanam* ‘become two’ (*erku* ‘two’).

#### f. Anticausatives derived from primary verbal stems

In a few cases, the secondary verb was derived from a primary verbal stem: *arbenam* ‘get drunk’ (derived from *arb-i-*, an extended aorist stem of *arb-* and suppletive to *əmpem* ‘drink’; see Klingenschmitt 1982: 120f., Olsen 1999: 649). The PFV *i*-stem is typical for the paradigmatic classes characterised by IPFV *n(u)*- and *č’(i)*-stems. In the case of *arbi-*, a PFV *i*-stem has a resultative or perfect meaning.

Similarly, *k’atc’enam* ‘get hungry’ goes back to \**k’atc’-i-ana-*. The stem \**k’atc’-i-* looks like a PFV *i*-stem next to the attested IPFV *n(u)*-stem of *k’atc’num* ‘become hungry’ (see § 2.1.1-3.4). Likewise, *yagenam* ‘become satiated’ goes back to \**yagi-ana-*, where \**yag-i-* is

<sup>103</sup> The variant reading *inmanēac’aw* (derived from prepositional phrase *i nmanē* ‘from Him’), found in ms. Mat. 1889 (dated 1675), is clearly a later interpolation.

the PFV *i*-stem of *yagč'im* 'feel well'. Even though *yagč'im* is only attested in a post-classical text (John Chrysostom), it explains the *-e-* of *yagenam* better than adj. *yag* 'satiated'.

A less clear case is *yamenam* 'become late', attested along with *yam* n. 'delay', adj. 'late' and *yamem* 'retard, remain'; there is no trace of aor. <sup>x</sup>*yameay*, pres. <sup>x</sup>*yamnum*/<sup>x</sup>*yamč'im*, nor of substantive <sup>x</sup>*yami*.

### § 2.4.1-2. Primary *an*-verbs of the *a*-conjugation

§ 2.4.1-2.1. *Armanam* intr. 'be(come) astonished' (P'awstos Buzand), aor., past ptc., caus. n/a. *NBHL* 1:368; *HAB* 1: 328; *RADCA*: 101.

◇ Prefixal verbs: *z-armanam* 'be(come) astonished' (Bible+); *ənd-armanam* 'be(come) benumbed, frozen, paralyzed' (Bible+). The quasi-synonymous meaning of the simplex and prefixal verbs is illustrated in (1). *Zarmanam* is more productive than *armanam* and has the same meaning. The meaning of *ənd-armanam* is more distant; it can have an inanimate subject and its causative can have an inanimate object.

- Transitivity: S<sub>0</sub>.
- Actionality: ACHIEVEMENT/STATE.

(1) P'awstos Buzand 2003: 344: *Zor ibrew luaw t'agaworn Aršak, ew ehas i veray irac'n, zarmac'eal linēr armanayr əndarmanayr, strj'ac'eal i mit arnoyr zirsn*. "When King Aršak heard this and understood the events, he was amazed, stunned, and benumbed, and he repented as he grasped the matter". (trans. Garsoïan 1989: 144).

ETYM: No secure etymology. Connections to *armn* 'root' (*HAB* 1: 327; Djahukian 2010: 93) and *yarmar* 'fitting' (<sup>x</sup>*y-arm-ar* ← <sup>x</sup>*arm-* 'bind, fit' < PIE <sup>x</sup>*h<sub>2</sub>er-* 'id.', cf. Gk. ἀρμόζω 'fit together'; *EDAIL*: 141) are semantically dubious, see *hianam* (see § 2.4.1-2.6).

§ 2.4.1-2.2. *Banam* tr., intr. 'open', fig. tr. 'explicate', aor. act. *bac'i*, mp. *bac'ay*, past ptc. *bac'eal*, caus. n/a (Bible+). *NBHL* 1: 434; *HAB* 1: 403; *RADCA*: 98; Künzle 2: 128f.; Zeilfelder 2004: 56.

- Transitivity: A-O (1); S<sub>0</sub> (2).
- Actionality: ACHIEVEMENT (2), ACTIVITY (1).

The figurative meaning of the cognitive activity 'explicate' has the [ $\pm$  durative] aspectual feature and aligns the verb with the Aktionsart of the immediate and continuous effect that comprises the ACHIEVEMENT and ACTIVITY actionalities.

(1) *Lk. 24, 32: Oč' isk ew sirtk' mer čmlēin i mez, minč' xawsērən ənd mez zčanaparhayn, ew orpēs banayr mez zgirs?* "Were not our hearts burning within us while He was speaking to us on the road, while He was explaining the Scriptures to us?"

(2) *Mt. 9, 30: Ew bac'an ač'k' noc'a. "And their eyes were opened."*

ETYM: The verb must be compared to the Ancient Greek causative/anticausative pair pres. act. φαίνω tr. 'make visible; show', mp. φαίνομαι intr. 'be(come) visible; appear' from PGk. \**p<sup>h</sup>an-ie/o-* (EDG: 1545f.; Djahukian 2010: 116). The Ancient Greek and Old Armenian verbs go back to core PIE \**b<sup>h</sup>eh<sub>2</sub>-* intr. 'shine, be visible' (LIV<sup>2</sup>: 68f.; Cheung 2007: 1). The PIE stative meaning intr. 'shine', associated with the IPFV root stem, was retained in Indo-Iranian, cf. Skt. *bhāti*, YAv. *frauuāiti* 'shine'.

In Ancient Greek, the root is φαν-, cf. pres. παμ-φαίνω 'shine; become visible' with full reduplication (cf. *Il. 11, 100: στήθεσι παμφαίνοντας* "their white bodies showing"). The nasal element of Gk. φαν- may be considered a lexicalised nasal IPFV stem in view of aor. φάε 'appeared' (*Od. 14, 503*) from \**b<sup>h</sup>h<sub>2</sub>-u-e/o-* (EDG: 1552). The IPFV nasal stem may be a Greek-Armenian isogloss<sup>104</sup>. The nasal stem need not continue the PIE infix present stem, the latter being unlikely in a bi-consonant root (against Klingenschmitt 1982: 112f.), and may be reconstructed as dial. PIE \**b<sup>h</sup>h<sub>2</sub>-n(e)h<sub>2</sub>-*,<sup>105</sup> with the subsequent replacement of \**-n(e)h<sub>2</sub>-* by a thematised nasal suffix \**-n-ie/o-* in Proto-Greek, cf. Gk. κλίνω 'lean' < PGk. \**kli-n-ie/o-* ← PIE \**kli-n(e)h<sub>2</sub>-* or \**kli-n(e)u-* (see § 2.3.1-1.3).<sup>106</sup>

Presumably, it accompanied the derivation of an ambitransitive causative/anticausative pair from the intransitive stative verb.<sup>107</sup> The introduction of the nasal suffix might be a dialectal PIE analogy to other nasal stems of the ambitransitive dynamic verbs.

<sup>104</sup> Alb. Tosk *bënj* 'make', from \*PALb. \**ban-*, is often connected to the Ancient Greek and Old Armenian reflexes of the nasal stem; however, its semantics makes the comparison uncertain. Interestingly, the substantive nasal stem is amply attested for this root, cf. Skt. *bhānū-*, Av. *bānu-*, Toch. B *peñiyo* 'splendour', OIr. *bán* 'white', OE *bōnian* 'polish' (EDG: 1546).

<sup>105</sup> Alternatively, one may think of an inherited IPFV stem with the nasal suffix \**-(e)n-*. This assumption makes sense within the hypothesis that the PIE nasal infix originated from the nasal suffix \**-(e)n-* which had been retained in bi-consonantal roots; see Section 1.2 for an overview of that hypothesis. Thus, Arm. *ban-* and Gk. φαν- could continue IPFV \**b<sup>h</sup>h<sub>2</sub>-(e)n-*. However, in this particular case, one probably deals with a Greek-Armenian derivation of a dynamic verb from the underlying stative verb 'shine'.

<sup>106</sup> Klingenschmitt (*loc. cit.*) convincingly explained PGk. \**p<sup>h</sup>an-ie/o-* (φαίνω) as a derivative from \**p<sup>h</sup>an-* that was created after the latter had levelled throughout the paradigm.

<sup>107</sup> In Homer, the intransitive verb φαίνομαι can mean both 'be visible; shine' (stative) and 'become visible; appear' (dynamic), cf.: *Il. 2, 455f.: ἤϊτε πύρ ἀϊδηλον ἐπιφλέγει ἄσπετον ὕλην // οὔρεος ἐν κορυφῆς, ἔκαθεν δέ τε φαίνεται αὐγὴ <...>* "As obliterating fire lights up a vast forest along the crests of a mountain, and the flare shows far off <...>." (stative); *Il. 15, 275: τῶν δέ θ' ὑπὸ ἰαχῆς ἐφάνη λις ἠϋγένειος // εἰς ὁδὸν αἰψα δὲ πάντας ἀπέτραπε καὶ μεμαῶτας.* "and now by their clamouring shows in the way a great bearded lion, and bends them to sudden flight for all their eagerness." (dynamic). The transitive and dynamic φαίνω is well established since Homer. It seems highly improbable to



§ 2.4.1-2.3. *Ert'anam* 'go', aor. *č'ogay*, ptc. *ert'eal*, caus. n/a (Bible+). *NBHL* 1: 683; *HAB* 2: 53.

◇ Competing paradigmatic classes: *ert'am*, aor. *č'ogay* 'go' (Bible+). Unlike the amply attested *ert'am*, the form *ert'anam* is only rarely used in the Bible. Both IPFV stems are found along each other in (1). *Ert'anayc'es* (*Zōhrapean* 1805, 2: 164) is a variant reading of *ert'ayc'es* (the Constantinople 1895 edition) in (2). The participle *ert'eal* is irregularly derived directly from the root of the IPFV stem.

- Transitivity: S<sub>A</sub>.
- Actionality: ACCOMPLISHMENT/ACTIVITY.

Like *ənt'anam*, the few uses of *ert'anam* have the TARGET participant expressed by a prepositional phrase of the direction of motion. This argumental feature might have conditioned the use of the nasal suffix by contrast to the suffixless forms of the *a*-conjugation, cf. (3).

- (1) *2Mac.* 9, 25: <...> *yayt arari es zordi im zAntiok'os i teli im t'agaworut'ean, zor bazum angam ardewk' ibrew č'u arareal im gnayi, i verin kotmans ert'anayi, bazmac' umek' i jēñyanjn arareal, ew i jeñ edeal ert'ayi.* "So I have appointed my son Antiochus to be king, whom I have often entrusted and commended to most of you when I hastened off to the upper provinces <...>."
- (2) *1Kings* 13, 9: <...> *ew mi gnayc'es ənd noyn čanaparh ənd or ert'[an]ayc'es.* "<...> nor return by the way which you came."
- (3) *Jn.* 1, 38: *Ibrev darjaw Yisus, ew etes znosa zi ert'ayin zhet nora <...>.* "And Jesus turned and saw them following <...>".

ETYM: The nasal stem is clearly a secondary Old Armenian extension of *ert'am* 'go'.

Arm. *ert'a-* perhaps goes back to PIE *\*h<sub>1</sub>er-* intr. 'move' (Gk. ἐρχομαι 'come; go', etc.; *LIV*<sup>2</sup>: 238; Djahukian 2010: 225). The *-t'* may tentatively be identified with dial. PIE *\*-tāio-*, comparable to the Ancient Greek "iteratives" in *-ταω*, cf. *σκιρτάω* intr. 'jump, hop' (next to *σχαίρω* 'id.'), etc. The iterative origin of *ert'a-* would explain why it takes a suppletive PFV stem. PIE *\*-rt-* > Arm. *-rt'* contradicts the common rule *\*-rt-* > *-rd-* (cf. PIE *\*mrtos* > Arm. *mard* 'man'). The iterative marker might be restored on the analogy of iterative stems in which *\*-t-* was added to a glide. See discussion in Klingenschmitt 1982: 96–102. There is a

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me that a nasal suffix with mediopassive endings updated the IPFV root stem of the PIE intransitive verb with the active voice endings of the Skt. *bhāti* type (as one might assume on the basis of the Homeric stative uses of *φαίνομαι*), and that the active voice of the nasal stem was a secondary inner-Greek development based on the intransitive nasal verb. It is more likely that the introduction of the nasal suffix accompanied the derivation of the causative/anticausative pair characterised by the [ $\pm$  stative] aspectual feature on the basis of the underlying [ $-$  stative] verb.

meager possibility that the root of *ənt'anam* 'run towards so., PArm. \**ta-*, continues the same underlying iterative formation (see § 2.4.1-2.5).

§ 2.4.1-2.4. *Əndelanam* intr. 'come together; approach', aor., ptc. n/a, caus. *əndelac'uc'anem* tr. 'accustom' (Bible+). *NBHL* 1: 770; *HAB* 2: 8; *RADCA*: n/a.

◇ Competing paradigmatic patterns: *əndelnum* (see § 2.1.1-4.2), *əndelanim* (see § 2.5.1-3.4).

- Transitivity:  $S_A$ .
- Actionality: ACCOMPLISHMENT.

The cited context describes a situation that is not localised in time so that the verb form does not express the primary aspectual meanings. The ACCOMPLISHMENT actionality is assumed based on the argument structure. It has a lexicalised TARGET valency expressed by the prepositional phrases with *ənd* (1) and *y* (2). The same applies to the competing *n(u)-* and *an(i)-*stems. The [+ telic] aspectual feature is expressed in the directional preverb *ənd-*.

- (1) *Sir.* 9, 12 (*LXX* = *Sir.* 9, 9): *Ordeak, ənd arnaknoř amenewin mi əndelanar, ew ənd nma i gini mi hanganakir.* "Never dine with another man's wife, or revel with her at wine <...>."
- (2) *Sir.* 23, 9: *Zberan k'o mi əndelac'usc'es yerdumn <...>.* "Do not accustom your mouth to oaths <...>."

ETYM: See *əndelnum* (§ 2.1.1-4.2).

§ 2.4.1-2.5. *Ənt'anam* intr. 'run towards so.', aor. mp. *ənt'ac'ay*, past ptc. *ənt'ac'eal*, caus. *ənt'ac'uc'anem* tr. 'make run' (Bible+). *NBHL* 1: 776; *HAB* 2: 125f.; *RADCA*: 99; Künzle 2: 262f.; Zeilfelder 2004: 105.

◇ Related words: *ənt'ac'* 'course; way'.

- Transitivity:  $S_A$ .
- Actionality: ACHIEVEMENT (2), ACCOMPLISHMENT/ACTIVITY (1).

The verb denotes a directed motion. The TARGET argument can be expressed in a variety of ways including the prepositional phrase *ənd-* + acc. with the preposition copying the verbal prefix (2).

- (1) *2Sam.* 18, 24: <...> *ambarj zač's iwre ew etes, ew aha ayr ənt'anayr miayn handēp iwre.* "<...> and raised his eyes and looked, and behold, a man running by himself."
- (2) *Esther* 4, 1: <...> *ew ənt'ac'aw ənd hraparaks k'atak'in <...>.* "<...> and went out into the midst of the city <...>."

ETYM: The initial *ən-* continues a directive prefix *ənd-*, cf. *etanem* 'go' → *ənd-elanam* 'come close, approach'. This is supported by uses of the verb with the preposition *ənd-* (2).

Klingenschmitt (1982: 115) suggested to derive the verb from PIE *\*peth<sub>2</sub>-* ‘fly’ (accepted in *LIV<sup>2</sup>*: 479f.). This root etymology allows deriving aor. *ən-t’a-c’-* < PArm. PFV *\*ta-* from mediopassive forms with the athematic PFV *\*pth<sub>2</sub>-* (cf. Gk. Hom. aor. ἔπτατο of πέτομαι ‘fly’). This explanation is supported by Homeric uses of πέτομαι in the sense of a quick motion (e.g. *Il.* 13, 755). The nasal stem must then be taken as a secondary analogical formation. The selection of the *\*ana-* stem and not the *\*a-* stem could be motivated by the telicity aspectual feature associated with targeted motions (cf. § 2.4.2-2.2).

Another formal possibility is to explain the verbal root by the Proto-Armenian iterative *\*i-tāio-* derived from PIE *\*h<sub>1</sub>ei-* ‘go’, cf. Gk. ἰτάω, Lat. *itāre* ‘go’ (cf. Tucker 1990: 230; *LIV<sup>2</sup>*: 232). A comparable formation would be *ert’am* ‘go’ from PIE *\*h<sub>1</sub>er-* (see § 2.4.1-2.3). The semantic contrast between atelic ‘go’ and telic ‘run towards so.’ could be explained by the prefix *ənd-*. This solution is insecure since it is based on the reconstruction of the PIE iterative *\*t-* stem for that particular verb.

The comparison with PIE *\*sent-* (Djahukian 2010: 248f.) is problematic given that *\*nt-* would have yielded *-nd-* or *-n-* (Klingenschmitt 1982: 114; Viredaz 2004–2005: 97).

§ 2.4.1-2.6. *Hianam* intr. ‘be(come) amazed’, aor. mp. *hiac’ay*, past ptc. *hiac’eal*, caus. *hiac’uc’anem* tr. ‘surprise’ (Bible+). *NBHL* 2: 96; *HAB* 4: 467; Künzle 2: 414; *RADCA*: 99; Zeilfelder 2004: 166.

- Transitivity: S<sub>0</sub>.
- Actionality: ACHIEVEMENT/STATE.

- (1) *Dan.* 4, 16 (*LXX* = *Dan.* 4, 19): *Yaynžam Daniēl orum anun ēr Bałttasar hiac’aw ibrew žam mi, ew xorhurdk’ nora x’rovec’uc’anēin zna.* ‘Then Daniel, whose name is Belteshazzar, was appalled for a while as his thoughts alarmed him.’
- (2) *Acts* 5, 24: *Ibrew luan zbans zays išxank’ tačarin ew k’ahanayapetk’n, hianayin vasn noc’a, t’ē zinč’ ardewk’ linic’i ayn.* ‘Now when the captain of the temple guard and the chief priests heard these words, they were greatly perplexed about them as to what would come of this.’

ETYM: The etymology is uncertain. Martirosyan (*EDAIL*: 408) justly criticises the etymologies suggested in Djahukian 1967: 106 (from PIE *\*k<sup>w</sup>ei-* ‘observe’), Ałayan 1974: 102 (related to Lat. *pīus* ‘pious’), and Klingenschmitt 1982: 126 (PIE *\*k<sup>w</sup>id* ‘what?’). He proposed to connect Arm. *hi-* to PIE *\*s(e)h<sub>2</sub>i-* tr. ‘bind’ and supposed that PArm. *\*hi-* tr. ‘bind, chain’ could serve as a derivational basis for *hi-ana-* intr. ‘become stuck with amazement’ (\*‘become bound, chained’), mentioning Ru. *o-cepenét’* ‘grow torpid, freeze with e.g. fear’ from *cep’* ‘chain’ as a semantic parallel. In my opinion, this solution is semantically doubtful, which leaves the verb without a secure etymology.

§ 2.4.1-2.7. *Imanam* tr. ‘understand’, aor. mp. *imac’ay*, past ptc. *imac’éal*, caus. *imac’uc’anem* tr. ‘inform’ (Bible+). *NBHL* 1: 846; *HAB* 2: 241; Künzle 2: 293; *RADCA*: 100; Zeilfelder 2004: 115f.

◇ Related nouns: *imast* ‘meaning’, *imanali* ‘intelligible’.

- Transitivity: A<sub>E</sub>-O.

The subject of the transitive syntactic construction corresponds to the RECIPIENT argument. The non-agentive quality of the verb determines the use of the mediopassive voice in the transitive construction.

- Actionality: ACHIEVEMENT/STATE.

- (1) *Jn.* 13, 28: *Ew zays oč’ ok’ imac’aw i bazmakanac’ anti, t’ē ar’ inč’ asac’ c’na* <...>. “Now no one of those reclining at the table knew for what purpose He had said this to him.”
- (2) *Lk.* 18, 34: *Ew nok’a oč’inč’ imac’an yaync’anē* <...>. “But the disciples understood none of these things <...>.”

ETYM: The verb goes back to PIE *\*h<sub>2</sub>em-* tr. ‘get, obtain’ (Lat. *emere* ‘obtain’, Lith. *iñti*, OCS *imati* ‘have’, etc.; *LIV*<sup>2</sup>: 236; Djahukian 2010: 285).<sup>108</sup> Arm. *im-* can be formally explained as a continuation of the PIE reduplicated perfect stem *\*h<sub>2</sub>e-h<sub>2</sub>m-* (cf. Lat. perf. *ēmī*).

The derivation from PIE *\*men-* ‘think’ (cf. Meillet 1934: 210; Kapović 2017: 31) is untenable in view of the PFV *im-ac’*.

Unlike *gitem* ‘know’, *imanam* ‘understand’ has a change-of-state construal. This grammatical contrast might have been responsible for the integration of the inherited perfect into the *an(a)*-class and not the stative *a*-conjugation verbs without a nasal suffix.

§ 2.4.1-2.8. *\*Loganam* intr. ‘bathe’ (n/a), aor. mp. *logac’ay* (Ephrem), past ptc. *logac’éal* (Philo, 6<sup>th</sup> century), caus. *logac’uc’anem* tr. ‘wash’ (P’awstos Buzand). The IPFV stem *logan-* is not attested in the source material. The earliest attestation of the verb is the causative 3 sg. aor. *logac’oyc’* (1). This causative could potentially be derived from *loganam* or *logam*. The nasal stem is attested in the infinitive form in post-classical texts.

- Transitivity: S<sub>A</sub>.

Note that the causative is used in (1) as a context synonym of *luanam* in its transitive meaning ‘wash’, cf. (2) from the same author.

- Actionality: ACTIVITY.

<sup>108</sup> The semantic development ‘get’ > ‘understand’ is trivial; the Modern English expression *I’ve got it* (= *I have understood it*) may serve as a semantic parallel. Similarly, OCS *imati* ‘have’ yielded Ru. *ponimat’* ‘understand’ (cf. Jensen 1959: 20f., Barton 1990–1991: 49).

- (1) P'awstos Buzand 2003: 388: <...> *ew luac' zglux nora, ew logac'oyc' zanjn nora*. “And he [Drastamat] washed his [of Aršak] head and bathed him <...>.” (trans. Garsoïan 1989: 199).
- (2) P'awstos Buzand 2003: 336: <...> *ew hraman tayr luanal zanjn noc'a* <...>. “<...> he [Bishop Xad] ordered them [thieves] bathed.” (trans. Garsoïan 1989: 136).

ETYM: Traditionally, the verb is derived from the mediopassive forms of the verb PIE *\*leuh<sub>3</sub>-* ‘wash’, cf. Gk. λούομαι intr. ‘bathe’, λούω tr. ‘wash’, Lat. *lavāre* intr. ‘wash oneself, next to *lavere* tr. ‘wash’, etc. (Djahukian 2010: 299f.; EDL: 330f.).<sup>109</sup> The agreement of the *o*-vocalism in the root of the Greek and Latin cognates can be explained from PIE *\*leh<sub>3</sub>-u-*, which would also work for Arm. *log(a)-* (see details in § 2.4.1-2.9). The root vocalism of Lat. *lavāre* and *loganam* can also be explained by PIE *\*louh<sub>3</sub>-eh<sub>2</sub>-* intr. ‘wash oneself’ (cf. de Lamberterie 1979: 210).

In my opinion, the derivation from PIE *\*plou-eh<sub>2</sub>-* intr. ‘float, swim’ is formally plausible, but is semantically less convincing than *\*louh<sub>3</sub>-eh<sub>2</sub>-*.

§ 2.4.1-2.9. *Luanam* tr. ‘wash’, intr. ‘wash oneself’, aor. act. *luac'i*, aor. mp. *luac'ay*, past ptc. *luac'eal*, caus. n/a (Bible+). NBHL 1: 893; HAB 2: 300; RADCA: 104; Künzle 2: 320.

◇ Related words: *luali* ‘bath’.

- Transitivity: A-O (1); A<sub>E</sub>-O (2); S<sub>A</sub> (3).
- Actionality: ACHIEVEMENT/ACCOMPLISHMENT (3), ACTIVITY (1).

- (1) *Lk. 5, 2: <...> ew jknorsk'n eal i noc'anē luanayin zgorciscn*. “<...> but the fishermen had gotten out of them and were washing their nets.”
- (2) *Jn. 9, 7: <...> ert' lua yawazanin Siṭovamay <...>*. “Go, wash in the pool of Siloam <...>.”
- (3) *Prov. 30, 20: Noynpisi ē ew čanaparh knoĵ šnac'oti, zi yoržam gorc'ē inč', luanay ew asē <...>*. “This is the way of an adulterous woman: she eats and wipes her mouth, and says <...>.”

ETYM: The noun *luali* ‘bath’ is derived from PFV *luac'-* with the subtraction of *c'* before a suffix beginning with a consonant, cf. *anjka-li* ‘desirable’ next to aor. *anjka-ac'-ay* (pres. *anjka-an-am* ‘become desirable’) and aor. *git-ac'-i* (pres. *git-em* ‘know’) → *git-a-st-* (attested by *git-ast-ut'iwn* ‘knowledge’). Thus, *luali* is not a solid evidence in favour of a genuine PArm. *\*a*-stem (cf. Klingenschmitt 1982: 59; Olsen 1999: 228). It is therefore unclear whether the original root was *\*lu-* or *\*lua-*.

The verb can be derived from PIE *\*leuh<sub>3</sub>-* tr. ‘wash’, cf. Gk. λούομαι intr. ‘bathe’, tr. λούω ‘wash (the body)’, Lat. *lavō* intr. ‘wash oneself’, tr. ‘wash’, Alb. Gegh conj. *laa* ‘wash’ (van de

<sup>109</sup> It is tempting to establish the etymological relation between *loganam* and *lulim* intr. ‘swim’ (*Acts* 27, 43–44). However, the formal side of the comparison remains without a plausible solution.

Laar 2000: 209f.; *EDG*: 872f.; Weiss 2009: 284). The *o*-vocalism of Gk. \**λοῦω* (next to the *e*-vocalism of Myc. *re-wo-to-ro-ko-wo* /*λεφοτροχοφοι*/ = Hom. *λοετροχός* ‘bath attendants’ and *re-wo-te-re-jo* /*λεφοτρειοι*/; see Ventris & Chadwick 1956: 338) can be a Greek innovation. The *o*-vocalism of Lat. *lavō* and Arm. *log(an)am* ‘bathe’ can be explained by PIE \**louh<sub>3</sub>-eh<sub>2</sub>-* intr. ‘wash oneself’ (see § 2.4.1-2.8). The expected Proto-Armenian outcome of the word-medial laryngeal is controversial (cf. Kocharov 2018b with references). I assume that PArm. \**luH-C-* would yield PArm. \**loy-C-/ \*lu-C-*. PArm. \**lu-a-* could then be derived by analogy. Given that *-C-* could stand for the PFV \**s*-suffix or the anlaut of personal endings, it is impossible to discriminate between the Proto-Armenian sigmatic and asigmatic PFV stems.

Alternatively, the PIE root can be reconstructed as \**leh<sub>3</sub>-u-*, cf. Hitt. *lahu-* ‘pour, cast (metal), overflow’ (Melchert 2011). Within this account, the *o*-vocalism of Gk. *λούω* and Lat. *lavō* can represent an archaism. The Old Armenian verb can also be derived from PIE \**leh<sub>3</sub>u-* with the following changes: PIE \**leh<sub>3</sub>-u-C-* > PArm. \**lou-C-* > \**lu-C-* → Arm. *lu-a-*.

It is difficult to explain why the inherited root stem *lu-* was introduced into the PArm. \**an(a)*-class, and not to the \**n(u)*- or \**nHe/o*-classes that included verbs with the PFV root and \**s*-stem. One possibility consists in the lexical analogy to *t’anam* tr. ‘make wet’.

Semantically less straightforward is an alternative etymology that derives *luanam* from PIE \**pleu-* intr. ‘float, swim’ (Meillet 1936: 111; Klingenschmitt 1982: 115f.; Clackson 1994: 44; *LIV<sup>2</sup>*: 486f.; *EDAIL*: 316; Djahukian 2010: 302).<sup>110</sup> The causative meaning, attested in Lith. *pláuti* ‘wash’ and Gk. *πλύνω* ‘clean (clothes)’ (opposed to *λούμαι* ‘bathe’, *νίζω* ‘wash (the hands)’), can hardly be reconstructed for core PIE. The reconstruction \**plu-n(H)e/o-*, behind Gk. *πλύνω* (van de Laar 2000: 257; *EDPG*: 1212), cannot be directly compared to the Old Armenian nasal stem, since PArm. \**plu-nV-* would yield Arm. \**lnV-* instead of the attested *luana-*. Thus, there is no shared morphological innovation that would support the hypothesis that the causative verb ‘wash’ was derived from the underlying intransitive verb of aquamotion at the common stage of Greek and Armenian.

§ 2.4.1-2.10. *Mořanam* tr. ‘not remember’, intr. ‘be forgotten, fall into oblivion’, aor. mp. *mořac’ay*, past ptc. *mořac’éal*, caus. *mořac’uc’anem* tr. ‘make forget’ (Bible+). *NBHL* 2: 297; *HAB* 3: 346; Künzle 2: 482; *RADCA*: 102; Zeilfelder 2004: 192.

- Transitivity: A<sub>E</sub>-O; S<sub>O</sub>.
- Actionality: ACHIEVEMENT/STATE.

<sup>110</sup> The match of the IPFV nasal stem formation in Arm. *luanam* and Gk. *πλύνω* was noticed already by Bopp (1833–1849: 1272), see de Lamberterie 1994: 139.

- (1) *Wis. 19, 19 (LXX = Wis. 19, 20): Hur jroy yatt'ēr iwrow zawrut'eamb, ew jur ziwr šijuc'ič' bnut'iwnn mořanayr.* “Fire even in water retained its normal power, and water forgot its fire-quenching nature.”

ETYM: The verb is traditionally derived from PIE *\*mers-* tr. ‘forget’ (*LIV*<sup>2</sup>: 440f.; Djahukian 2010: 535). In order to explain the root vocalism, one has to assume PArm. *\*mors-ā*<sup>111</sup> (cf. de Lamberterie 1979: 210); for the morphological type cf. Gk. ὀράω ‘look, perceive, see’ from PIE *\*uor-eh<sub>2</sub>-ie/o-* ← noun *\*uor-eh<sub>2</sub>-* ‘observation’ ← PIE *\*uer-* ‘observe’ (*EDG*: 1095f.). Thus, PArm. *\*mors-a-* can continue PIE *\*mors-eh<sub>2</sub>-ie/o-* (or PArm. *\*morsā-ie-*, depending on the age of the denominal verb) from *\*mors-eh<sub>2</sub>-* ‘oblivion’.<sup>112</sup>

The Arm. IPFV *an*-suffix could mark inchoative counterparts of the stative *\*a*-verbs (see § 2.4.2-2.2). *Mořanam* was probably derived according to such derivational pattern.

§ 2.4.1-2.11. *Sk'anč'anam* intr. ‘wonder’, aor. mp. *sk'anč'ac'ay*, past ptc. *sk'anč'ac'eal*, caus. n/a (Bible+). The causative is attested in post-classical texts (Grigor Narekac'i, 10<sup>th</sup> century, apud *NBHL*). *NBHL* 2: 766; *HAB* 4: 288; Künzle 2: 625; *RADCA*: 102.

◇ Derivatives: *sk'anč'eli* ‘wonderful’.

- Transitivity: *S*<sub>0</sub>.
- Actionality: ACHIEVEMENT/STATE.

- (1) *Acts 2, 7: Sk'anč'anayin amenek'ean ew zarmanayin ew asēin ənd mimeans <...>.* “They were amazed and astonished, saying <...>.”

ETYM: The IPFV *an*-stem is probably a replacement of the older *\*sk'anč'em*, attested in the verbal adjective *sk'anč'eli* ‘admirable’ with no established etymology (Klingenschmitt 1982: 69, 72; Olsen 1999: 399; Djahukian 2010: 698).

The verb can be tentatively derived from PArm. *\*z-kanK-(i)e-*, a cognate of Gk. καγχαλάω, καγχα-άζω intr. ‘rejoice’. On the devoicing of Proto-Armenian preverb *\*z-*, see § 2.5.1-2.40 (*sksanim*) and § 2.5.1-2.43 (*sp'acanim*). Further reconstruction is unclear.

<sup>111</sup> According to Martirosyan (*EDAIL*: 710), the post-apocope internal pretonic *\*-rs-* must have yielded Arm. *-rš-*. Thus, one would expect *\*mórs-ā-* in order to explain *mořa-*.

<sup>112</sup> Cf. Klingenschmitt (1982: 126f.) assumed a derivative from an unattested noun stem *\*mors-ó-*. In Anatolian, we find traces of PIE deverbal adjective *\*mrs-ent-* (Hitt. *maršant-* ‘deceitful’) and stative *\*mrs-eh-* (Hitt. *maršē-* ‘be corrupt’), see *EDHIL*: 561f. Toch. A pres. *mräs-nā-* is a parallel Tocharian innovation (Adams 2013: 488f.; Peyrot 2013: 787).

§ 2.4.1-2.12. *Slanam* intr. ‘fly, rush’, aor. mp. *slac’ay*, past ptc. *slac’éal*, caus. n/a (Bible+). *NBHL* 2: 717; *HAB* 4: 223; *RADCA*: 99; Zeilfelder 2004: 242. The causative is attested in post-classical texts (Nersēs Lambronac’i, 12<sup>th</sup> century, apud *NBHL*).

- Transitivity: S<sub>A</sub>.
- Actionality: ACHIEVEMENT (2), ACCOMPLISHMENT/ACTIVITY (1).

The verb can be used with the directional specifier (1) or without it (2).

- (1) Eznik Kołbac’i 2003: 436: *Ew ays kařk’ zarmanalik’ <...> oč’ i mi miayn kołmn i handēp eresac’n ewet’ aršawin, ayl yamenayn kołmans vargin ew ənd hanur arč’awin ew ənd bnaw[ ] slanan ew amenayni bawakan en.* “And that wonderful chariot <...> races not only straight ahead in one direction, but in all directions, and it is capable of every one.” (trans. Blanchard & Young 1998: 41).
- (2) *Ps.* 17, 11 (*LXX* = *Ps.* 18, 10): *El i k’rovbēs ew t’reaw, ew slac’aw na i t’ews hotmoc’.* “He rode upon a cherub and flew; and He sped upon the wings of the wind.”

ETYM: The verb probably goes back to PArm. \**kul-ā-* ‘rush’ from PIE \**ku(e)l-* intr. ‘rush’, cf. Alb. *suljem* intr. ‘rush’, OCS. *szlati* tr. ‘send’ (Djahukian 2010: 682; see Orel 2000: 70 on the change PIE \**ku-* > Alb. *s-* as opposed to the unconditioned change PIE \**k-* > Alb. *th-*). One wonders whether the correspondence between the PSl. \**ā-* stem and the PArm. \**a-* stem could be an archaism.

§ 2.4.1-2.13. *Stanam* tr. ‘acquire; buy’, aor. mp. *stac’ay*, past ptc. *stac’éal* ‘what is acquired’ (never \*‘one who has received’ as opposed to *imac’éal* ‘one who understood’), caus. n/a (Bible+). *NBHL* 2: 742; *HAB* 4: 269; *RADCA*: 103; Künzle 2: 622; Zeilfelder 2004: 246. According to *NBHL*, the causative *stac’uc’anem* tr. ‘cause to acquire’ is attested in *Book of Chrie*, Philo (6<sup>th</sup> century).

◇ Related words: adj. *stac’ič’* ‘possessor’, *stac’uac* ‘property’.

- Transitivity: A-O.
- Actionality: ACHIEVEMENT.

- (1) *Lk.* 21, 19: <...> *ew hamberut’eamb jerov stasjik’ zogis jer.* “By your endurance you will gain your lives.”

ETYM: The verb is traditionally derived from PIE \**steh<sub>2</sub>-* ‘stand’, cf. Lat. *dēstināre* tr. ‘determine, establish; arrange for sale’ (Klingenschmitt 1982: 112; Djahukian 2010: 693; Olsen 2011: 17; *EDL*: 589f.). If so, PIE IPFV \**sth<sub>2</sub>-n(e)h<sub>2</sub>-* can be a PIE archaism.<sup>113</sup> The derived nasal

<sup>113</sup> Alternatively, the nasal stem can be derived from core PIE \**sth<sub>2</sub>-(e)n-*; see fn. 106.



verb may have served as a transitive/causative counterpart to *\*sti-steh<sub>2</sub>*- intr. ‘stand’ and have the meaning ‘make stand; determine; expose (for sale)’. The Old Armenian verb could have lexicalised the mediopassive uses of that verb with the reflexive meaning, cf. *arnum* ‘take’ from *\*h<sub>2</sub>r-n(e)u-* ‘offer; provide’ (see § 2.1.1-1.1).

§ 2.4.1-2.14. *Strjanam* intr. ‘be(come) repented’, aor. mp. *strjac’ay*, past ptc. *strjac’eal*, caus. *strjac’uc’anem* tr. ‘repent’ (Bible+). *NBHL* 2: 775; *HAB* 4: 281; *RADCA*: 102.

- Transitivity: S<sub>0</sub>.
- Actionality: ACHIEVEMENT/STATE.

The IPFV *an(a)*-stem is attested only once in the form of the gerundive (2), which does not allow specifying the aspectual value of the imperfective forms.

- (1) *Gen.* 6, 6: *Ew strjac’aw Astuac zi arar zmardn i veray erkri <...>*. “The Lord was sorry that He had made man on the earth <...>.”
- (2) *Agat’angelos* 2003: 1444: *Or ew strjanaln Astucoy ahagin zgušut’ean nšanak ē <...>*. “The repentance of God <...> is a sign of his awesome solicitude <...>.” (trans. Thomson 1970: 54).

ETYM: The etymology is unknown (Djahukian 2010: 697).

§ 2.4.1-2.15. *\*Sxranam* intr. ‘be(come) surprised’, aor. mp. n/a, past ptc. *sxrac’eal* (*Agat’angelos*), caus. *sxrac’uc’anem* tr. ‘surprise’ (John Chrysostom). *NBHL* 2: 718; *HAB* 4: 224; *RADCA*: 103.

The IPFV stem is not attested, which leaves the paradigmatic class and the aspect of the imperfective forms ambiguous (*\*sxranam* or *\*sxram*).

- Transitivity: S<sub>0</sub>.
  - Actionality: ACHIEVEMENT/STATE.
- (1) *Agat’angelos* 2003: 1374: <...> *teseal zparkeštageṭn Hrip’simē, zarmac’eal sxrac’eal and sk’anč’elatesikn tesil <...>*. “<...> and seeing the modest beauty of Rhipsimē they were amazed and charmed at her wonderful appearance <...>.” (trans. Thomson 1976: 149).

ETYM: Unknown (Djahukian 2010: 683).

§ 2.4.1-2.16. *T’anam* tr. ‘dip into liquid; make wet’, intr. ‘become wet’, aor. act. *t’ac’i*, mp. *t’ac’ay* (n/a), past ptc. *t’ac’eal*, caus. n/a (Bible+). *NBHL* 1: 795; *HAB* 2: 150; *RADCA*: 99; *Künzle* 2: 270.

- Transitivity: A-O (1); S<sub>0</sub>-E<sub>A</sub> (2); S<sub>0</sub> (3).
- Actionality: ACHIEVEMENT.

- (1) *Lk. 7, 44: <...> isk sa artasuawk' iwrovk' et'ac' zots im, ew herov iwrov jñjeac'. “<...> but she has wet My feet with her tears and wiped them with her hair.”*
- (2) *Job. 29, 6: <...> yoržam t'anayin čanaparhk' im kogwov <...>. “<...> when my steps were bathed in butter <...>.”*
- (3) P'awstos Buzand 2003: 297: *Sa ew kawškawk' k'ayeloyñ gnayr i veray jürç' getoc', ew oč' t'anayin ew oč' hanēr sa. “He walked with his shoes on over the water of rivers and neither wetted them [lit. “they became wet” – trans. PK.] nor took them off.” (trans. Garsoian 1989: 87).*

ETYM: The verb goes back to PIE *\*teh<sub>2</sub>-* intr. ‘melt’ (*LIV*<sup>2</sup>: 616; Djahukian 2010: 257; *EDL*: 603f.; *EDPG*: 1477). The IPFV stem of the verb was renovated in many branches: Gk. τήχομαι < *\*teh<sub>2</sub>-k-*; OCS *tajǫ* < *\*teh<sub>2</sub>-ie-*; Lat. *tābēscō* < *\*teh<sub>2</sub>-b<sup>h</sup>-*; Welsh *tawdd* < *\*teh<sub>2</sub>-d<sup>h</sup>e-*. The nasal stem is probably an inner-Armenian innovation.<sup>114</sup>

Arm. PFV *tac'* can be derived from PArm. *\*t(e)h<sub>2</sub>-* or *\*tēh<sub>2</sub>-s-* / *\*teh<sub>2</sub>-s-*.<sup>115</sup>

§ 2.4.1-2.17. *Uranam* tr. ‘deny’, intr. ‘refuse’, aor. mp. *urac'ay*, past ptc. *urac'eal*, caus. *urac'uc'anem* tr. ‘make refuse’ (Bible+). *NBHL* 2: 558; *HAB* 3: 614; Künzle 2: 571; *RADCA*: 104; Zeilfelder 2004: 224.

◇ Related words: *urast* ‘denial’ *uranali* ‘deniable’, *urac'ot* ‘apostate’.

- Transitivity: A-O (1); S<sub>A</sub> (2).

In (2), the intransitive use represents the antipassive alternation of the transitive verb.

- Actionality: ACHIEVEMENT/ACTIVITY.

- (1) *2Tim 2, 12: Et'ē hamberemk, ənd nmin ew t'agaworesc'uk', ew et'ē uranamk', ew na uranay zmez. “If we endure, we will also reign with Him; if we deny Him, He also will deny us <...>.”*
- (2) *Mk. 14, 70: Ew na darjeal urac'aw. “But again he denied it.”*

ETYM: The verb is related to PIE *\*h<sub>2</sub>er-* ‘speak solemnly’, cf. Gk. ἀρνέομαι ‘deny’ (translated by *uranam* in the Bible),<sup>116</sup> Lat. *orāre* ‘plead’, etc. (Meillet 1925b = 1977: 222f.; 1936: 142;

<sup>114</sup> Alternatively, the nasal stem can be derived from core PIE *\*th<sub>2</sub>-(e)n-*; see fn. 106.

<sup>115</sup> Ancient Greek has a causative/anticausative pair τήχ-ω tr. ‘make melt’ / τήχ-ομαι intr. ‘melt’ with the sigmatic aorist forms, next to intransitive perf. τέτηκα. In theory, PFV *\*teh<sub>2</sub>k-s-* could be a shared Greek-Armenian innovation. However, as argued in § 1.4.2, PIE *\*ks-* would have yielded PArm. *\*kš* > Arm. *č'*; cf. *č'or* ‘dry’ next to Gk. ξηρός ‘dry’.

*DELG* 1: 112). Clackson (1994: 102f.) argues against this comparison mainly because of the root ablaut PGk. *\*h<sub>2</sub>r-* vs. PArm. *\*h<sub>2</sub>ōr-* (see also *EDG*: 135). This is also the reason why Klingenschmitt (1982: 127) thought *uranam* to be a denominal verb from an unattested noun *\*ur* ‘refusal’. However, the Proto-Armenian vocalism may be explained as an “intensive-iterative” *ō*-grade formation (*\*Hōr-ā-*), distantly related to Lat. *orāre* intr. ‘plead’ (Rix 1993: 331–335; Djahukian 2010: 753). This solution is supported by the Ancient Greek verbs of the *\*CōC-ā-* type, cf. *νομάω* ‘distribute’ (next to *νέμω*), *πτάομαι* ‘fly’ (next to *πέτομαι*); see Tucker 1990: 226–232 on the Ancient Greek verbs in *-άω* with radical *-ω-* and the discussion on the origin of the type.

The *a*-stem of *ura-st* and *ura-li* can either continue an *\*ā*-stem or result from a reanalysed PFV stem, cf. *gitac’* → *git-a-st-ut’iwn* ‘knowledge’.

§ 2.4.1-2.18. *\*Ytp’anam* intr. ‘become overfilled’, aor. mp. *ytp’ac’ay*, past ptc. *ytp’ac’éal*, caus. n/a (Bible+). The IPFV stem is not attested in the source material; it is found in the *Book of Chries* (see *EDAIL*: 494 for attestations). *NBHL* 2: 362; *HAB* 3: 401; *RADCA*: 104.

◇ Related words: *ytp’ut’iwn* ‘abundance’, *ytp’agoyñ* ‘with abundance’.

- Transitivity: S<sub>0</sub>.
- Actionality: ACHIEVEMENT.

(1) *Jer* 31, 24: *Ew bnakič’k’n Hrēastani amenayñ k’atak’awk’n iwreanc’ ew gorcaworawk’n ytp’asc’in hawtiwk’n*. “Judah and all its cities will dwell together in it, the farmer and they who go about with flocks.”

ETYM: No clear etymology. Although it is tempting to connect the root *ytp’* to PIE *\*pleh<sub>1</sub>-* ‘fill’ (Gk. *πίμπλημι* ‘fill, satisfy’, etc.; Djahukian 2010: 553), no entirely convincing formal explanation is available (see *EDAIL*: 494 on the proposed suggestions).

## § 2.4.2. Evaluation

### § 2.4.2-1. Grammatical features

Table 11. Transitivity alternations of *an(a)*-verbs

Verb	Agentivity	Intransitive	Transitive	Extended transitive	Type
<i>armanam</i>	–	lab/mp	—	—	?

<sup>16</sup> Gk. *ἀρνέομαι* has been compared to Av. *rəš-* ‘be disloyal’ and derived from an infixed stem *\*h<sub>2</sub>r-né-s-* (cf. Clackson 1994: 102 among others). The nasal stem of *ἀρνέομαι* cannot be compared to the Old Armenian nasal stem anyway, so this etymological detail remains of marginal importance.

<i>banam</i>	±	lab/mp	lab/act	—	L/E
<i>ert'anam</i>	+	lab/mp	—	—	?
<i>əndelanam</i>	+	lab/mp	caus	—	C
<i>ənt'anam</i>	+	lab/mp	caus	—	C
<i>hianam</i>	–	lab/mp	caus	—	C
<i>imanam</i>	–	—	lab/mp	caus	L/L <sub>MP</sub>
<i>loganam</i>	+	lab/mp	caus	—	C
<i>luanam</i>	+	lab/mp	lab/act	—	L/E
<i>mořanam</i>	–	—	lab/mp	caus	L/L <sub>MP</sub>
<i>sk'anč'anam</i>	–	lab/mp	—	—	?
<i>slanam</i>	+	lab/mp	—	—	?
<i>stanam</i>	+	—	lab/mp	—	L/L <sub>MP</sub>
<i>strjanam</i>	–	lab/mp	caus	—	C
<i>sxranam</i>	–	lab/mp	caus	—	C
<i>t'anam</i>	±	lab/mp	lab/act	—	L/E
<i>uranam</i>	+	—	lab/mp	caus	L/L <sub>MP</sub>
<i>yřp'anam</i>	–	lab/mp	—	—	?

The *an(a)*-verbs include non-agentive (intransitive and transitive), agentive (intransitive, transitive, ambitransitive), and verbs unspecified for agentivity (ambitransitive); see §§ 2.4.2-1.1–2.4.2-1.6.

The opposition of the active/mediopassive voice is expressed in the aorist indicative, aorist subjunctive, and imperative, while the remaining forms are labile as it is typical of the *a*-conjugation (see § 1.3.1-2). A few verbs use the mediopassive voice in the transitive construction (*imanam*, *mořanam*, *stanam*, and *uranam*).

Among the primary (*əndelanam*, *ənt'anam*, *hianam*, *loganam*, *strjanam*, and *sxranam*) and secondary verbs that participate in transitivity alternations, the majority has the causative transitivity marking pattern. Four primary verbs (*imanam*, *mořanam*, *stanam*, and *uranam*) and some secondary verbs (e.g. *c'ankanam*) follow the mixed labile pattern with the mediopassive forms used in transitive and intransitive contexts. The least numerous group of verbs follow the equipollent pattern (*banam*, *luanam*, and *t'anam*). These are also verbs that could contain a PArm. IPFV *\*na*-stem and not an *\*ana*-stem. Finally, a group of primary verbs is not attested in the transitive construction and the causative form so that it is unclear whether they participate in transitivity alternations and which pattern they would have (*armanam*, *ert'anam*, *sk'anč'anam*, *slanam*, and *yřp'anam*).

## § 2.4.2-1.1. Non-agentive intransitive verbs

PFV *-ac'*: (*z-*)*armanam* ‘be(come) astonished’; *hianam* ‘be(come) amazed’; *sk’anč’anam* ‘wonder’, *strĵanam* ‘be(come) repented’, *sxranam* ‘be(come) astonished’; *ytp’anam* ‘become overfilled’.

See other non-agentive intransitive nasal verbs in §§ 2.1.2-1.1 (*-n-u-*), 2.3.2-1.1 (*-n-e/i-*), 2.5.2-1.2 (*-an-e/i-*), and 2.6.2-1.1 (*-nč'-i-*).

The transitive counterparts of these verbs are expressed by the derived causative (*hianam*/*hiac'uc'anem*, *strĵanam*/*strĵac'uc'anem*, and *sxranam*/*sxrac'uc'anem*) or are not attested ((*z-*)*armanam*, *sk'anč'anam*, and *ytp'anam*).

The majority of the primary non-agentive intransitive *an(a)*-verbs are emotion verbs: (*z-*)*armanam*, *hianam*, *sk'anč'anam*, *strĵanam*, and *sxranam*. The only exception is a change-of-state verb *ytp'anam*. Emotion verbs have variable parameters [ $\pm$  durative], [ $\pm$  telic], and [ $\pm$  dynamic]. Presumably the *an*-suffix originally marked the opposition between the suffixal inchoative ([+ dynamic]) and suffixless stative ([– dynamic]) verbs of the *a*-conjugation, cf. § 2.4.2-2.2 on that distribution. The source of analogy can be found in the *an(e/i)*-verbs, which are predominantly dynamic.

In terms of their lexico-grammatical features, the above-mentioned *an(a)*-verbs of emotion are similar to *c'asnum* ‘be angry’, *erknč'im* ‘be afraid’. It should be noted, however, that the IPFV *c'asnu-* and *erknč'i-* are basically stative verbs and are closer in meaning to the suffixless verbs of the *a*-conjugation like *c'ankam* ‘desire’ (see § 2.4.2-2.2).

## § 2.4.2-1.2. Non-agentive transitive verbs

PFV *-ac'*: *imanam* ‘understand’, *mořanam* ‘forget’.

See non-agentive transitive nasal verbs in §§ 2.3.2-1.2 (*-n-e/i-*) and 2.5.2-1.3 (*-an-e/i-*).

Both non-agentive transitive verbs participate in the transitive/extended transitive alternations expressed by the causative pairs and belong to mental process verbs. The agentivity of the subject is not well-defined for they can receive agentive interpretations in specific contexts and have imperative/prohibitive forms (cf. *Ps.* 44, 11: *mořa zřotovurd k'o* “forget your people”). This group of verbs can be extended by some denominal verbs, e.g. *c'ankanam* tr. ‘desire’.

Verbs with similar lexicosyntactic features are found in the suffixless *a*-conjugation, cf. *nitam* tr. ‘plot, initiate’ and *xokam* tr. ‘reflect on; think over’, intr. ‘meditate’. The verb *ansam* intr. ‘obey’ takes an E argument marked by the dative case; it is close to the reflexive version of the causative of the *imanam* type. Suffixless *c'ankam* next to *c'ankanam* (see 1, 2 below), points to a functional overlap of the *a*-conjugation with and without a nasal suffix.

- (1) *Gal. 5, 17: Zi marmin c'ankay hakařak hogwoy <...>. "For the flesh sets its desire against the Spirit <...>."*
- (2) *Prov. 21, 26: Ampariřt c'ankanay zamenayn awurs zc'ankut'iwn ĉ'areac; isk ardarn ořormi ew tay ařanc' xnayeloy. "All day long he is craving, while the righteous gives and does not hold back."*

The cited examples illustrate a contrast between the inanimate and animate subject next to suffixless and nasal stems, respectively. It may be the case that the *an*-verbs were used to describe less static events than the suffixless stem of the *a*-conjugation. This is consistent with the fact that emotion verbs often allow for a momentary construal.

#### § 2.4.2-1.3. Agentive intransitive verbs

PFV *-ac'*: *ert'anam* 'go', *andelanam* 'come together'; *ant'anam* 'run', *\*loganam* 'bathe', *slanam* 'rush'.

See other agentive intransitive nasal verbs in §§ 2.1.2-1.2 (*-n-u-*), 2.2.2-1.1 (*-n-a-*), 2.3.2-1.2 (*-n-e/i-*), 2.5.2-1.5 (*-an-e/i-*), and 2.6.2-1.2 (*-nĉ'-i-*).

All agentive intransitive *an(a)*-verbs denote motions. Some of the verbs have a morphological causative that expresses their transitive derivation, in which the A argument is downgraded to the O argument position.

With the exception of *\*loganam* (which is not attested with the nasal stem in the source material), these verbs denote directed motions and in that regard contrast with numerous atelic verbs of manner of motion from the suffixless *a*-conjugation: *ert'am* 'go' (aor. mp. *ĉ'ogay*), *eřam* 'creep' (aor. act. *eřac'i*; derivative *zeřam* 'creep', aor. *zeřac'i*), *gam* 'come' (aor. act. *eki*), *kařam* 'limp' (aor. mp. *katac'ay*; from adj. *kař* 'lame'), *gnam* 'go' (aor. act. *gnac'i*; and its derivative *zgnam* 'walk, wander', aor. *zgnac'ay*), *p'ut'am* 'hurry' (aor. mp. *p'ut'ac'ay*; from n. *p'oyt'* 'haste'), and *suram* 'dash, run' (aor. mp. *surac'ay*). In terms of aspect, the imperfective forms of such suffixless verbs denote the durative phase of ACTIVITIES. The only ACCOMPLISHMENT verb is *gam* 'come' with its *-a-* being part of the root.

The directional uses of such verbs add the [+telic] feature to their semantics. This feature could be responsible for the introduction of the *an*-suffix on the analogy of the primary directional *an(e/i)*-verbs (e.g. *hasanem* 'reach'). The telicity parameter seems to have conditioned the rise of *ert'anam* 'go towards so.' next to common *ert'am* 'go' (see § 2.4.1-2.3). The [+telic] feature could be additionally marked by directional prefixes, cf. *and-* in *andelanam* and *ant'anam*, and *ař-* in *ař-ant'anam* (John Chrysostom apud *NBHL* 1: 302). The nasal suffix of *loganam* is attested in the post-classical texts in the form of the infinitive of goal that also receives a telic interpretation (*NBHL* 1: 891).

To conclude, like in the case of the non-agentive intransitive verbs discussed in § 2.4.2-1.1, the use of the nasal suffix can be tentatively associated with the [+ telic] aspectual. The distribution of directed motion verbs into two competing nasal classes, *-an(a)-* and *-an(e)-*, may reflect two different chronological layers.

#### § 2.4.2-1.4. Agentive transitive verbs

PFV *-ac'*: *stanam* ‘acquire’.

The mediopassive voice expresses the autobenefactive semantics in the transitive uses of *stanam*, cf. ‘acquire (so. for oneself)’. Some agentive transitive *an(e/i)-*verbs also show such use of the mediopassive voice, cf. *usanim* ‘learn (so. for oneself)’.

#### § 2.4.2-1.5. Agentive ambitransitive verbs

PFV *-ac'*: *luanam* ‘wash (oneself)’; *uranam* ‘deny; refuse’.

See other agentive ambitransitive nasal verbs in §§ 2.1.2-1.4 (*-n-u-*), 2.2.2-1.2 (*-n-a-*), 2.3.2-1.4 (*-n-e/i-*), 2.5.2-1.6 (*-an-e/i-*), and 2.7.2-1.1 (*-anč'-e-*).

The verb *luanam* ‘wash (oneself)’ marks its transitive and intransitive construals by means of the equipollent transitivity marking pattern. In contrast with agentive intransitive verbs, the transitivity alternation of which is marked by the causative pattern (see § 2.4.2-1.3), *luanam* is primarily transitive, and its mediopassive form can be secondary.

In the case of *uranam*, a parallel can be made to mediopassive verbs of utterances of other paradigmatic classes, e.g. *erdnum* (aor. *erduay* ‘swear’; § 2.1.1-1.2). The secondary IPFV *an-*suffix may be explained by the higher frequency of the [+ telic] uses of these verbs.

#### § 2.4.2-1.6. Ambitransitive verbs unspecified for agentivity

PFV *-ac'*: *banam* ‘become / make opened’; *t'anam* ‘become / make wet’.

See other ambitransitive nasal verbs unspecified for agentivity in §§ 2.1.2-1.5 (*-n-u-*) and 2.5.2-1.8 (*-an-e/i-*).

In contrast with verbs the transitivity alternation of which is expressed by causative pairs (the *hianam* type), these two verbs are primarily transitive, and their mediopassive form can be considered a secondary anticausative alternation. This type does not have a parallel in the *a*-conjugation verbs without a nasal suffix.

In the diachronic perspective, *banam* and *t'anam* are best explained as *\*na*-verbs.

### § 2.4.2-2. Stem variation patterns

#### § 2.4.2-2.1. *-an-a-* vs. *-an-e/i-*

There are two patterns of the variation of the *an(e/i)-*verbs and the *an(a)-*verbs.

The first pattern can be illustrated by the verb *diz-an-e/i-m* ‘heap up’, an action noun *dēz* ‘heap’, and the derived denominal *diz-an-am* ‘become a heap’. While both *dizanem* and *dēz* can be inherited (see § 2.5.1-2.13), *dizanam* is clearly a secondary Proto-Armenian formation. Another example is *zat-an-e/i-m* ‘make/become separate’ (*\*z-hat-an-e/i-m*) → *zat* adj. ‘separate’, adv. ‘aside’ → *zat-an-am* ‘become separated’.<sup>17</sup> Whenever a *an(e/i)*-verb has a back-formed root noun, this solution is preferable. If a base *an(e/i)*-verb participates in the causative/anticausative alternation, in which the anticausative *an(a)*-verb is derived from a back-formed noun, the two nasal formations become iso-functional.

The second kind represents a direct inter-paradigmatic variation without an intervening substantive. It can be illustrated by *zbaws-an-im* ‘take a rest’ (Bible+) and *zbaws-an-am* ‘id.’ (Ephrem, Basil of Caesarea; caus. *zbawsac’uc’anem*, Bible). There is no trace of the root noun *\*zbaws* which could have been the derivational basis for *zbaws-an-am*. Instead, an action noun *zbaws-an-k’* ‘rest’ is attested in the Bible (2Mac. 4, 46). The first kind could serve as a source of analogy for the second kind.

#### § 2.4.2-2.2. -an-a- vs. -a-

This variation pattern concerns one primary verb, *ert’anam/ert’am* intr. ‘go’, and several denominal emotion verbs: *baljanam/baljam* intr. ‘have lust’, *c’ankanam/c’ankam* tr. ‘desire’, *əłjanam/əłjam* tr. ‘wish’, *taltkanam/taltkam* intr. ‘be disgusted’, *tenč’anam/tenč’am* intr. ‘have envy’, and *xroxtanam/xroxtam* intr. ‘boast’.

It is difficult to grasp the grammatical contrast between the forms with and without the nasal suffix. Most often it is left out of consideration in grammatical accounts of the Old Armenian *a*-conjugation (e.g. Meillet 1936: 110; Barton 1990–1991).

Most *a*-verbs are intransitive and atelic verbs of motion, position, emotion, or expressions of emotion (see Barton 1990–1991), cf. *ateam* ‘hate’, *ert’am* ‘walk’, *kam* ‘stand’, *keam* ‘live’, *gužam* ‘deplore’, *lam* ‘cry’, *mnam* ‘remain’, *otbam*, ‘lament; cry’, *tokam* ‘resist’, etc. Here also belong verbs of atelic activities like *oročam* ‘chew’, *sizam* ‘walk in a proud manner’, etc. When present, the aorist indicative of such verbs expresses an inchoative event leading to ACTIVITY or STATE expressed by the present indicative. By contrast, the majority of *an(a)*-verbs are telic. The aorist indicative of such verbs expresses the final phase of a process, the resulting phase of which is expressed by the periphrastic perfect. That is why a large part of the secondary *an(a)*-verbs is attested only by their past participles (see § 2.4.1-1.1). Whenever a nasal stem is attested, it either marks the middle

<sup>17</sup> This type of variation is parallel to cases when an *an(a)*-verb is derived from a secondary nominal stem cognate with the one that has a primary nasal, cf. *jer-an-im* ‘have a fever’, adj. *jerm* ‘warm, ardent’ → *jerm-an-am* (past ptc. *jer’mac’ eal*; Mk. 1, 30) ‘get fever’.



phase of a process leading to the change-of-state event, or the durative phase of a process co-referential with the change-of-state event (the so-called Aktionsart of the “immediate and continuous effect”; see Kocharov 2018a). In particular, the type with the variable [ $\pm$  telic] aspectual feature explains why emotion verbs show the variation of the IPFV stems with and without the nasal suffix in the *a*-conjugation. The confusion provoked by the [ $\pm$  telic] variable feature left traces in the manuscript tradition, cf. the variant readings *ətjam* and *ətjanam* in (1), next to *ətjanam* in the Bible (2).

- (1) Movsēs Xorenac'i 2003: 1903: *Olj linel ətjam* [v.l. *ətjanam*]. “I desire your health.” (trans. Thomson 2006: 170).
- (2) *Heb. 6, 11: Ew mek' ətjanamk' zi iwrač'anč'iw r ok' i jēnŷ znoyn p'oyt' c'uc'anic'ē <...>.* “And we desire that each one of you show the same diligence <...>.”

Presumably, some of the emotion verbs generalised forms with the *an*-suffix to use them in both [ $+$  telic] and [ $-$  telic] contexts, cf. *hianam* ‘be(come) amazed’ (see § 2.4.1-1).

The capacity of a verb to express the [ $+$  telic] meaning entails its capacity to express the [ $+$  dynamic] meaning given that all telic verbs are dynamic. The grammatical contrast between the “inchoative” and “stative” verbs includes opposed values of both parameters — [ $+$  telic]/[ $+$  dynamic] vs. [ $-$  telic]/[ $-$  dynamic]. In view of the dynamic verbs of the *a*-conjugation without the nasal suffix (e.g. *ert'am* ‘walk’), the grammatical semantics of the suffix must be primarily associated with the telicity parameter. However, the collateral [ $+$  dynamic] aspectual feature seems to be relevant in contexts where the subject receives an agentive interpretation, cf. (3).

- (3) Łazar P'arpec'i 2003: 2343: <...> *guc'ē t'ē mek' culanamk', ew na arnic'ē zmez ašxat <...>.* “Perhaps if we are slow, he will cause us much trouble <...>.” (trans. Thomson 1991: 209).

#### § 2.4.2-2.3. *-an-a-* vs. *-e/i-*

There is an extensive morphological variation involving the IPFV *-an-* : PFV *-ac'*- class of the *a*-conjugation and the IPFV *-Ø-* : PFV *-ec'*- class of the *e/i*-conjugation. This variation results from two productive patterns of deriving denominal verbs. Some typical cases are considered below.

##### a. Agent noun $\rightarrow$ verb

While *an(a)*-verbs denote the coming about of a quality (‘become (like) X’), *e/i*-verbs typically express activities characteristic for the base agent noun (‘act (like) X’); cf. *bnak* ‘inhabitant’  $\rightarrow$  *bnakanam* ‘settle’, *bnakem* ‘dwell’; *hreštak* ‘angel; messenger’  $\rightarrow$  *hreštakanam* ‘become (like) an angel’, *hreštakem* ‘announce’; *panduxt* ‘foreigner, refugee’  $\rightarrow$  *pandxtanam*

'become a foreigner', *pandxtim* 'reside in exile'; *tēr* 'lord' → *tiranam* 'become a lord', *tirem* 'rule'. The difference between the derived meanings can be very narrow, cf. (1), (2).

- (1) *1Esdras 2, 27*: <...> *ew t'agawork' zawrawork' ew xistk', ork' bnakeal ēin jErusatēm, tirac'ealk' harks hanēin i kołmanc'n Asorwoc' ew K'ananac'woc'.* "«...» and that mighty and cruel kings ruled in Jerusalem and exacted tribute from Coelesyria and Phoenicia."
- (2) *1Mac 6, 63*: <...> *ew egit na zP'ilippos tireal k'atak'in <...>.* "He found Philip in control of the city <...>".

#### b. Action noun → verb

There seems to be no significant difference in the derivational semantics of the two competing ways to derive a verb from an action noun, cf. (3), (4).

- (3) *Is. 56, 10*: <...> *amenek'in ibrew šunk' hamrac'ealk' or oč' karic'en hajel, yerazanan yankotins iwreanc', siren znirhel.* "All of them are mute dogs unable to bark, dreamers lying down, who love to slumber."
- (4) *Acts 2, 17*: <...> *ew eritasardk'jer tesils tesc'en, ew cerk'jer erazovk'yerazesc'in.* "«...» and your young men shall see visions, and your old men shall dream dreams."

#### c. Quality adjective → verb

When derived from quality adjectives, an *an(a)*-verb designates the coming about of a quality expressed by the adjective (see § 2.4.1-1.4a). When the active and mediopassive forms of a parallel *e/i*-verb express the active/passive voice alternation, the derivational contrast between the two conjugations can be discerned — it consists in the presence of the agent (expressed or implied) in the predicate structure of the *e/i*-verb and its absence in the *an(a)*-verb, e.g. adj. *layn* 'wide' → act. *layn-em* 'make broad' / pass. *layn-im* 'be made broad' next to *layn-an-am* 'become broad' (all Bible+), cf. (5), (6). The same contrast sets *attelanam* 'become dirty' apart from *attelim* pass. 'be made dirty' (Bible), both derived from adj. *atteti* 'dirty'.

- (5) *Jer. 51, 58*: *Parispn Babeloni laynec'aw <...>.* "The wall of Babylon was made broad <...>." (trans. PK).
- (6) *Deut. 32, 15*: *Eker Yakob ew yagec'aw, yawrac'aw ew ankušec' sirelin, girac'aw, stwarac'aw ew laynac'aw <...>.* "Jacob ate his fill, grew fat, and kicked; he grew fat, bloated, and broad <...>." (trans. PK).

In cases when the active and mediopassive forms of an *e/i*-verb express the causative/anticausative alternation, the contrast in the argument structure is blurred

between the mediopassive form of the *e/i*-verb and an *an(a)*-verb derived from the same adjective, e.g. *p'ut* 'rotten' → *p'tanam* 'become rotten' ≈ mp. *p't-i-m* 'become rotten' / act. *p't-e-m* 'make rotten', cf. (7), (8). Further examples are provided by adj. *pał* 'cold' → *pałanam* ≈ *pałim* 'freeze', adj. *spitak* 'white' → *spitakanam* ≈ *spitakim* 'become white', adj. *zetx* 'intemperate' → *zetxanam* ≈ *zetxim* 'become intemperate'.

(7) Mambre Vercanoł (5<sup>th</sup> century, apud *NBHL* 2: 963): *Ənd aynk'an žamanak oč' p'tac'an marmink' srboc'n*. "In so much time, remains of the saints did not decay" (trans. *PK*).

(8) *Job* 19, 20: *P'tec'an marmink' im ənd mort'ov imov <...>*. "My bone clings to my skin <...>."

The overlap between these two paradigmatic classes provides space for idiosyncratic configurations of causative/anticausative pairs combining forms from two different paradigmatic classes. For example, adj. *mełk* 'soft, weak' derives two quasi-synonymous verbs, *mełkanam* 'become weak' and *mełkim* 'id.'. The transitive counterpart is expressed by the morphological causative derived from *mełkanam* (*mełkac'uc'anem* 'make weak') but no act. *mełkem* is attested. A reverse situation is found in the derivatives from *erkar* 'long': causative *yerkarem* 'prolong' (no anticausative *yerkarim*) is coupled by anticausative *yerkaranam* 'become long' (no causative *yerkarac'uc'anem*).

In some cases, the grammatical contrast between non-agentive *e/i*- and *an(a)*-verbs may be analysed in terms of their aspect. Thus, *karawt* 'necessitous' is a base adjective for *karawtanam* 'become necessitous' and *karawtem* 'be necessitous', cf. (9), (10). The contrast between the iterative/habitual aspectual meaning in (12) and the primary stative meaning in (13) is comparable to Modern Eastern Armenian *uzel* 'wish', *unel* 'have', *gitel* 'know' along with their habitual counterparts *uzenal*, *unenal*, and *gitenal* (Dum-Tragut 2009: 209).

(9) *Prov.* 11, 24: *En or ziwreanc' sermanen, ew bazmapatik arnen, ew en or yanirawut'enē žotoven, ew karawtanan*. "There is one who scatters, and yet increases all the more, And there is one who withholds what is justly due, and yet it results only in want."

(10) *Acts* 4, 34: *Ew oč' ok' karawtēr i nosa <...>*. "For there was not a needy person among them <...>."

In view of the aforementioned alleged contrast between the aspectual characteristics of the IPFV stems, it remains unclear whether PFV *ac*'- and *ec*'-stems could express it as well. Thus, there could have been a difference between the aorist forms of *xalaťanam* and *xalaťim*, as illustrated in (11) and (12), which favoured the use of the former in the context with a distributive subject, and the latter in the context with a singulative subject.

(11) *2Chron.* 14, 6: *Ew xalaťac'an k'atak'k' parspawork' yerkrin Yuday <...>*. "And the walled cities had peace in the land of Judah <...>." (trans. *PK*).

- (12) *2Chron. 20, 30: Ew xatatec'aw t'agaworut'iwinn Yovsap'atu <...>. "So the kingdom of Jehoshaphat was at peace <...>."*

However, the manuscript variation between the two sets of perfective forms implies that the morphological variation was free at least on the level of individual scribes, cf. *xoroč'ac'eal* (*xoroč'anam*) / *xoroč'eal* (*xoroč'im*) from *xoroč'* 'cavity' (13).

- (13) *Agat'angelos 2003: 1303: Isk i mēj ambri'neloc'n xoroc'n andndoc'n lc'eal xoroč'ac'eal [v.l. xoroč'ec'eal] xoxo'jelovn ahap'et arareal zawrhasn gušaken <...>. "Amidst the raging unfathomable depths that echo with cavernous murmuring, they fearfully await the moment of death." (trans. Thomson 1976: 5).*

#### d. Adverb → verb

De-adverbial *an(a)*-verbs are intransitive and denote the subject's entering into the state described by the base adverb (see § 2.4.1-1.4c). There is morphological variation with the mediopassive verbs of the *e/i*-conjugation; cf. *merjim* next to *merjenam* in (14) and (15). Similar are the cases of *\*hetew* 'in the following' → *hetewim* / *hetewanam* 'follow' and *i nanir* 'in vain' → *nanranam* / *nanrim* 'become vain'.

- (14) *Mt. 9, 21: <...> t'ē miayn merjenam i handerjs nora, p'rkim. "If I only touch His garment, I will get well."*
- (15) *Agat'angelos 2003: 1324: <...> ew useal ews zk'ristosakan dprut'ean hangamans antani eteal groc' Astucoy, ew merjeal yerkiwt Tearn, oroy anun čanač'ēr Grigorios. "<...> he received a Christian education, became acquainted with the scriptures of God, and drew near to the fear of the Lord." (trans. Thomson 1976: 53).*

A blend of the two paradigmatic classes is presented by a small set of verbs that follow the IPFV *-Ø-* : PFV *-ec'* class of the *e/i*-conjugation in the imperfective part of the paradigm and the IPFV *-an-* : PFV *-ac'* class of the *a*-conjugation in the perfective part of the paradigm: *asem*, aor. *asac'i* 'say'; *karem*, aor. *karac'i* 'be able', *mart'em*, aor. *mart'ac'i* 'have possibility' (adv. *mart'* 'possible'), *merkem*, aor. *merkac'i* 'take clothes off someone' (adj. *merk* 'naked'). Peculiarly, the PFV *ac'*-stems of these verbs invariably take the active endings. The case of *merkem*, aor. act. *merkac'i* is complicated by the existence of *merkanam* 'become naked', aor. mp. *merkac'ay*. Especially difficult is *gitem*, *gitac'i*, the PFV *ac'*-stem of which has been derived with the *\*eh<sub>2</sub>*-suffix, assumed for Ion.-Att. ἤδῃ 'he knew' (Peters 1997; § 2.4.2-3.3).

#### e. Verb of the *e/i*-conjugation → nasal verb of the *a*-conjugation

The verb *sk'anč'anam* is, perhaps, a recharacterised *an*-verb of the *e/i*-conjugation, *\*sk'anč'em*, whence a verbal adjective *sk'anč'eli* 'wonderful'. The shift to the *an*-class of the *a*-conjugation happened on the analogy of other emotion verbs in that class.

The verb *z-ayr-an-am* ‘become angry’ (literally ‘become kindled’) may be derived from *ayrem* ‘burn’ or from the unattested *\*ayr* ‘fire’ (cf. *EDAIL*: 63; Szemerényi 1977: 25, 28, 32). The prefix *z-* is part of the intransitivising verbal morphology, cf. *zgenum* (see § 2.1.1-2.6), possibly, *stanam* (see § 2.4.1-2.13) and *sp’acanim* (see § 2.5.1-2.43), etc.

#### § 2.4.2-2.4. *\*-an-a-* vs. *-u-*

This variation pattern is represented by *t’otanam* vs. *t’otum*. The verb *t’otum* (aor. act. *t’oli*, aor. mp. *t’otay*) has the meanings tr. ‘permit’, intr. ‘be abandoned’. The intransitive member expresses the passive alternation of the base transitive verb, cf. (1), (2).

- (1) *Acts 2, 27: Zi oč’ t’otc’es zanjn im i džoxs <...>. “<...> because You will not abandon my soul to Hades <...>.”*
- (2) *Acts 2, 31: <...> zi oč’ t’otaw ogi nora i džoxs <...>. “<...> that He was neither abandoned to Hades <...>.”*

The intransitive meaning ‘become permissive’ was expressed by *t’otanam* (Bible+), whence the causative *t’otac’uc’anem* ‘let go; forgive’ (Bible+), cf. (6) and (7).

- (6) *Ex. 5, 11: <...> zi oč’ t’otasc’i jez i sakēn jermē ew oč’ inč’. “<...> but none of your labor will be reduced.”*
- (7) *Gen. 18, 26: Et’ē gtc’i i Sodom yisun ardar i k’atak’i and, t’otac’uc’ic’ amenayn teteac’n vasn noc’a. “If I find in Sodom fifty righteous within the city, then I will spare the whole place on their account.”*

The morphological and grammatical contrast between *t’otum* and *t’otanam* points to the non-agentive derivational semantics of the *an(a)*-verbs.

#### § 2.4.2-2.5. *-an-a-* vs. *-n-u-* (see § 2.1.2-2.3).

#### § 2.4.2-2.6. *-an-a-* vs. *-anč’-e-* (see § 2.7.2-2.1).

### § 2.4.2-3. PIE outlook

The Old Armenian *an(a)*-verbs represent several Proto-Armenian morphological types. In part, the *an(a)*-verbs go back to the dial. PIE *\*n(e)h<sub>2</sub>*-class together with the *n(a)*-verbs discussed in Section 2.2 (§ 2.4.2-3.1). Later on, the class extended by means of the analogical spread of the *an*-suffix to the inherited PArm. *\*a*-stems (§ 2.4.2-3.2).

§ 2.4.2-3.1. The dial. PIE  $*n(e)h_2$ -stem

In the case of *banam*, a nasal stem can be faithfully reconstructed for the common Greek-Armenian stage. In early Proto-Armenian, *banam* probably belonged to the type of *bar̄nam* (PArm.  $*barj-na-$ ).<sup>118</sup> Later on, its PFV stem was recharacterised by the  $c'$ -suffix added to a vowel by the general rule (see § 2.1.2-3.2). Another potentially archaic representative of the  $*n(e)h_2$ -class is *stanam*, if from PIE  $*sth_2-n(e)h_2-$  together with Lat. *dēstināre* (see § 2.4.1-2.13). The same analysis can be applied to *t'anam*. See § 2.2.2-3 for an overview of the grammatical features of the underlying paradigmatic class.

As argued in § 2.2.2-3, the verbal class with IPFV  $*n(e)h_2-$  and PFV  $-\emptyset-$  included ambitransitive verbs and its nasal suffix was not a causative marker in (late) Proto-Indo-European. From this perspective, the ambitransitive character of *banam* could be inherited from dial. PIE  $*b^h h_2-n(e)h_2-$ , a dynamic verb meaning 'make/become visible' derived from a stative verb PIE  $*b^h e h_2-$  intr. 'shine' preserved in the Indo-Iranian branch (see § 2.4.2-2.2).

This *an(a)*-verbs include denominal verbs with the causative transitivity marking pattern. Such verbs can be explained in two ways.

Firstly, they could have the equipollent transitivity marking pattern in Proto-Armenian and undergo the change to the causative pattern due to an inner-Armenian innovation. Within this account, one has to assume that the voice marking of the transitive member of a transitivity pair was independently replaced by the Germanic *ja*-causatives and Old Armenian *uc'*-causatives. Unlike Germanic, Old Armenian generalised the zero grade of the nasal suffix of intransitive verbs — PIE  $*-nh_2-$  > Arm.  $-an(a)$ .<sup>119</sup> Rau (2009: 143–160) argued that nasal affixes were part of the Caland System and were utilised to derive ambitransitive verbs from substantival bases denoting qualities, cf. Skt. *stabhnāti* tr. 'support; make firm' next to YAv. *staβra-* 'strong; firm'. In this function, nasal verbs functionally overlap with productive denominal verbal classes. Apart from the comparative evidence of Old Armenia and Germanic, the connection between the  $*n(e)h_2$ -suffix and denominal verbs has been suggested for the Hittite *anna/i*-verbs (Jasanoff 2003: 122–127; EDAIL: 147) and Tocharian

<sup>118</sup> It is fitting to mention an alternative to the traditional analysis of the nasal stems of *banam*, *stanam*, and *t'anam*. Within the hypothesis of the derivation of the PIE infix stem from the pre-PIE  $*(e)n$ -stem (EDHIL: 152f.; see Section 1.2), the nasal stem of these verbs can be considered an archaism continuing PIE  $*b^h h_2-(e)n-$ ,  $*sth_2-(e)n-$ , and  $*th_2-(e)n-$ , in which the nasal suffix did not turn into the nasal infix due to the bi-consonantal root structure. However, at least in the cases of *banam* and *t'anam* one is probably dealing with relatively late dial. PIE or inner-Armenian nasal formations (cf. §§ 2.4.1-2.2 and 2.4.1-2.16).

<sup>119</sup> A comparable split of PIE  $*n(e)h_2-$  has been recently discovered in Germanic. Kluge's law has been adduced to explain a group of Germanic verbs with the interchange of the stem final  $*-CC-$  and  $*-Cun-$  as the result of the development of  $*-Cnéh_2-$  and  $*-Cnh_2é-$  (Kroonen 2011; Scheungraber 2012).

*ññ*-verbs (Pinault 1992: 141, 148). Such functional overlap could motivate the secondary spread of the Old Armenian nasal *an(a)*-verbs at the expense of the inherited denominals in *-a-* (PIE *\*-eh<sub>2</sub>-ie-*), which could undergo a comparable change from the equipollent to causative transitivity marking pattern; see § 2.4.1-1.

Secondly, the intransitive character of the nasal stem could be inherited from some stage of PIE. In this respect, the parallelism between Old Armenian denominal anticausatives and the Germanic 4<sup>th</sup> weak class is especially interesting. The Germanic class is traditionally derived from PIE *\*-n(e)h<sub>2</sub>-* and can be directly compared to the Old Armenian one in regard of form and function, cf. Arm. *lianam* ‘become full’ and Go. *fullnan* ‘id.’ (Godel 1975a: 125; Ringe 2006: 176–179, 258–260). Within the second account, a subclass of anticausative nasal verbs could be reconstructed for a certain stage of PIE.

Both accounts specify *-an(a)-* as originating in mediopassive forms of the paradigm. The second *-a-* of *-ana-* can be considered a regular outcome of *\*-h<sub>2</sub>-* only in the 2<sup>nd</sup> and 3<sup>rd</sup> plural forms, where the medial laryngeal preceded a consonant cluster; cf. Table 12 (cf. Klingenschmitt 1982: 107; Kortlandt 1991 = 2003: 96f.; Beekes 2003: 194f.; Kocharov 2018b).<sup>120</sup>

Table 12. The development of the *an(a)*-stem from the inherited *\*n(e)h<sub>2</sub>-*stem

	PIE	Armenian
1sg. mp. pres.	<i>*C-nh<sub>2</sub>-(m)V-</i>	<i>-an-am</i>
2sg. mp. pres.	<i>*C-nh<sub>2</sub>-sV-</i>	<i>-an-as</i>
3sg. mp. pres.	<i>*C-nh<sub>2</sub>-tV-</i>	<i>-an-ay</i>
1pl. mp. pres.	<i>*C-nh<sub>2</sub>-mV-</i>	<i>-an-amkʻ</i>
2pl. mp. pres.	<i>*C-nh<sub>2</sub>-d<sup>h</sup>uV-</i>	<i>-an-aykʻ</i>
3pl. mp. pres.	<i>*C-nh<sub>2</sub>-(o)ntV</i>	<i>-an-an</i>

The levelling of the *-a-* over the paradigm could be supported by the synchronic variation between *a-* and *ana-*verbs in stative/inchoative pairs, where the nasal suffix was associated with the [+telic] aspectual feature (§ 2.4.2-2.2).

Another possible source of *an(a)*-nasal stems should be mentioned, in addition to the denominals derived from the property quality adjectives as part of the Caland System. In

<sup>120</sup> The prevocalised allomorph could have originated in stems with roots in a phoneme with the lower sonority than *\*n* (see § 2.3.2-2).

Klingenschmitt (1982: 106f.) derives the IPFV *an(a)*-stem from the PIE infix stem to roots in a laryngeal (Sievers’ variant in *\*-n<sub>1</sub>a-h<sub>2</sub>*, and the analogical zero-grade *\*-n<sub>1</sub>-ə-* from *\*-n<sub>1</sub>e-h<sub>1</sub>*, *\*-n<sub>1</sub>a-h<sub>2</sub>*, *\*-n<sub>1</sub>o-h<sub>3</sub>* in the 1<sup>st</sup> and 2<sup>nd</sup> plural), or from a combination of the suffix *-na-* added to the denominal stems in *-a-*. Klingenschmitt leaves unexplained the split of the PIE infix-type into *-ane-* and *-ana-*.

Ancient Greek, there are a few verbs in *-ανάω*. At least two of them are attested as variants of verbs in *-άνω*, cf. *ἐρῶκάνω* vs. *ἐρῶκανάω* tr. ‘detain’ (both secondary derivatives from the IPFV *κ*-stem, as opposed to the primary *ῥύομαι* tr. ‘retain’); *ἰσχάνω* vs. *ἰσχανάω* tr. ‘keep’; Tucker 1990: 217f.<sup>121</sup> The contrast between the Ancient Greek verbs in *-άνω* and *-ανάω* has been interpreted in terms of aspect as [+ telic] vs. [– telic], respectively (Chantraine 1948: 360; Tucker 1990: 217f., 231; van de Laar 2000: 345). The variation between the Arm. *an*-verbs of the *e/i*-conjugation and the *a*-conjugation (see § 2.4.2-2.1) is formally very similar to that between *-άνω* and *-ανάω* verbs. However, the Old Armenian verbs do not show a contrast of telicity, and can rather be characterised as primary or denominal verbs. There is, however, the isolated case of *zbawsanim* vs. *zbawsanam*, two primary stems with the meaning ‘take rest’, which is comparable to the cases of *ἐρῶκάνω* vs. *ἐρῶκανάω* and *ἰσχάνω* vs. *ἰσχανάω*. This parallelism provides evidence for the archaic layer of primary *an(a)*-stems.

#### § 2.4.2-3.2. The PArm. \**a*-stem

Primary *an(a)*-verbs include a few motion and emotion verbs, and one verb of action, *luanam*.

Most of Old Armenian anticausative *an*-verbs can be explained as Proto-Armenian denominal \**a*-verbs from PIE \**eh*<sub>2</sub>(*-ie/o*)-verbs extended with the \**an*-suffix.

At the dialectal PIE level, denominal verbs presumably included ambitransitive verbs (with the causative/anticausative alternation expressed by voice endings), and intransitive verbs of ACTIVITY with a lexicalised generic object.<sup>122</sup>

As noticed by Meillet (1900b = 1977: 73f.), Old Armenian changed from the equipollent to the causative pattern of marking of the causative/anticausative pairs, which produced a large number of anticausative \**a*-verbs (in parallel to the rise of the causative pattern of

<sup>121</sup> One Ancient Greek verb shows the competing formations in *-νυμι* (*δεικ-νύ-μενος* ‘welcoming’) and *-ανάομαι* (*δεικ-ανά-ομαι* ‘point to each other; greet’); see; Tichy 1976.

<sup>122</sup> The markedly transitive use of the denominal \**eh*<sub>2</sub>-stem, seen in such reconstructed verbs as PIE \**neu-eh*<sub>2</sub>- ‘renew’, may betray the older state of affairs; cf. also Latin transitive *clār-ā-re* ‘clear’ (from *clārus* ‘clear’), *frīger-ā-re* ‘make cold’ (from *frīgidus* ‘cold’), and *grav-ā-re* ‘make heavy’ (from *gravis* ‘heavy’), next to their intransitive pairs *clār-ēsc-ere* ‘become clear’, *frīg-ēsc-ere* ‘become cold’ and *grav-ēsc-ere* ‘become heavy’. By contrast, Ancient Greek denominal verbs in *-άω*, aor. *-ασ(σ)α* have a wide range of lexicosyntactic features including verbs with causative/anticausative pairs, cf. n. *άνιη* ‘distress’ → mp. *άνιόμαι* intr. ‘become distressed’ / act. *άνιάω* tr. ‘make distressed’, adj. *κακός* ‘bad’ → mp. *κακόμαι* intr. ‘become defective’ / act. *κακώω* tr. ‘make defective’, adj. *λευκός* ‘light’ → mp. *λευκόμαι* intr. ‘become light’ / act. *λευκώω* tr. ‘make light’ (cf. Tucker 1990: 233–272 on this category of denominals in the Homeric language; a list of Vedic denominal verbs in *-āya-* is given in Sütterlin 1906: 538–542).



*zgenum* ‘dress oneself’, from dial. PIE *\*ues-nu-* intr. ‘dress oneself’ next to *\*ues-nu-* tr. ‘dress someone; see § 2.1.2-3). Later on, these verbs were extended with the *\*an*-suffix that differentiated dynamic and telic *\*a*-verbs (ACHIEVEMENTS, ACCOMPLISHMENTS) from atelic *\*a*-verbs (STATES, ACTIVITIES). This process constitutes a Proto-Armenian innovation.

The large amount of denominal dynamic *an(a)*-verbs led to the recharacterisation of some primary atelic *\*a*-verbs. In particular, motion verbs *loganam* and *slanam*, perhaps, go back to the suffixless verbs of the *a*-conjugation.

The atelic motion verbs of the *a*-conjugation can be further compared to PIE atelic *\*eh<sub>2</sub>(-ie)*-formations continued in the Greek, Italic, Baltic, and Slavic branches; cf. Gk. εἰλυφάω ‘roll along’, πωτάομαι ‘fly’, στρωφάω ‘keep turning’, τρωχάω ‘run’, Lat. *cēlāre* ‘jump’, Latv. *lēkāju* ‘jump’, OCS *pъsati* ‘write’, etc. (see Meillet 1934: 210; Sihler 1995: 505 among others).<sup>123</sup> Such verbs are often intransitive. The equation between Arm. (*z*-)*erām* ‘crawl’ and Lat. *errāre* ‘err’ from PIE *\*h<sub>1</sub>ers-eh<sub>2</sub>-ie/o-* (Klingenschmitt 1982: 96) confirms the antiquity of intransitive *\*eh<sub>2</sub>(-ie)*-formations.<sup>124</sup> To these may be added a verb of position *mnam* intr. ‘remain’, which can be derived from *\*mVn-eh<sub>2</sub>(-ie/o)-* from PIE *\*men-* ‘remain’ (cf. Meillet 1936: 110; Godel 1965 = 1982: 35; 1975: 123; Schmidt 1980: 1f.; *LIV*<sup>2</sup>: 437). The case of Arm. *slanam* is strengthened by a plausible comparison to OCS *szlati* ‘send; direct’.

A special sub-type of atelic *\*eh<sub>2</sub>-ie*-formations are “iterative” motion verbs in *\*t-eh<sub>2</sub>-ie/o-*, cf. Gk. ἰτάω and Lat. *itāre* ‘go’ as well as Ancient Greek verbs in *-τάω*, e.g. σκιρτάω ‘leap’, φοιτάω ‘roam’ (see Tucker 1990: 229–232). In Old Armenian, here can belong two agentive intransitive verbs, *ert’anam* and *ant’anam*.

It is noteworthy that *ert’anam*, *ant’anam*, *loganam*, and *slanam*, are basically all verbs of ACTIVITY, that is [–telic]. Altogether, at least three of them, *ert’anam*, *ant’anam*, and *slanam* have a facultative valency to the TARGET or SOURCE participants. As explicated in

<sup>123</sup> Barton (1990–1991) suggested deriving the IPFV *a*-stem from PIE *\*h<sub>1</sub>-ie/o-* based on the functional similarity between Old Armenian stative verbs of the *a*-conjugation and PIE *\*eh<sub>1</sub>*-statives. This analysis would establish an etymological link between the Old Armenian *a*-conjugation and the Tocharian presents of classes 3 and 4, which Ringe (1991: 83ff.) derived from *\*h<sub>1</sub>-ie/o-*. However, the Old Armenian *a*-conjugation includes a fair amount of dynamic verbs inconsistent with the inherited stative morphology. Moreover, the vocalisation of PIE *\*h<sub>1</sub>* to PArm. *\*a* is very problematic in *\*VCHiV* (cf. Pinault 1982; Kocharov 2018b).

<sup>124</sup> Some scholars consider this verb a denominal formation from PIE *\*h<sub>1</sub>ers-* ‘mistake’, cf. Go. *airzeis* ‘mistaken’. However, in my view, the substantival meaning ‘mistake’ is secondary, and is derived from the verbal meaning ‘wander; go astray’ associated with the PIE root *\*h<sub>1</sub>ers-*, otherwise attested in Skt. *árṣati* ‘flow; float’ (*EDL*: 194). The semantic link between the notions of flowing and crawling is found in PIE *\*ser-p-* ‘crawl’ (Skt. *sárpati*, Lat. *serpō*, etc.) and PIE *\*sr-eu-* ‘flow’ (Skt. *srávati*, Arm. *ořoganem*, etc.), if these are indeed extended variants of one root; cf. Lat. *serpēns* ‘snake’ and Arm. *z-eř-un* ‘reptile’ as an additional lexical parallel.

§ 2.4.2-1.3, the nasal suffix may be explained by the [+ telic] value actualised in uses where the direction of motion was defined by an overtly expressed directional argument or context, thus turning an atelic verb of manner into a telic verb of direction. In the case of *ant'anam* and *andelanam*, telicity correlates with the use of a directional preverb *an(d)-*.

Ancient Greek primary verbs in *-άω* are mostly attested in the present tense forms in the epic language (Tucker 1990: 216–221) and have derivational ties with the perfect tense to the point of being called “perfectum secundum”, cf. *μυκάομαι* next to perfecto-present *μεμῦχα* intr. ‘bellow’ (Sütterlin 1891: 25). The Old Armenian verbs *imanam*, *mořanam* and *uranam*, which belong to the Aktionsart of “immediate and continuous effect” typical for the perfecto-present verbs in other IE branches (see Kocharov 2018a), may go back to the earlier *\*imam*, *\*mořam*, and *\*uram*, with comparable formal and functional features. The *o*-grade of *\*mořam* and *\*ō*-grade of *\*uram* are best explained as reflecting the inherited “iterative” (atelic) types *\*CoC-eh<sub>2</sub>-ie-* and *\*CōC-eh<sub>2</sub>-ie-*, respectively (cf. Godel 1975a: 123, 1965 = 1982: 35; de Lamberterie 1979: 210).

The suggested analysis leaves virtually no room for the hypothesis that some IPFV *\*an*-stems were derived from PFV *\*a*-stems<sup>125</sup> within the model outlined in (1):

- (1) IPFV *\*R-?-*                      IPFV *\*R-an-a-*  
       PFV *\*R-a-*                    →     PFV *\*R-a-c<sup>ʼ</sup>-*

The basis for this hypothesis is provided by the reconstruction of the PIE PFV *\*eh<sub>2</sub>-stem*, which may be postulated on the ground of the BSl. *\*ā*-preterite, the Latin imperfect stem in *-(b)ā-* (cf. *eram* ‘I was’), the Western Greek dialects (cf. pperf. *ἤδῃ* ‘knew’ compared to Arm.

<sup>125</sup> Weitenberg (1980: 212f.) argued that the abstract nouns in *-ast-* derived from *an(a)*-verbs point to an original PFV *\*a*-stem. According to him, nouns in *-ast-* contrast with other nouns derived from the PFV. *ac<sup>ʼ</sup>-stem*, e. g. *mořanam* ‘forget’, aor. *mořac<sup>ʼ</sup>ay* → *mořac<sup>ʼ</sup>unn* ‘forgetfulness’. However, there seems to be a clear derivational pattern: whenever a derivational suffix begins with a vowel, it is added to *-Vc<sup>ʼ</sup>-*, while a suffix beginning with a consonant (including *-st-*) is added to *-V-* and substitutes *-c<sup>ʼ</sup>-*. Thus, *ima-st* ‘sense’ was derived from PFV *im-ac<sup>ʼ</sup>-* and inherits the *-a-* of a PFV *ac<sup>ʼ</sup>-stem*. The clearest case is *\*gitast*, attested in *gitastut<sup>ʼ</sup>awn* ‘knowledge’ (Bible). It is clear that the only source of *-a-* can be the irregular PFV *git-ac<sup>ʼ</sup>-* (IPFV *git-e-*). More peculiar is the noun *ar-agast* ‘curtain’, derived from *aganim* ‘put on’, since PFV *\*ag-ac<sup>ʼ</sup>-* is not an appropriate match to IPFV *agani-* with its regular PFV *ag-*. The explanation is the same as in the case of *-Vc<sup>ʼ</sup>-* → *-V-st-*; the abstract noun suffix *-st-* could not be added to a consonant auslaut. Unlike the case of the stems in *-Vc<sup>ʼ</sup>-*, no economy could be made of the root-final consonant in PFV *ag-*. Therefore, the suffix shape *-ast-* was borrowed from *an(a)*-verbs. Note that there was a moderate variation between the *an(a)*- and *an(i)*-stems (see § 2.4.2-2.1), which could facilitate the work of analogy. Alternatively, one might think of a reanalysis of the IPFV *agani-* as *aga-ni-* for the purpose of derivation of the *st*-noun, cf. *utem* ‘eat’ (aor. *keray*) → *ute-st* ‘food’ instead of the expected *\*ker-ust*.

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*gitac'i* in Peters 1997; see also Nikolaev 2010: 194–197 with references), and the Tocharian  $\bar{a}$ -preterite (cf. Peyrot 2013: 41f., 51). This type of PFV stems could have arisen from PIE verbs with roots in  $*h_2$ , an IPFV infix stem, and a PFV root stem, which, due to the reanalysis of the root shape, produced the PFV  $*h_2$ -suffix and the IPFV  $*n(e)h_2$ -suffix already in PIE. This solution, which was proposed for Tocharian in Jasanoff 1981 and Pinault 1984: 120f., would formally work for Proto-Armenian as well. The main issue is that the PFV *ac'*-stem is regularly used with the suffixless verbs of the *a*-conjugation from the IPFV  $*eh_2-ie/o$ -stem, and is best explained as an inner-Armenian stem added to denominal verbs which, presumably, had no aorist tense in PIE.

## Section 2.5. The *an*-stem of the *e/i*-conjugation

### § 2.5.1. Evidence

The vast majority of *an*-verbs of the *e/i*-conjugation have the PFV root stem. This paradigmatic pattern includes an open list of morphological causatives (see § 2.5.1-1), over 60 primary verbs, and no denominal verbs (cf. Meillet 1900b = 1977: 75). Apart from the unambiguous members of this paradigmatic class (see § 2.5.1-2), some verbs in *-ane/i-* are not attested in forms derived from the PFV stem. Such verbs are grouped in § 2.5.1-3, and potentially may include verbs with PFV root or *i*-stems (cf. *yanc'anem*, aor. *yanc'ey*).

Some verbs are only attested in the form of the past participle derived from the root stem. They can be attributed to several paradigmatic classes, including the *an(e/i)*-class, but also to the default denominal class, characterised by IPFV *-e/i-* : PFV *-ec'*, which had the past participle derived from the IPFV stem in verbs with a stative meaning, e.g. pres. *sirem*, aor. *sir-ec'-i* → past ptc. *sir-eal* (Movsēs Xorenac'i) next to *sir-ec'-eal* (Bible+). Thus, ptc. *zetx-eal* 'the intemperate one', the only attested form of that verb (Agat'angelos, Movsēs Xorenac'i), can either be interpreted as a form of the denominal verb *zetx-i-m* 'become intemperate' (Bible), derived from the adjective *zetx* 'intemperate', or as a form of an unattested nasal verb *\*zetx-an-im*, from which *zetx* would be a back-formation. Such verbs are excluded from consideration.

#### § 2.5.1-1. The morphological causative

In Old Armenian, the causative can be regularly formed from the PFV stem, except verbs with the PFV *i*-stem, in which the causative suffix *-oyc'/uc'* is added to the root (cf. *c'as-num* 'be angry', aor. *c'as-e-ay*, caus. *c'as-uc'-anem* 'make angry').

Meillet repeatedly claimed that the causative suffix *-oyc'/uc'* must be derived from PIE formations in *\*-eu-* (1910–1911b: 242–246; 1920 = 1977: 169–171; 1934: 178; 1936: 116). Meillet assumed that the suffix (or root extension) *\*-eu-* was used to form PIE IPFV stems from which causatives could be derived. For example, Skt. *srávati* (with its causative *srāvayati*) and Gk. *ῥέω* intr. 'flow' are attested next to Skt. pres. *sísarti*, aor. *ásarat* intr. 'flow'; the present and causative are the only old forms derived from *\*sr(-)eu-*, while the root aorist is derived from an unextended root *\*ser-*. Meillet applied the same analysis to Skt. *drávati* (with its causative *drāváyati*, cf. Av. *drāvayāṭ*) intr. 'run' next to an "aoristic" root with a different root extension attested by Gk. pres. *διδράσκω*, aor. *ἔδρᾶν* intr. 'run away'. Along similar lines, Meillet evoked Lat. *volvō* tr. 'roll', Go. caus. *-walwjan* tr. 'roll', and Arm. pres. *gelum* tr./intr. 'turn' (from *\*uel(-)u-ie/o-*) next to Arm. aor. act. *geli*, mp. *gelay* (from *\*uel-*). In light of these and other comparable examples, Meillet put forward a hypothesis that Old Armenian causative in *-oyc'/uc'* could be derived from archaic causatives with root

extensions \*-ōu-, e.g. \*CRou-eie/o- and \*CRōu-ie/o-. In that case, Arm. caus. *yaruc'anem* tr. 'lift' could be compared to Gk. ὀρούω, from \*ὀρου-γω, which Meillet described as a causative to Gk. ὄρ-νῦ-μι, Skt. *ṛṇóti*, Av. *arənaoiti* 'rise' (Meillet 1910–1911b: 244, 246).

The reconstruction of the causative based on Gk. ὀρούω and Arm. *yaruc'anem* is invalidated by the fact that the Greek cognate has an intransitive meaning 'rise quickly, rush away' (EDG: 1107). However, the reconstruction of an extended root \*h<sub>3</sub>r(-)eu- is generally accepted (*loc. cit.*; cf. Lat. *ruō* 'rush, collapse'), which allows to align it with Gk. ῥέω and not with Skt. caus. *srāvayati* within Meillet's scenario; note, however, the *o*-grade of ὀρούω.

Perhaps, another example suggested by Meillet is more to the point: Gk. κολοῦω, aor. κολοῦσαι tr. 'mutilate; limit' next to κόλος 'docked (of oxen); stump-horned, hornless' and, possibly, κωλύω tr. 'hinder, prevent' with the same root extension (Meillet 1910–1911b: 244). Although there are no secure etymologies for κόλος and κωλύω (EDG: 739, 813f.), the transitive formation in -ουω may indeed fit Meillet's hypothesis.

The indicated correction concerning ὀρούω and a questionable comparative value of κολοῦω do not render Meillet's analysis inadequate as applied to the Proto-Armenian causative. If one assumes that the aforementioned derivational pattern behind Skt. caus. *srāvayati* tr. 'make flow' next to pres. *sísarti*, aor. *ásarat* intr. 'flow' produced a sufficient number of Proto-Armenian causative verbs with IPFV \*CR(-)ou-eie/o-, one could further expect that such verbs developed secondary sigmatic PFV \*CR(-)ou-s-, in which \*-s- would be replaced by PArm. \*-c- (Arm. -c').<sup>126</sup> The IPFV nasal stem could then be introduced to compensate for the change from \*-ou-eie- to \*-oge- according to the model found in IPFV *harc'-ane-* from PFV *harc'*. Meillet supported his hypothesis with the evidence of the Proto-Armenian \*ou/eu/u-suffix reflected in the Old Armenian IPFV *u*-stem as well as nominal suffixes -oy-t', -u-t'íwn, -u-st, -u-mn, and -u-ac (1920 = 1977: 170).

Apart from the productive causative suffix -oyc'/uc', several verbs have the suffix -oyz/uz- (*eluzanem* 'produce', *andeluzanem* 'expose', *ankluzanem* 'make sink', and *p'luzanem* 'make fall') and -oys/us- (*korusanem* tr. 'destroy; lose' from *kornč'im* intr. 'disappear'). Several explanations have been suggested to explain that variation.

According to the hypothesis mentioned in Meillet 1913a: 26, deviations from -oyc'/uc' were provoked by the root-final sonorant (-l- for -oyz/uz- and -r- for -oys/us-). However, as noticed by Klingenschmitt (1982: 263f.), given that no causatives, except the aforementioned forms in -oyz/uz- and -oys/us-, are attested with Old Armenian roots in a

<sup>126</sup> Meillet (1900b = 1977: 76; 1920 = 1977: 169f.) derived -oyc' from the imperfect \*-ou-ske/o- comparable to the imperfect stem attested by *eharc'* (*harc'anem* 'ask'). However, given that PArm. \*-c- (from \*-ske/o-) regularly replaced the lost \*-s-, it is not necessary to reconstruct IPFV \*-ske/o- for any Old Armenian c'-formation.

liquid, it is impossible to control that hypothesis. Altogether, Klingenschmitt pointed out that the sound changes *\*luc' > \*luz* and *\*ruc' > \*rus* do not have a plausible phonetic explanation. Thus, the variants of the causative suffix must be explained otherwise.

In 1925, Meillet attempted to explain the *-oyz/uz-* and *-oys/us-* suffixes as derived from *\*eu/ou-*stems by means of the Proto-Armenian suffixes *\*-g<sup>h</sup>-* (or *\*-ǵ<sup>h</sup>-*) and *\*-k-* (or *\*-k̄-*), which competed with the generic Proto-Armenian preterite marker *\*-ske/o-* (or rather PArm. *\*-c-*) within the causative formations (Meillet 1925a = 1977: 218f.). Thus, Meillet compared the *-z-* of *-oyz/uz-* to Gk. *-χο/ε-* and derived them from a common source which characterised “des présents à valeur «déterminé» c'est-à-dire désignant un procès dont on envisage le terme”, cf. *νή-χω* ‘swim’ («aspect déterminé») vs. *νέω* («aspect indéterminé»). Similarly, Chaintraine (1932) defines Gk. *-χο/ε-* as a marker of an action oriented towards a determined aim.<sup>127</sup> Apart from *νήχω/νήχομαι* next to *νέω* ‘swim’, the root final *-χ-* can be a suffix in *γλίχομαι* ‘cling to’, *οἴχομαι* ‘go away’ (a possible cognate of Arm. *ij̄anem* ‘go down’; see § 2.5.1-2.24), *σμούχω* ‘make smoulder away’, *τρύχω* next to *τρύω/τρύομαι* ‘wear away, waste’, *ψήχω* (aor. *ἔψησα*) next to *ψάω* ‘rub’, *ψύχω/ψύχομαι* ‘make cold; breath, blow’ (see Schwyzer 1939, 1: 702; van de Laar 2000: 366–369). Like *νήχω*, the Old Armenian verbs with the causative suffix *-oyz/uz-* are verbs of causation of motion: *ankluzanem* ‘make sink’ (see *klanem*; see § 2.5.1-2.27), and *p'luzanem* ‘make fall’ (see *p'lanim*; see § 2.5.1-2.38). The root-final *-z-* of *eluzanem* and its derivative *andeluzanem* goes back to a root-final *\*-d<sup>h</sup>-* (see *eluzanem* ‘produce’; see § 2.5.1-3.3) and cannot be compared to Gk. *-χο/ε-*; however, it could have supported the use of the causative suffix in *-z-* with motion verbs containing *C(V)R-* roots and thus hindered its replacement by the productive causative in *-oyc'/uc'-*.

The above-mentioned extended roots *\*sr(-)eu-* ‘flow’, *\*dr(-)eu-* ‘run’, and *\*h<sub>3</sub>r(-)eu-* are all motion verbs and, within Meillet’s approach, the element *\*-eu-* characterised “presentic” extended roots and had the [– telic] aspectual value. One may tentatively assume that the suffix *\*-g<sup>h</sup>-* or *\*-ǵ<sup>h</sup>-*, which yielded Gk. *-χο/ε-* and Arm. *-z-*, was a dialectal PIE directional suffix that could be used to derive [+ telic] and [+ aim/direction] causative verbs from some of the underlying intransitive atelic motion verbs.

<sup>127</sup> Recent criticism of these definitions in Mumm & Richter 2008, where *-χο/ε-* is described as a marker of the intensive, fails, in my opinion, to account for the attestations. It is based on the claim that *νέων* indicates a directed motion in *Od.* 5, 344 (*χειρесси νέων ἐπιμαίεο νόστου*) and *Od.* 5, 442 (*ποταμοῖο κατὰ στόμα καλλιρόοιο ἴξε νέων*) and does not contain the *-χο/ε-* suffix. But ptc. *νέων* rather qualifies the means of aquamotion (*χειρесси νέων*) than the directed motion itself, the latter being expressed by *ἐπιμαίομαι* ‘aim at’ and *ἰκνέομαι* ‘reach’.

Insofar as the causatives in *-oys/us-* are concerned, Meillet interpreted *-s-* as going back to the Proto-Armenian velar suffix otherwise attested in *lsem* tr. ‘hear’.<sup>128</sup> Although the formal side of this comparison is impeccable, the functional link between an alleged inner-Armenian extension of the causative stem and the resultative/stative voiceless velar suffix, found in the perfect and present in Greek and Armenian (see § 2.5.2-3.2.1e), is obscure.

Kortlandt considered causatives in *-uc’anem* together with *korusanem*, *eluzanem*, *ankluzanem*, and *p’luzanem* as etymologically connected to the PFV *\*s-*stem (1987 = 2003: 80; 1996a = 2003: 115; 1999 = 2003: 129). In his view, the suffixes *-oyc’/uc’-*, *-oyz/uz-*, *-oys/us-* developed by way of reanalysis of sigmatic aorists from roots in *\*-u-* plus an obstruent. Note, however, that the prime example cited by Kortlandt, *mucanem* ‘take in’ (next to *mtanem* ‘enter’), has a root in *-uc-* (not *-uc’-*, *-uz-*, or *-us-*) and must therefore be excluded from the potential sources of the analogy. The same holds true for *lucan-e/i-m* ‘make/become loose’. The second *c’* of Arm. *c’uc’anem* ‘show’ does not belong to the root and must be explained by the secondary aorist suffix (see § 2.5.1-2.13). What remains is *luc’anem* ‘kindle’ (see § 2.5.1-2.30), that indeed could have served as a source of analogy for the rise of the causative *-oyc’/uc’-*, and *eluzanem*, if one prefers to derive its *-oyz/uz-* from the sigmatic aorist (see § 2.5.1-3.3). Kortlandt pointed out that the disyllabic shape of the root *eloyz/eluz-* (next to *el-* of *elanem* ‘go out’) was particularly suitable for the rise of a potential source of analogy for the formation of verbs like *p’luzanem* ‘make fall’ (next to *p’lanim* ‘collapse’). There seems to be no examples that would support Kortlandt’s analysis in the case of the *-us-* in *korusanem* (see *kornč’im* in § 2.6.1-1.2).

In my opinion, Meillet’s explanation of the origin of *-oyc’/uc’-* remains a plausible solution.<sup>129</sup> The outlined explanations of the origin of *-oyz/uz-* and *-oys/us-* are less reliable.

### § 2.5.1-2. IPFV *-an-* : PFV *-Ø-*

§ 2.5.1-2.1. *Aganim* 1. tr. ‘spend (the night); dwell (a lodging)’, intr. ‘spend the night’, aor. act. n/a, aor. mp. *agay*, past ptc. n/a, caus. *aguc’anem* tr. ‘provide lodging’ (Bible+). *NBHL* 1: 2; *HAB* 1: 76; Minassian 1978–1979: 25f.; Künzle 2: 2; *RADCA*: 140.

◇ Related words: *awt’*, *i*-stem ‘passing the night, night lodging’; *awt’aganam*, aor. *awt’agac’ay* ‘pass the night’.

- Transitivity: A-O (1, 2); S<sub>0</sub>[-E<sub>A</sub>] (3).

<sup>128</sup> Godel, who took an agnostic position on the origin of the formation, adduced *hetusem* tr. ‘nail’ and *xraxusem* tr. ‘cheer’ (from *xrax* ‘cheerful’) (1975: 124).

<sup>129</sup> Less promising is the idea that *-oyc’-* was extracted from verbs derived from agent adjectives in *\*-eu-* comparable to Gk. *ταμίλας* ‘dispenser’ → *ταμι-εύ-ω* tr. ‘dispense’.

In the transitive construction, the O argument expresses a time period (1) or location (2) and not an affected PATIENT. Thus, the underlying predicate is semantically intransitive. Example (3) is peculiar in that it describes the PATIENT's state controlled by the addressee, as if the prohibitive *mi agc'i* 'must not be kept through the night' represented a passive form of the underlying causative tr. 'keep through the night'.

- Actionality: ACTIVITY (1, 2); STATE (3).

Clackson noticed (1994: 106) that the durative time phrase commonly accompanies *aganim* to translate Gk. μένω 'stay' in the Bible in contrast to Arm. *mnam* 'remain' and *hangč'im* 'repose' used in other contexts. Clackson pointed out that Skt. *vásati*, Go. *wisan*, Mr. *fóaid* are frequently conjoint with the durative time phrase as well. Similarly, Gk. pres. ἰάω, aor. ἄεσα 'stay' take an O argument that expresses a time period ('night'), e.g. *Il.* 9, 325 (Barton 1988). The compatibility with adverbs and noun phrases of time duration specifies verbs as [ $\pm$  telic] and [+ durative] aspectual features.

- (1) *Num* 22, 19: *Ew ard ageruk' duk' ast zgišers zays* <...>. "Now please, you also stay here tonight <...>."
- (2) *Elišē* 2003: 573: <...> *ew ink'n zařaceal andrēn darñayr anmxit'ar trtmut'eamb zawt'ewans aganēr*. "<...> and the perverse one took up his residence in unconsolable sadness." (trans. Thomson 1982: 99).
- (3) *Ex.* 23, 18: <...> *ew mi agc'i carp tawni imoy minč'ew c'arawawt*. "The fat of my festival offerings must not be kept until morning."

ETYM: The root *ag-* can go back to PArm. *\*au-e-* from dial. PIE IPFV *\*h<sub>2</sub>eu-e/o-*<sup>130</sup> (PFV *\*h<sub>2</sub>u-e/o-* would yield *\*ge-* and PFV *\*h<sub>2</sub>eu-/\*h<sub>2</sub>u-* would yield *<sup>x</sup>(h)aw-* or *<sup>x</sup>u-*) from dial. PIE *\*h<sub>2</sub>eu-* 'spend the night' (Arm. *awt'* 'night lodging' from *\*h<sub>2</sub>eu-ti-*,<sup>131</sup> Gk. αὐλις 'id.' from *\*h<sub>2</sub>eu-li-*, Gk. pres. ἰάω 'stay', perhaps, from *\*h<sub>2</sub>i-h<sub>2</sub>eu-ie/o-*),<sup>132</sup> and may be related to PIE *\*h<sub>2</sub>ues-* 'dwell,

<sup>130</sup> The loss of the initial *\*h<sub>2</sub>-* in *\*h<sub>2</sub>V-*, irregular according to some scholars (cf. Kortlandt 1983a = 2003: 44, 1996b = 2003: 118; Beekes 2003: 184), occurs e.g. in *acem* 'carry' from PIE *\*h<sub>2</sub>eg-e/o-* (Olsen 1999: 231–236; *LIV*<sup>2</sup>: 255f.) as well as in *aganim* 2 'put on' next to post-classical *haganim* 'id.' from *\*h<sub>2</sub>eu-* (see § 2.5.1-2.2); see discussion in *EDAIL* s.vv.

<sup>131</sup> Arm. *awt'* can also go back to an inner-Armenian deverbal formation *\*ag-ti-* (*EDAIL*: 151f.).

<sup>132</sup> The details of the morphological reconstruction of Gk. pres. ἰάω, aor. ἄεσα 'stay' are disputed. Beekes (*EDG*: 574) derived ἰάω from *\*h<sub>2</sub>i-h<sub>2</sub>eus-ie/o-*. Alternatively, one may think of *\*h<sub>2</sub>i-h<sub>2</sub>eu-ie/o-*. Barton (1988) reconstructed *\*h<sub>2</sub>eu<sub>h</sub>-* in order to account for Gk. *\*αφε-s-* and Arm. *aga-*. In his opinion, the internal laryngeal explains the mediopassive *-a-* of the syntactically transitive verb *aganim*, which he also assumed for aor. *keray* 'I ate', with *kera-* from PIE *\*g<sup>w</sup>erh<sub>3</sub>-*. However, as Barton himself admits, the mediopassive inflection can be a Proto-Armenian innovation. The functional match between the semantically intransitive verb and the mediopassive inflection



stay overnight' (Hitt. *huiš-* 'survive; live', Toch. B *wäs-* 'dwell', Skt. *vásati*, Av. *vayhaiti* 'dwell', Go. *wisan* 'be', OIr. *fóaid*, and possibly Gk. aor. *ἄεσα* 'spend the night';<sup>133</sup> see Eichner 1978: 151; Klingenschmitt 1982: 203; *LIV<sup>2</sup>*: 293f.; Djahukian 2010: 20; *EDAIL*: 4; *EDHIL*: 353f.; *EDPG*: 528; Adams 2013, 1: 650). The reconstruction of the perfect tense stem *\*h<sub>2</sub>ou-* is complicated by the fact that *\*o* changed to *\*a* when not followed by *\*w*, cf. Kortlandt 1983a = 2003: 40; Beekes 2003: 156; *EDAIL*: 705f. with further references. The derivation of *ag-* from *\*h<sub>2</sub>ues-* is also untenable since laryngeals did not vocalise before *\*uV-*, cf. *gom* 'be' < *\*h<sub>2</sub>uos-* from PIE *\*h<sub>2</sub>ues-* 'dwell, reside at' (cf. Kortlandt 1983a = 2003: 42f.; Beekes 2003: 187). The reconstruction of *\*h<sub>2</sub>eus-e/o-* > IPFV PArm. *\*age-* → Arm. *ag-an-i-* (cf. Beekes 2003: 164 with the reconstruction *\*h<sub>2</sub>eus-* behind *aganim*), presupposes an insecure sound change PIE *\*VusV* > *VgV* (cf. Clackson 1994: 223) and, moreover, a Schwebelablaut variant of the root *\*h<sub>2</sub>eus-*, which is otherwise unsupported. The athematic sigmatic stem PFV *\*h<sub>2</sub>eu-s-* is an equally unlikely reconstruction since *\*VusC* would have hardly yielded *\*VgC*.

The nasal stem cannot be old; dial. PIE *\*h<sub>2</sub>eu-nHe/o-* or *\*h<sub>2</sub>u-nHe/o-* would, perhaps, yield an *n(e/i)-*stem. Given the agentive subject of the verb, it is tempting to correlate the introduction of the nasal suffix with the [+dynamic] aspectual feature of this verb.

§ 2.5.1-2.2. *Aganim* 2. tr. 'put on (clothes, shoes)', aor. mp. *agay*, past ptc. *ageal*, caus. *aguc'anem* tr. 'put clothes on smb.' (Bible+). The verb is less frequent than *aganim* 1 'pass (the night)'.<sup>134</sup> *NBHL* 1: 2; *HAB* 1: 76; Künzle 2: 1; *RADCA*: 140; Zeilfelder 2004: 3.

◇ Related words: *aragast* 'curtain'; *awd i-, o-*stem 'footwear'; *awt'oc* 'cover'.

- Transitivity: A-O (1, 2).

While the mediopassive form describes the reflexive version of the underlying extended transitive verb (A<sub>E</sub>-O<sub>O</sub>: tr. 'put (clothes) on oneself; cf. *zgenum*, aor. *zgec'ay* 'id.', *ankanim*, aor. *ankay* tr. 'cast upon (clothes)'),<sup>135</sup> the causative form is used to express the extended transitive verb (A-O-E) and its antipassive version (A-E; cf. 3).

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provides a clear grammatical motivation and deprives the mediopassive *-a-* of its etymological value. It may even be doubted that the verb ever had an active voice; it has to be proven that the accusative of time duration or location triggered the active voice assignment in PIE.

<sup>133</sup> The PFV. *\*h<sub>2</sub>ues-*, reflected in Gk. aor. *ἄεσα*, left no trace in Armenian, unlike the perf. *\*h<sub>2</sub>uos-*, whence Arm. *gom* 'exist'. An alternative etymology of the latter has been suggested by Kortlandt (1998 = 2003: 125), who proposed to derive *gom* from *\*wo-* < *\*upos-*, formed on the basis of *\*upōse-*, from *\*up(o)-e-ose-*, itself a prefixal verb derived from the root *\*h<sub>2</sub>es-* 'be'.

<sup>134</sup> The following Biblical contexts contain this verb: *Ps.* 108, 19; *Song* 5, 3; *Is.* 11, 15; *Ezek* 34, 3; *Judith* 10, 4; *Mt.* 6, 25; *Mk.* 6, 9; *Lk.* 16, 19.

<sup>135</sup> This voice assignment pattern, comparable to Lat. *cingor* 'gird oneself', *induor* 'put (clothes) on oneself', etc., may be a PIE archaism.

- Actionality: ACHIEVEMENT (2), ACTIVITY (1).

Peculiarly, only one of the eight Biblical occurrences of the verb is derived from the PFV root stem in the gerund form (*Is.* 11, 15: *ageloy*); the rest are forms derived from IPFV *agan-*. Typically, the IPFV stem describes ACTIVITY resulting from ACHIEVEMENT expressed by the PFV stem, cf. the use of the imperfect form *aganēr* ‘was wearing’ in (1).

- (1) *Lk.* 16, 19: *Ayr omn ēr mecatun, ew aganēr behezs ew ciranis, ew urax linēr hanapaz aratapēs.* “There was a rich man who was dressed in purple and fine linen and lived in luxury every day.”
- (2) *Elišē* 2003: 626: *Ijeṛn ēar ibrew zvahan, ew agaw zna ibrew zzrahs, ew etew ibz zinwor katareal kamac’ nora.* “He took him [Satan] as a shield, put him on as armor, and became as it were a soldier fulfilling his will.” (trans. Thomson 1982: 143).
- (3) *Agat’angelos* 2003: 143of.: <...> *zmerk car’s aguc’anē* <...>. “<...> [wind] clothes the naked trees <...>.” (trans. Thomson 2001: 68).

ETYM: As pointed out by Greppin 1982–1983 (see also Kortlandt 1983a = 2003: 39–44; *EDAIL*: 3), the verb is attested in *Paterica* and some dialects with an initial *h-* that may be etymological. Thus, Arm. (*h*)*ag-* can go back to PArm. *\*h<sub>2</sub>eu-e/o-* from PIE *\*h<sub>2</sub>eu-* ‘put on (shoes, clothes)’,<sup>136</sup> cf. Av. *aoθra-* ‘footwear’, Lith. *aūti* (pres. *aunù*), OCS *ob-uti* ‘put on footwear’, Lat. *ind-uō* ‘put on clothes’ (see Djahukian 2010: 20; *EDAIL*: 3; *EDSIL*: 363).

As in the case of *aganim* 1 (see § 2.5.1-2.1), the Old Armenian verb cannot go back to dial. PIE *\*h<sub>2</sub>u-nHe/o-* (Arm. *<sup>x</sup>une-*), nor to *\*h<sub>2</sub>eu-nHe/o-* (Arm. *<sup>x</sup>(h)awne-*). It follows that the nasal stem is a relatively recent Proto-Armenian innovation derived from the IPFV thematic root stem *\*h<sub>2</sub>eu-e/o-*.

The initial *\*h<sub>2</sub>-* can be reconstructed in order to account for Arm. *awd* ‘footwear’ from (dial.) PIE *\*h<sub>2</sub>éu-d<sup>h</sup>os* (cf. a close morphological and lexical parallel in Gk. *ἔσθος* from (dial.) PIE *\*ués-d<sup>h</sup>os*; see Klingenschmitt 1982: 174; *EDAIL*: 150) and *awt’oc’* from (dial.) PIE *\*h<sub>2</sub>éu-to-* (cf. Lith. *aūtas* ‘footwear, rag’; Olsen 1999: 536; *EDAIL*: 152).<sup>137</sup> Whether Hitt. *unu-* ‘adorn’

<sup>136</sup> The specialised meaning ‘put on shoes’ can be reconstructed for the proto-language (Iranian, Armenian, and Balto-Slavic) on a par with a more general meaning ‘put on clothes’ (Armenian, Latin).

<sup>137</sup> In Kortlandt 1984 = 2003: 54–56, the missing *h-* of *aganim* was explained by the protoform *\*h<sub>2</sub>ou-ei-*, shared with Umbr. *anouihimu* ‘inductor’, next to *\*h<sub>2</sub>eu-* behind *haganim*. At present, Kortlandt (*p. c.*) rejects the reconstruction with an original *o*-grade given that PArm. *\*o* did not change to *\*a* in front of *\*w* in pretonic open syllables (cf. *kogi* ‘butter’ from *\*g<sup>w</sup>ou-io-*, Skt. *gavyá-* ‘coming from a cow’). He ascribes the loss of *\*h-* in pres. *aganim* and aor. *agay* to the analogical pressure of prefixal Proto-Armenian formations such as *aragast* ‘curtain, veil’ (cf. Meillet 1936: 77; Kortlandt 1996b = 2003: 119). In my opinion, PIE *\*h<sub>2</sub>e-* can yield Arm. *a-* (as confirmed by PIE *\*h<sub>2</sub>eǵ-*

belongs here is a matter of dispute (Eichner 1978: 151; Klingenschmitt 1982: 173; *EDHIL*: 918–920).<sup>138</sup> The reconstruction of *\*h<sub>3</sub>-* cannot explain the vocalism of Arm. *awd*.

Given that the Old Armenian nasal stem is an innovation, the corresponding Baltic nasal stem must be a parallel formation. Since no reconstruction of the PIE infix stem *\*h<sub>2</sub>u-ne/n-H-* is required, it is unnecessary to postulate a *seṭ*-root (pace *LIV*<sup>2</sup>: 275). The Baltic *aunù* most likely continues the PBalt. IPFV *\*nā*-stem (Stang 1942: 139; cf. also *EDBIL*: 73, where the root is reconstructed without a root-final laryngeal).

§ 2.5.1-2.3. *Anc'anem* intr. 'pass by', aor. act. *anc'i*, past ptc. *anc'eal*, caus. *anc'uc'anem* tr. 'make pass' (Bible+). *NBHL* 1: 248f., *HAB* 1: 212f.; Künzle 2: 56–58; *RADCA*: 117; Zeilfelder 2004: 26f.

◇ Prefixal verbs: *z-anc'anem* 'pass, surpass' (aor. *zanc'eay*), *y-anc'anem* 'commit a fault' (aor. *yanc'eay*), *y-anc'em* 'id.' (aor. *yanc'ec'i*), *ař-anc'anem* 'be(come) delirious' (aor. *ařanc'ay*), *z-ař-anc'em* 'id.' (aor. *zařanc'ec'i*, *zařanc'i*, *zařanc'eay*).

◇ Related words: *anc'k'*, *i*-stem 'passage'.

- Transitivity: S<sub>A</sub> (1); S<sub>O</sub> (2).

- Actionality: ACCOMPLISHMENT.

(1) *Mt. 9, 27: Ew minč'der anc'anēr and ayn Yisus, zhet eten nora koyrk' erku <...>. "As Jesus went on from there, two blind men followed Him <...>."*

(2) *Acts 5, 7: Ew etew ibrew žamk' erek' anc'in, ew kin nora oč' gitēr zinč' etealn ēr, emut i nerk's. "Now there elapsed an interval of about three hours, and his wife came in, not knowing what had happened."*

ETYM: The verb has several formally and semantically motivated etymologies. Perhaps the best option is PIE *\*h<sub>2</sub>(e)nt-&-* from PIE *\*h<sub>2</sub>ent-* 'front' (cf. Gk. *ἄντομαι* intr. 'come together', *ἀντιάω* intr. 'come towards'). The root-final *-c-* is best explained by IPFV *\*h<sub>2</sub>nt-ske-* or PFV *\*h<sub>2</sub>ent-s-* (in the latter two cases, one has to cope with the missing *h-* from *\*h<sub>2</sub>V-* (against Pedersen 1906: 425; Kortlandt 1987 = 2003: 80, 1996a = 2003: 115).<sup>139</sup>

*e/o-* > Arm. *acem* 'carry'), and therefore the alternation of *ha-* and *a-* represents a spelling (pronunciation?) variation.

<sup>138</sup> It is tempting to establish an etymological connection between *\*h<sub>2</sub>eu-* 'put on' and *\*h<sub>2</sub>ues-* 'wear' (Arm. *zgenum*), see Barton 1988: 54f. However, the lack of the initial laryngeal in Hitt. *weš-* 'dress' and Gk. *ἔννυμι* 'clothe' does not have a straightforward explanation (for a solution based on analogy, see Kortlandt 1984 = 2003: 56).

<sup>139</sup> See § 1.4.2 on the reconstruction of the PIE *\*ie/o-*stem (as suggested in Godel 1965 = 1982: 19–38; Olsen 1988: 7, 1999: 88, 81; hesitantly Djahukian 2010: 63). Gk. *ἀντιάω* 'come towards', being derived from adj. *ἀντίος*, cannot be compared to the Old Armenian verb.

Another possibility is to connect *anc'anem* to the second root of *dr-and* 'door-frame', which is traditionally derived from PIE *\*h<sub>2</sub>enHt-ih<sub>2</sub>* 'passage' (YAv. *qiθiiā-* 'door-post'; on the latter reconstruction see Olsen 1999: 448; *EDAIL*: 76f.). PIE *\*h<sub>2</sub>(e)nHt-&-* provides another set of formal possibilities, parallel to that of PIE *\*h<sub>2</sub>(e)nt-&-* above, the most plausible of which are PFV *\*h<sub>2</sub>enHt-s-* and IPFV *\*h<sub>2</sub>nHt-ske/o-*.

Finally, *anc'-* may be derived from PIE *\*snt-ske/o-* from PIE *\*sent-* intr. 'go' (Go. *sandjan* tr. 'send') along with PIE *\*sent-os* 'path' (OIr. *sét*, OE *sīþ* 'way'); see Meillet 1936: 107; Aġayan 1975: 82; cf. also *LIV*<sup>2</sup>: 533f. on the reconstruction of the root.<sup>140</sup> The reconstruction of PFV *\*snt-s-* (Djahukian 1982: 180) is unlikely, since the zero-grade is unexpected in a PFV *\*s-*stem. Within this etymology, Arm. *ənt'ac'* 'way' and *ənt'anam* 'run', if from *\*sent-*, can be considered inner-Armenian cognates (see § 2.4.1-2.5).

No matter which of the above-mentioned etymologies is correct, the nasal present is a secondary formation that was created after the rise of the root-final affricate and its levelling throughout the paradigm.

§ 2.5.1-2.4. *Anican-e/i-m* tr. 'curse', aor. act. *anici*, mp. *anicay*, past ptc. *aniceal*, caus. n/a (Bible+). *NBHL* 1: 154; *HAB* 1: 195; Künzle 2: 45; *RADCA*: 116.

◇ Competing paradigmatic classes: *\*anicem* (*Num.* 23, 8: aor. subj. *anicec'ic'* [Zohrab Bible], v.l. *anicic'* [Constantinople 1895]); *Zinč' nzovec'ic' zor oč' nzovē Astuac, kam zinč' anicic' zor oč' anicanē Tēr*. "How can I curse whom God has not cursed? How can I denounce those whom the Lord has not denounced?". The PFV *ec'*-stem may be analogical to *nzovec'ic'* in the cited context.

◇ Related words: *anēc(k')* 'curse', *anicanoł*, *anicič'* 'one who curses' (*Lk.* 6, 28).

- Transitivity: A-O (1); S<sub>A</sub> (2, 3).

- Actionality: ACHIEVEMENT/ACTIVITY.

(1) *Judg.* 9, 27: <...> *ew mtin i tun astuacoyn iwreanc', ew keran ew arbin ew anicin zAbimelēk'*. "<...> and they went into the house of their god, and ate and drank and cursed Abimelech."

(2) *Agat'angelos* 2003: 1441: <...> *ew na ink'n anicaw zawakawn handerj*. "<...> and he himself cursed with his seed." (trans. Thomson 2001: 77).

(3) *Lev.* 24, 14: *Hanēk' zayn or anēcn artak'oy banakin <...>*. "Bring the one who has cursed outside the camp <...>."

<sup>140</sup> There is no independent evidence for *\*-tsk-* > *-c'*. A distant parallel is provided by Ancient Greek, cf. *πάσχω* 'suffer' from *\*παθσκω* (aor. *ἔπαθον*).

ETYM: Arm. *anic-* continues PArm. *\*h<sub>3</sub>neid-&-* from PIE *\*h<sub>3</sub>neid-* ‘blame’ (Beekes 2003: 186; Djahukian 2010: 56; *EDAIL*: 82f.; *LIV<sup>2</sup>*: 303).

The root-final affricate may be explained by PFV *\*h<sub>3</sub>neid-s-* (Kortlandt 1987 = 2003: 80). A PFV *\*s-* stem has been postulated for the PIE verb to explain 3sg. inj. *nāist* (*Yt.* 13, 89) and YAv. 1sg. pres. *nāismī* ‘curse’ (*Y.* 12, 1), possibly as an analogical form created on the model *staot̥* : *nāist* = *staotī* : *nāistī* (Hoffmann & Forssman 1996: 230). However, according to Tremblay 1999: 539 (cf. also de Vaan 2003: 357), *nāist* can go back to the PFV root stem, while the sigmatic stem would have yielded *\*nāis* (cf. aor. *sqs* ‘appeared’ from *\*ścand-s-t*, Skt. *acchān*; *LIV<sup>2</sup>*: 546). The PFV root stem is also found in Sanskrit, next to the infixed present *nīndati* ‘blame’ (*EWAia* 2: 54f.; Cheung 2007: 128). Thus, the external support for the reconstruction of a Proto-Armenian sigmatic stem for this verb is very weak.

Given that the sound change PIE *\*d<sub>l</sub>* > Arm. *c* is doubtful (see § 1.4.2), the derivation of *anic-* from PIE IPFV *\*h<sub>3</sub>noid-ie-*, cf. Go. *ga-naitjan* tr. ‘blame’ is insecure (Godel 1965 = 1982: 19–38; de Lamberterie 1982a: 64).

In all accounts, the nasal stem must be posterior to the rise of the root-final affricate and its levelling across the paradigm.

§ 2.5.1-2.5. *Ankan-e/i-m* tr. ‘interlace; allocate’, aor. act. *anki*, aor. mp. n/a, past ptc. *ankeal*, caus. n/a (Bible+). Variant spelling: *\*anganim* (Severian of Gabala, early classical). *NBHL* 1: 168; *HAB*: n/a; Künzle 2: 47; *RADCA*: n/a.

◇ Prefixal verbs: *z-ankanem* (*zanganem*) tr. ‘mix’ (Agat’angelos; Elišē).

◇ Related words: *ankuac*, *o-* stem ‘weaving’.

- Transitivity: A-O (1, 2), S<sub>O</sub>[-E<sub>A</sub>] (3).
- Actionality: ACCOMPLISHMENT.

The imperfect form *ankanēr* (3) expresses the resultative passive meaning of the underlying ACCOMPLISHMENT predicate.

- (1) *Is.* 59, 5: *Zjus k’arbic’ cakec’in, ew zostayn sardic’ ankanen <...>. “They hatch adders’ eggs and weave the spider’s web <...>.”*
- (2) *2Chron.* 3, 14: *Ew arar zvaragoyrn i kaputakē ew i ciranwoy, i karmroy ew i behezoy, ew ankanēr i nma k’erovbēs. “He made the veil of violet, purple, crimson and fine linen, and he worked cherubim on it.”*
- (3) *Ex.* 39, 10: *Ew ankanēr and nmin ankuac akanakap č’orek’ kargean akanc’. “And a weaving of four rows of stones was woven into it.” (trans. PK).*

ETYM: No secure etymology is available.

The root *ank-* ‘weave’ can be tentatively derived from PArm. *\*anu-&-*.<sup>141</sup> PArm. *\*anu-* can, in turn, go back to PArm. *\*snh<sub>1</sub>-u-* from PIE IPFV *\*sneh<sub>1</sub>-u- / \*snh<sub>1</sub>-u-* tr. ‘weave’<sup>142</sup> (ORu. *snoṽati* ‘weave’, Latv. *snaujis* ‘stitch’, ON *snua* ‘twist, weave’), itself from PIE *\*(s)neh<sub>1</sub>-* tr. ‘weave’ (Lat. *neō*, Gk. *νή*, etc. *LIV*<sup>2</sup>: 571f.; Kloekhorst & Lubotsky 2014). Within this etymology, the verb finds a cognate in Arm. *niwt* ‘texture’ from *\*(s)neh<sub>1</sub>-tu-* (Klingenschmitt 1982: 180). However, this etymology does not explain the inner-Armenian velar suffix. It must have been added later than the sound change PArm. *\*(u)K > PArm. \*-s-* (where *\*K* is any voiceless velar); otherwise, the expected outcome would have been Arm. *<sup>x</sup>ans-*. Thus, it cannot be compared to the velar suffix in *lsem < \*klu-K-* (see § 2.5.2.-3.2.1e).

§ 2.5.1-2.6. *Ankanim* intr. ‘fall’, aor. mp. *ankay*, ptc. *ankeal*, caus. n/a (Bible+). *NBHL* 1: 169; *Künzle* 2: 47–49; *HAB* 1: 197; *RADCA*: 140; *Zeilfelder* 2004: 20.

◇ Related nouns: *ankac*, *i*-stem ‘fallen’.

- Transitivity: S<sub>A</sub> (1); S<sub>O</sub> (2).
- Actionality: ACHIEVEMENT.

The IPFV stem fulfils the secondary aspectual meanings, cf. the distributive use in (3).

- (1) *Acts* 27, 43: <...> *hramayec’ zi or karotn ic’en lutel, ankanic’in nax ew i c’amak’n elanic’en*. “<...> [centurion] commanded that those who could swim should jump overboard first and get to land.”
- (2) *Gen.* 17, 3: *Ew ankaw Abram i veray eresac’ iwroc’ <...>*. “Abram fell on his face <...>.”
- (3) *1Sam.* 31, 1: <...> *ew p’axean ark’ Israyeli yeresac’ aylazgeac’n, ew ankanēin virawork’ i lerinn Getbuay*. “<...> and the men of Israel fled from before the Philistines and fell slain on Mount Gilboa.”

ETYM: The most attractive etymology derives *ank-* from PFV *\*sng<sup>w</sup>-* (Barton 1989: 145) or PFV *\*sng<sup>w</sup>-e/o-* (de Lamberterie 1990: 269)<sup>143</sup> of PIE *\*seng<sup>w</sup>-* intr. ‘fall; sink’, cf. PGrm. *\*sinkwan* intr. ‘sink’ (Meillet 1936: 109; Godel 1965 = 1982: 24; *LIV*<sup>2</sup>: 531f.; Djahukian 2010: 58; *EDAIL*: 90f.).<sup>144</sup> The reconstruction of the PFV root stem is based on the comparison of the Old Armenian verb to Gk. *ἐάφθη*, the origin of which is unreliable (*EDG*: 367).

<sup>141</sup> Alternatively, the verb has been compared to the homonymous *ankanim* intr. ‘fall down’ (*EDAIL*: 90f.). However, these two verbs are significantly different in meaning and participate in different derivational patterns, cf. *ankac* ‘fallen’ as opposed to *ankuac* ‘weaving’.

<sup>142</sup> See *LIV*<sup>2</sup>: 15f. on the ablaut pattern of the IPFV *\*u*-stem.

<sup>143</sup> See § 1.4.1. on the non-palatalisation of the voiced labiovelar, cf. *kin* ‘woman’ < PIE *\*g<sup>w</sup>enh<sub>2</sub>-*.

<sup>144</sup> Kroonen (*EDPG*: 423, 437) tentatively suggested that PGrm. *\*sinkwan* ‘sink’, from earlier *\*sin-k-nu-*, is related to iterative PGrm. *\*sakk/gōn* ‘drop’ (from *\*sok-néh<sub>2</sub>-*).

§ 2.5.1-2.7. *Arkan-e/i-m* tr. ‘cast down’, *arkanim* tr. ‘cast upon (e.g. clothes, a net, ointment)’, aor. act. *arki*, mp. *arkay*, ptc. *arkeal*, caus. n/a (Bible+). *NBHL* 1: 362f.; *HAB* 1: 32off.; *Künzle* 2: 103–105; *RADCA*: 116; *Zeilfelder* 2004: 47f.

◇ Prefixal verbs: *y-arkanem* ‘cover’, *yark* ‘roof’.

◇ Related words: *arkt*, gen.pl. *arketac* ‘chest; crypt’.

• Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2).

• Actionality: ACHIEVEMENT.

The verb takes different kinds of the TARGET argument, cf. (1) where the meanings ‘cast down’ and ‘cast upon’ co-occur. When used with the meaning ‘cast upon’, the verb has the mediopassive inflection that marks the reflexive alternation. The E argument is often expressed in the reflexive construction, and is then marked by the prepositional phrase *z- + instr.* (3) while the O argument is marked by the accusative case.

The prefixal verb *y-arkanem* ‘cover (surface; a building)’ (together with its back formation *yark*, *a*-stem ‘roof, covering’) are derived from the meaning ‘cast upon’ (4).

- (1) *Gen.* 37, 22: *Mi hełc’uk’ ariwn, ayl arkēk’ zda i gub mi yanapati ast, ew jeřn mi arkanēk’ i na.* “Shed no blood. Throw him into this pit that is in the wilderness, but do not lay hands on him.”
- (2) *Rev.* 20, 15: *Ew or ok’ oč’ gtaw i girn kenac’ greal arkaw i lič hroyñ.* “And if anyone’s name was not found written in the book of life, he was thrown into the lake of fire.”
- (3) *Mt.* 21, 7: <...> *ew acin zēšn ew zyawanakñ. Ew arkin znok’awk’ jorjs <...>.* “<...> and brought the donkey and the colt, and laid their coats on them <...>.”
- (4) *1Kings* 7, 3: *ew ēyark ztunn i veray kotmanoc’ac’ seanc’n <...>.* “It was paneled with cedar above the side chambers <...>.”

ETYM: The etymology is unclear. The comparison with Skt. *śjāti* tr. ‘let loose, throw out, send forth’, YAv. *harəz-* ‘set free, release (water, liquid); ejaculate’, as if from PIE *\*serǵ-*<sup>145</sup> (Meillet 1895 = 1977: 22; de Lamberterie 1980: 26f., 1986: 55f.), is formally problematic since it requires a *Gutturalwechsel* (cf. Pedersen 1900a: 289). On purely formal grounds, *arkan-e/i-m* can be derived from *\*Crg<sup>(w)</sup>-* or *\*Crg<sup>(w)</sup>-e/o-*. These reconstructions do not lead to a convincing etymology.

<sup>145</sup> In *EWAia* 1: 709, the Indo-Iranian cognates are compared to OIr. *selg* ‘hunt’, MHG *selken* ‘trickle; drip’ and, with hesitation, Hitt. *šalk-* ‘knead’, all from PIE *\*selǵ-* (cf. also Gk. (dial.) *λαγάσαι* ‘set free’; cf. the discussion of the Celtic and Anatolian evidence in *EDPC*: 329 and *EDHIL*: 712). However, the semantic changes assumed for the alleged Celtic and Anatolian cognates are very doubtful. In *LIV*<sup>2</sup>: 528f., both possible reconstructions *\*selǵ-* and *\*serǵ-* are taken into account, the latter being compared to Arm. *z-ercanem* (cf. § 2.5.1-2.53).

The hypothesis of an Iranian loanword (Djahukian 2010: 91) is unlikely since no securely identifiable Iranian loanwords are found in the *an(e/i)*-class.

§ 2.5.1-2.8. *Awcan-e/i-m*, tr. ‘anoint’, aor. act. *awci*, aor. mp. *awcay*, past ptc. *awceal*, caus. n/a (Bible+). *NBHL* 2: 1025; *HAB* 4: 611; Künzle 2: 115; *RADCA*: 116.

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2); S<sub>A=E</sub> (3).
  - Actionality: ACCOMPLISHMENT (1).
- (1) *Mk.* 6, 13: <...> *ew dewš bazums hanēin, ew awcanēin iwłov zbazum hiwands, ew bžškēin znosa*. “And they were casting out many demons and were anointing with oil many sick people and healing them.”
- (2) *2Sam.* 1, 21: <...> *vahann Sawułay oč' awcaw iwłov*. “<...> the shield of Saul, not anointed with oil.”
- (3) *Dan.* 10, 3: *Hac' c'ankut'ean oč' keray, ew mis ew gini oč' emut i beran im, ew iwłov oč' awcay, minč'ew i katarel eric' ewt'nerordac' awurc'*. “I did not eat any tasty food, nor did meat or wine enter my mouth, nor did I use any ointment at all until the entire three weeks were completed.”

ETYM: Arm. *awc-* undoubtedly goes back to the PIE root *\*h<sub>2</sub>eng<sup>w</sup>-*: Skt. *anákti* (*\*h<sub>2</sub>n-ne-g<sup>w</sup>-*), Lat. *unguō* ‘anoint’, OIr. *imb*, OHG *ancho* ‘butter’ (Djahukian 2010: 102; *EDAIL*: 152f.). Altogether, the details of the morphological reconstruction remain unclear. The hypothesis that *-w-* resulted from a labial assimilation of the nasal to the following labiovelar, on a par with Arm. *awj*, *i*-stem ‘snake’ from PIE *\*h<sub>2</sub>(e)ng<sup>w</sup>h<sup>h</sup>-i-*, is contradicted by such examples as Arm. *hing* ‘five’ from PIE *\*penk<sup>w</sup>e* and Arm. *hangč'im* ‘take a rest’, if from PIE *\*sm-k<sup>w</sup>ih<sub>1</sub>-ske/o-*. One of the solutions is to assume a more specific phonetic context, conditioning the sound change. For example, one can argue that only voiced and voiced aspirated but not voiceless labiovelars produced the *w*-epenthesis.<sup>146</sup>, or that a back vowel was required in front of an *\*nC<sup>w</sup>*-cluster.

If one chooses to operate with the straightforward sound changes PIE *\*ng<sup>w</sup>* > Arm. *wc* and PIE *\*ng<sup>w</sup>h<sup>h</sup>* > Arm. *wj*, the following morphological possibilities are open: PIE PFV *\*h<sub>2</sub>(e)ng<sup>w</sup>-*, *\*h<sub>2</sub>ng<sup>w</sup>-e/o-* and IPFV *\*h<sub>2</sub>eng<sup>w</sup>-e/o-* (cf. Lat. *unguō*; *LIV*<sup>2</sup>: 267). In theory, one may consider the reconstructions PFV *\*h<sub>2</sub>eng<sup>w</sup>-s-* and IPFV *\*h<sub>2</sub>(e)ng<sup>w</sup>-ie/o-* (see § 1.4.2 for details).

<sup>146</sup> The sound change PIE *\*n* > PArm. *\*w* / *\_\_* *\*K<sup>w</sup>* must have necessarily been older than the merger of PArm. *\*K* and *\*K<sup>w</sup>*. Altogether, it must be later than the palatalisation of the labiovelars given that the non-palatalisation in PIE *\*h<sub>2</sub>(e)ng<sup>w</sup>h<sup>h</sup>-i-* can only be explained by the blocking effect of *\*-n-*, as in Arm. *hing* from PIE *\*penk<sup>w</sup>e* (§ 1.4.1).



§ 2.5.1-2.9. *Bekan-e/i-m* tr., intr. ‘break’, ‘break down (psychological state)’, aor. act. *beki*, aor. mp. *bekay*, past ptc. *bekeal*, caus. n/a (Bible+). *NBHL* 1: 479; *HAB* 1: 436; *Künzle* 2: 137; *RADCA*: 116.

◇ Competing paradigmatic classes: *bektem* (Bible); *bekbekem* (Yovhannes Mandakuni). The iterative stem *bek-t-* is attested once in *Wis.* 4, 5: *Bektesc’in šurj znovaw šarawitk’ t’eraktark’* <...>. “The branches will be broken off before they come to maturity <...>.” It describes a multiplicative event with a distributive subject. The reduplicated stem *bekbek-* might have an intensive-iterative meaning, cf. (4).

◇ Related nouns: adj. *bek* ‘broken’, *bekor*, *o*-stem ‘piece’.

- Transitivity: A-O (1); S<sub>0</sub> (2, 3).

- Actionality: ACHIEVEMENT.

- (1) *Acts* 2, 46: *Hanapazawr kanxeal miabanut’eamb i tačarn, ew artnin bekanēin zhac’n, ew arnuin kerakur uraxut’eamb ew miamtut’eamb srti.* “Day by day continuing with one mind in the temple, and breaking bread from house to house, they were taking their meals together with gladness and sincerity of heart <...>.”
- (2) *1Sam.* 4, 18: <...> *ankaw Heli yat’oroyn yets ar drann, ew bekaw otn nora ew meraw* <...>. “<...> Eli fell off the seat backward beside the gate, and his neck was broken and he died <...>.”
- (3) *Prov.* 27, 9: *Iwlov ew xnkov ew ginwov zuarčanay sirt, ew bekani i trtmu’t’enē anjn.* “Perfume and incense make the heart glad, but the soul is torn by trouble.” (trans. *NRSV*).
- (4) Mandakuni (2003: 1167): *Orpēs ew alp’ap’etac’n zaraĵinn ew dproyn zanuans angam groyn č’hamarjaki erkrordel or usaneln kamic’i, ayl xec’xelep’awk’ kisanun ew bekbekelov, ew apa gir zgroy kaxelov anašxat berelov zhegenayn.* “Wie die Schüler am Anfange des Buches sich noch nicht getraut, die Namen des Alphabets und des Buchstaben zu wiederholen, den er lernen will, sondern erst unvollkommen stotternd und gebrochen und dann Buchstaben nach Buchstaben sassend ohne Rüge die Silbe hervorbringt, so verhält es sich auch mit der Busse.” (trans. Schmid 1871: 33).

ETYM: The root *bek-* goes back to PIE *\*b<sup>h</sup>eg-* tr. ‘break’ (Klingenschmitt 1982: 184f.; *LIV*<sup>2</sup>: 66f.; Djahukian 2010: 124; *EDAIL*: 174f.).<sup>147</sup> The Old Armenian IPFV nasal stem is an inner-

<sup>147</sup> Outside the verbal domain, the root finds a close cognate in NPhryg. *βέχος* ‘bread’ (Herodotus VII, 73). Although this comparison must be considered with caution (cf. de Lamberterie 1994: 147), it is plausible in view of the frequent use of *bekanem* to describe the breaking of bread (e.g. *Jer.* 16, 7). Less probably, NPhryg. *βέχος* can be derived from *\*b<sup>h</sup>h.ǵ-* from PIE *\*b<sup>h</sup>eh.ǵ-* ‘bake’, cf. Gk. *φάγω* ‘roast’, OHG *bahhan* ‘bake’, etc. as suggested in Panagl & Kowal 1983: 186f. (see *EDPG*: 1600 for details on the reconstruction of the PIE root).

Armenian innovation which replaced the older infixes stem (Skt. *bhanákti*, *bhañjánt-*, Lith. *bengiù*, OIr. *bongid* ‘break’<sup>148</sup>; see *EWAia* 2: 242f.)<sup>149</sup> on the analogy of the inherited PFV root stem, thematic or athematic.

§ 2.5.1-2.10. *Bucan-e/i-m* tr. ‘nourish, feed’, intr. ‘feed oneself, aor. act. *buci*, aor. mp. n/a, ptc. n/a, caus. n/a (Bible+). *NBHL* 1: 511; *HAB* 1: 148; *RADCA*: 116; Zeilfelder 2004: 63.

◇ Related words: *but* ‘food’, *buc* ‘offering’.

- Transitivity: A-O (1), S<sub>A=E</sub> (2).
- Actionality: ACCOMPLISHMENT.

While (1) and (2) do not allow to disambiguate the ACCOMPLISHMENT and ACTIVITY construals in habitual contexts, the time phrase of (3) favours the ACCOMPLISHMENT reading.

- (1) P'awstos Buzand 2003: 337: <...> *et'ē Ծնճր մորա՛ար չԵր, <...> or օճ՛տժու չաճ՛աճս ի յերան՛, այլ իւրօր մարճսիրտ՛եամբն bucanē չնօսա <...>*. “<...> Why hast thou forgotten the Lord, <...> who does not abandon the poor but feeds them through his compassion?” (trans. Garsoïan 1989: 137).
- (2) Eznik Kolbac'i 2003: 470: <...> *չարճ վնաճարճն արարաճճ յԱրմենայ <...> նօւն կերակրֳճ, or յերկրճն յն, bucanic'in <...>?* “<...> how can Ahrmn’s harmful creatures dwell on his earth <...> be nourished by the very same nourishment that comes from the earth <...>.” (trans. Blanchard & Young 1998: 122).
- (3) *Is. 7, 21: Ew etic'i yawur yaynmik bucc'ē mard erinj mi yarja'roc' ew mak'is erkus*. “Now in that day a man may keep alive a heifer and a pair of sheep <...>.”

ETYM: The root *buc-* perhaps continues the root stem (thematic or athematic) of PIE *\*b<sup>h</sup>eug-* ‘enjoy; be of use’,<sup>150</sup> cf. Skt. *bhoj-* ‘(make) enjoy [often of food]; make useful’,

<sup>148</sup> A different root, PIE *\*b<sup>h</sup>eug<sup>(h)</sup>-* tr. ‘bend’, was suggested for the Celtic cognate in *EDPC*: 84.

<sup>149</sup> The precise shape of the infixes stem is difficult to determine because of the bi-consonant root structure. Starting with the traditional shape *\*b<sup>h</sup>-né-g-/\*b<sup>h</sup>-n-g-*, it is difficult to arrive at the cited cognates without assuming some kind of analogy. Alternatively, one may analyse the verb as derived from pre-PIE *\*b<sup>h</sup>eg-en-/\*b<sup>h</sup>eg-n-* → *\*b<sup>h</sup>e<sup>n</sup>g-en-/\*b<sup>h</sup>e<sup>n</sup>g-* → *\*b<sup>h</sup>e-ne<sup>n</sup>g/\*b<sup>h</sup>e<sup>n</sup>g-* → PIE *\*b<sup>h</sup>e-ne-g/\*b<sup>h</sup>eng-*, which would explain all the attested infixes forms of this verb (see Section 1.2 for an explication of the theoretical premises behind this reconstruction). This analysis suggests that Skt. *bhaj-* and Av. *baj-* ‘distribute, share’ belong to the same root, whereas Gk. φαγείν ‘eat’ can be derived from the lexicalised infixes stem PIE *\*b<sup>h</sup>-n-g-* (Lubotsky, *p. c.*), as opposed to previous attempts to explain these cognates as going back to PIE *\*b<sup>h</sup>ag-* (*LIV<sup>2</sup>*: 65) or *\*b<sup>h</sup>eh<sub>2</sub>g-* (*EDG*: 1543).

<sup>150</sup> The root final obstruent in *but* ‘food’ is best explained from *\*b<sup>h</sup>ug-ti-*, cf. Skt. *bhukti-* ‘nourishment’ (*EDAIL*: 187).

OAv. *būj-* ‘atonement, expiation’, Lat. *fungor* ‘accomplish, perform’ (Klingenschmitt 1982: 182f.; *LIV*<sup>2</sup>: 84f.; Cheung 2007: 19; Djahukian 2010: 138; *EDAIL*: 187).

In theory, *buc-* can be derived from, caus. *\*b<sup>h</sup>oug-eie/o-* or PFV *\*b<sup>h</sup>eug-s-*, and, less convincingly, IPFV *\*b<sup>h</sup>eug-ie/o-* (see § 1.4.2).

§ 2.5.1-2.11. *Busanim* intr. ‘grow up’, aor. mp. *busay*, past ptc. *buseal*, caus. *busuc’anem* tr. ‘make grow’ (Bible+). *NBHL* 1: 513; *HAB* 1: 469f.; Künzle 2: 143; *RADCA*: 140; Zeilfelder 2004: 63. ◇ Related words: *boys* ‘plant’.

- Transitivity: S<sub>0</sub> (1).
- Actionality: ACCOMPLISHMENT (1).

- (1) *Mk.* 4, 32: <...> *ew yoržam sermanic’i, busani ew lini mec k’an zamenayn banjar* <...>. “<...> yet when it [a mustard seed] is sown, it grows up and becomes larger than all the garden plants <...>.”
- (2) *Is.* 61, 11: <...> *ew ibrew zpartēz or busuc’anē zsermanis iwr* <...>. “<...> and as a garden causes the things sown in it to spring up <...>.”

ETYM: The verb goes back to PIE *\*b<sup>h</sup>ueH-* intr. ‘become; grow’ probably from earlier PIE *\*b<sup>h</sup>H-eu-* (Klingenschmitt 1982: 205; *LIV*<sup>2</sup>: 98f.; Kortlandt 1975; Lubotsky 1995). Besides Old Armenian, the meaning ‘grow’ is found in Ancient Greek (φύομαι) and Albanian (*bij*, *mbij*). In these branches, the PIE root was not used as a suppletive counterpart to *\*h<sub>1</sub>es-* ‘be’, unlike what happened in some other branches, cf. Skt. *ábhūt*, Lat. *fuit* ‘was’, etc.

Traditionally, Arm. *boys-* is derived from a stem with a velar suffix of nominal or verbal origin. The nature of the velar suffix has been explained in several ways. A denominal verb from *\*b<sup>h</sup>euH<sub>2</sub>-K-* or *\*b<sup>h</sup>euH<sub>2</sub>-K-* (Klingenschmitt 1982: 205; Djahukian 2010: 140) is unlikely since denominal verbs are virtually absent from the *an-e/i*-class. Klingenschmitt’s alternative suggestion of a verbal stem *\*b<sup>h</sup>euH<sub>2</sub>-K-*, akin to Gk. τήχομαι ‘melt’ (cf. also Meillet 1925a = 1977: 218), is complicated by the necessity to assume the Schwebel-ablaut.<sup>151</sup> Kortlandt suggested to explain the root *boys/bus-* as an analogical substitute of *\*bus/bs-* < IPFV *\*bu-n-s-* (a secondary infix) ← PFV *\*b<sup>h</sup>ous-* < PArm. PFV *\*b<sup>h</sup>eh<sub>3</sub>u-s-* (a secondary *\*s*-stem); cf. Kortlandt 1987 = 2003: 80; 1999 = 2003: 130; 2018: 148.<sup>152</sup>

<sup>151</sup> Meillet (1920 = 1977: 169) explained the *-s-* of *boys-* as a reflex of the extension otherwise attested in *lsem* ‘hear’ (aor. *luay*) and *korusanem* ‘lose’. However, PArm. *\*klu-Ke/o-* has a different root grade and its suffix is limited to the IPFV stem; the origin of the *-s-* in *korusanem* is poorly explained (see § 2.6.1-1.2).

<sup>152</sup> According to Kortlandt, *busanim* and *lsem* continue PArm. *\*b<sup>h</sup>u-n-s-* and *\*klu-n-s-* derived from PFV *\*b<sup>h</sup>eh<sub>3</sub>u-s-* and *\*kleu-s-* (Kortlandt 1987 = 2003: 80; 1996 = 2003: 114; 1999 = 2003: 130; 2018).

In my view, there is a formal possibility to derive *boys-* from dial. PIE perf. *\*b<sup>h</sup>e-b<sup>h</sup>uH-k-* (Gk. perf. *πέφῶκα*) > PArm. *\*be(w)uk-* > Arm. *boys-/bus-*. The split causativity observed in Gk. pres. *φύω* tr. ‘bring forth’ and aor. *ἔφῶν* intr. ‘grow’, perf. *πέφῶκα* (see Lavidas 2009: 56 on the split causativity in Homeric Greek) can tentatively be reconstructed for the common stage of the Greek and Armenian branches, so that the perfect tense stem was pivotal for the intransitive meaning and was lexicalised as a stand-alone intransitive verb in Proto-Armenian. Alternatively, the shared perfect tense stem can be considered a renovation of an older IPFV stem of a basically intransitive PIE verb. In the latter case, act. *φύω* can be treated as a Greek innovation.

Whichever of the mentioned solutions is correct, the nasal stem of this verb is a Proto-Armenian innovation.

§ 2.5.1-2.12. *Cnanim* intr. ‘be born’, tr. ‘give birth’, aor. mp. *cnay*, past ptc. *cneal*, caus. *cnuc’anem* tr. ‘cause to give birth; act as midwife’ (Bible+). *NBHL* 1:1020; *HAB* 2: 457; *Künzle* 2: 35of.; *RADCA*: 140; *Zeifelder* 2004: 137.

◇ Related words: *cin*, *i*-stem ‘birth; womb’, *cnund*, *o*-stem ‘child’, *cnawł*, *a*-stem ‘parent’.

- Transitivity: A-O (1); S<sub>0</sub> (2, 3).
- Actionality: ACHIEVEMENT.

Note the resultative use of the imperfect form *cnanēr* in (3) within the construction *etew ibrew X* ‘it was that X took place’.

- (1) *Gen. 4, 20: Ew cnaw Adda zYovbēl <...>. “Adah gave birth to Jabal <...>.”*
- (2) *2Sam. 14, 27: Ew cnan Abisotomay erek’ usterk’ ew dustr mi <...>. “To Absalom there were born three sons <...>.”*

Both sigmatic stems are taken as Proto-Armenian innovations, so that the spread of the infix must belong to the inner-Armenian period. Due to the inner-Armenian change, the inherited characterized IPFV stem of that verb must have been replaced by a new one derived by means of inserting a zero grade of the infix into a zero grade of the PFV *\*s*-stem, yielding *\*klu-n-s-*. Such scenario is difficult to uphold because of the missing source of analogy. Early Proto-Armenian could have inherited verbs with the paradigm type IPFV *\*CR-n(e)-C-* : PFV *\*CR<sub>e</sub>C-s-* that would rather preclude the analogical formation of IPFV *\*CRC-n-s-* than explain it. The PIE infixed stems were eliminated from the early Proto-Armenian system, in particular, by means of the *\*n(e)u-* and *\*nHe/o-* classes. There is no unambiguous evidence that the secondary infix could be inserted between a root and a PFV suffix in Proto-Armenian. Thus, the assumption that such derivation was productive to the extent of being a source of analogy is doubtful (see fn. 227 on the secondary nasal in *əmpem* ‘drink’).

- (3) *Gen.* 38, 27: *Ew etew ibrew cnanēr, ew ēin erku ordik' yorovayni nora.* “It came about at the time she was giving birth, that behold, there were twins in her womb.”

ETYM: Arm. *cin-* goes back to PIE *\*ǵenh<sub>1</sub>-* ‘engender, be born’ (Klingenschmitt 1982: 196f.; *LIV<sup>2</sup>*: 163–165; Djahukian 2010: 362f.; *EDAIL*: 342f.).

The Proto-Armenian nasal stem was derived from the inherited PFV root stem, athematic *\*ǵenh<sub>1</sub>-* (cf. Gk. ἐγένετο; possibly Toch. B *kantär* ‘come about’; see Malzahn 2010: 326; Peyrot 2013: 397f., 731 on the deficiency of the Tocharian hapax attested in a corrupted context) or thematic *\*ǵenh<sub>1</sub>-e/o-* (a potential dial. PIE cognate of Gk. ἐγενόμην ‘be born’).<sup>153</sup> Either of the reconstructed stems must be a replacement of the older athematic middle with a root in the zero grade (3 sg. *\*ǵnh<sub>1</sub>-to*).<sup>154</sup>

The Proto-Armenian nasal stem replaced the inherited PIE reduplicated stem IPFV (mp.) *\*ǵi-ǵnh<sub>1</sub>-*.

The lexical meaning of the PIE verb is securely reconstructed. It suggests that the verb was intransitive and mediopassive throughout the Proto-Armenian period. Whenever the Proto-Armenian nasal stem was created it was compatible with the intransitive non-agentive semantics of the underlying *\*ǵenh<sub>1</sub>-*.

§ 2.5.1-2.13. *C’uc’anem* tr. ‘show’, aor. act. *c’uc’i*, mp. *c’uc’ay* (v.l. *Is.* 42, 9), past ptc. *c’uc’eal*, caus. n/a (Bible+). *NBHL* 2: 918; *HAB* 4: 460; Künzle 2: 630; *RADCA*: 118.

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2).
- Actionality: ACHIEVEMENT (1), ACTIVITY (2).

- (1) *Lk.* 24, 40: *Ew zays asac’eal, ec’oyc’ noc’a zjersn ew zots.* “And when He had said this, He showed them His hands and His feet.”

<sup>153</sup> Although attested after Homer, this form must be archaic (against Chantraine 1961: 165), and can be taken as a morphological cognate of the Old Armenian verb.

<sup>154</sup> In Ancient Greek, one finds forms of the middle athematic aorist derived from roots in the full grade, cf. ἔλεκτο ‘got down’ (*Od.* 19, 50), γέντο ‘grasped’ (*Il.* 8, 43), κατέπηκτο ‘became congealed’ (*Il.* 11, 378), etc. In light of Ancient Greek, most of such forms are archaisms, which disappear after Homer (see Chantraine 1961: 161–165; Schwyzler 1939: 740–746). However, when compared to PIE, such morphological type looks like an innovation. It may be the case that this innovation took place at the common stage of the Greek and Armenian branches as indicated by Arm. *etes* next to Gk. Hom. δέκτο (see § 2.5.1-2.47). It can be explained by a dialectal phonotactic rule, according to which bi-consonantal root stems had no zero-grade if neither of the two consonants was a semivowel *\*ǵ* or *\*ǵ* (Lubotsky, *p. c.*). The replacement of *\*ǵnh<sub>1</sub>-to* by *\*ǵenh<sub>1</sub>-to*, shared by Greek and Old Armenian, may illustrate further analogical spread of *\*CeR-* to *\*CRH-* within the common ancestor of these two branches.

- (2) *Jn. 5, 20: Zi hayr sirē zordi, ew zamenayn inč' c'uc'anē nma zor ink'n arnē.* “For the Father loves the Son, and shows Him all things that He Himself is doing <...>.”

ETYM: Traditionally, *c'oyc'* is derived from PArm. *\*skeuH-ske/o-* from PIE *\*(s)keuh<sub>1</sub>-* tr. ‘observe, notice; show’, cf. OCS 3sg. *čū* ‘he felt, noticed’ (Meillet 1936: 107; *LIV*<sup>2</sup>: 561; Djahukian 2010: 744). This reconstruction is unlikely, however, since PArm. *\*-H-* would have vocalised in front of a consonant cluster yielding *\*-a-* (whence *<sup>x</sup>c'ogac'*). Perhaps, we are dealing here with a regular *c'*-extension of a PFV stem ending in a vowel or diphthong: *\*c'oy/c'u- → c'oy-c'/c'u-c'*.

Alternatively, *c'oyc'* has been considered a lexicalised causative derived from PArm. *\*d(e)k-* (cf. Pedersen 1906: 433).<sup>155</sup> The sound change PIE *\*dk-* > Arm. *c'* is unparalleled. If, however, a devoicing of the dental took place (see Kloekhorst 2016 on the PIE background of the phenomenon), one could expect PIE *\*dk-* > PIE *\*tk-* > Arm. *c'*, cf. PIE *\*tkiH-in-* > Arm. *c'in*, Gk. ἰκτινος (Sch. Il., Choerob.) next to ἰκτῖνος (Hdn.) (*LSG*: 827; Beekes 1969: 19), Skt. *śyená-* ‘kite’. In order to explain *c'oyc'*, one requires to postulate a secondary Proto-Armenian causative formation aor. *\*tk-ou-c-* (see § 2.5.1-1 on the hypotheses of the origin of the causative suffix). However, the existence of the zero-grade from *\*dek-* in Proto-Armenian may be doubted (cf. fn. 155), and it is unclear why the older causative *\*dok-eie/o-* (Lat. *doceō* ‘teach’; *LIV*: 110) was replaced by a new one that would not make transparent its derivational link to PArm. *\*dek-* ‘see’ preserved in Arm. *tesanem* ‘see’.

§ 2.5.1-2.14. *Dizan-e/i-m* tr. ‘pile up (of wood, stalks of flax, captives)’, intr. ‘amass (of smoke, scent, dust, mountains, snow)’, intr. ‘come together (of people)’, aor. act. *dizi*, aor. mp. n/a, past ptc. *dizeal*, caus. n/a (Bible+). *NBHL* 1: 623; *HAB* 1: 658; Künzle 1984: 185; *RADCA*: 115.

◇ Competing paradigmatic classes: *dizanam*; *dizum*.<sup>156</sup> The *ana*-stem is attested once in a transitive construction in the Bible (4). In Agat'angelos (2003: 1653), the *an(a)*-class is represented by the past participle *dizac'eal* intr. ‘dig the ground’ or ‘amass into a band’ in a series of epithets qualifying the habitual activities of king Trdat in the shape of a pig. However, the *an(a)*-class participle is attested only in part of the manuscripts – *dizac'eal* (mss. Mat. 1912, year 1220; 1479, year 1293; 1859, undated), against *dizeal* (1481, year c. 1261; 1920, year 1569; 2639, year 1672). Another piece of evidence for *dizanam* comes from *Dan. 3, 47* (= *Prayer of Azariah 1, 24*). According to Cowe's edition of the Old Armenian version of Daniel (1992: 170), the base manuscript Mat. 287, year 1258 AD (group A1) reads *dizanēr*,

<sup>155</sup> The reconstruction of PArm. *\*sk<sup>w</sup>-eu-ske/o-* from PIE *\*sek<sup>w</sup>-* ‘see’ (Klingenschmitt 1982: 229) is a reasonable alternative. However, this solution is less convincing in view of the missing evidence that PIE *\*sek<sup>w</sup>-* was inherited into Proto-Armenian (unlike the case of PIE *\*dek-*).

<sup>156</sup> The *diz-e/i-* stem mentioned in *NBHL* 1: 623 is not attested in the source material.

with variant readings *dizamar* (Mat. 4834; 1289, year 1296 AD – group A2) and *dizamayr* (Venice 280, year 1418–1422 AD – group A2, et al.). Thus, the reading *dizamayr* adopted by the Zohrab Bible need not be the genuine verb form. *Dizum* is attested outside the examined corpus (5) in a transitive meaning tr. ‘pile up (so. over so.)’.

◇ Related words: *dēz*, *i*-stem, *o*-stem ‘heap’.

- Transitivity: A-O (3); S<sub>O</sub> (2); S<sub>A1=A2</sub> (1).

Like in the case of *arkanim* tr. ‘cast upon’, *dizanim*, when used in a reciprocal construction, marks the E argument co-referential with the A argument by *z-* + instr. (1). Note that the verb is used in the inchoative serial construction *elanel X* ‘began to X’, when used with the non-agentive subject.

- Actionality: ACCOMPLISHMENT.

- (1) Agat’angelos 2003: 1384: *Na ew azatakoytn, xařnačatanč amboxiwn handerj, zmimeambk’ dizanēin i mimeanc’ veray, ař pakřot yimarut’ean c’op’ut’ean baroyic’n <...>. “<...> freemen and common people together jostled one another in the passion of their dissolute concupiscence <...>.” (trans. Thomson 1976: 171).*
- (2) *Ezek. 8, 11: <...> ew cux xnkoyñ elanēr dizanēr ibrew zamp. “<...> and the fragrance of the cloud of incense rising.”*
- (3) *1Kings 18, 33: Ew edēz zřertsñ i veray setanoyñ zor arar <...>. “And he put the woods on the board that he made <...>.” (trans. PK).*
- (4) *Dan. 3, 47: <...> ew elanēr dizamayr boc’n i veroy k’an zhnoc’n i k’arasun ew yinn kangun. “And the flames poured out above the furnace forty-nine cubits <...>.” (trans. *New Revised Standard Version, Catholic Edition*).*
- (5) Hesychius of Jerusalem (1983: 278): *“I veray awazoy č’inē zařtarakñ iwr”, ew xot i veray xotoy dizu <...>. “«Il construit sa tour sur le sable», il entasse de l’herbe sur de l’herbe.” (trans. Mercier & Renoux 1983: 279).*

ETYM: Arm. *dēz* ‘heap’ goes back to PIE *\*d<sup>h</sup>oiǵ<sup>h</sup>-os* ‘mass, heap, wall’, cf. Gk. m. τῶχος ‘wall’, Skt. *sañ-dehá-* m. ‘connection’ (*ŚB*), *dehí-* f. ‘wall’ (*RV*), Av. *pairi-daēza-* ‘surrounding wall’, Osc. *feihúss* acc.pl. ‘wall’, Go. *daigs* ‘dough’ (Beekes 2003: 174, 176; *EDG*: 1459; *EDPG*: 89, 95; Djahukian 2010: 195f.). The comparative evidence allows to consider *dēz* an inherited noun and not a back-formation from *dizanem* ‘pile up’.

The PFV *dēz-* stem can continue IPFV *\*d<sup>h</sup>eiǵ<sup>h</sup>-e/o-*, parallel to *\*sreu-e/o-* (cf. the IPFV root stem in Skt. *degdhi* ‘smear, anoint’; see also the discussion in Klingenschmitt 1982: 177f., 183; Meiser 1993: 301–305; *EWAia* 1: 746f.; *LIV*<sup>2</sup>: 141; Cheung 2007: 52f.), or PFV *\*d<sup>h</sup>ēiǵ<sup>h</sup>-s- / \*d<sup>h</sup>eiǵ<sup>h</sup>-s-* (see § 1.4.2 on *\*s*-clusters). There is comparative evidence for the PIE IPFV nasal stem *\*d<sup>h</sup>i-n-ǵ<sup>h</sup>-* (PIt. *\*fiñg-e/o-*, PCelt. *\*ding-e/o-*; *EDL*: 221f.) and, perhaps, *\*d<sup>h</sup>iǵ<sup>h</sup>-n-* (PGrm. *\*diǵan-*

'knead'; note, however, the absence of Kluge's law; cf. *EDPG*: 95). One might think of an early Proto-Armenian replacement of the nasal IPFV stem by a thematic stem, or else assume a PFV \*s-stem that gave the root its shape (see § 2.5.2-3.2).

Yet another possibility is to reconstruct an iterative denominal stem \**d<sup>h</sup>oiġ<sup>h</sup>-eie/o-* as the source of the root shape of the Old Armenian verb.

§ 2.5.1-2.15. *Elanem* intr. 'go out, rise', *fig.* 'originate; flow out', aor. act. *eli*, past ptc. *eleal*, caus. n/a (Bible+). The morphological causative *eluc'anem* 'make ascend' is attested in Plato (apud *NBHL*). *NBHL* 1:649; *HAB* 2:8; Künzle 1984, 2: 199–202; *RADCA*: 115; Zeilfelder 2004: 83. ◇ Prefixal verbs: *əndelan-e/i-m*, *əndelanam* 'come together; approach', *əndelnum* 'come together; become familiar'.

◇ Related words: *elk'* 'exit', *elust* 'going out, ascent', *elaneli* 'going out'; *eluzanem* 'let out; produce (of sound)'.

- Transitivity: S<sub>A</sub> (1), S<sub>O</sub> (2).
- Actionality: ACHIEVEMENT (1), ACTIVITY (2).

Note the historical imperfect use of *elanēr* in (1), where the temporal adverb *vatvataki* 'suddenly' clearly points to the ACHIEVEMENT construal of the predicate.

- (1) *Gen.* 24, 45: *Ew etew minč'č'ew im katareal ēr zxawss i mti inum, andēn vatvataki elanēr Rebeka <...>*. "Before I had finished speaking in my heart, behold, Rebekah came out <...>."
- (2) *Gen.* 2, 6: *Bayc atbewr elanēr yerkrē ew oroganēr zamenayn eress erkri*. "But a mist used to rise from the earth and water the whole surface of the ground."

ETYM: The verb *elanem* intr. 'go out' can be derived from PIE \**h<sub>1</sub>el-* intr. 'go' (Djahukian 2010: 210) or its extended root variant \**h<sub>1</sub>el-h<sub>2</sub>-* attested in Gk. ἐλάυνω (from a verbal noun \*ἐλα-υν-), aor. ἤλασα tr. 'set in motion' (*EDG*: 401f.).<sup>157</sup> PIE \**h<sub>1</sub>el-* can be postulated based on internal reconstruction from \**h<sub>1</sub>el-h<sub>2</sub>-* and \**h<sub>1</sub>l-eu(-)d<sup>h</sup>-* (see § 2.5.1-3.3 on *eluzanem* 'produce; take away'). Given that the unextended root does not rely on the direct comparative evidence, the derivation of Arm. *elanem* from PIE \**h<sub>1</sub>elh<sub>2</sub>-* seems preferable.

When derived from PIE \**h<sub>1</sub>elh<sub>2</sub>-*, Arm. PFV *el-* must be considered the result of the reanalysis from \**ela-* to \**el-a-* with the subsequent elimination of \*-*a-* from the PFV stem, whence Arm. aor. act. *el-i*. Such reanalysis could have been motivated by the analogy to mediopassive aorist endings (1 sg. *-ay*, 3 sg. *-aw*, etc.). Thus, 1 sg. act. \**ela-i* could be replaced

<sup>157</sup> Attempts to adduce OIr. *ad-ella* 'approach' and MW *el* 'go' to the comparison (Pedersen 1909–1913, 1: 353) have been criticised on the evidence of the future *eblaid* from \**pi-plh<sub>2</sub>-se-*, PIE \**pelh<sub>2</sub>-* 'approach' (Klingenschmitt 1982: 176f.; McCone 1991: 32; *EDPC*: 121).



by *el-i* in order to disambiguate the active voice endings that were typical for the intransitive motion verbs of the *\*an(e)*-class, cf. aor. act. *mt-i* intr. ‘I entered’ (*mtanem*), *anc'-i* intr. ‘I passed’ (*anc'anem*), etc. Depending on the antiquity of the nasal stem, it can be derived from early PArm. *\*HelH-nHe/o-* or PFV *\*el-* + *\*ane-* after the elimination of *\*a-* from the PFV stem. The derivation of PArm. IPFV *\*ela-ne-* from PFV *\*ela-* is unlikely, because there are no other cases when a PArm. *\*ne*-stem was formed from a disyllabic root.

Alternatively, *elanem* has been derived from PIE *\*pelh<sub>2</sub>-* ‘approach’ (Klingenschmitt 1982: 206; *LIV*<sup>2</sup>: 470f.; *EDAIL*: 248f.). However, this solution seems formally less attractive, given that it contradicts the expected development PIE *\*pe-* > Arm. *he-*.<sup>158</sup> Thus, the nasal stem of *elan-* is, perhaps, unrelated to the PIE IPFV *\*pl-né/n-h<sub>2</sub>-* reconstructed for Gk. πῆλαμαι intr. ‘approach’, YAv. *pəṛənā-* ‘fight, struggle’ (cf. Strunk 1986: 445–454; however),<sup>159</sup> Lat. *pellō* ‘beat against, push’, Umbr. *ampentu* ‘bring near’ from PIt. *\*pel-na-* (*EDL*: 455f.), OIr. *ad-ella* ‘visit’ from PCelt. *\*fal-na-* ‘approach’ (Sjœstedt 1926: 30; *EDPC*: 121).

§ 2.5.1-2.16. *Etcan-e/i-m* tr. ‘ruin’, intr. ‘perish’, aor. act. *etci*, aor. mp. *etcaj*, past ptc. *etceal*, caus. n/a (Bible+). *NBHL* 1: 655; *HAB* 2: 20; Künzle 2: 204; *RADCA*: 116; Zeilfelder 2004: 84.

◇ Competing paradigmatic classes: *etcem*, aor. *etcec'i* tr. ‘ruin’ (3).

◇ Prefixal verbs: *ar-etcanem* tr. ‘dissolve, explain (of a riddle)’ (*Ju.* 14:12–14, 19); *z-etcanim* intr. ‘be(come) confused’, caus. *z-etcuc'anem* tr. ‘deceive, confuse’ (Bible; Eznik Kołbac'i; P'awstos Biwzand); *zetcem* tr. ‘corrupt; corrupt oneself’ (Bible; Eznik Kołbac'i).

◇ Related words: *etc* ‘destruction’, *anetc* ‘imperishable (of fame)’ (Łazar P'arpec'i), *etcaneli* ‘perishable’ (φθαρτός; *Rom.* 1, 23), *etcumn* ‘capture’ (ἄλωσις; *2Pet.* 2, 12).

- Transitivity: A-O (1); S<sub>O</sub> (2).
- Actionality: ACHIEVEMENT/ACCOMPLISHMENT.

The source material does not contain unambiguous contexts that would allow specifying the value of the [ $\pm$  durative] aspectual feature.

- (1) *Jer.* 12, 10: *Hoviwk' bazumk' apakanec'in zaygi im, etcin zbažin im <...>*. “Many shepherds have ruined My vineyard, they have trampled down My field <...>.”
- (2) *Lam.* 4, 5: *Or utēin zkerakur etcan i veray anc'ic' čanaparhac' <...>*. “Those who ate delicacies are desolate in the streets <...>.”

<sup>158</sup> Early attempts to derive the Old Armenian verb from PIE *\*k<sup>w</sup>elh<sub>2</sub>-*, akin to Gk. πέλονται ‘stir’ (Meillet 1890 = 1977: 4), must be abandoned for semantic and formal reasons; there is no parallel for PIE *\*k<sup>w</sup>e-* > Arm. *e-* except a somewhat similar PIE *\*k<sup>w</sup>i-* > Arm. *i* ‘what’.

<sup>159</sup> Cheung (2007: 294) questions whether the semantics of the Avestan word fits the etymology.

- (3) P'awstos Buzand 2003: 399: <...> *sakayn oč' yagec'aw mahuamb nora, ayl janayr ayspēs t'ē zinč' miangam kargk' ic'en oltut'ean i Nersisē edeal yekelec'wojn, etcescē ew xangaresc'ē*. “<...> he [king Pap] was not satisfied with his [of patriarch Nersēs] death, but sought to obliterate and destroy whatever righteous regulation Nersēs had given to the church.” (trans. Garsoïan 1989: 211).

ETYM: The etymology is uncertain. One of the formal possibilities is to derive the verb from PIE *\*h<sub>1</sub>elǵ-* ‘dissolve’ (OIr. *legaid* tr./intr. ‘dissolve’), as suggested in Klingenschmitt 1982: 206. In theory, *\*h<sub>1</sub>elǵ-* can reflect a root stem (thematic or athematic), a PFV *\*s-* stem or, less convincingly, an IPFV *\*ie/o-* stem (see § 1.4.2 on the *\*Cs-* and *\*C<sub>l</sub>-* clusters).

The comparison to Gk. ὄλλυμι and ὀλέκω tr. ‘destroy’ (Djahukian 2010: 214) is unlikely. The Old Armenian verb requires the reconstruction of PIE *\*h<sub>1</sub>elh<sub>1</sub>-* instead of *\*h<sub>3</sub>elh<sub>1</sub>-* (see LIV<sup>2</sup>: 298; EDG: 1069f.), and, furthermore, assume the root extension *\*-ǵ-* (the reconstruction *\*h<sub>1</sub>elh<sub>1</sub>-d-&-* is unlikely because the internal laryngeal would vocalise in front of a consonant cluster).

§ 2.5.1-2.17. *Ergican-e/i-m* tr. ‘tear apart’, intr. ‘burst’ (with emotions – Ephrem 2001: 69, Basil of Caesarea apud NBHL), aor. mp. *\*ergicay*, pret. ptc. *ergiceal(k')* ‘bursting’ (with envy — Philo 1826: 391), caus. *ergicuc'anem* tr. ‘tear apart; ῥήγγυμι’ (*Mt.* 7, 6; variant spelling *ergecuc'anem*). NBHL 1: 673; HAB 2: 43; Künzle 1: 16; 2: 214; RADCA: n/a.

◇ Related words: *ergicumn* ‘disruption; ἔκρηγμα’ (*Ez.* 30: 16).

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2).

The morphological causative (3) is synonymous to the active voice form (1); cf. Meillet 1898 = 1977: 46.

- Actionality: ACHIEVEMENT (1–3)/ACTIVITY (2).

In (2), the figurative use of the verb with the distressing emotion as the logical subject allows for a [– telic] reading.

- (1) Ephrem 2001: 185: *Arnakinn vasn zi amusnac'aw yayt hamarjak ew zanc' zamusnut'eambn, šnut'eamb partuorec'aw, awelin zor gołac'aw ew eker, ergic zna*. “The married woman because she was married openly and freely and then transgressed against her marriage is guilty of adultery; more than that one who stole and ate, she bit.” (trans. Mathews 2001: 139).
- (2) Ephrem 2001: 69: *Ew p'oxanak zi gohasc'in, sksan sirtk' noc'a ergicanel metawk'n <...>*. “Whereas they might have given thanks, their hearts had begun to be torn by their sins <...>.” (trans. Mathews 2001: 55).

- (3) *Mt. 7, 6: Mi tayk' zsrbut'iwñ šanc', ew mi arkanēk' zmargarits jer arāji xozac', zi mi ar' otn koxic'en znosa, ew darjeal ergicuc'anic'en zjez.* “Do not give what is holy to dogs, and do not throw your pearls before swine, or they will trample them under their feet, and turn and tear you to pieces.”

ETYM: Since Meillet 1898 = 1977: 46, Arm. *ergic-* is compared to Gk. ῥήγνυμι, ῥήγνυμαι, aor. ῥήξαί tr./intr. ‘tear up; burst’ and derived from PIE *\*ureh<sub>1</sub>ǵ-* (see Frisk 1944; Godel 1965 = 1982: 23; Eichner 1978: 151; Klingenschmitt 1982: 238; Olsen 1999: 155, 157; *LIV*<sup>2</sup>: 698 without the Old Armenian correspondence; *EDG*: 1282f.; Djahukian 2010: 222).

The formal issue of this etymology is the unexpected pretonic *-i-* from *\*eh<sub>1</sub>-*. One can tentatively assume the levelling of the root shape of the pivotal 3 sg. aor. *ergic* (PArm. *\*ergēc*) throughout the paradigm.

The pretonic *-i-* aside, the root can be derived from the PFV *\*ureh<sub>1</sub>ǵ-*, PFV *\*ureh<sub>1</sub>ǵ-s-*, or IPFV *\*ureh<sub>1</sub>ǵ-ie/o-* (Hom. ῥήσσω, OCS *rěžq* ‘cut’); see § 1.4.2 on PIE *\*ǵ<sub>1</sub>* > Arm. *c*.

In view of the stem suppletion pattern *\*-n(e)u-* > *-an-e/i-*, described in § 2.1.2-2.1, one could think of PArm. PFV *\*urēǵ(-s)-* and IPFV *\*urēǵ-nu-*, shared with Greek.

§ 2.5.1-2.18. *Gtan-e/i-m* tr. ‘find’, intr. ‘be found’, aor. act. *gti*, aor. mp. *gtay*, past ptc. *gteal*, caus. n/a (Bible+). *NBHL* 1: 583; *HAB* 1: 564; Künzle 2, 171f.; *RADCA*: 117; Zeilfelder 2004: 73.

◇ Related words: *giwt*, *i*-stem ‘finding’, *gtank* ‘finding’.

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2).
- Actionality: ACHIEVEMENT.

- (1) *Mk. 14, 37: Ew gay gtanē znosa zi nnjēin <...>.* “And He came and found them sleeping <...>.”
- (2) *Rev. 20, 15: Ew or ok' oč' gtaw i girn kenac' greal arkaw i lič hroyñ.* “And if anyone’s name was not found written in the book of life, he was thrown into the lake of fire.”

ETYM: The PFV stem *git-* goes back to PIE PFV *\*uid-e/o-* (Skt. *ávidat*, Gk. ἕ(Ϝ)ιδον) from PIE *\*ueid-* ‘find; know; see’ (Klingenschmitt 1982: 178–180; *LIV*<sup>2</sup>: 665–667; Djahukian 2010: 160; *EDAIL*: 216). The dial. PIE or early PArm. IPFV *\*uid-nHe/o-* was formed analogically to the inherited PFV *\*uid-e/o-* and replaced the infixed stem, which was retained in Skt. *vindáti*, OAv. *vīnastī*, and OIr. *ro-finnadar* ‘find’ (*EWAia* 2: 579f.; Cheung 2007: 409f.; *EDPC*: 422f.).

§ 2.5.1-2.19. *Harc'an-e/i-m* tr. ‘ask’, aor. act. *harc'i*, mp. *harc'ay*, past ptc. *harc'eal*, caus. n/a (Bible+). *NBHL* 2: 68; *HAB* 3: 62; Künzle 2: 405f.; *RADCA*: 117; Zeilfelder 2004: 163.

◇ Related words: *harc*, *i*-stem ‘demand; question’, *harsn* ‘bride’.

- Transitivity: A-O<sub>E</sub> (1); S<sub>E</sub>-E<sub>A</sub> (2); S<sub>A</sub>-E (3); S<sub>A</sub>-E<sub>O</sub> (4).

The E argument (addressee) can be expressed by the prepositional phrase *c'* + acc. unlike the default direct object marking (3). The O argument of the underlying extended transitive construction can be marked by the prepositional phrase *z-* + abl. (4).

- Actionality: ACHIEVEMENT (1–3), ACTIVITY (4).

- (1) *Gen. 24, 23: Ew eharc' zna ew asē: Oyr dustr es du, patmea inj <...>. “And asked him and said, «Tell me whose daughter you are? <...>».”*
- (2) *Lk. 17, 20: Ibrew harc'aw i p'arisec'woc'n t'ē erb gayc'ē ark'ayut'iwnn Astucoy, patasxani et noc'a ew asē <...>. “Now having been questioned by the Pharisees as to when the kingdom of God was coming, He answered them and said <...>.”*
- (3) *Gen. 24, 47: Ew harc'i c'na ew asem: Oyr dust res du, patmea inj <...>. “Then I asked her, and said, «Whose daughter are you?»”*
- (4) *Gen. 32, 29: Zi harc'anes zanuanē immē? “Why is it that you ask my name?”*

ETYM: The IPFV *an*-stem is an inner-Armenian innovation based on PIE IPFV *\*pr(k̄)-ske/o-* (Skt. *pr(c)chāmi*, Lat. *poscō*, etc.; see Klingenschmitt 1982: 61f.; LIV<sup>2</sup>: 490f.; Djahukian 2010: 452; EDAIL: 396). The inherited IPFV *\*ske/o-*stem shifted to the Proto-Armenian preterite by means of the imperfect tense (cf. Arm. 3 sg. aor. Arm. *eharc'*, Skt. *ápṛcchat*). This case clearly shows that the Old Armenian aorist tense is a syncretic morphological category in which the PIE aorist and imperfect stems converged prior to the rise of the new imperfect tense within the Proto-Armenian period. The lexicalisation of the *\*ske/o-*stem must have preceded the IPFV *\*an*-suffix productivity. Thus, the nasal formations in Old Armenian and PGr. *\*frehnan-* ‘ask’ (EDPG: 154) are independent innovations.

§ 2.5.1-2.20. *Harkan-e/i-m* tr. ‘strike’, aor. act. *hari*, aor. mp. *haray*, past ptc. *hareal*, caus. n/a (Bible+). NBHL 2:63; HAB 3:52; RADCA: 116.

◇ Prefixal verbs: *z-arkanim* intr. ‘hit oneself’, aor. *zarkay*, caus. *zarkuc'anem* tr. ‘make hit oneself; convulse smb. (of evil spirit)’, *zarkanem* tr. ‘beat down’, aor. *zarki*. Meillet (1910–1911 = 1962: 115) counted *zarkanem* as a prefixal verb derived from *arkanem* ‘throw’, but this was disproved by de Lamberterie (1986: 55), who pointed out the similarity between *harkan-e/i-m* and *zarkanim* in terms of their lexical meaning (cf. *aysahar* ‘possessed’) and argument structure (the TARGET argument expressed by *z-* + loc.). Importantly, the prefixal verb was derived from the IPFV stem, given that the derived verb had the PFV stem *zark-* and not <sup>x</sup>*zar-* from *\*z-har-*.

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2).
- Actionality: ACHIEVEMENT.

- (1) Ex. 7, 17: <...> *ahawasik es harkanem gawazanaws or i jerin imum ē, zjūr getoyd ew darjc'i yariwn*. “<...> behold, I will strike the water that is in the Nile with the staff that is in my hand, and it will be turned to blood.”
- (2) Ex. 9, 31: *Ktawn ew garin haraw* <...>. “Now the flax and the barley were ruined <...>.”

ETYM: The root variants *hark-* and *har-* are traditionally compared to Hitt. *hark-* intr. ‘disappear’ (with its causative derivative *harnink-* tr. ‘destroy’) and OIr. *orgaid* tr. ‘kill’ (Cuny 1934: 205). The semantic issue of this etymology consists in the mismatch between the intransitive meaning of the basic Hittite verb and the transitive meaning of its suggested Old Irish and Old Armenian cognates (Shatskov 2017: 25f.).

Besides the issue of semantics, a formal difficulty exists. Old Armenian points to  $*h_2-$ , given the expected developments PIE  $*h_{1/2/3}rg-$  > Arm.  $^xark-$  and PIE  $*h_1erg-$ ,  $*h_3erg-$  > Arm.  $^xerk-$ ,  $^x(h)ork-$ . However, the root is commonly reconstructed as PIE  $*h_3erg-$  intr. ‘disappear, vanish’ (Klingenschmitt 1982: 216; *LIV*<sup>2</sup>: 301; Ivanov 2007: 81–83; *EDHIL*: 306f.; *EDPC*: 300).<sup>160</sup> The only way to save the etymology is to assume that the initial *h-* is an inner-Armenian addition (*aganim/haganim* ‘put on’) to the inherited  $*ark-$  originated in the thematicised PFV  $*h_3rg-e/o-$  or IPFV  $*h_3rg-nHe/o-$ . Within this solution, the Proto-Armenian nasal stem cannot be compared to the infix stem of Hitt. *harnink-*. The replacement of the older infix stem (if it existed in core PIE for this particular verb) by the Proto-Armenian nasal suffix presupposes the PFV root stem (thematic or athematic) as a necessary step in the analogical change. However, none of these PFV root stems ( $*h_3rg-e/o-$  or  $*h_3erg-$ ) could yield Arm. PFV *har-*. Then we have to assume that PFV *har-* is suppletive and unrelated.

If, instead, one reconstructs  $*h_2erg-$  for Old Armenian (and potentially also Hittite), there appears a possibility to derive Arm. PFV *har-* from  $*(h,e)h_2erg-t$  with the stem-final cluster simplification PIE  $*(h,e)h_2erg-t$  > PArm.  $*(h,e)h_2ar(g)-t$  > Arm. *har-* (see § 2.5.2-3.2.2b). With that, OIr. *orcaid* either must be considered unrelated or showing an irregular reflex of  $*h_2-$ . The secondary nasal stem must have been derived before the loss of the root-final velar. The latter solution is preferable, although I admit that both have loose ends.

One more possibility has been suggested by Kortlandt (2018: 152), who assumed that PFV  $^xharc'$  was replaced by PFV *har-* to avoid homonymy with PFV *harc'* ‘ask’. This scenario presupposes that all PIE velars were devoiced in front of  $*s$  with a subsequent development of the  $*Cs$  cluster to Arm. *c'* (see § 1.4.2 for details).

<sup>160</sup> Alternatively, the PFV stem has been explained as going back to a suppletive root PIE  $*per-$  ‘strike’ (*LIV*<sup>2</sup>: 473) and, furthermore, the IPFV stem has been considered an extended root variant of the latter,  $*pr-g-$  (Djahukian 2010: 452).

§ 2.5.1-2.21. *Hasanem* intr. ‘reach (of person, sound, mood, evil, etc.); fall upon (of raid, conquest)’, aor. act. *hasi*, past ptc. *haseal*, caus. *hasuc’anem* tr. ‘prepare’, intr. ‘reach’ (Bible+). *NBHL* 2: 50; *HAB* 3: 46; Künzle 2, 398f.; *RADCA*: 117; Zeilfelder 2004: 16of.

◇ Related words: *has* ‘ripeness’, *hasun* ‘mature’ (*t-has* ‘unripe’), *hasu* ‘clever’, *hasaneli* ‘comprehensible’.

- Transitivity: S<sub>A</sub> (1); S<sub>O</sub> (2).

The morphological causative can be used in the intransitive construction synonymous to the base verb (3) or in the transitive one (4).

- Actionality: ACCOMPLISHMENT (1), \*STATE (2).

The stative construal of the verb features a secondary aspectual use based on the habitual interpretation.

- (1) *Ex. 32, 26: Hasanēin ar na amenayn ordik’n Leweay.* “And all the sons of Levi gathered together to him.”
- (2) *Gen. 28, 12: <...> ew aha sanduk’ hastateal yer kri, oroy glux iwr hasanēr yerkins <...>.* “<...> a ladder was set on the earth with its top reaching to heaven <...>.”
- (3) *Mt. 8, 3: Jgeac’ zjeṛn iwr ew hasoyc’ i na Yisus <...>.* “Jesus stretched out His hand and touched him <...>.”
- (4) *Gen. 18, 8: Ew ar kogi ew kat’n ew zort’n zor hasoyc’, ew ed arajī noc’a <...>.* “He took curds and milk and the calf which he had prepared, and placed it before them <...>.”

ETYM: The PFV stem *has-* can be derived from the zero-grade of the PIE athematic PFV *\*seh<sub>1</sub>k/sh<sub>1</sub>k-* or the thematic PFV *\*sh<sub>1</sub>k-e/o-* from PIE *\*seh<sub>1</sub>k-* tr. ‘reach, arrive’. The PIE root is otherwise attested in Gk. ἤκω ‘have come, be present’, perhaps, from IPFV *\*seh<sub>1</sub>k-e/o-* (see de Lamberterie 1990: 287–299 against the connection with PIE *\*h<sub>1</sub>nek-* tr. ‘reach’, attested in Skt. *aśnóti*, Lat. *nanciscor* ‘attain’, etc.; Klingenschmitt 1975: 77, 1982: 212f.; *LIV*<sup>2</sup>: 282f.; Djahukian 2010: 448; *EDG*: 513). Gk. ἥλα ‘little’ and Lat. *sēgnis* ‘slow’ are unrelated and, perhaps, go back to PIE *\*seh<sub>1</sub>-* tr. ‘let loose’ (*LIV*<sup>2</sup>: 518; *EDL*: 552f.).<sup>161</sup> The semantic change ‘loosen’ → ‘unharness (horse)’ → ‘reach (goal); arrive’, offered in Kölligan 2013 (see also Dieu 2011: 438f.), seems doubtful to me. Thus, the lexical item *\*seh<sub>1</sub>k-* ‘arrive’ represents a Greek-Armenian lexical isogloss.

<sup>161</sup> De Lamberterie (1990: 287–299) suggested that *\*seh<sub>1</sub>k-* is related to *\*seh<sub>1</sub>d<sup>h</sup>-* ‘arrive’ (Skt. *sādhu-* ‘straight, effective’, *sādhati* ‘reach the goal’, *sīdhyati* ‘succeed’; Av. *hāidišta-*, an epithet of Rašnu in *Yt.* 12, 8). He explained *\*seh<sub>1</sub>k-* and *\*seh<sub>1</sub>d<sup>h</sup>-* as extended root variants and ascribed aspectual features [+ telic] (“valeur perfective”) and [– durative] (“valeur aoristique”) to *\*k-*.

If Gk. ἤλω faithfully reflects the inherited dial. PIE IPFV *\*seh<sub>1</sub>k-e/o-*, it must have been replaced by PArm. *\*sh<sub>1</sub>k-nHe/o-* derived from the PFV root stem according to a moderately productive paradigmatic pattern (see § 2.5.2-3.1).

§ 2.5.2-1.22. *Hatan-e/i-m* tr. ‘cut; strike (of plague)’, *fig.* ‘break into (house); cross so. (of a border crossing the landscape milestones)’, tr. ‘lose (faith)’, intr. ‘separate (of boundary)’, *hatanim fig.* ‘part (of sleep)’, aor. act. *hati*, aor. mp. *hatay*, past ptc. *hateal*, caus. *hatuc’anem* tr. ‘separate smb. from so.’ (Bible+). *NBHL* 2: 57; *HAB* 3: 50; *Künzle* 2: 401; *RADCA*: 117.

◇ Prefixal verbs: *y-atanem* ‘cut off (of tree branch)’, *yawt* ‘cut-off branch’ (Bible+); *z-atanem*, *z-atem* ‘divide’ (Bible+).

◇ Related words: *hat*, *o*-stem, *i*-stem ‘fragment, section; grain, seed’ (Bible+); *hawt*, *i*-stem ‘flock of sheep’ (Bible+), ‘cut-off branch’ (*Geoponica*).

- Transitivity: A-O (1, 2); S<sub>O</sub>-E<sub>A</sub> (3, 5); S<sub>O</sub> (4).
- Actuality: ACHIEVEMENT (2); ACTIVITY (1); STATE (4).

A few instances of the STATE construal of this verb reflect a marginal, although maybe archaic, use in the context of the “geographical present”. It is clearly a semantic extension of the base agentive meaning and will be suspended in the diachronic analysis.

- (1) *2Chron.* 2, 10: *Ew gorcawnēic’n ork’ hatanen zp’aytn* <...>. “Now behold, I will give to your servants, the woodsmen who cut the timber <...>.”
- (2) *Acts.* 27, 32: *Yaynžam zawrakank’n hatin zlarš krin ew i bac’ ankec’in*. “Then the soldiers cut away the ropes of the ship’s boat and let it fall away.”
- (3) *Rom.* 11, 24: *Zi et’ē du i bun i vayreni jit’enwoy anti hatar* <...>. “For if you were cut off from what is by nature a wild olive tree <...>?”
- (4) *Josh.* 15, 11: *Ew hatanē saħmann i t’ikanc’ Akkaroni and hiwsisi* <...>. “The border proceeded to the side of Ekron northward.”
- (5) *Dan.* 6, 18: <...> *ew k’un hataw i nmanē*. “<...> and his sleep fled from him.”

ETYM: Martirosyan (*EDAIL*: 392f.) provided a thorough review of the existing etymologies and assumed that PFV *hat-* and IPFV *hat-an-* tr. ‘cut; fragment’ were derived from the noun *hat* ‘grain’, which was inherited from PIE *\*h<sub>2</sub>ed-os-* n. ‘grain’, cf. Lat. *ador* ‘coarse grain, spelt’ and Go. *atisk* ‘cornfield’; see Morani 1991. In my opinion, this etymology presupposes an unnatural pattern of semantic development. A reverse semantic change from \*‘ready to cut, harvested; ears of grain and seed’ to ‘grain’, suggested by Clackson (1994: 171) as a possible reconciliation of the nominal and verbal meanings, is preferable. Thus, either the verb is unrelated to the noun, or it carries the base meaning tr. ‘cut’, wherefrom ‘crop; grain’. It is tempting to compare Arm. *hatanem* to Hitt. *ḫatt-* and *ḫatt-anna-* tr. ‘pierce; stab;

hit (a target)' (cf. *EDHIL*: 330–332) despite the mismatch of the Proto-Armenian voiced and Anatolian voiceless obstruents and a somewhat loose semantic match (Beekes 2003: 182). This mismatch might be tentatively explained as an Anatolian loanword in Proto-Armenian after the Proto-Armenian consonant shift (Djahukian 2010: 450); see further details on the Anatolian loanwords in Martirosyan 2017.

The Old Armenian stems can go back to *\*h<sub>2</sub>ed-*, *\*h<sub>2</sub>ed-e/o-*, or IPFV caus. *\*h<sub>2</sub>od-eie/o-*.

§ 2.5.1-2.23. *Hecanim* intr. 'mount (a horse)', aor. mp. *hecay*, past ptc. *heceal* 'rider', caus. *hecuc'anem* tr. 'cause to ride; set on (e.g. horse)' (Bible+). *NBHL* 2: 81; *HAB* 3: 74; Künzle 2: 410f.; *RADCA*: 140; Zeilfelder 2004: 165.

- Transitivity: S<sub>A</sub>.
- Actionality: ACHIEVEMENT (1), ACTIVITY (2).

(1) *2Kings* 9, 16: *Ew hecaw Yēu ew gnac', ew ēj Yezrayēl <...>*. "Then Jehu rode in a chariot and went to Jezreel <...>."

(2) *Judg.* 10, 4: *Ew eten nora ordik' eresun ew erku or hecanēin yeresun ew erku yovanaks <...>*. "He had thirty [two — PK] sons who rode on thirty [two — PK] donkeys <...>."

ETYM: The verb goes back to PArm. *\*sed-&-* from PIE *\*sed-* intr. 'sit down'.<sup>162</sup> The root-final affricate goes back to PFV *\*sed-s-* (as if from a reflexive alternation of the causative; cf. Gk. εἶσα tr. 'make sit'), or, less probably to *\*sed-ie/o-* (Gk. ἕζομαι 'sit'; see § 1.4.2 on the *\*Cs-* and *\*Cj-* clusters); see Pedersen 1905: 206; Godel 1965 = 1982: 23f.; Greppin 1975: 47; Klingenschmitt 1982: 195f.; de Lamberterie 1982a: 64, 1985: 207; Kortlandt 1983a = 2003: 41, 1987 = 2003: 80; *LIV*<sup>2</sup>: 513–515; Djahukian 2010: 456; *EDAIL*: 402f. with further bibliography; Kölligan 2013: 116.

In PIE, the dynamic intransitive agentive verb 'sit down' formed IPFV *\*si-sd-e/o-* (Skt. *sídati*, Gk. ἕζω, Arm. *nstim* 'sit', Lat. *sīdō*) and PFV *\*sed-* (*LIV*<sup>2</sup>: 513–515). It is possible that a secondary IPFV *\*sed-ie-* was derived already in PIE, cf. Gk. ἕζομαι (cf. *DELG*: 314; *EDPG*: 376),<sup>163</sup> PGrm. *\*setjan-* intr. 'sit' (OHG *sizzen*, etc.; cf. *EDPG*: 434). Additionally, Gk. ἕζομην, reportedly used as an aorist in Homer, has been derived from PFV. *\*se-sd-* and compared to Av. opt. *ha-zd-yāt* (cf. *DELG*: 314; *EDPG*: 376). While the transitive meaning 'make sit' was rendered by the derived causative *\*sod-eie/o-* in Indo-Iranian (Cheung 2007: 125f.), Ancient Greek utilised the active voice with an IPFV reduplicated stem (*\*si-sd-* > pres. ἕζω) and a PFV

<sup>162</sup> For *\*s-* > *h-*, cf. Arm. *hin* 'old' from PIE *\*seno-* 'id.' (see Ravnæs 1991: 107–112).

<sup>163</sup> Barton (1989: 147) rejected the derivation of Gk. ἕζομαι from *\*sed-ie-*, following Risch's (1965: 3) idea that ἕζομαι had been built to the aorist ἕζετο reinterpreted as the imperfect. However, the verb means 'be seated' (*DELG*: 314), the attested present and imperfect forms seem to be justified.



\*s-aorist (\*sed-s- > aor. εἶσα), whence reflexive pres. ἴζομαι, aor. εἰσάμην ‘make oneself seated’ (cf. *DELG*: 313f.; *EDG*: 376).

According to the view developed in § 1.4.2, \*C<sub>i</sub>-clusters with dentals yielded alveolar affricates and could hardly have been the source of *hec-*. If one starts with the PFV \*s-stem of \*sed-, which expresses the causative meaning in Homeric Greek,<sup>164</sup> one has to assume that the secondary reflexive meaning \*‘make oneself seated’ (→ ‘saddle; ride’) was derived in Proto-Armenian from the underlying causative verb in order to explain the intransitive meaning of *hecanim*.

Barton’s argument (1989:147) that \*sed-s- must be preferred because “the Armenian pattern strong aorist: -ane- (-ani-) present reflects the PIE. pattern root aorist : characterised present” is invalidated by *harc’-anem* < \*pr(k)-ske/o-, where an IPFV an(e/i)-stem is derived from the underlying characterised IPFV \*ske/o-stem. The preference for \*sed-s- is determined by phonetic reasons alone.

§ 2.5.1-2.24. *Ijanem* intr. ‘descend; come down’, aor. act. *iji*, past ptc. *ijeal*, caus. *ijuc’anem* tr. ‘lower; bring down’ (Bible+). Antonym of *elanem* ‘ascend’ (cf. *Gen.* 28, 12). The mediopassive forms pres. *ijanim*, aor. *ijay* cited in *NBHL* are not found in the source material. Judging from its semantics, *ar-ēj* was probably derived from *ēj*- independently, specifically, from the prefixal verb *ar-ijanel*. The nouns *ijawor* and *ijavan* feature the lexical meaning ‘come for lodging’ which is not attested for the primary verb; the verb *aganim* is used instead. *NBHL* 1: 867; *HAB* 2: 119; Künzle 2, 300f.; *RADCA*: 117; Zeilfelder 2004: 119.

◇ Prefixal verbs: *ar-ijanem* ‘descend (of light passing through the window)’ (gerund loc.sg. *yarijaneln lusoy*n “at the descending of the light”, Agat’angelos 2003: 1656), act. *zijanem* (4), mp. *zijanim* (5) intr. ‘retreat; defer’ (caus. *zijuc’anem* tr. ‘bring down; downgrade’, Bible+).

◇ Related words: *arēj*, *o*-stem ‘warp (of weaving); threads’ (στήμων), *ijawor*, *a*-stem ‘guest, lodger’, *ijavan*, *a*-stem ‘inn’.

- Transitivity: S<sub>A</sub> (1); S<sub>O</sub> (2).

The transitive alternation is expressed by the morphological causative (3).

- Actionality: ACHIEVEMENT (2), ACCOMPLISHMENT (1).

(1) *Ex.* 34, 29: *Minč’der ijanēr Movsēs i lernēn Sinay, ew erkok’in taxtakk’n uxti i jer’s Movsisi ēin* <...>. “It came about when Moses was coming down from Mount Sinai and the two tablets of the testimony were in Moses’ hand <...>.”

<sup>164</sup> The direct comparison between Gk. aor. εἶσαμην and *hecay* is hindered by the fact that the former is not attested in Homer and is likely to be a relatively late form. Altogether, Gk. aor. εἶσαμην may serve as a parallel to the morphological change suggested for the Old Armenian verb.

- (2) *Mt. 7, 27: <...> ijin anjrewk' yarean getk' <...>. "The rain fell, and the floods came <...>."*
- (3) *Gen. 24, 18: Ew p'ut'ac'aw ijoyc' zsap'orn i veray bazkac' iwroc', ew arboyc' nma. "<...> and she quickly lowered her jar to her hand, and gave him a drink."*
- (4) *Agat'angelos 2003: 1438: Isk ibrew ayn č'linēr sakayn č'kami ambastan linel ew ahagins i dimi harkanel, ayl haštakanawn zijanē, t'ē <...>. "But that did not occur; yet He was unwilling to be the accuser or to attack him frightfully, so He was merciful and condescending and said <...>." (trans. Thomson 2001: 74).*
- (5) *Ezek. 31, 18: <...> ēj ew zijir handerj ca'ovk' p'ap'kut'ean k'o i xors erkri <...>. "Yet you will be brought down with the trees of Eden to the earth beneath <...>."*

ETYM: Arm. *ēj-/ij-* goes back to (dial.) PIE *\*h<sub>1</sub>ei-* 'go' extended with *\*-d<sup>h</sup>-* (cf. PIE *\*h<sub>1</sub>leu-d<sup>h</sup>-* in *eluzanem* 'let go; produce'; see § 2.5.1-3.3) or *\*g<sup>h</sup> / \*ǵ<sup>h</sup>* (cf. Gk. οἴχομαι 'go away' and Ancient Greek verbs in -χο/ε-; see § 2.5.1-1); see Djahukian 2010: 245; *EDAIL*: 277 with discussion and literature). The etymology of *šijanim*, proposed in § 2.5.1-2.46, promotes the reconstruction with the *\*ǵ<sup>h</sup>-*extension.

§ 2.5.1-2.25. *Ĵeranim* tr., intr. 'have a fever (from so.)', aor. act. n/a, aor. mp. n/a, ptc. *Ĵereal* (Eusebius Pamphilius), *Ĵeraneal* (John Chrysostom), caus. n/a (Bible, Movsēs Xorenac'i). *NBHL* 2: 671; *HAB* 4: 125; *RADCA*: 140.

◇ Related words: *Ĵermn* 'fever'.

- Transitivity: A-O (1), S<sub>0</sub>-E (2).

Given that the verb is only once attested in the Bible in the imperfect form (1), it is not clear whether it belonged to the *e-* or *i-*conjugation. Since it is used in a transitive construction with the O argument expressed by acc. *z-axt-s* 'illness; pain' and corresponding to the STIMULUS role, the active voice may be expected. However, the low transitivity of the construction with the direct object of content might have required the mediopassive voice. Thus, the Biblical attestation remains morphologically ambiguous.

- Actionality: STATE.

- (1) *1Mac. 1, 6 (LXX = 1Mac. 1, 5): Ew yet aysr ankanēr i mahičs iwr ew zaxts mahu Ĵeranēr, ew ibrew etes t'ē meṛanim. "After this he fell sick and perceived that he was dying."*
- (2) *Movsēs Khorenats' I 2003: 2069: <...> ew hiwandac' eal and mašarayakan axtiwk' Ĵerani hiwcmamb ew meṛani <...>.<sup>165</sup> "There he fell ill with consumption, wasted away with*

<sup>165</sup> The aforementioned context from Movsēs Khorenac'i has two variant readings of the verbal form in question: *Ĵermani* (Ms. Mat. 1864, 1666 AD) and *Ĵermayin* (Ms. Mat. 4584, 1668 AD).

fever, and died.” (Thomson 2006: 304); *lit.* “<...> and he fell ill with the *mašarayakan* (?) sickness, is burning with consumption, and dies.” (trans. PK).

ETYM: The PFV *jer-* is very poorly attested: ptc. *jer-eal* (Eusebius Pamphilius), competing with the non-perfective ptc. *jeran-eal* (John Chrysostom). However, IPFV *jeran-*, even if a recent formation, supports the reality of PFV *jer-*. See § 2.1.1-1.4 (*jeřnum*) for etymological details, including the discussion of the etymological status of the variants of the PFV stem *jer-* and *jeř-*. In (2), the verb *jeranim* looks like a passive alternation of *\*jeranem* tr. ‘burn; produce fever’; no attestations were found with the source of a fever as the subject.

If inherited, *jer-* can be derived from PFV *\*g<sup>wh</sup>er-* or IPFV *\*g<sup>wh</sup>er-e/o-*.

§ 2.5.1-2.26. *Kcanem* tr. ‘sting; bite’, aor. *kci*, ptc., caus. n/a (Bible). *NBHL* 1: 1101; *HAB* 2: 586; *RADCA*: 124.

◇ Competing paradigmatic classes: *kcem* intr. ‘prick (of limb); tingle (of tongue, throat)’ (Eznik Kořbac’i).

◇ Prefixal verbs: *z-kcim* intr. ‘become angry’.

◇ Related words: *kcu* ‘bitter’.

- Transitivity: A-O (1).
- Actionality: ACHIEVEMENT (1).

(1) *1Mac.* 9, 8: <...> *t’erews karasc’uk’ kcanel inč’ i noc’anē*. “We may have the strength to fight them [*lit.* “bite something of them” — PK].”

ETYM: A number of formally acceptable etymologies is available for this verb; see Djahukian 2010: 404; *EDAIL*: 362f. with a thorough review and references. The best available solution is the comparison to the Germanic words for ‘tickle’ (Oic. *kitla*, OHG *kizzilōn*, etc.), as if from PIE *\*geid-* intr./tr. ‘sting; bite’; note, however, an unexpected PIE root structure with two voiced unaspirated obstruents.

The root-final affricate can be explained by the PFV *\*s-* suffix or, less convincingly, the IPFV *\*ie/o-* suffix (see § 1.4.2 on the *\*Cs-* and *\*C<sub>i</sub>-* clusters). Against the defects of the sound change *\*d<sub>i</sub> > c*, the zero-grade is more consistent with the morphological structure of the *\*ie/o-* stem.<sup>166</sup> If one chooses to derive the root from the *\*s-* stem, one has to assume that the sigmatic formations recharacterised the PFV root stem with the zero-grade.

§ 2.5.1-2.27. *Klan-e/i-m* tr. ‘swallow’, aor. act. *kli*, mp. *klay*, ptc. n/a, caus. n/a (Bible+). *NBHL* 1: 1101; *HAB* 2: 654; *Künzle* 372; *RADCA*: 115; *Zeilfelder* 2004: 151.

<sup>166</sup> Cf. Gk. ἔκρυψα (κρύπτω ‘hide’), in which the sigmatic stem is a clear innovation (see van de Laar 2000: 197).

◇ Prefixal verbs: pres. \**ən-klanim* or \**ən-klnum* ‘sink’, aor. *ən-klay*; caus. *ən-kl-uzanem* ‘make sink’; *ən-kl-mem* ‘sink’.

- Transitivity: A-O.

The use of the mediopassive voice forms in the transitive construction (2) is reminiscent of aor. mp. *keray* tr. ‘ate’ (*utem* tr. ‘eat’).

- Actionality: ACHIEVEMENT.

(1) *Mt. 23, 24: Aṛaj̄nordk' koyrk', or zmžłuk k'amēk' ew zults klanēk'.* “You blind guides! You strain out a gnat but swallow a camel!”

ETYM: Arm. *kul-/kl-* goes back to \**gul-* from an onomatopoeic PIE \**gul-* or \**glu-* tr./intr. ‘swallow’, found in Lat. *gula* ‘throat’, *ingluviēs* ‘gullet’ (Varro), and \**glu-to-* ‘gulp; swallow’ (Lat. *gluttō* ‘glutton’, OCS *glūtati*); see EDL: 267, 275; cf. also Klingenschmitt 211f.; LIV<sup>2</sup>: 192; Djahukian 2010: 425; EDAIL: 380; EDSIL: 168).

The verb can go back to PIE PFV \**gul-e/o-*, whence IPFV \**gul-nHe/o-*.

§ 2.5.1-2.28. *Lk'an-e/i-m* tr., intr. ‘abandon; make weak; forsake’, intr. ‘become weak; give up; dissolve’, aor. act. *lk'i*, aor. mp. *lk'ay*, ptc. *lk'eal*, caus. *lk'uc'anem* tr. ‘make weak’ (Bible+), NBHL 1: 908; HAB 2: 287; RADCA: 124.

◇ Competing paradigmatic classes: *lk'anam* (Jacob of Nisibis apud NBHL); \**lk'em*: aor. act. *lk'ec'i* (Cyril of Jerusalem apud NBHL), caus. *lk'ec'uc'anem* (Ephrem apud NBHL).

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (3); S<sub>O</sub> (2).

The attested IPFV forms are mediopassive (pres. ind. *lk'ani-* in *Prov. 24, 31*, pres. subj. proh. *lk'anic'i-* in *Deut. 20, 3*; *Heb. 12, 3*; Elishē). Yet, one finds the active forms in the perfective part of the paradigm already in the Bible (1). It allows to assume that the verb had the IPFV active forms as well.

The direct object expresses the SOURCE argument and not a PATIENT-like argument. Thus, the verb is semantically intransitive.

The causative is derived from the non-agentive meaning ‘become weak’ (4).

- Actionality: ACHIEVEMENT (1), ACCOMPLISHMENT (2, 3).

Depending on whether the phrases in (2) and (3) imply the temporal modifier ‘all at once’ or ‘gradually’, the ACHIEVEMENT or ACCOMPLISHMENT construals would hold true.

(1) *Deut. 31, 17: Ew barkac'ayc' doc'a srtmtut'eamb yawur yaynmik, ew lk'ic'zdosa, ew darjuc'ic' zeres im i doc'anē <...>.* “Then My anger will be kindled against them in that day, and I will forsake them and hide My face from them <...>.”

- (2) *Prov.* 24, 31: *Ew et'ē t'olus zna xopananay ew molaxotē amenewin ew lk'ani, ew k'arink' ormoc' nora yatakin.* “And if you permit him, all becomes uncultivated and covered with weed and abandoned, and stones of his walls fall off.” (trans. PK).
- (3) *Wis.* 17, 14: *Ēr zi nšanawk' c'noric'n pakč'ēin, ew ēr zi ogwoc'n matnut'eambk' lk'anēin* <...>. “<...> and now were driven by monstrous specters, and now were paralyzed by their souls' surrender <...>.”
- (4) *Ezra* 4, 4: *Ew žotovurdk' erkrin aynorik lk'uc'anēin zješ žotovrdeann Hrēastani* <...>. “Then the people of the land discouraged [*lit.* “made weak hands of” — PK.] the people of Judah <...>.”

ETYM: Arm. *lik'-/lk'*- goes back to PIE *\*leikʷ-* tr. ‘leave’, cf. Gk. λιμπάνω, Skt. *riṅákti*, Av. *irinaxti*,<sup>167</sup> Lat. *linquō*, etc. (Klingenschmitt 1982: 180; *LIV*<sup>2</sup>: 406–408; Djahukian 2010: 298; *EDAIL*: 310).

The Old Armenian thematicised nasal suffix is comparable to that of Gk. λιμπάνω ‘leave’.<sup>168</sup> In all likelihood, the suffix recharacterised the IPFV stem of the Old Armenian and Ancient Greek verbs independently. PArm. *\*likʷ-an-* (*\*likʷ-nHe/o-*) derived from a thematic PFV root stem and replaced a older infixed stem. Gk. λιμπάνω (next to common Gk. λείπω)

<sup>167</sup> YAv. *irinaxti* is only attested in 3 sg. act. pres. ind. (*Yt.* 10, 68; *paiti-* *Yt.* 14, 47; *P.* 40), see Bartholomae 1904: 1479; Kellens 1984: 165ff., 1995: 58.

<sup>168</sup> Gk. λιμπάνω is very rare. The nasal stem is attested almost exclusively in prefixal derivatives of this verb in contrast with the prefix-less λείπω. It is found only once in Homer as a variant reading for ἔκμολεν in *Il.* 11, 604 (van de Laar 2000: 205). The reading comes from the Tebtunis papyrus manuscript N° 266 dated to the 2<sup>nd</sup> century, where it renders the historical present:

602 [αιψα δ εταιρον εον Πατροκλη]α προσε[ε]ι[π]εν

[ 22 letters ]εκινησεν το[

[ 22 letters ]λιμπανε . [

Cf. : αἶψα δ' ἔταιρον ἐὸν Πατροκλήα προσέειπε  
φθεγξάμενος παρὰ νηός: ὃ δὲ κλισίηθεν ἀκούσας  
ἔκμολεν Ἴσος Ἄρηι, κακοῦ δ' ἄρα οἱ πέλεν ἀρχή.

“At once he spoke to his own companion in arms, Patroklos, calling from the ship, and he heard it from inside the shelter, and came out, like the war god, and this was the beginning of his evil.” (trans. R. Lattimore; <http://homer.library.northwestern.edu>).

Deviations from the common text in lines 603 and 604 speak against this form as being archaic. The spelling λιμπανε may also bear witness to its post-Homeric pedigree. Although such spelling is found in Ancient Greek epigraphy, the oldest of the inscription taken into account in the PHI Greek Inscriptions project (<https://inscriptions.packhum.org>) that contains the stem λιμπαν- dates back to the late 3<sup>rd</sup> century BC (Thess. Mnemeia 122, 9).

derived either from the Ancient Greek thematic aorist or from a Proto-Greek IPFV infixed stem (cf. Viredaz 2001–2002: 32f.; *EDAIL*: 310); see details in §§ 2.5.2-3.1 and 2.5.2-3.2.2a.<sup>169</sup>

The Old Armenian PFV stem goes back to PIE *\*h<sub>1</sub>e-lik<sup>w</sup>-et*, Arm. aor. *elik'*, Gk. ἔλιπε, Skt. *aricat*. PIE *\*h<sub>1</sub>e-leik<sup>w</sup>-t* (cf. Skt. aor. *áraitk*) would yield Arm. *<sup>x</sup>elēk'* (with the analogical restoration of the root-final velar) and cannot be the protoform of *elik'*. PIE *\*k<sup>w</sup>e* yielded Arm. *č'* (see § 1.4.1.). The velar of the PFV stem must have been restored on the analogy of the IPFV stem with the nasal suffix. One must, therefore, reconstruct the nasal stem for a period before the sound change PIE *\*k<sup>w</sup>e* > PArm. *\*č* (Arm. *č'*). It also suggests that the IPFV stem was pivotal for this particular verb after that sound change. This would explain the direction of the root shape levelling from the IPFV to the PFV stems.

The PIE verb was probably a transitive verb of directed motion. Its direct object could encode the SOURCE argument (cf. Arm. *lk'anem*, Gk. λιμπάνω, Lat. *linquō* 'leave so., depart from so.')

or the PATIENT-like argument (cf. YAv. *irinaxti* 'push forward; let go' (*Yt.* 10, 68), Skt. *riṇakti* 'set free (of deity, path, etc.)' (*RV* 2.19.5b, 7.71b; see Lubotsky 1997: 1197). OIr. *léicid* combines the causative and non-causative agentive meanings 'let go, release; allow; leave (behind), etc.' (*eDIL* s.v. *léicid*). The nasal suffix, attested in the Greek and Armenian branches, complies with the semantically intransitive type of argument structure.

§ 2.5.1-2.29. *Lucan-e/i-m* tr., intr. 'suffer (a vengeance); make/become loose, open (sack, joke); make smb. free from so. (e.g. bonds); resolve (question); break (law); allow (deed)', aor. act. *luci*, aor. mp. *lucay*, ptc. *luceal*, caus. n/a (Bible+). *NBHL* 1: 894; *HAB* 2: 293; *RADCA*: 116.

◇ Related words: *lucič'* 'solvent; dissolving'.

- Transitivity: A-O (1); S<sub>0</sub> (2).
- Actionality: ACCOMPLISHMENT (1), ACHIEVEMENT (2).

- (1) *Mk.* 11, 3: <...> *et'e zi lucanēk' zyananad? <...>*. "Why are you untying this donkey?" (trans. PK).
- (2) *Mk.* 7, 35: *Ew noynžamayn bac'an lselik' nora, ew lucan kapank' lezui nora ew xawsēr utit.* "And [immediately — PK] his ears were opened, and the impediment of his tongue was removed, and he began speaking plainly."

ETYM: Klingenschmitt (1982: 184) compared Arm. *lucan-* with MW *-lwnng* tr. 'set free' (e.g. in *ellwnng*) and reconstructed PIE IPFV *\*lu-né/n-g-* with the same meaning. He further assumed that PIE *\*lu-né/n-g-* represents an extended root variant of PIE *\*leu-* (Gk. λύω tr. 'loosen',

<sup>169</sup> Meillet (1900b = 1977: 135) acknowledged the recent age of *lk'anem*: "La forme *elikh* est manifestement ancienne; et le présent *lkhane* a été fait secondairement, comme *harçanem* «j'interroge» l'a été sans aucun doute sur l'aoriste *eharç* <...>."

Lat. *luō* tr. ‘expiate, pay’), with a velar root extension parallel to that of PIE *\*iu-né/n-ǵ-* (Skt. *yunáj-* tr. ‘harness’) next to PIE *\*ieu-* (Skt. *yuvá-* tr. ‘bind’); cf. Djahukian 2010: 302.<sup>170</sup>

The root can go back to IPFV *\*leug-e/o-*, caus.-iter. *\*loug-eie/o-*, PFV *\*leug-* or *\*leug-s-* and, less probably, *\*leug-ie/o-* (see § 1.4.2 on *\*Cs-* and *\*Cǵ-* clusters). In any case, the nasal stem is an inner-Armenian innovation, which, perhaps, replaced the PIE infix stem.

§ 2.5.1-2.30. *Luc’anem* tr. ‘kindle; set to fire’, aor. *luc’i*, ptc. *luc’éal*, caus. n/a (Bible+). *NBHL* 1: 904; *HAB* 2: 296; Künzle 2, 323; *RADCA*: 117. A mediopassive form *luc’ani* ‘it kindles’, with the figurative non-agentive meaning (of anger), is attested in Middle Armenian (Grigor Maškuor, 12<sup>th</sup> century, apud *NHBL* 1: 94).

◇ Related words: *loys* ‘light’.

- Transitivity: A-O.
- Actionality: ACHIEVEMENT.

The lexical aspectual feature [–durative] (ACHIEVEMENT) of *luc’anem* defines its contrast with *ayrem*, aor. *ayrec’i* ‘burn’ (ACTIVITY).

- (1) *Mt.* 5, 15: <...> *ew oč’ luc’anen črag ew dnen and gruanaw <...>*. “<...> nor does anyone light a lamp and put it under a basket <...>.”

ETYM: The root goes back to PIE *\*leuk-&-* from PIE *\*leuk-* intr. ‘be/become light’ (*LIV*<sup>2</sup>: 418f.; Djahukian 2010: 303), cf. Hitt. *lukk-* intr. ‘dawn’ (mp. *\*leuk-*), Toch. A *lyökät* intr. ‘it dawns’ (pret. mp. *lewk-*) and Skt. *rócate* intr. ‘shine’ (pres. mp. *\*leuk-e-*), aor. *aroci* (aor. mp. *\*leuk-*, cf. Kümmel 1996: 94f.).

The Old Armenian stem can reflect PFV *\*leuk-s-* (Kortlandt 1987 = 2003: 80; cf. PToch. pres. act. *\*lawk-s-* tr. ‘illuminate’; see Peyrot 2013: 811) and IPFV *\*leuk-ske/o-* (Meillet 1900b = 1977: 76). The reconstructions IPFV *\*leuk-ie/o-* (cf. Hitt. *lukk(ije/a)-* ‘set fire to’, although the reconstruction of the *ie/o-* stem is not sure for this Hittite verb; see *EDHIL*: 531f. for a discussion) and caus. *\*lōuk-ie/o-* (Olsen 2017: 433) are unlikely for Arm. *loyc’-* on formal grounds (see § 1.4.2 on the expected outcome of the *\*Cǵ-* clusters with velars).

§ 2.5.1-2.31. *Macanim* intr. ‘stick together; curdle (of milk)’, aor. mp. *macay*, ptc. *maceal*, caus. *macuc’anem* tr. ‘make adhere’ (Bible+). *NBHL* 2: 190; *HAB* 3: 228; *RADCA*: 116.

<sup>170</sup> The listed cognates are distributed among three separate PIE roots in *LIV*<sup>2</sup>: 415–417: 1. *\*leug-* ‘lösen, brechen’ (Arm. *lucanem*), 2. *\*leu(ǵ)-* ‘biegen’ (MW *ellwng*), and *\*leuH-* ‘abschneiden, lösen’ (Gk. λύω, Lat. *luō*). In my opinion, there are sufficient semantic reasons to consider these words as containing variants of the same PIE root.

◇ Competing paradigmatic classes: *macnum* intr. ‘adhere’, aor. mp. *maceay* (Gregory Nazianzenus, Ephrem apud *NBHL*) (John Chrysostom, 6 century apud *NBHL*), past ptc. *macuc’éal* (Basil Caesarea apud *NBHL*).

- Transitivity:  $S_0$ .
- Actionality: ACHIEVEMENT (2), STATE (1).

- (1) *Jer. 13, 11: Zi zor orinak macani sp’acaneli zmijov mardoy, noynpēs macuc’i zinev zamenayn tund Israyēli <...>. “For as the waistband clings to the waist of a man, so I made the whole household of Israel and the whole household of Judah cling to Me <...>.”*
- (2) *Ps. 118, 70 (LXX = Ps. 119, 70): Macaw orpēs kat’n sirt noc’a <...>. “Their heart clotted like milk <...>.” (trans. PK).*

ETYM: The verb has been compared to Gk. μάσσω (aor. ἔμαξα) tr. ‘knead’, Grm. *machen* tr. ‘make’, OCS *mazati* tr. ‘smear’ as if from PIE root *\*meh<sub>2</sub>ǵ-* (cf. Meillet 1914 = 1977: 159–160; *DELG*: 670; Djahukian 2010: 501; *EDG*: 910f.).<sup>171</sup> Kroonen (*EDPG*: 350) argues that the Germanic cognates derive from PGrm. adj. *\*maka-* ‘fit’ and must be excluded from the comparison on semantic grounds. The comparison of *macanim* to Gk. μάσσω and OCS *mazati* requires assuming a semantic change from tr. ‘made adhere, smear, knead’ to intr. ‘adhere’ as a Proto-Armenian innovation.

The PFV stem can either be derived from the thematic or athematic root stem (*\*m(e)h<sub>2</sub>ǵ-* or *\*m(e)h<sub>2</sub>ǵ-e/o-*), iter. *\*moh<sub>2</sub>ǵ-eie/o-* or, taking the comparative evidence of Ancient Greek into account, PFV *\*meh<sub>2</sub>ǵ-s-*; IPFV *\*m(e)h<sub>2</sub>ǵ-ie/o-* is doubtful (see § 1.4.2).

§ 2.5.1-2.32. *Meranim* intr. ‘die’, mp. aor. *meray*, ptc. *meréal*, caus. *meruc’anem* tr. ‘kill’ (2). (Bible+). *NBHL* 2: 251; *HAB* 3: 304; Künzle 2, 456f.; *RADCA*: 140; Zeilfelder 2004: 184.

- Transitivity:  $S_0$ .

The morphological causative of *meranim* (2) is synonymous to the lexical causative *spananem* tr. ‘kill’.

- Actionality: ACHIEVEMENT.

In his insightful paper on the verbs of dying, Botne (2003) showed that IE languages typically encode the initial and the middle phases of the dying event by the main verb, unlike languages that encode the middle and/or the final phase. Old Armenian seems to be not unlike many other ancient IE languages in this respect. The imperfective forms can

<sup>171</sup> Alternatively, Gk. μάσσω has been compared to Lith. *minkyti* tr. ‘knead’ and PGrm. *\*mangjan* tr. ‘mix’ from PIE *\*menk-* (see *LIV*<sup>2</sup>: 438; van Beek 2017: 68f.; cf. also *EDPG*: 353 on PGrm. *\*mangjan*).



express the initial phase of the transitional process of dying. Yet, the inceptive use of the IPFV stem does not mean that the verb has the [+durative] aspectual feature as an ACCOMPLISHMENT verb would. Thus, pres. *meṛani* ‘he is dying’ does not imply that the subject ‘has died somewhat’ using Botne’s phrasing to describe an ACCOMPLISHMENT.

- (1) *Mt. 22, 27: Yet amenec’un meṛaw ew kinn.* “Last of all, the woman died.”
- (2) *Judg. 16, 30: <...> ew ēin merealk’n zors meṛoyc’ Samp’son i mahun iwrum, arawel k’an zors span i kendanut’ean iwrum.* “So the dead whom he killed at his death were more than those whom he killed in his life.”

ETYM: The root *meṛ-* goes back to the PIE root *\*mer-* intr. ‘die’ (Klingenschmitt 1982: 220f.; LIV<sup>2</sup>: 439f.; Djahukian 2010: 523; EDAIL: 463). The base ACHIEVEMENT construal of the verb was expressed by the PFV root stem (cf. Skt. *ámṛta* ‘died’, etc.), while the shape of the IPFV stem, which expressed a near future event or secondary aspectual meanings such as habitual and iterative, varies across languages. One can tentatively reconstruct PIE IPFV *\*mr-ie/o-*, attested in Indo-Iranian, Latin, Slavic, but not in Hittite, where one finds *mer-*. The Old Armenian alone has the IPFV nasal stem.

Meillet (1890 = 1977: 7) explained the root-final *-ṛ-* of the Old Armenian verb as an effect of the nasal suffix. Barton (1989: 135f.) reasonably argued that *\*-an-* from *\*-ṇ-* could not affect the adjacent *\*-r-*, cf. *duṛn* ‘door’ (word-final *\*-rm > \*-rn*) but gen. sg. *dran* (*\*-rṇ- > -ran-*). One could assume that PArm. *\*mer-* originally belonged to the paradigmatic class IPFV *-nu-* : PFV *-Ø-* (cf. *heljnum* ‘choke’), and underwent a change of nasal stems from *\*meṛ-nu-* to *meṛ-ani-* in Proto-Armenian according to the stem variation pattern described in § 2.1.2-2.1. Such morphological change might have been facilitated by the analogy to the synonymous *hiwcanim* ‘pass away (of person)’ (see § 2.5.1-3.7), antonymous *cnanim* intr. ‘be born’ (cf. Schmidt 1990: 43), and lexical causative *spanan-e/i-m* ‘kill’ (see § 2.5.1-2.42).

However, in the case of an anticausative ACHIEVEMENT such as the verb ‘die’, the PFV stem was clearly a pivotal stem in the paradigm. Unsurprisingly, the 3 sg. aorist form alone represents close to one quarter of all attestations of the verb in the Bible. Hence, it would be unwise to assume that the pivotal form of the paradigm would change the root shape under the influence of a relatively infrequent IPFV stem, unstable and therefore prone to be replaced by another IPFV stem (which explains the disagreement among the cognate IPFV stems found in IE languages). By contrast, the replacement of one productive PFV stem (athematic root) by another productive PFV stem (sigmatic) is rather likely.

Thus, Arm. *meṛ-* is best derived from PArm. PFV *\*mer-s-* (Klingenschmitt 1982: 221; Barton 1989: 146). According to Martirosyan (EDAIL: 710), the “post-apocope” internal pretonic *\*-rs-* must have yielded Arm. *-rš-*; *\*h<sub>1</sub>é-mer-s-t* is then expected to explain *meṛ-*.

The question arises whether the sigmatic stem replaced the active voice *\*h<sub>1</sub>e-mer-t* (Hitt. *merta*) or middle *\*h<sub>1</sub>e-mr-to* (Skt. *ámṛta*, Lat. *morior*)? Oettinger (1979: 106) suggested reconstructing the active aorist along with the mediopassive present, the paradigmatic type which is otherwise reconstructed for IPFV thematic root stems (cf. Skt. *avart*, *vártate*; *EWAia* 2: 518; *LIV*<sup>2</sup>: 691). Barton (1989: 142) argued, that the IPFV *\*ie/o*-stem was not part of such a paradigmatic pattern, and considered the cited mediopassive forms as innovations of separate branches conditioned by the intransitive argument structure of the verb. Furthermore, he assumed that the voice alternation was non-contrastive for lexicalised anticausative intransitive verbs in PIE; an agentive transitive counterpart of such verbs must have been expressed by the morphological causative (such as e.g. Hitt. *mer-nu-* or Arm. *meṛ-uc'anem* tr. 'kill') and not by way of voice endings alone. Thus, one may tentatively assume that the spread of *\*s*-stems was facilitated by the active voice of this anticausative verb (see § 2.5.2-3.2.2c).

§ 2.5.1-2.33. *Mtanem* intr. 'enter', aor. act. *mti*, aor. mp. *mtay*, past ptc. *mteal*, caus. *mtuc'anem* 'bring (so. somewhere)' (Bible+). *NBHL* 2: 305; *HAB* 3: 362; Künzle 2: 483–486; *RADCA*: 117; Zeilfelder 2004: 194.

- Transitivity: S<sub>A</sub> (1); S<sub>O</sub> (2).
- Actionality: ACHIEVEMENT.

The morphological causative (3) is synonymous to the lexical causative *mucanem*.

- (1) *Mt.* 21, 12: *Ew emut Yisus i tačarn* <...>. "And Jesus entered the temple <...>."
- (2) *Mt.* 15, 17: <...> *ew oč' imanayk' et'ē amenayn or mtanē i beran yorovayn ert'ay ew artak's elanē* <...>. "Do you not understand that everything that goes into the mouth passes into the stomach, and is eliminated?"
- (3) Movsēs Xorenac'i 2003: 2094: *Ew ayl ĵurs ənd yolov telis aceal mtoyc'* [v.l. the verb is omitted in Mat. №№ 1864, 1889] *anyayt gnac'iwk'*. "And he brought in additional water to many places through underground conduits." (trans. Thomson 2006: 327).

ETYM: The verb is related to PArm. *\*meud* and finds an inner-Armenian cognate *mucanem* (see § 2.5.1-2.34). The root can be tentatively derived from PIE *\*meud-*,<sup>172</sup> represented in Hitt. *mūtae-* 'dig in (the ground)',<sup>173</sup> Lith. *máudyti* 'bathe', Latv. *maût* 'submerge, swim'.<sup>174</sup>

<sup>172</sup> Djahukian (2010: 540) derives the verb from PIE *\*mōd-* without providing the comparative evidence.

<sup>173</sup> The Hittite verb has been derived from a noun *\*mūta-* < *\*muh<sub>1</sub>-to-* from PIE *\*meuh<sub>1</sub>-* 'move' (Oettinger 1979: 377). However, Kloekhorst argued that the lenited *-t-* points to Hitt. /d/, which is poorly explained as part of a nominal suffix (*EDHIL*: 588).

PIE *\*meud-* can be further analysed as an extended root variant of PIE *\*meu-h<sub>1</sub>-* ‘move’ or as a direct outcome of *\*meuh<sub>1</sub>-* by a sound law proposed in Kortlandt 1983c (Lat. *moveō* tr./intr. ‘move’, etc. see *LIV*<sup>2</sup>: 445f.; *EDL*: 390f.).

The root *mut-/mt-* can be derived from the PFV thematic stem *\*mud-e/o-* or the athematic stem *\*mud-* with the zero-grade in the mediopassive forms. The fact that most verbs of controlled motion take active voice in the nasal classes of Old Armenian speaks against reconstructing a mediopassive shape of the athematic root stem *\*mud-*.

§ 2.5.1-2.34. *Mucan-e/i-m* tr. ‘bring into (so.), bring to (smb.), take in’, aor. act. *muci*, aor. mp. *mucay*, past ptc. n/a, caus. n/a (Bible+). The speakers’ awareness of the causative relation between *mucanem* and *mtanem* may be illustrated by (1) and (2): In the Bible, the verb often serves as an explicit antonym of *hanem* tr. ‘take out’ (4). Eznik Kołbac’i uses the verb in the sense tr. ‘introduce (an assertion of so.)’ (3). *NBHL* 2: 299; *HAB* 3: 343; Künzle 2, 483; *RADCA*: 116; Zeilfelder 2004: 193.

◇ Related words: *mtanem* ‘enter’; *mut*, *i*-stem ‘entrance; sunset; West’.

- Transitivity: A-O (2, 3, 4); S<sub>O</sub>[-E<sub>A</sub>] (5).
- Actionality: ACHIEVEMENT (5), ACCOMPLISHMENT (3, 4).

- (1) *Gal. 5, 1: <...> ew mi miwsangam and lcoy cařayut’ean mtanēk’*. “<...> and do not be subject again to a yoke of slavery.”
- (2) *Jer. 27, 12: Mucēk’ zparanoc’s jer and lcoy ark’ayin Barbelac’woc’ <...>*. “Bring your necks under the yoke of the king of Babylon <...>.”
- (3) Eznik Kołbac’i 2003: 497: *Markion moloreal mucanē Awtarut’iwn anddēm Astuacoyn Awrinac’, edeal and nma ew zHiwtn ēut’eamb ew eris erkins*. “Marcion, erring, introduced an alienation against the God of the Law, having posited with Him essentially both matter and three heavens.” (trans. Blanchard & Young 1998: 181).
- (4) *2Sam. 5, 2: Ew yerēkn ew yerand minč’ ēr Sawut t’agawor i veray mer, du ēir or mucanēir ew hanēir zIsrayēl <...>*. “Previously, when Saul was king over us, you were the one who led Israel out and in.”
- (5) *Lev. 16, 27: Ew zzuarakn or vasn metac’, ew znoxazn zvasn metac’, oroc’ ariwnn mucaw k’awel i srbut’eann <...>*. “But the bull of the sin offering and the goat of the sin offering, whose blood was brought in to make atonement in the holy place <...>.”

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<sup>174</sup> In Old Armenian, the notion of a downward motion ‘fall; submerge; go down’ is still present in *mut* ‘sunset, West’ as well as in some uses of the derived lexical causative *mucanem* tr. ‘put under (yoke, oath)’.

ETYM: The verbal root goes back to *\*meud-&-* tr. ‘make enter’ next to *\*mud-* in *mtanem* ‘enter’ (see § 2.5.1-2.33). See further details in Klingenschmitt 1982: 192f., 221.

The root-final affricate can be explained by a PFV *\*s-*stem (Kortlandt 1987 = 2003: 80); see § 2.5.2-3.2.2c on the grammatical features associated with plausible Proto-Armenian sigmatic stems. The reconstruction of the IPFV *\*ie/o-*stem is less likely for formal reasons discussed in see § 1.4.2. Godel’s reconstruction of caus. *\*moud-ie/o-*, where *\*-ie/o-* is taken to be a variant of *\*-eie/o-* (1965 = 1982: 24), relies on a dubious PIE morphological type.

Djahukian’s assumption that *mucanem* must be derived from PIE *\*meug-* and is unrelated to *mtanem* (Djahukian 2010: 537) must be rejected.

§ 2.5.1-2.35. *Nerkan-e/i-m* tr. ‘plunge; colour’,<sup>175</sup> intr. ‘dirt oneself’ (*Book of Chries*), aor. mp. *nerkay*, ptc. *nerkeal*, caus. n/a (Bible+). *NBHL* 2: 418; *HAB* 3: 446; *RADCA*: 116.

◇ Competing paradigmatic classes: *nerkem* tr. ‘colour’ (Severian of Gabala, John Chrysostom, apud *NBHL* 2: 418); *nerkam* intr. ‘become coloured’ (Basil of Caesarea and Philo, apud *NBHL* 2: 418 s.vv. *nerkam*, *nerkac’uc’anem* and *nerkalot*). Both verbs were probably derived from noun *nerk* ‘colour’.

◇ Related words: *nerkac* adj. ‘coloured (of hair)’ (Movsēs Xorenac’i); *nerkuac* n. ‘dye, colouring’ (Elišē, Ephrem); *nerk*, *o-*stem ‘tint, colour’ (first attested in post-classical texts, cf. *NBHL* 2: 418).

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2); S<sub>A=E</sub> (3).

- Actionality: ACHIEVEMENT.

(1) *Job* 9, 31: *Sastkac’eal attow ēnerk zis, zazrac’oyc’ zis patmučan im* <...>. “<...> yet You would plunge me into the pit, and my own clothes would abhor me.”<sup>176</sup>

(2) *Agat’angelos* 2003: 1628: <...> *ew ardark’n mxec’an i p’uk’s hnoc’i ardarut’eann ew nerkan i šotiwns ew i goyns Hogwoyn srboy* <...>. “<...> just so have the just been plunged into the furnace of righteousness and dyed in the hues and colors of the Holy Spirit.” (trans. Thomson 2001: 219f.).

<sup>175</sup> De Lamberterie (1986: 54) argues that the original meaning of the verb is tr. ‘dip, plunge’, while the secondary meaning ‘colour’ developed as a calque of the polysemy of Gk. βάπτω.

<sup>176</sup> The verb has an unexpected augment shape (*ē-* instead of *e-* before a consonant) and is absent in a manuscript reading mentioned in the Zohrab 1805 edition: *yaynžam anktmesc’es zis i p’os, garšesc’i yinēn patmučan im*. Which of the readings is the original one is hard to say. While *anktmem* is a literate translation of Gk. βάπτω in the sense ‘dip in water’, *nerkanem* concords with the use of βάπτω in the sense ‘dip into dye; stain (e.g. with blood)’ (see Arndt & Ginbrich 1957: 132 for the meanings of βάπτω in the Bible).

- (3) *Book of Chries* 1865: 440: *Zi oč' mišt vayrabnak linelov and anjērñandelsn hawasarē, ew oč' and antasnundsn degereal cxoy attezut'eamb nerkanī <...>. "For it [a dove] neither live all the time in a wild together with their untamed companions nor dirty itself in the fluedust while recreating together with domestic fowl." (trans. PK).*

ETYM: Klingenschmitt (1982: 221ff.) followed Belardi (1950: 147f.) and compared *nerkanim* to Gk. δούμαι intr. 'plunge, enter' (differently, Djahukian 2010: 566). He assumed that the transitive use of the Armenian verb was an innovation. Belardi reconstructed *\*ner-erkane-*, a compound with the preposition *ner* 'in, into, within', which could yield *nerkane-* by haplology. Klingenschmitt adds two alternative prefixal prototypes: *\*n-erkane-*, in which *\*n-* is a prevocalic realisation of preverb *\*en* (whence *i* 'in'), and *\*ni-erkane-* (see now Dunkel 2014, 2: 559–564 on PIE *\*ni-* 'down'). De Lamberterie (1986: 54) justly noted that the preposition *ner-* does not appear in the language before the Hellenistic School and must be excluded. A parallel for the remaining two possibilities is provided by *hayim* 'look' and its prepositional derivative *nayim* 'look at': PArm. *\*ni-hayim* > *\*nəhayim* > Arm. *nayim* (if the sound change *\*i* > *\*ə* operated before the sound changes *\*h-* > *-Ø-* and *\*i-a-* > *\*ea-*; otherwise, one would get Arm. *<sup>x</sup>neayim* > *<sup>x</sup>neyim*); PArm. *\*en-hayim* > Arm. (ə)n-(h)ayim. Note that the preverb (*\*en* or *\*ni*) must have remained a free word until the operation of Meillet's law. Otherwise, PArm. *\*ni-dw-e-* would have yielded *<sup>x</sup>nirk-/<sup>x</sup>nrk-*, cf. Arm. *krkin* 'double' < PArm. *\*(ər)kərkin* (with dissimilatory loss of the first *-r-*) < PIE *\*dwi-dwi(s)-no-* (cf. OHG *zwinal*, de Lamberterie 1998: 892).

A more straightforward solution has been proposed by de Lamberterie (1986: 53–57), who derives the verb from PArm. *\*ni-arkanem*, reflected as a simplex Arm. *arkan-e/i-m* 'cast down/upon' (see § 2.5.1-2.7). The vowel *e* in the aorist *e-nerk* must be a secondary result of the root levelling based on PArm. *\*neark*. As de Lamberterie noted, *nerkanem* must have been synchronically perceived as independent from *arkanim* unlike *yarkanem* 'cover'. Other traces of the directional preposition *\*ni-* are seen in *nstim* 'sit down', from PArm. *\*ni-si-sd-e/o-*, and *nec'uk* 'support', from PArm. *\*ni-yec'*, akin to *yenum* 'lean', aor. *yec'i* (see § 2.1.1-2.5); cf. Klingenschmitt 1982: 250. As a prefixal derivative of *arkan-e/i-m*, *nerkan-e/i-m* will be left out of further diachronic analysis.

§ 2.5.1-2.36. *Otołan-e/i-m* tr. 'inundate (of waters)' (Bible, Eznik Kołbac'i), intr. 'dip oneself (into passions)' (Movsēs Xorenac'i), aor. act. n/a, aor. mp. n/a, ptc. *otołeal* (Agat'angelos), caus. n/a. *NBHL* 2: 508; *HAB* 3: 555; *RADCA*: 116; Zeilfelder 2004: 215.

◇ Competing paradigmatic classes: *otołem* tr. 'wash (of clothes, offerings, of sea waters wearing away stones); inundate (of storm hurling down to the earth; of a person passing through waters)' (Bible, Agat'angelos). In the Bible, the *an(e/i)-*stem is attested two times, in *Jer.* 47, 2 and *Ezek.* 13, 13 (both times in the form of the infinitive), whereas *otołem* tr. 'wash'

is rather common. The difference between the use of *otołanem* and *otołem* is difficult to determine, cf. (2) where two verbs co-occur in one sentence.

◇ Related words: *otoł* ‘inundation’.

- Transitivity: A-O (1, 2); S<sub>0</sub> (3).
- Actionality: ACCOMPLISHMENT.

- (1) Eznik Kołbac'i 2003: 434: *Ew ĵurk' zhot erkri otołanen ew apakanen, ew erkir aranc' ĵurc' patari ew xorxoli.* “And the waters inundate the earth's soil and they corrupt it; yet the earth cracks and gives way without water.” (trans. Blanchard & Young 1998: 37).
- (2) Jer. 47, 2: *Ahawadik ĵurk' elanen i hiwsişoy, ew etic'in hetetatk' yotołanel, ew otolesc'en zerkirn lriw iwrov, zk'atak'n ew zbnakič'n nora <...>.* “Behold, waters are going to rise from the north and become an overflowing torrent, and overflow the land and all its fullness, the city and those who live in it <...>.”
- (3) Movsēs Xorenac'i 2003: 2101: *Bayc' t'agaworn Hayoc' Artasir anhun skşaw otołanel yanarak c'ankut'iwns, minč'ew tattkanal i nmanē amenayn naxararac'n.* “Artashir, the king of Armenia, began to plunge without restraint into licentious pleasures to the extent that all the princes became disgusted with him.” (trans. Thomson 2006: 334).

ETYM: The nasal stem added to the reduplicated stem *otoł-* is clearly secondary. It results from the stem variation pattern discussed in § 2.5.3-2.3.

Arm. *otołem* most likely continues the iterative-intensive PArm. *\*polH-eie-* > PArm. *\*ote-* → *otołe-* with an inner-Armenian full reduplication (cf. Klingenschmitt 1982: 244; Djahukian 2010: 601; *EDAIL*: 403f., 528).

§ 2.5.1-2.37. *Ořogan-e/i-m* tr. ‘flow; be poured’, aor. act. n/a, mp. *ořogay*, past ptc., caus n/a (Bible, Agat'angelos). Next to the variant with an initial *o-* commonly attested in the Bible, a hapax *aroganem* is attested as a variant reading in Agat'angelos (see Agat'angelos 2003: 1358 below). *NBHL* 1: 310, 2: 517; *HAB* 1: 263; *RADCA*: 115.<sup>177</sup>

◇ Competing paradigmatic classes: *arogem* and *ořogem* are only attested in later or undated texts (see *NBHL*).

◇ Related words: *aru*, *i-* and *o-*stems ‘brook’.

- Transitivity: A-O (1); S<sub>0</sub>-E (2).

<sup>177</sup> Godel (1965 = 1982: 22) cites *arokanem* next to *arokem*. I could not find the actual attestations for these spellings against the standard variant with *-g-*.

The subject of the transitive construction is non-agentive. The agentive meaning ‘pour so. over so./smb.’ is expressed by *hetum* (3).

- Actionality: ACHIEVEMENT (2), ACTIVITY (1).

- (1) Agat’agnełos 2003: 1358: <...> *ew ariwnn hosēr ijanēr yotic’ anti, ew oṛoganēr* [v.l. *aṛoganēr*] *zerkirn sastik yoyž*. “And the blood ran out from his feet and watered the earth in great abundance.” (trans. Thomson 1976: 119).
- (2) Agat’agnełos 2003: 1361: *Ew et hraman k’erel zkots nora erkat’i k’erč’awk’, minč’ew oṛogan* [*aṛogan* — Mat. № 1481] *vayrk’n amenayn yarenē nora*. “He ordered his flanks to be torn with iron scrapers until all the ground was running with his blood.” (trans. Thomson 1976: 125).
- (3) Agat’agnełos 2003: 1346: *Ew k’anzi utēin ew əmpēin mardik zariwn zohic’ anasnoc’ dic’apaštut’ean, vasn aysorik eheł zariwnn iwr i veray p’aytin <...>*. “And because men ate and drank the blood of idolatrous animal sacrifices, therefore he shed his own blood on the wood <...>.” (trans. Thomson 1976: 95).

ETYM: Arm. *oṛog-* goes back to PIE *\*sreu-e/o-* intr. ‘flow’, Skt. *srávati*, Gk. *ῥέω* (cf. Klingenschmitt 1982: 204; LIV<sup>2</sup>: 588; Djahukian 2010: 75; EDAIL: 113). The hapax *aṛog-* probably resulted from the contamination with *aṛu* ‘brook’.<sup>178</sup> The root *o-*vocalism has been explained by the underlying PIE caus. act. *\*srou-eie-* tr. ‘make flow’, cf. Skt. *srāvayati* (HAB; Godel 1965 = 1982: 24; Djahukian 1982: 179), whence intr. ‘make oneself flow’ expressed by the mediopassive form of the causative. However, the derivation causative → reflexive → anticausative seems unlikely given the active voice of *oṛogem* and *oṛoganem* and their basically non-agentive meaning.

A more straightforward solution is to derive *oṛog(an)em* from PIE act. IPFV *\*sreu-e/o-* intr. ‘flow’, with the active voice marking of the intransitive verb typical of some motion verbs and attested for this particular verb in Skt. *srávati* and Gk. *ῥέω*. This case supports the sound change PArm. *\*-eu-* > *\*-ou-* (cf. Klingenschmitt 1982: 204). Presumably, IPFV *\*sreu-e/o-* has been introduced to the aorist tense through the imperfect tense (cf. *\*h<sub>1</sub>e-b<sup>h</sup>er-e-t* > Arm. *eber*), whence a recharacterised IPFV *an-*stem; see § 2.5.2-3.2.1a on the recharacterised

<sup>178</sup> The difference between the prothetic vowel of *oṛog-* ‘flow’ and *aṛu-* ‘stream’ correlates with the different ablaut grade of the underlying root *\*srou-* (< *\*sreu-*) vs. *\*sru-*, respectively. One may tentatively assume that the *o-*colour of the prothetic vowel was conditioned by the following *\*o*. See EDAIL: 715f. with a different rule, according to which the labial vowels *\*o* and *\*u* in the root must have both conditioned the *a-*colour of the prothetic vowel. Kortlandt (2003 [2001]: 132) explains the initial *a-* by a secondary nominal preposition, the existence of which, however, is not supported by the comparative evidence.

IPFV root stems. The verb cannot be derived from the PIE PFV *\*h<sub>1</sub>e-sreu-s-* (Skt. *asrauṣīt* and Gk. ἔρρευσα).

§ 2.5.1-2.38. *P'lanim* intr. 'collapse (of mountain, wall)', aor. mp. *\*p'lay*, 3sg. mp. aor. subj. *p'lc'i* (1), past ptc. *p'leal* (Elišē 2003: 569), caus. *p'luc'anem* (v.l. *p'luzanem*) tr. 'ruin (of buildings)' (e.g. 2Mac. 10, 17; Agat'angelos applies the verb exclusively to the destruction of the tower of Babel), 'dispense (of waters)' (*Is.* 11, 15 (3)); the verb is used to describe crashing waters in Elišē (cf. (2); also Elišē 2003: 569, 572). *NBHL* 2: 942; *HAB* 4: 522; *RADCA*: 140.

◇ Related words: *p'lac* 'ruin' (Movsēs Xorenac'i).

- Transitivity: S<sub>0</sub>.

- Actionality: ACHIEVEMENT.

- (1) *Job* 14, 18 *Sakayn ew learn or p'laneloc' ē p'lc'i* <...>. "But the falling mountain crumbles away <...>."
- (2) Elišē 2003: 572: *Yaynžam darnac'eal k'an zleti t'agaworn p'luzanēr* [v.l. *p'luzēr* — Mat. 1886] *andēn i p'orin zcov kamawor matjoyn iwroy* <...>. "Then the king became more bitter than gall. He spewed forth the sea of the willful bile in his stomach <...>." (trans. Thomson 1982: 98).
- (3) *Is.* 11, 15: *Ew p'lusc'ē Tēr zcov Egiptac'woc'* <...>. "And the Lord will utterly destroy the tongue of the sea of Egypt <...>."

ETYM: The verb is traditionally compared to OHG *fallan* 'fall', etc. and is derived from PIE *\*peh<sub>3</sub>l-* 'fall' (Klingenschmitt 1982: 164–172; *LIV*<sup>2</sup>: 463f.; Djahukian 2010: 768; *EDAIL*: 653f.). This etymology is complicated by the unexpected initial *p'*.

According to an alternative reconstruction, which has recently been endorsed by many scholars, the verb goes back to the prefixal PIE verb *\*h<sub>2</sub>po-h<sub>3</sub>(e)lh<sub>1</sub>-* > *\*h<sub>2</sub>póh<sub>3</sub>lh<sub>1</sub>-*, whence Gk. ἀπόλλυμι tr. 'destroy', ἀπόλλυμαι intr. 'perish', Lat. *aboleō* 'destroy', PGrm. *\*fallan-*, Arm. *p'lanim* intr. 'fall' (Praust 2005; Neri 2007). The sound change PIE *\*h<sub>2</sub>pV-* > Arm. *p'V-* is unsupported and creates a formal weakness of the etymology. If the nasal stem is inherited, it can either be compared to PGrm. *\*fallan-* (? *\*peh<sub>3</sub>l-ne-*, see *EDPG*: 126) or Gk. ἀπόλλυμαι.

§ 2.5.1-2.39. *P'rcanim* intr. 'escape', aor. n/a, past ptc. *p'rceal*, caus. n/a (Bible). *NBHL* 2: 963; *HAB* 4: 104; *RADCA*: 140.

- Transitivity: S<sub>A</sub>.

- Actionality: ACHIEVEMENT/ACCOMPLISHMENT

The value of the [± durative] aspectual feature remains unspecified.



- (1) *Prov.* 11, 8: *Ardar yorsotac' p'rcani, ew p'oxanak nora matni amparištn.* “The righteous is delivered from trouble, but the wicked takes his place.”

ETYM: Arm. *p'rc-* has no established etymology (Klingenschmitt 1982: 223f.; Djahukian 2010: 643).

§ 2.5.1-2.40. *Sksanim* tr. ‘begin’, aor. mp. *sksay*, ptc. *skseal*, caus. n/a (Bible+). *NBHL* 2: 722; *HAB* 4: 231; Künzle 2: 616; *RADCA*: 144; Zeilfelder 2004: 243.

◇ Competing paradigmatic classes: *sksnum*.

◇ Related words: *skizbn*, *n*-stem ‘beginning’.

• Transitivity: S<sub>A</sub>-E<sub>INF</sub> (1); S<sub>O</sub>-E<sub>INF</sub> (2).

• Actionality: ACHIEVEMENT.

- (1) *Agat'angelos* 2003: 1315f.: *Ard i miws ews i glux tarwoyn sksanēr Xosrov t'agaworn Hayoc' gund kazmel ew zawr bowandakel <...>.* “But at the start of the next year Khosrov king of Armenia began to raise forces and assemble an army.” (trans. Thomson 1976: 37).

- (2) *Gen.* 41, 54: *Ew sksan gal ewt'n amk' sovoyn <...>.* “<...> and the seven years of famine began to come <...>.”

ETYM: The traditional derivation of *skis-* (and *skiz-* in *skizbn*) from PIE *\*(s)ueik-* intr. ‘settle’ (cf. Skt. *veś-* tr. ‘enter’ and Av. *vīs-* tr. ‘enter’; *EWAia* 2: 584; Cheung 2007: 415f.) is formally very dubious (see discussion in Meillet 1896 = 1977: 28;<sup>179</sup> Klingenschmitt 1982: 224ff.; *LIV*<sup>2</sup>: 669f.; *EDAIL*: 581). The development of the initial consonant cluster may arguably be explained through assimilation, cf. Arm. *skesur* ‘husband’s mother’ from PIE *\*suekru-h<sub>2</sub>-*. A counter-example is *vec* ‘six’ from PIE *\*sueks* (see *EDAIL*: 594).<sup>180</sup> Yet, the comparative evidence for an *s*-mobile is missing for this root. The semantic development from ‘settle’ to ‘begin’ is not transparent even in view of the meaning ‘enter’, attested in the Indo-Iranian cognates, as a putative intermediary step in the semantic change. All in all, a better etymology would be welcome.

Djahukian (2010: 684) suggested to reconstruct *\*s-kis-* from *\*z-kis-* with a devoicing of the preposition *z-*, cf. *zgenum* ‘dress oneself’ (see § 2.1.1-2.6). The devoiced prefix has been

<sup>179</sup> Meillet’s comparison of *sksanim* to Gk. *ἰχάνω* ‘reach’ must be rejected, since the latter goes back to PIE *\*seik-* (*LIV*<sup>2</sup>: 522).

<sup>180</sup> See fn. 21 on two possible explanations of the initial *v-* by sound law or analogy. Alternatively, one might assume that Lindeman’s variant *\*suweks* was lexicalised in the early PArm. *\*hu(w)ec*. The *\*w* must have been lost next to *\*u* (cf. Arm. *atuēs* ‘fox’ < PArm. *\*alu(w)ēs-* < PIE *\*h<sub>2</sub>lōpēk-*; Gk. *άλώπηξ* ‘fox’, etc.), yielding PArm. *\*uec* ‘after *\*u* > *\*g*, whence Arm. *vec*’.

assumed for *spac'anim* 'put on (an apron)' from *\*pac'* < PIE *\*peh<sub>2</sub>ǵ-* 'fix' (see § 2.5.1-2.43). It is noteworthy that many verbs with the prefix *z-/s-*, including *zgenum*, aor. *zgec'ay* and *sp'acanim*, aor. *sp'acay*, take the mediopassive voice, just like *sksanim*, although the active voice forms are not missing, cf. *zgam*, aor. *zzac'i* 'feel'. See Künzle 1984, 1: 63\* on the variation between *z-* and *s-* across the Lazarev Codex (e.g. *sgec'eal*) and Eĵmiacin Codex (e.g. *zgec'eal*).

In my view, there is a formal possibility to derive *\*kis-* from *\*g<sup>w</sup>em-s-*,<sup>181</sup> a sigmatic PFV stem of PIE *\*g<sup>w</sup>em-* intr. 'go' (*LIV*<sup>2</sup>: 209f.).<sup>182</sup> This formal reconstruction makes sense if one assumes that Proto-Armenian had an inchoative construction with a basic motion verb and an infinitive similar to Gk. Hom. βῆ θέειν 'get to run' (*Il.* 2, 183), βῆ ἰέναι 'get to go' (*Il.* 4, 199), etc. (cf. García Ramón 2007: 285), which includes βῆ- (from PIE *\*g<sup>w</sup>eh<sub>2</sub>-*), the suppletive PFV stem of βαίνω intr. 'come' (from PIE *\*g<sup>w</sup>em-*; see the Ancient Greek forms of the suppletive paradigm in van de Laar 2000: 89–91). One may assume that PGk. *\*g<sup>w</sup>eh<sub>2</sub>-* replaced PFV *\*g<sup>w</sup>em-*, which could have been previously used in the inchoative construction in the common source of the Greek and Armenian branches. The grammaticalisation of inchoative constructions with the motion verbs is a trivial linguistic phenomenon; cf. Lat. *initium* 'beginning' from *inīre* 'go in; begin', itself derived from *īre* 'go'; (see a typological overview in Maisak 2005: 174–176).

In Old Armenian, PIE *\*g<sup>w</sup>em-* is represented by aor. *ekn* 'he went' (*gam* 'go; come') from *\*h<sub>1</sub>e-g<sup>w</sup>em-t*. Within the aforementioned etymology, one has to assume a morphological variation between PFV *\*g<sup>w</sup>em-* and PFV *\*g<sup>w</sup>em-s-*, the latter of which got lexicalised with the meaning 'begin' as part of the inchoative construction. Given the suggestive evidence on the change from PFV root stems to PFV *\*s-* stems (cf. PIE PFV *\*mer-* → PFV *\*mer-s-* > Arm. *mer'aw* 'he died'), the morphological variation between the two stems may be tentatively assumed for a certain period of Proto-Armenian. A possible trace of such variation can be assumed for *ĵer-anim* 'have a fever' next to *ĵer-num* 'head up', although another explanation is available (see §§ 2.1.1-1.4 and 2.5.1-2.25).

§ 2.5.1-2.41. *Snanim* intr. 'be nourished', aor. *snay*, ptc. *sneal*, caus. *snuc'anem* tr. 'nourish' (Bible+). *NBHL* 2: 724; *HAB* 4: 251; Künzle 2: 617; *RADCA*: 140; Zeilfelder 2004: 243.

◇ Related words: *san*, *u-* stem 'pupil', *snund* 'child'. *Snanim* often co-occurs with *cnanim* in a fixed collocation and shares with it a rare derivational pattern: *snund* next to *cnund* 'child'.

<sup>181</sup> Already Hübschmann (1897: 408, 520) analysed *skis-/sks-* as a continuant of PArm. *\*skins-* < *\*skens-* < *\*skenk-* without specifying the etymology.

<sup>182</sup> For the lack of palatalisation of *\*g<sup>w</sup>* before a front vowel, cf. *keray* 'I ate' < PIE *\*g<sup>w</sup>erh<sub>3</sub>-* (Meillet 1936: 29; Pisani 1950); see § 1.4.1.

- Transitivity: S<sub>O</sub>-E<sub>A</sub> (1, 2).

The non-agentive subject may be inanimate (1) or animate (2). The active pair is expressed by means of the morphological causative (3).

- Actionality: ACCOMPLISHMENT.

- (1) Movsēs Xorenac'i 2003: 1912: *Bayc' Eruanday zmtaw aceal, t'ē orpisi č'ar nora t'agaworut'eann snani i Mars, xēt' i srti leal oč' heštali ēr nma k'un.* "When Eruand considered what sort of enmity to his kingdom was being nourished in Media, his heart rankled and sleep no longer was sweet for him." (trans. Thomson 2006: 177).
- (2) *Acts 7, 20: <...> ew snaw i tan hawr iwroy amiss eris.* "<...> and he was nurtured three months in his father's home."
- (3) *Gen. 21, 7: Ov patmesc'ē Abrahamu et'ē snuc'anē manuk Saša?* "Who would have said to Abraham that Sarah would nurse children?"

ETYM: The verb has no good etymology. The best option is Klingenschmitt's suggestion (1970 = 2005: 35–37; 1982: 226) to compare Arm. *sun-/sn-* and YAv. *ā-sənaoiti* 'ascend' (*Yt.* 10, 13; *V.* 19, 28; *V.* 19, 30), Parth. *sn-*, *sd-* 'id.', Phl. *hwr's'n'* 'sunrise, the East' (< \**huṣar-āsāna*- 'Sunrise'), and reconstructed PIE \**ken-* (*LIV*<sup>2</sup>: 324). Av. *ā-sənaoiti* should be preferred over the reading *ā-snaoiti* (Klingenschmitt 1970; Kellens 1984: 170, 172; Kellens 1995: 61). PIr. \**sa-naw-* intr. 'rise' can be reconstructed next to caus. \**sān-aya-* 'raise' (Gershevitch 1959: 543f.; Emmerick 1968: 132f.).<sup>183</sup>

If from PIE \**ken-*, the Old Armenian verb can be derived from athematic \**ken-*, thematic \**ken-e/o-*, or caus. \**kon-eie/o-*.

§ 2.5.1-2.42. *Spanan-e/i-m* tr. 'kill', aor. act. *spani*, aor. mp. *spanay*, past ptc. *spaneal*, caus. n/a. *NBHL* 2: 734; *HAB* 4: 259; *Künzle* 2: 620; *RADCA*: 117; *Zeilfelder* 2004: 244f. The verb serves as a lexical causative of *meṛanim* 'die' and is synonymous to caus. *meṛuc'anem*.

◇ Related words: *spand*, *i*-stem 'murder'.

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2).

- Actionality: ACHIEVEMENT.

- (1) *Gen. 4, 8: <...> yareaw Kayin i veray Habeli eṭbawr iwroy ew span zna.* "<...> Cain rose up against Abel his brother and killed him."

<sup>183</sup> Djahukian's (1982: 74; 2010: 689) derivation from PIE \**psen-* 'feeding; breast' seems to be based on a non-existent etymon. Part of the Germanic cognates cited by Djahukian (MHG *spen* 'breast', *spune* 'teat') go back to the securely reconstructed PIE \**pst-en-* (cf. *EDPG*: 466). Considine (1979: 220f.) assumed that the verb was derived from the borrowed PIr. \**san-* (hesitantly Cheung 2007: 331).

- (2) *Dan. 5, 30: Ew i nmin gišeri spanaw Baltasar ark'ay K'aldēac'woc'. "That same night Belshazzar the Chaldean king was slain."*

ETYM: The noun *spand* may tentatively be derived from PArm. \**spn̄-ti-*. However, further etymology is unknown (cf. Klingenschmitt 1982: 226f.; Djahukian 2010: 691).

Theoretically, Arm. *span-* can be derived from the athematic weak stem \**spnH-* or thematic \**spnH-e/o-*. Given that the verb is markedly transitive, a full grade is expected in the case of an athematic stem.

§ 2.5.1-2.43. \**Sp'acanim* tr. 'put on (an apron)', aor. *sp'acay* (*Jn. 13, 4*), past ptc. *sp'aceal* (*Jn. 13, 5*), caus. n/a (Bible). *NBHL* 2: 765; *HAB* 4: 470; Künzle II: 625; *RADCA*: 140. The IPFV nasal stem is attested only within the derived instrument noun *sp'acaneli* 'apron' in the Bible (see Olsen 1999: 395–402 on the derivational pattern).

◇ Related words: *sp'acaneli* 'girdle; apron' (Bible); *sp'acumn* 'wrap' (John Chrysostom).

- Transitivity: A-O (1).

The transitive argument structure may result from the reflexive version of the underlying extended transitive predicate A<sub>E</sub>-O.

- Actionality: ACHIEVEMENT.

- (1) *Jn. 13, 4: <...> yaṛnē ynt'reac' anti ew dnē zhanderjsn, ew areal tenčak mi sp'acaw <...>. " <...> got up from supper, and laid aside His garments; and taking a towel, He girded Himself."*

ETYM: Klingenschmitt (1982: 227f.) suggested to derive the verb from PArm. \**z-p<sup>h</sup>ac*<sup>184</sup> from PIE \**peh<sub>2</sub>ǵ-* 'become/make firm', cf. Gk. πήγνυμι 'stick, fasten, make/become solid', Lat. *pangō* 'fix', Skt. *pajrá-* 'solid' (*LIV*<sup>2</sup>: 461). This etymology is rather attractive. A comparable use of the reflexive prefix *z-* is found in the semantically close *z-genum* 'put on'. The relative chronology of the loss of the initial \**p-* and the formation of the prefixal verb is unclear, so that the possibility remains that \**z-* was added to the root before \**p-* > \**p<sup>h</sup>-* > \**h-/∅-*. The reflex of PIE \**sp-* and \**st-* is Arm. *sp-* and *st-*, cf. *sparnam* 'threaten' (see § 2.2.1-3.1) and *stanam* 'acquire' (see § 2.4.1-2.13). See the discussion on the initial (s)*p'* from \**sp-* in Hiersche 1964: 237; Klingenschmitt 1982: 165–172, Ravnæs 1991: 120f.; de Lamberterie 1982a: 60f.; 2006: 226; Weitenberg 1992; *EDAIL*: 653f. In particular, Klingenschmitt considered the sound change PIE \**p-* > Arm. *p'* as a regular alternative to PIE \**p-* > Arm. *h-/e*, PIE \**p-* >

<sup>184</sup> The distribution between the devoicing of *z* in *sp'acanim* and the lack of devoicing in e.g. *ztem* 'clean', from *zut* 'pure', can be explained by the position of an epenthetic schwa in the initial clusters. While the schwa was inserted instead of the reduced *-u-* in *zut-* (*z<sup>3</sup>t-*), it was probably placed before the preverb *z-*, yielding <sup>3</sup>*z.pV-*, whence devoiced <sup>3</sup>*s.pV-*. Cf. *sksanim* (see § 2.5.1-2.40).

Arm.  $\emptyset/_o$ , cf. Arm. *p'orj* 'try', Arm. *p'oyt* 'zeal'. Ravnæs argued that certain cases of PIE  $*p >$  Arm.  $p'$  can be attributed to the PIE interchange of  $*sp-$ ,  $*sp^h-$ ,  $*p^h-$ ,  $*p-$ , cf. Gk.  $\sigma\pi\epsilon\iota\rho\omega$ , Arm. *sp'ir* 'spread', etc.

If the root etymology is correct,  $*p'ac-$  can be formally derived from PFV  $*ph_2\acute{g}-e/o-$ ,  $*peh_2\acute{g}-$ ,  $*peh_2\acute{g}-s-$  (cf. Gk.  $\xi\pi\eta\xi\alpha$ ), IPFV  $*peh_2\acute{g}-e/o-$ , caus.  $*poh_2\acute{g}-eie/o-$ , or, less convincingly,  $*peh_2\acute{g}-ie/o-$  (see § 1.4.2 on the expected outcome of  $*\acute{g}i$ ).

§ 2.5.1-2.44. *Stelcan-e/i-m* tr. 'model; form', aor. act. *stelci*, aor. mp. *stelcay*, past ptc. *stelceal*, caus. n/a (Bible+). *NBHL* 2: 744; *HAB* 4: 270; *RADCA*: 116.

◇ Competing paradigmatic classes: *stelcum* tr. 'form' (inf. — *Is.* 53, 11).

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2).
- Actionality: ACCOMPLISHMENT.

- (1) *Wis.* 15, 7: *K'anzi ew brti lmeal zkakuł kawn dnē i veray drgan, ew stelcanē anawt' <...>*.  
"A potter kneads the soft earth and laboriously molds each vessel <...>."
- (2) *Job.* 34, 15: <...> *ew amenayn marmin i hot darjc'i usti ew stelcaw*. "All flesh would perish together, and man would return to dust [from which it has been created — PK]."

ETYM: Arm. *stelc-* is cognate with Gk.  $\sigma\tau\acute{\epsilon}\lambda\lambda\omega$  'make ready', Alb. *shtiełl* 'collect', etc. from PIE  $*stel-$  'put in order; prepare' (Djahukian 2010: 693f.; *EDG*: 1397f.; *LIV*<sup>2</sup>: 594).<sup>185</sup> The final  $-c-$  of the verbal root is unexplained. According to Pedersen (1906: 423f.), it continues a PFV  $*s-$  stem — PIE  $*stel-s-$  (Gk. aor.  $\xi\sigma\tau\epsilon\iota\lambda\epsilon$ ). Pisani (1951: 67f.) developed this idea and assumed that PIE  $*ls$  could have had a double reflex in Proto-Armenian yielding Arm.  $l$  and  $lc$  as a trait of dialectal variation parallel to PIE  $*rs$  yielding Arm.  $r$  and  $r\acute{s}$ . The evidence for that sound change is missing, leaving *stelc-* the isolated instance of the alleged sound law.

Meillet (1898 = 1977: 43) mentioned two pairs of internal Old Armenian cognates that point to a Proto-Armenian root extension  $-c-$ : *kor-c-anem* 'prostrate' (from *korcan* 'prostrated') next to *kor-nč'im* 'perish' and *ket-c* 'affected' next to *ket-a-karc* 'doubtful' (akin to *kełem* 'hurt'). The pair *stel-c-anem* next to *stel-n* points in the same direction. We shall therefore consider *stel-c-* an inner-Armenian formation and, consequently, nasal stem *stelc-an-* must be an innovation. The direction of the root levelling is left unspecified.

§ 2.5.1-2.45. *Suzanem* tr. 'conceal', intr. 'conceal oneself', aor. act. *suzi*, past ptc. *suzeal*, caus. n/a (Bible+). *NBHL* 2: 731; *HAB* 4: 241; *RADCA*: 115.

<sup>185</sup> Perhaps ultimately related to PIE  $*stel-n-$  'stem' attested in Lat. *stolō* 'shoot (of a plant)', OE *stela* 'stalk (of a plant)', Arm. *steln* 'stem' (Olsen 1999: 138; *EDL*: 590f.).

◇ Related words: *soyz* ‘concealed’ (*get-a-soyz* ‘concealed by/in the river’, *cov-a-soyz* ‘concealed by/in the sea’, *vim-a-soyz* ‘concealed by/in the stones’, all in Łazar P’arpec’i).

- Transitivity: A-O.

The verb can take an agentive and non-agentive subject in the transitive construction, cf. (1) and (2). When taken as a lexical causative, it is synonymous to caus. *t’ak’uc’anem* tr. ‘hide’ (e.g. *Ex.* 2, 3) from *t’ak’č’im* intr. ‘hide’.

- Actionality: ACHIEVEMENT (2), ACTIVITY (1).

(1) *Prov.* 26, 26: *Or xłxayt’ē zt’šnamut’iwn, yayt arnē znengut’iwn, suzanē zvnas iwr bangētn yateni.* “Who hides enmity, makes evident the deceit; he conceals his accusation known at the assembly.”<sup>186</sup> (trans. PK).

(2) *Agat’angelos* 2003: 1569: *Vasn oroy noyn xnamakal mez erkirs payt’eac’ patařec’aw, ebac’ ziwr t’anjrut’iwnn, ew soyz, ankloyz ekul miangamayn, kendanwoyn i džoxs yutarkeac’ zlewtac’isn <...>.* “Therefore this earth, our protector, has split and been cleft, it has opened its depths; it has hidden, submerged, and quite swallowed up and escorted alive to hell the Levites <...>.” (trans. Thomson 2001: 180).

ETYM: The root goes back to *\*keud<sup>h</sup>-&-* from dial. PIE *\*keud<sup>h</sup>-* ‘hide’, cf. Gk. κεύθω (Bugge 1890: 79; Olsen 1999: 782; EDG: 682). Note that the root structure *\*T...D<sup>h</sup>* is unexpected for core PIE, thus one may be dealing here with a neo-root formed in the common source of the Greek and Armenian branches with the help of the *\*d<sup>h</sup>-*extension.<sup>187</sup>

In Ancient Greek, one also finds κευθάνω tr. ‘hide’ (*Il.* 3, 453), Hsch. κυνθάνει· κρύπτει tr. ‘hide’, κεύθομαι intr. ‘hide oneself’ in *Il.* 23, 244 (van de Laar 2000: 184). Hom. κευθάνω is attested once in the imperfect tense with the distributive punctive aspectual value, cf. *Il.* 3, 453: οὐ μὲν γὰρ φιλότητί γ’ ἐκεύθανον εἴ τις ἴδοιτο <...>. “These would not have hidden him for love, if any had seen him <...>.”<sup>188</sup> In view of the precise formal correspondence between

<sup>186</sup> The parallel Greek text has a different phrasing, which does not have an exact equivalent for *suzanē*: ὁ κρύπτων ἔχθραν συνίστησιν δόλον, ἐκκαλύπτει δὲ τὰς ἑαυτοῦ ἀμαρτίας εὐγνωστος ἐν συνεδρίοις. (ed. Rahlfs/Hanhart apud <http://www.academic-bible.com>). “Though his hatred covers itself with guile, His wickedness will be revealed before the assembly.”

<sup>187</sup> According to EDPG: 260, PGrm. *\*huzda-* ‘treasure’ (Go. *huzd* ‘treasure’, OSw. *hydda* ‘shelter’, etc.) goes back to *\*kud<sup>h</sup>-to-* ‘hidden’ derived from the same root. This etymology requires that the PGrm. *\*-zd-* arose by Bartholomae’s law, and may be doubted. By including the Germanic evidence one has to explain the aberrant root structure *\*keud<sup>h</sup>-* at the PIE level.

<sup>188</sup> Vendryes (1923: 269) claimed that the secondary nasal stem recharacterised verbs with the punctive meaning ([– durative] aspectual feature). According to him, the punctive value of the imperfect form from the above-cited Homeric example contrasts with *Od.* 19, 212, where the

Gk. Hom. *κευθάνω* and Arm. *suzanem* one might reconstruct dial. PIE *\*keud<sup>h</sup>-nHe-* as a Greek-Armenian witness of the described morphological innovation. However, it should be borne in mind that, according to van de Laar 2000: 184, the above-cited Homeric hapax *ἐκεύθανον* is opposed to the twelve occurrences of *κεύθω* ‘hide’, and may be taken as a secondary *ανε/ο-* formation which recharacterised the basic IPFV root stem, cf. *ἴζω* ‘make sit’ → *ἰζάνω*.

The PFV stem of *κεύθω* is poorly attested in Homer, cf. the aorists *ἔκυθον*, *ἐκέκυθον* and *ἔκευσσά*, attested one time each.

The root-final *-z-* may be explained from dialectal PIE or early PArm. *\*keud<sup>h</sup>-nHe-* (provided that the change of *\*-d<sup>h</sup>-* took place after the sound change PIE *\*-R-* > PArm. *\*-aR-*, and in view of Gk. *κευθάνω*, which can but need not be a recent Greek formation), the IPFV thematic root stem (cf. Gk. *κεύθω*), caus.-iter. *\*koud<sup>h</sup>-eie/o-*, or else a PFV *\*s-* stem (cf. Kortlandt 1987 = 2003: 80). The latter reconstruction is unlikely since one needs to assume a secondary thematisation of the sigmatic stem in order to explain the lenition of PArm. *\*j-* to *\*-z-*.

§ 2.5.1-2.46. *Šijanim* intr. ‘fade away (of fire)’, *fig.* ‘fade away (of strength)’, aor. mp. *šijay*, past ptc. *šijéal*, caus. *šijuc’anem* tr. ‘extinguish’ (Bible+). *NBHL* 2: 478; *HAB* 3: 515; *Künzle* 2: 533; *RADCA*: 140.

◇ Related words: *ijanem* ‘descend’, *zijanem* ‘fade away (of fire)’. The precise lexical match between *šijanem* and *zijanem* ‘fade away (of fire)’ does not allow to separate these two prepositional derivatives from *ijanem* intr. ‘go down’ (see § 2.5.1-2.24).

- Transitivity: S<sub>0</sub>.
- Actionality: ACCOMPLISHMENT.

The agentive pair ‘put out (fire)’ is expressed by the morphological causative (2).

- (1) *Mt.* 25, 8: *Asen yimark’n c’imastunsn: tuk’ mez yiwłoyd jermē, zi aha šijānin lapterk’s mer.* “The foolish said to the prudent, «Give us some of your oil, for our lamps are going out.»”
- (2) *2Chron.* 29, 7: *Ew p’akec’in zdruns tačarin, ew šijuc’in zčragunsn <...>.* “They have also shut the doors of the porch and put out the lamps <...>.”

ETYM: The verb is cognate with *ijanem* ‘go down’ (see § 2.5.1-2.24), although the initial *š-* is enigmatic.

It may tentatively be derived from dialectal prefixal PIE verb *\*h<sub>1</sub>ek<sup>s</sup>-h<sub>1</sub>e/oi-ǵ<sup>h</sup>-* (Gk. *ἐξοίχομαι/ ἐξοιχνέω* ‘go out, depart’ along with *οἴχομαι/οἴχνέω*). The dissimilation of the first

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present form renders the durative meaning: <...> *δόλω δ’ ὁ γε δάκρυα κεύθειν*. “<...> he hid his tears with guile.”

palatal in a series of two can be illustrated by PIE *\*sueks-dkm* > *\*sueks-dkm* > *\*sueksš-dkn* > *veštasan* ‘sixteen’ (see fn. 21 for details). Thus, *\*h<sub>1</sub>eks-h<sub>1</sub>e/oi-ǵ<sup>h</sup>*- could turn into *\*(h<sub>1</sub>)eks-(h<sub>1</sub>)e/oi-ǵ<sup>h</sup>*- > *\*e(k)š-e/oi-ǵ<sup>h</sup>*- (with the loss of *\*k* in a heterosyllabic *\*kš*-cluster as in *gišer* ‘evening’ < PArm. *\*uek<sup>w</sup>seros*) → *\*ēš-oi-j-* + *-ie/o-* (cf. *čanač'em* < PArm. *\*janac-* + *-ie/o-* ← *\*ǵnh<sub>3</sub>-ske/o-*) > *\*išj-* > *šj-* (with the dissimilatory loss of the initial *\*i-*). The lengthening of *\*e* before *\*-š-* is found in *ēš/iš* from PIE *\*h<sub>1</sub>ekuo-* ‘horse’ (de Lamberterie 1978: 262–266).

If correct, this etymology reveals a dialectal PIE prefixal verb in which the prefix could express a specific Aktionsart compatible with the ACCOMPLISHMENT construal of the predicate.

§ 2.5.1-2.47. *Tesanem* tr. ‘see’ (Bible+), aor. *tesī*, past ptc. *teseal*, caus. n/a. *NBHL* 2: 867; *HAB* 4: 396f; *Künzle* 2: 655–658; *RADCA*: 117; *Zeifelder* 2004: 253.

- Transitivity: A-O.

*Tesanem* patterns with a lexical causative *c'uc'anem* ‘show; indicate’.<sup>189</sup> The verb typically takes the EXPERIENCER subject, opposed to agentive *pšnum* ‘stare (intentionally)’.

- Actionality: ACHIEVEMENT/STATE (1).

(1) *Gen.* 13, 15: *Zi zamenayn erkird zor du tesanes k'ez tac' zda <...>*. “<...> for all the land which you see, I will give it to you <...>.”

ETYM: The verb can be derived from PIE *\*dek-* tr. ‘accept; receive; perceive’, cf. Gk. Hom. *δέχομαι* ‘receive’; Lat. *doceō* ‘teach’; Skt. act. *dāśnóti* ‘worship’, etc. (Klingenschmitt 1982: 228; *LIV*<sup>2</sup>: 109–112; against Hamp 1984 with an idea of contamination between two PIE roots — *\*spek-* and *\*derk-*). Arm. PFV *tes-* can be compared to the athematic PFV root stem Gk. Hom. 3 sg. mp. *δέκτο* ‘received’.<sup>190</sup> In view of the Ancient Greek cognates, the reconstruction of PArm. *\*dek-e/o-* (Viredaz 2018: 164) seems redundant, albeit formally possible. Most probably, middle verbs with bi-consonantal roots had no zero grade, cf. e.g. *ἔλεκτο* ‘got down’ (*Od.* 19, 50); see also fn. 155.

In *LIV*<sup>2</sup>: 110f., PIE IPFV *\*n(e)u-*stem has been reconstructed with an agentive meaning ‘receive a guest’ on the evidence of Skt. *dāśnóti* ‘worship; esteem’ (allegedly from *\*daśnóti* with the adjustment of the root vocalism to that of the synonymous Skt. *dāṣṭi*) and Gk. *δεικνύμενος* ‘welcoming’ (cf. *Il.* 9, 196) (allegedly from *\*dek-vu-* with the adjustment of the root vocalism to that of Gk. *δειδέχεται* ‘welcome’, cf. *Od.* 7, 72). Even if this reconstruction is

<sup>189</sup> See § 2.5.1-2.13 on the possibility of deriving *c'uc'anem* from the same root as *tesanem*.

<sup>190</sup> The interpretation of Myc. *de-ko-to* as reflecting *\*dek-to* is doubtful (see Aura Jorro 1985: 165 with references).



correct, the nasal stem of the Old Armenian non-agentive verb can hardly be considered a replacement of the *\*n(e)u*-stem in view of the agentive semantics of the latter.

§ 2.5.1-2.48. *T'k'an-e/i-m* tr., intr. 'spit; eject', aor. act. *t'k'i*, aor. mp. *t'k'ay*, past ptc. *t'k'eal*, caus. n/a (Bible+). *NBHL* 1: 824; *HAB* 2: 212; *Künzle* 2: 278; *RADCA*: 124; *Zeilfelder* 2004: 113.

◇ Related nouns: *t'uk'*, *o*-stem 'spit'.

- Transitivity: S<sub>A</sub> (1); A-O (2); S<sub>O</sub>-E<sub>A</sub> (3).
  - Actionality: ACHIEVEMENT.
- (1) *Mk.* 15, 19: <...> *ew cecēin zgluxn etegamb, ew t'k'anēin and eress* <...>. "They kept beating His head with a reed, and spitting on Him <...>."
  - (2) *Jon.* 2, 11 (*LXX* = *Jon.* 2, 10): *Ew hramayec'aw i Tearnē višap jkann, ew et'uk' zna i c'amak'.* "Then the Lord commanded the fish, and it vomited Jonah up onto the dry land."
  - (3) *2Mac.* 5, 8: <...> *ibrew gawari ew k'atak'i ew gndi matnič' ew dahič, yerkrin Egiptac'woc' erac'eal t'k'aw.* "<...> abhorred as the executioner of his country and his compatriots he was driven into Egypt."<sup>191</sup>

ETYM: The verb goes back to PArm. *\*ptū-k-*, derived from PIE *\*pteuH-*, cf. Gk. πτόω 'spit' (Solta 1960: 157; Greppin 1982: 351). It should be noted that *\*-k-* does not show the palatalisation after *\*-u-* and therefore must be an inner-Armenian innovation. Consequently, the IPFV nasal stem is an inner-Armenian innovation, too. The source of the velar is unclear. One could think of an onomatopoetic root extension or an influence of a derived noun stem with a velar suffix, cf. *p'uk'* 'breath; fart; wind'.

§ 2.5.1-2.49. *T'ranim* intr. 'fly', aor. mp. *t'ṛeay*, past ptc. *t'ṛuc'eal*, caus. *t'ṛuc'anem* 'spread (of wings, cloud)' (Bible+). *NBHL* 1: 882; *HAB* 2: 184; *RADCA*: 140.

◇ Competing paradigmatic classes: *t'ṛč'im* (Bible+), *t'ṛnum* (Cyril of Alexandria; Eusebius; Xosrov Anjewac'i). Out of the three IPFV stems, *t'ṛč'im* is the common one in early classical texts (3), while *t'ṛanim* is rare, and *t'ṛnum* is attested few times in post-classical or undated texts.

◇ Related words: *t'ṛč'un* 'bird', etc.

- Transitivity: S<sub>A</sub> (1), S<sub>O</sub> (2).

<sup>191</sup> The Zohrab Bible (1805, II: 622) reads: <...> *yerkin Egiptac'woc' erac'eal t'k'aw.* "<...> he was cast ashore in Egypt." Zohrapian signals that some manuscripts have *t'k'eaw* (3 sg. aor. ind. of the *e*-aorist), while the 1666 edition of Voskan Erevanc'i has *t'ak'eaw* (3 sg. aor. ind. from *t'ak'num* 'hide'). Given that the Old Armenian verb translates Gk. ἐκβάλλω 'throw out foam (of the sea); be cast ashore (of ships)', *t'k'aw* must be the genuine translation.

- Actionality: ACHIEVEMENT (1, 3), ACTIVITY (2)

- (1) *Prov. 27, 8: Orpēs t'ṛč'un or t'ṛani i bunoy iwrēm, noynpēs ew mard strkanay yoržam awtar anayc'ē yiwrēm tetwoy.* "Like a bird that wanders from her nest, so is a man who wanders from his home."
- (2) *Prov. 26, 2. Orpēs t'ṛč'unk' ew čnčlukk' t'ṛanin, noynpēs anēck' zur umek' oč' elanen.* "Like a sparrow in its flitting, like a swallow in its flying, so a curse without cause does not alight."
- (3) *Ps. 54, 7 (LXX = Ps. 55, 6): Asēi: Tayr ok' inj t'ews orpēs załawnwoy, zi t'ṛč'ēi, veranayi.* "I said, «Oh, that I had wings like a dove! I would fly away and be at rest.»"

ETYM: The root-final *-r-* could have originated in an IPFV *nu*-stem or in a PFV *\*s*-stem. Together with *t'it'er'n* 'butterfly', the verb can be tentatively derived from PArm. *\*ptēr(-s)/pter(-s)-* (cf. *EDAIL*: 287–29; further discussion in Clackson 1994: 169; Klingenschmitt 1982: 70). The reconstruction with the stem-final *\*-s-* is more likely given the late attestation of the *nu*-stem, which could otherwise explain the root-final *-r-*. Altogether, *\*ptēr-s-* would be a rare trace of the sigmatic stem with the lengthened grade of a root in Proto-Armenian. Note that the verb is intransitive whereas the lengthened grade is commonly reconstructed for the active voice forms of the sigmatic aorist. In order to justify the reconstruction of dialectal PIE or early Proto-Armenian *\*ptēr-s-*, one has to assume that the verb intr. 'fly' had the active voice at that stage.

The etymological connection with PIE *\*peth<sub>2</sub>-* 'fly' (Gk. πέτομαι 'fly', etc.; *LIV<sup>2</sup>*: 479) is only possible on the assumption that *\*pt-er-* and *\*pet-h<sub>2</sub>-* had root extensions.

§ 2.5.1-2.50. *Usanim* tr. 'learn', aor. mp. *usay*, past ptc. *useal*, caus. *usuc'anem* tr. 'teach' (Bible+). *NBHL* 2: 555; *HAB* 3: 610; Künzle 2: 565f.; *RADCA*: 140; Zeilfelder 2004: 223.

- Transitivity: A-O (1); S<sub>A</sub> (2).

The extended transitive verb 'teach (smb.; so.)' (in its active or antipassive version) is expressed by the morphological causative derived from *usanim* 'learn'; cf. the active and antipassive alternations in (3) and (4), respectively.

- Actionality: ACCOMPLISHMENT.

- (1) *Jer. 9, 5: <...> usan lezuk' noc'a xawsel stut'iwn <...>.* "<...> their tongues have learned to speak lies <...>." (trans. PK).
- (2) *Jn. 6, 45: Amenayn or lsē i hawrē ew usani, gay ar' is.* "Everyone who has heard and learned from the Father, comes to Me."

- (3) *Mt. 4, 23: Ew šrjēr Yisus ənd amenəyn kołmn Galiteac'woc', usuc'anēr i žołovurds noc'a ew k'arozēr zawetarann ark'ayut'ean <...>. "Jesus was going throughout all Galilee, teaching in their synagogues and proclaiming the gospel of the kingdom <...>."*
- (4) *Lk. 19, 47: Ew usuc'anēr znosa hanapaz i tačarin <...>. "And He was teaching daily in the temple."*

ETYM: The verb goes back to PIE *\*h<sub>1</sub>(e)uk-* 'get used to; learn' (Klingenschmitt 1982: 186; *LIV*<sup>2</sup>: 244f.). The PIE IPFV infix stem can be reconstructed for this root on the basis of the Baltic, Germanic, and Celtic evidence, cf. Lith. *jùnkti* 'get used to', Go. *bi-ūhts* 'accustomed' (from *\*unk-to-*), OIr. *do-ucai* 'understand' (Meillet 1936: 109; *LIV*<sup>2</sup>: 244; *EDPG*: 556). Besides, secondary stems with nasal suffixes are attested in Baltic and Slavic, cf. Lith. *jaukinti* 'tame, domesticate', Latv. *laûcēt* 'accustom', OPr. *iaukint* 'exercise', and OCS *vyknŏti* 'get accustomed'.

Although there is a close formal match between Lith. *jaukinti* and Arm. *usanim*, the two nasal stems are perhaps independent innovations which replaced the older infix stem. The Old Armenian nasal stem can be derived from the inherited PFV *\*h<sub>1</sub>euk-*, IPFV *\*h<sub>1</sub>euk-e/o-* or *\*h<sub>1</sub>ouk-eie/o-*.

§ 2.5.1-2.51. *Zangan-e/i-m* tr. 'mix; knead', aor. act. n/a, past ptc. *zangeal*, caus. n/a (Bible+). *NBHL* 1: 712; *HAB* 2: 79; *RADCA*: 115.

◇ Related words: *zanguac*, *o*-stem 'mixture'; *zangič'* 'mixturer'; *ankan-e/i-m* 'weave' (see § 2.5.1-2.5).

- Transitivity: A-O (1); S<sub>O</sub>-E<sub>A</sub> (2).
- Actionality: ACTIVITY.

- (1) *Elišē 2003: 556: <...> soynpēs ew zmanramat p'ošiac'eal hots jroyñ xonawut'eamb zanganē <...>.<sup>192</sup> "<...> so too he [Creator] grinds up fine earth and kneads it with the moisture of water <...>." (trans. Thomson 1982: 87).*
- (2) *Elišē 2003: 579: Haysk' aranc' p'andami mi zangc'in <...>. "Dough shall not be kneaded without a veil." (trans. Thomson 1982: 104).*

<sup>192</sup> The manuscripts have two variant readings of the verbal form under consideration – *zangē* (mss. Mat. N<sup>o</sup> 1888 – 1207 AD; Mat. N<sup>o</sup> 1886 – 14<sup>th</sup> century) and *zangani* (mss. Mat. N<sup>o</sup> 2559 – 15–16 centuries; Mat. N<sup>o</sup>N<sup>o</sup> 1404, 1882, 1889 – 17<sup>th</sup> century). The manuscripts where *zangani* is found also have *man(d)ramat* instead of *zmanramat* so that the syntactic context looks like passive: *manramat p'ošiac'eal hots zangani* "this fine-grinded earth is mixed".

ETYM: Most probably, the verb represents a prefixal verb derived from *ankanem* (*anganem*) ‘weave’ (from \*‘intermingle’).

§ 2.5.1-2.52. \**Zařacanim*/*\*zařacanam* tr., intr. ‘wonder, be perplexed about, turn away’, aor. act. n/a, aor. mp. n/a, past ptc. *zařaceal*, caus. n/a (Bible, Ehišē). *NBHL* 1: 715; *HAB* 1: 101; *RADCA*: 116. The only attested personal form of the verb is in the imperfect tense that does not allow to determine its voice.

◇ Related words: *ařac(an)em* or *ařac(an)im* ‘roam’ attested as *ařaceal* (3).

- Transitivity: S<sub>O</sub>/S<sub>A</sub> (2), A-O<sub>E</sub>

The underlying verb *ařac(an)em* or *ařac(an)im*, for which the nasal stem is not attested, belongs to the motion verbs and takes an AGENT-like subject. The derived verb with the *z*-prefix belongs to the mental process verbs, which can express various degrees of the subject’s control. Although the verb form in (1) and the participle in (2) seem to imply at least some degree of the subject’s control, the verb will be classified as unspecified for agentivity.

In (1), the direct object of content is expressed by the object clause. In (2), the participle points to the underlying intransitive argument structure with the SOURCE argument expressed by the ablative phrase.

- Actionality: ACHIEVEMENT/ACTIVITY

- (1) *3Mac.* 5, 15: *Darjeal miwsangam andrēn zařacaneř, zinč’irk’ic’en vasn anawrēn čepoyñ* <...>. “Once again he inquired erroneously there, what the matter was for the undue haste <...>.” (trans. *PK*).
- (2) *Tit* 1, 14: *Ew mi hayesc’in i Hrēakan ařaspels, ew i patuērs mardkan zařaceloc’n i čšmartut’enē*. “<...> not paying attention to Jewish myths and commandments of men who turn away from the truth.”
- (3) *Eznik Kořbac’i* 2003: 485: *Ew erkink’zmi tiw ew gišer ařaceal zink’eambk’, šřjin i noyn teli*. “And when the heavens have pivoted around themselves for a day and night, they return to the same place.” (trans. Blanchard & Young 1998: 155).

ETYM: The verb can be analysed in two ways depending on whether ptc. *ařaceal* is based on the IPFV or PFV stem. In the former case, the following derivation can be postulated: *acem* tr. ‘lead’ → *ař-acem* or *ař-acim* ‘lead oneself; roam’ → *z-ařac-anem* or *z-ařac-anim* \*‘lead oneself away’ > ‘turn away; be perplexed about’. In the latter case, the derivation might have been as follows: *acem* → *ař-ac-anem* or *ař-ac-anim* → *z-ařac-anem* or *z-ařac-anim*, cf. *anc’anem* ‘pass by’ → *ař-anc’anim*, *z-ař-anc’anem* ‘be(come) delirious’ (§ 2.5.1-2.3). The prefix *z-* marks the reflexive/anticausative derivation, cf. *hart’num* ‘retreat’ → *zart’num* ‘awake’ (§ 2.1.1-3.8).

§ 2.5.1-2.53. *Zbawsanim* intr. ‘take rest’ (Bible+), aor. mp. *zbawsay*, ptc. *zbawseal*, caus. *zbawsuc’anem* tr. ‘cheer up (smb.)’ (P’awstos Buzand). *NBHL* 1: 723; *HAB* 2: 86; *RADCA*: 140.

◇ Competing paradigmatic classes: *zbawsnum* (Movsēs Xorenac’i), *\*zbaws(an)am* (caus. *zbawsac’uc’anem*, Bible).

◇ Related words: *zbawsank’* ‘rest’ (2*Mac.* 4, 46).

- Transitivity: S<sub>A</sub> (1).
- Actionality: ACTIVITY.

(1) *Gen.* 24: 63. *Ew el Isahak zbawsanel i daštin and ereks* <...>. “Isaac went out to meditate in the field toward evening <...>.”

ETYM: The etymology is unknown. The reflexive semantics explains the use of the *z*-prefix. Djahukian’s suggestion to derive the verb from *\*b<sup>h</sup>ā-u-k-* (Djahukian 2010: 235), ultimately from *\*b<sup>h</sup>eh<sub>2</sub>-* ‘say’, is morphologically and semantically opaque.

§ 2.5.1-2.54. *Zercan-e/i-m* tr. ‘take so. off smb./oneself’ (of clothes, adornments, skin, etc. — *Job.* 22, 6; *1Mac.* 2, 11; *Mic.* 3, 2; etc.; of goods — Eznik Kołbac’i 2003: 441; of a brand taken of the fire – *Amos* 4, 11); *zercanim* intr. ‘escape; avoid; get rid of’ (*Ex.* 28, 28; etc.); aor. act. *zerci*, aor. mp. *zercay*, past ptc. *zerceal*, caus. *zercuc’anem* ‘deliver from; make escape’ (Bible+). *NBHL* 1: 733; *HAB* 2: 92; *RADCA*: 116; Zeilfelder 2004: 100.

◇ Competing paradigmatic classes: *zercum* (6). The *u*-stem is used in the transitive construction, in which the E argument of the underlying extended transitive verb is expressed circumstantially in a complement clause of the O argument.

◇ Related words: *terazerc* ‘skinless’ (Eznik Kołbac’i); *zerc* adj. ‘free; safe’ (Movsēs Xorenac’i), *zercuc’ič’* ‘deliverer, rescuer’ (Eznik Kołbac’i).

- Transitivity: A-O-E (1); S<sub>A=O</sub>-E (3); S<sub>O</sub>-E (2).

The reflexive version of the underlying extended transitive predicate can have expressed GOAL or SOURCE arguments turning the verb into an extended intransitive motion verb ‘escape’.<sup>193</sup> This specialised meaning is common in early classical texts. While the GOAL argument always relates to a location (4), SOURCE can denote a location or an undesirable situation (e.g. sins – *1Pet* 2, 24, or slavery – *Neh.* 1, 3).

The transitive verb *zercan-e/i-m* ‘take so. from smb.’ has no attested morphological causative, whereas the morphological causative *zercuc’anem* ‘deliver from; make escape’ neatly corresponds to the basic meaning of *zercanim* ‘escape’ (5).

<sup>193</sup> In Movsēs Xorenac’i, one finds the anticausative meaning ‘slip out’ (of a column – II, 35; of a person falling from a mountain side – III, 45). This use is a marginal extension of the autocausative one, and may belong to the 5<sup>th</sup> century norm or not.

• Actionality: ACHIEVEMENT.

- (1) Eznik Kořbac'i 2003: 441: *Apa et'e zanmetn, ok', oroy oč' inč' i včřakanac'n gorceal ic'ē, spananic'ē kam vasn inč's zercaneloy, kam vasn stac'uacs hataneloy, č'arut'iwn gorcē.* "But someone does do evil if he kills an innocent person who committed no criminal act, or in order to take away possessions, or to cut off property." (trans. Blanchard & Young 1998: 53).<sup>194</sup>
- (2) *1Mac. 2, 11: Amenayn zardk' nora zercaw i nmanē, p'oxanak azatut'eann matnec'aw i strkut'iwn.* "All her adornment has been taken away; no longer free, she has become a slave."
- (3) *Judg. 3, 26: Ew Awovd zercaw i Sirovt'a minč' nok'a zatmkawn ēin <...>.* "Now Ehud escaped while they were delaying <...>."
- (4) Agat'angelos 2003: 1399: *Ew andēn zhanderjikh patarātun or znovawn ēr i bac' zercuīn* [v.l. *zercuc'in* — Mat. №№ 1479, 1481] *i nmanē <...>.* "Then they stripped from her the torn clothing which was around her." (trans. Thomson 1976: 205).
- (5) Eznik Kořbac'i 2003: 501: *Bayc oč' ibrew zardarakorov, ayl ibrew znengawor ew zkaskacot areal mekusi zmardn zelcuc'anēr t'e* «*Es em Astuac, ew č'ik' ayl ok' bayc' yinēn*». "However, not like a just one, but rather like a deceiver and a suspicious one, he took man aside and deceived: «I am God, and there is no other apart from me.»" (trans. Blanchard & Young 1998: 189).

ETYM: The initial *z-* is a prefix, as becomes clear, in particular, from the augmentless 3 sg. aor. *zerc* (*Ps.* 29, 12), see Klingenschmitt 1982: 206f.

The root *\*erc-* has been derived from PIE *\*serǵ-*, cf. Skt. *syjáti* 'let loose; throw out; release (of waters)', YAv. *harəz-* 'release (esp. of water, liquid)' (cf. Hübschmann 1897: 446; Pedersen 1900a: 289). Within this etymology, the root can be derived from PFV *\*serǵ-* or *\*serǵ-s-*, or IPFV *\*serǵ-e/o-* (this option is preferred, in particular, in de Lamberterie 1980: 26), and, less convincingly, from *\*serǵ-ie/o-* (see § 1.4.2 on the outcomes of PIE *\*ǵi* and *\*ǵs*).

However, the aforementioned etymology is insecure given that the Indo-Iranian verbs have been alternatively compared to Gk. *λαγάσσαι· ἀφείναι* (Hsch.), cf. *LIV*<sup>2</sup>: 528f.; Cheung 2007: 132f.; *EWAia* 2: 709.

<sup>194</sup> The phrase *vasn ink's zercaneloy* should be translated here as "in order to take away possessions". The variation between the constructions [*vasn* + gen. inf. + gen.] and [*vasn* + gen. inf. + acc.] is well attested in early classical texts without a clear functional difference.

§ 2.5.1-3. IPFV *-an-* : PFV n/a

§ 2.5.1-3.1. *Aracanem* tr. 'graze, feed', aor. act. n/a, mp. n/a, past ptc. n/a, caus. n/a (hapax in the Bible). The only attestation comes from the Bible and is a *varia lectio* of *aracēin* of the Zohrab Bible (*Ezek.* 34:8: *aracanēin* [Venice 1860], v.l. *aracēin* [Venice 1805: 771 = Constantinople 1895: 882]). The form *aracanēin* was chosen in Bargatuni's Bible edition (1860) and, from there, has passed to *NBHL* (1). Probably, an *an*-stem was introduced in the cited context under the influence of the parallel verb *bucanem* (even though used in the aorist form in the cited context). *NBHL* 1: 338; *HAB* 1: 294; Künzle 2: 95; *RADCA*: n/a.

◇ Competing paradigmatic classes: *arac-e/i-m* tr., intr. 'graze' (common in the Bible).

◇ Related words: *arawt*, *i*-stem 'pastureland'.

- Transitivity: A-O.

The cited imperfect tense form is labile and does not allow to define the voice assignment pattern of the present indicative.

- Actionality: ACTIVITY.

(1) *Ezek.* 34, 8: <...> *ew bucin hoviwk'n zanjins iwreanc', ew zxašins im oč' arac[an]ēin.*  
 "⟨...⟩ but rather the shepherds fed themselves and did not feed My flock."

ETYM: Arm. *arac-* can, perhaps, be compared to Gk. τρώγω 'gnaw, eat' (next to τράγος 'he-goat') and Toch. B *tresk-*, A *trāskā-* 'chew' (cf. Djahukian 2010: 84; *EDAIL*: 125; against *LIV*<sup>2</sup>: 647; *EDG*: 1515; see Peyrot 2013: 761 on the Tocharian forms). While Arm. *arac-* can be derived from *\*trHǵ(-s)-*, *\*treh<sub>2</sub>ǵ(-s)-*, or *\*treh<sub>2</sub>g-s-*, Gk. τρώγω may go back to *\*trh<sub>3</sub>ǵ-*, *\*troHǵ-* or *\*trh<sub>3</sub>g-*, *\*troHg-*.<sup>195</sup> While Martirosyan (*EDAIL*: 125) chooses *\*treh<sub>2</sub>ǵ-* for Arm. *arac-*, *\*troh<sub>2</sub>ǵ-* for Gk. τρώγω, and *\*trh<sub>2</sub>ǵ-* for τράγος. Although PGk. *\*troh<sub>2</sub>ǵ-* is an irregular IPFV stem, it is not isolated, cf. ὀρούω intr. 'rush away' from *\*h<sub>3</sub>rou-* (*EDG*: 1107). *LIV*<sup>2</sup>: 647 explains τρώγω by *\*treh<sub>3</sub>g-e/o-* or *\*treh<sub>3</sub>ǵ-e/o-*, rejects the comparison to Arm. *arac-*, and treats the root vowel of τράγος as a secondary zero-grade.

Reconstruction of the sigmatic stem *\*treh<sub>2</sub>ǵ-s-* or *\*treh<sub>2</sub>g-s-* relies on the sound changes PIE *\*ǵs* > Arm. *c* and PIE *\*gs* > Arm. *c* that are unsupported by examples but expected for structural reasons, see § 1.4.2.

§ 2.5.1-3.2. *Arcarcnem* tr. 'kindle', aor., past ptc., caus. n/a (hapax in the Bible). *NBHL* 1: 361; *HAB* 1: 318; *RADCA*: 116. The verb is a synonym of *luc'anem* 'kindle' (see § 2.5.1-2.30).

◇ Competing paradigmatic classes: *arcarcem* 'kindle', fig. 'stimulate' (Koriwn), *arcarcim* 'glow' (Agat'angelos).

<sup>195</sup> Note that the timbre of the prothetic vowel is *a-* and not *e-*, which is sometimes considered the only possible timbre of the prothetic vowel in Proto-Armenian (cf. Kortlandt 2001 = 2003: 132).

◇ Related words: *arcnem* tr. ‘enamel’ (see § 2.3.2-3.1). The nasal variant is rare compared to the common thematic verb *arcarc-e/i-m*.

- Transitivity: A-O.
- Actionality: ACTIVITY.

The passive voice is not attested. The use of an *an*-stem could have been influenced by the synonymous lexical causative of the *an(e/i)*-class, *luc'anem* ‘kindle’.

- (1) *Is. 54, 16: Ahawasik es hastatec'i zk'ez, oč' orpēs darbin mi or p'k'ovk' kaycakuns arcarcane ew yaṙaṙ berē anawt's i gorc <...>. “Behold, I Myself have created the smith who blows the fire of coals and brings out a weapon for its work <...>.”*

ETYM: An Old Armenian innovation derived from the more commonly used *arcarcem*. This is warranted by the reduplicated structure of the stem, cf. *otołan-e/i-m* next to *otołem* (see § 2.5.1-2.36).

§ 2.5.1-3.3. *Eluzanem* tr. ‘produce (of a human producing sounds; of plants)’ (Dionysius of Thrax, 6 century), aor. act., past ptc., caus. n/a. *NBHL* 1: 650; *HAB* 2: 8; *RADCA*: n/a.

◇ Prefixal verbs: *and-eluzan-e/i-m* ‘embed; align’.

◇ Related nouns: *eluzumn* ‘sprout; production (of vine-branch)’ (*Book of Chries*, 6 century); *mard-eloyz* ‘man-kidnapper’ (Bible); *yeluzak* ‘robber’ (Movsēs Xorenac'i); cf. *EDAIL*: 248.

- Transitivity: A-O.

The meaning ‘produce’, compatible with the noun *eluzumn*, contrasts with the meaning ‘take away; rob’ preserved in the compound *mard-eloyz* and the prefixal verb *y-eluz-ak*. These two meanings can be explained as alternations of the underlying extended transitive predicate *eluzanem* ‘A makes O part from E’. The meaning ‘produce’ represents a reflexive alternation with the argument structure  $A_E$ -O, while the meaning ‘take away’ implies an external SOURCE argument. The E argument might condition the use of the prefix of *y-eluzak* that corresponds to the preposition of the ablative phrase that typically marks the SOURCE argument.

- Actionality: ACHIEVEMENT/ACTIVITY.

The habitual use in (1) does not allow controlling the actionality of the verb when used in contexts with a specified time reference.

- (1) Dionysius of Thrax (apud *NBHL* 1: 650): *Jaynawork' asin, vasn zi jayns yink'eanc' anpakas eluzanen*. “They are called vowels (*phōnēenta*) because they constitute an articulate utterance (*phōnē*) on their own.” (trans. Kemp 1986: 348).

ETYM: Although the verb is only attested since the 6<sup>th</sup> century, it must be older, given that the derived nouns are attested since the Bible. The origin of this verb is ambiguous. On the



one hand, it can be analysed as a causative of *elanem* ‘go out’, cf. *p’lanim* ‘collapse’ → *p’luzanem* ‘ruin’ (see § 2.5.1-2.38); thus, Klingenschmitt 1982: 263. On the other hand, *elanem* and *eluzanem* can be derived from two separate PIE roots, *\*h<sub>1</sub>elh<sub>2</sub>-* and *\*h<sub>1</sub>leud<sup>h</sup>-*, respectively.

PIE *\*h<sub>1</sub>leud<sup>h</sup>-* is found in securely reconstructed verbal and nominal formations. In Greek and Italic languages, one finds traces of *\*h<sub>1</sub>leud<sup>h</sup>-ero-* ‘free (man)’ (cf. Gk. ἐλεύθερος, Lat. *liber*, Osc. *loufir*, etc.), while Germanic, Baltic, and Slavic languages preserved designations of the people derived from *\*h<sub>1</sub>leud<sup>h</sup>-o-* or *\*h<sub>1</sub>leud<sup>h</sup>-i-*, cf. OHG *liut*, Lith. *liáudis*, OCS *ljúdi* ‘people’.

In view of the reconstructed substantival stems, one might tentatively reconstruct the underlying predicate lexeme with the meaning ‘be(come) free’ / ‘make free’. However, the actual verbal cognates point to the meaning ‘go’, cf. Gk. aor. ind. ἤλυθον (epic, lyric), fut. ἐλεύσομαι (suppletive forms to pres. ind. εἶμι intr. ‘come; go’) and rare Doric ἐλευσίω tr. ‘carry, bring’ (cf. *EDG*: 408f., 410; van de Laar 2000: 140; *EDAIL*: 248f. with references), PCelt. *\*lude-* ‘went’, suppletive preterite of the verb ‘go’ (OIr. *téit* ‘goes’, pret. *luid* ‘went’; see *EDPC*: 247), and Toch. A *lät-*, B *lät-* ‘go out’ (Malzahn 2010: 344f.; Peyrot 2013: 444–448; Adams 2013: 598–600). PToch. pret. *\*lät<sup>o/e</sup>-* reflects the PFV thematic root stem and accords with Ancient Greek and Proto-Celtic so that PFV *\*h<sub>1</sub>lud<sup>h</sup>-e/o-* can be reconstructed for the proto-language.<sup>196</sup> In Tocharian, the causative Toch. B *ləwt-* tr. ‘expel’, A *läwt-* ‘remove’ from *\*leud<sup>h</sup>-* had a sigmatic preterite stem (Peyrot 2013: 448, 812).

In order to derive Arm. *eluzanem* from the same PIE root, one has to assume PArm. *\*h<sub>1</sub>leud<sup>h</sup>-&-*, where *-&-* stands for a thematic vowel or *\*-s-*, or caus.-iter. *\*h<sub>1</sub>loud<sup>h</sup>-eie/o-*. If the Tocharian sigmatic stem is inherited, it provides the comparative evidence for the reconstruction of a PFV *\*s-* stem for Old Armenian (as suggested in Kortlandt 1987 = 2003: 80; Viredaz 2018: 202f.). The sound change PIE *\*d<sup>h</sup>s > Arm. z* requires the sigmatic stem to have undergone a secondary thematisation in order to condition the lenition of PArm. *\*j* to *z* (see § 1.4.2). Alternatively, the root-final *-z-* can be explained by IPFV *\*h<sub>1</sub>leud<sup>h</sup>-e/o-* (a root stem with the full grade comparable to PToch. caus. *\*leud<sup>h</sup>-*) or *\*h<sub>1</sub>loud<sup>h</sup>-eie/o-*.

Both solutions — the explanation of *eluzanem* as a causative of *elanem* as well as its derivation from *\*h<sub>1</sub>leud<sup>h</sup>-&-* — rely on the semantic change from ‘go out’ to ‘make go out; produce’, which seems entirely acceptable (against Greppin 1981a and Ravnæs 1991: 144).

<sup>196</sup> In Ancient Greek, ptc. ἐλήλυμεν (Att.) as well as substantives νέηλυς ‘newcomer’ (Hom.) and ἔπηλυς ‘stranger’ (Hdt.), allow separating *-θ-* (*\*-d<sup>h</sup>-*) from the root. Chantraine cautiously suggested to interpret *-θ-* as a root extension or a suffix with the telic value denoting “aboutissement de l’action” (*DELG* 2: 337f.). This analysis offers an explanation of the fact that the verb constitutes the PFV forms in a suppletive paradigm of the verb ‘go’ in Greek and Celtic.

§ 2.5.1-3.4. *Əndelanim* intr. ‘come together; approach’, aor., past ptc. n/a, caus. *əndeluc’anem*, *əndeluzanem* tr. ‘align; make come together’ (Bible). *NBHL* 1: 770; *HAB* 2: 8; *RADCA*: 140.

◇ Competing paradigmatic classes: *əndelnum* ‘become familiar’ (see § 2.1.1-4.2); *əndelanam* ‘come together; approach’ (see § 2.4.1-2.4).

◇ Related words: *elanem* intr. ‘go out’ (see § 2.5.1-2.15); *eluzanem* tr. ‘make go out; produce’ (see § 2.5.1-3.3).

- Transitivity: S<sub>A</sub> (1).

The verb is attested in the imperfect tense form. It is unclear whether its present tense forms had the active or mediopassive voice in the intransitive construction. Given that the morphological causative is found in the transitive construction (with animate and non-animate objects in (2) and (3), respectively), one can postulate mediopassive present forms.

Depending on the lexical meaning ‘embed’ or ‘align; make come together’ the TARGET argument is encoded by the prepositional phrases *i* + dat. or *ənd* + acc., respectively.

- Actionality: ACCOMPLISHMENT.

- (1) *Acts* 9, 26: *Ibrew ekn Sawłos yErusatem*, *əndelanēr yarel yašakertsn*. “When he came to Jerusalem, he was trying to associate with the disciples <...>.”
- (2) *2Mac.* 10, 15: *Əndelanēin əndeluzanēin p’axuc’anel znosa jErusatēmē, gund gorcēin, marti patrastēin*. “They received and made receive those who were to be banished from Jerusalem, and endeavored to keep up the war.” (trans. *PK*).
- (3) *Ex.* 28, 17: *Ew əndeluzc’es i nma əndeluzacs, əst č’orek’kargean akanc’ <...>*. “You shall mount on it four rows of stones <...>.”

ETYM: Derivative of *elanem* ‘go out’. The following derivational chain can be postulated: *elane-* ‘go out’ → *ənd-el-n-u-*, *ənd-el-an-i-* ‘go towards (each other, smb.); come together’.

Depending on whether or not *eluzanem* is a morphological causative of *elanem* (see § 2.5.1-3.3), *əndeluzanem* is to be considered a prefical form of the causative or an adjustment of *əndeluc’anem* on the analogy of *elanem* ‘go out’ next to *eluzanem* ‘produce’.

§ 2.5.1-3.5. *Ənt’erc’anem* tr. ‘read’, aor. act./mp., past ptc., caus. n/a (Bible). *NBHL* 1: 777; *HAB* 2: 126f.; *RADCA*: n/a.

◇ Competing paradigmatic classes: *ənt’ernum* (see s.v.).

◇ Related words: *ənt’erc’aneli* ‘prone for reading’ (*2Mac.* 2, 26).

- Transitivity: A-O.
- Actionality: ACCOMPLISHMENT/ACTIVITY.

The value of the [ $\pm$  telic] aspectual feature remains unspecified.

- (1) *Jer. 36, 8: Ew arar Baruk' ordi Nereay əsts amenayni zor patuireac' nma Eremia margarē, ənt'erc'anel i matenēn zpatgams Tearn i tan Tearn.* “Baruch the son of Neriah did according to all that Jeremiah the prophet commanded him, reading from the book the words of the Lord in the Lord’s house.”

ETYM: Derived from *ənt'er'num*; see § 2.1.1-2.2.

§ 2.5.1-3.6. *Gercanem* tr. ‘shave’, aor. act., aor. mp., ptc. *gerceal*, caus. n/a (Bible). The IPFV *an*-stem occurs only once in the form of the gerundive *yet gercaneloyn zna* “after shaving him” (1). Remarkably, the same gerundival phrase has *gerceloyn* (as if from *gercem*) in the next sentence (2). *NBHL* 1: 548; *Künzle* 2: 47–49; *HAB* 2: 545; *RADCA*: 116.

◇ Competing paradigmatic classes: *gercum* ‘shave’ (Bible+). The IPFV *u*-stem is well attested. Given that the suffixless *u*-conjugation is also characterised by PFV root stems, the attribution of numerous forms derived from the PFV stem to either paradigmatic class is ambiguous.

◇ Related words: *gercumn* ‘shaving’ (Bible).

- Transitivity: A-O.
- Actionality: ACCOMPLISHMENT.

- (1) *Lev. 13, 34: <...> ew aha č'ic'ē sp'řeal haracn ənd mort'n yet gercaneloyn zna <...> srbesc'e zna k'ahanayn <...>.* “<...> and if the scale has not spread in the skin after his cleansing <...> the priest shall pronounce him clean <...>.” (trans. *PK*).
- (2) *Lev. 13, 35: Apa t'ē sp'řelov sp'řesc'i haracn ənd mort'n yet gerceloyn zna <...>.* “But if the scale spreads farther in the skin after his cleansing <...>.”

ETYM: From PIE *\*uerǵ-* ‘shear’ together with Toch. B *wər̥k-* ‘shear’<sup>197</sup> (cf. *LIV*<sup>2</sup>: 688; Adams 2013: 637; *pace* Djahukian 2010: 158). The root can be derived from PFV *\*uerǵ-* or *\*uerǵ-s-*, IPFV *\*uerǵ-e/o-*, and, less convincingly, from IPFV *\*uerǵ-ie/o-* (see § 1.4.2 on the expected outcome of *\*ǵi*).

§ 2.5.1-3.7. *Hiwcanim* intr. ‘wane (of the Moon); slip away (of a dying person)’, aor. mp., ptc., caus. n/a (Eznic Koľbac'i). The verb is attested once in the examined corpus in Eznic Koľbac'i's *De Deo*. *NBHL* 2: 101; *HAB* 3: 99; *RADCA*: 140, Zeilfelder 2004: 167.

◇ Related words: *hiwcumn* ‘slipping away (of a dying person)’ (Movsēs Xorenac'i).

- Transitivity: S<sub>0</sub>.
- Actionality: ACCOMPLISHMENT.

<sup>197</sup> See further details on the Tocharian evidence in Malzahn 2010: 868f. and Peyrot 2013: 821.

- (1) Eznik Kořbac'i 2003: 435: <...> *kam zlusin, or amsoy amsoy hiwcani, gret'e ew merani ew apa skizbn arnu kendananaloy <...>*. "Or the moon, which wanes monthly and almost dies, and then it receives anew a beginning of life in order to paint an image of resurrection for you." (trans. Blanchard & Young 1998: 40).

ETYM: Arm. *hiwc-* has no secure etymology. The verb is traditionally compared to Go. *siukan* 'be ill', adj. *siuks* 'ill' and derived from PIE *\*seuǵ-* or *\*seug-* 'fade' (see de Lamberterie 1982b: 81; Clackson 1994: 233f.; *EDPG*: 410). De Lamberterie reconstructed the root *e*-grade by assuming a sound law PIE *\*eu* > Arm. *iw*. A counter-example for PIE *\*eu* > Arm. *iw* is dial. PIE *\*-eu-ti-* > Gk. -ευσις, Arm. *-oyt'* (Ravnæs 1991: 31f.). Alternatively, the *\*ē*-grade has been suggested (Djahukian 1982: 36, 181, 212); however, the morphological structure of *\*sēuǵ-* or *\*sēug-* thus remains unexplained. The PIE active voice of the sigmatic aorist *\*sēuǵ-s-* or *\*sēug-s-* is at odds with the intransitive structure of the Germanic and Armenian cognates. In my opinion, this etymology must be counted as dubious.

An alternative solution has been offered by Klingenschmitt (1982: 217), who derives *hiwc-* from PIE *\*pi-pd-ie/o-* 'go down' (accepted in *LIV*<sup>2</sup>: 458). However, the sound change PIE *\*dī* > Arm. *c* is doubtful (see § 1.4.2).

§ 2.5.1-3.8. *Imanim* intr. 'be understood', aor. mp. n/a, past ptc. n/a, caus. n/a (Elišē, Movsēs Xorenac'i). *NBHL* n/a; *HAB* 2: 241; *RADCA*: 140.

◇ Competing paradigmatic classes: *imanam* 'understand'.

- Transitivity: S<sub>0</sub>.
- Actionality: STATE.

- (1) Movsēs Khorenac'i 2003: 1757: *Isk koč'eld krknaki imani, kam anuanel orpēs zmořac'eal, kam yawgnakanut'iwn kardal*. "But this 'calling' can be understood in two ways: either naming as of something forgotten or summoning to help." (trans. Thomson 2006: 70).

ETYM: The impersonal passive predicate *imani* 'be known' is derived from the verb *imanam* tr. 'understand', intr. 'be known' (see § 2.4.1-2.7). The change in the paradigmatic class correlates with the grammaticalisation of 3sg. mp. with the function of modal predicates, cf. *mart'i* 'it is possible'.

§ 2.5.1-3.9. *Lizanem* tr. 'lick', aor. act. n/a, past ptc. n/a, caus. n/a (Bible). *NBHL* 1: 886; *HAB* 2: 277; Künzle 118; *RADCA*: 115.

◇ Competing paradigmatic classes: *lizem* (Bible; Eznik Kořbac'i); *lizum* 'lick' (Bible). The verb *lizum* is used in the context (2) that is seemingly identical to *lizanem* in (1).

- Transitivity: A-O (1).
- Actionality: ACCOMPLISHMENT (1), ACTIVITY (1)

The choice of an IPFV *an*-stem in the aspectual meaning of near future might be motivated by the context realisation of the [+telic] aspectual feature (bounded by the quantifier *amenayn* ‘all’ as its direct object in the cited context).

- (1) *Num. 22, 4: Ard lizanē žotovurds ays zamenayn or šurj zmewk' en, orpēs lizanic'ē arjař zdet dalar i dašti.* “Now this horde will lick up all that is around us, as the ox licks up the grass of the field.”
- (2) *Judith 7, 4: Ayžm lizun nok'a zamenayn eress erkri, ew oč' lerink' barjunk', ew oč' jerk' ew blurk' karasc'en kal araji zawrut'ean doc'a.* “They will now strip clean the whole land; neither the high mountains nor the valleys nor the hills will bear their weight.”

ETYM: The verb is derived from PIE *\*leigʰ-* ‘lick’ (Klingenschmitt 1982: 208–210; Djahukian 2010: 296; *EDAIL*: 308f.). The comparative evidence allows to reconstruct the PIE verb with an athematic IPFV root stem (Skt. *rédhi*), a PFV *\*s*-stem (Gk. *λεῖξαι*), and a caus.-iter. *\*eie*-stem (Lith. *laižyti*); see *LIV*<sup>2</sup>: 404.

In order to explain the root-final *-z-*, one can start from the inherited IPFV *\*leigʰ-e/o-* (cf. Gk. *λείχω* ‘lick’), or *\*leigʰ-nHe/o-* (with *\*VjV > VzV* after the prevocalisation of the nasal in the suffix), or a caus.-iter. *\*eie*-stem. Assuming a PFV *\*s*-stem (with the sound change *\*VgʰsV > \*VjV*) one has to postulate a secondary thematisation of the sigmatic stem in order to explain the change from *j* to *z* (see § 1.4.2).

Remarkably, nasal verbs from *\*leigʰ-* are attested in several branches. It has been suggested that Lat. *lingō* ‘lick’ replaced the older athematic IPFV stem (Meillet 1934: 201). Some scholars prefer to reconstruct the infixed stem to PIE (*EDL*: 343) but the issue of the competing athematic IPFV stem then remains without an explanation. The replacement of the athematic stem can be postulated for the Germanic prototype of OE *liccian* ‘lick’ < *\*liġʰ-néh<sub>2</sub>-* (*EDPG*: 337). If Lat. *lingō* is to be derived from *\*liġʰ-n(é)h<sub>2</sub>-* with Thurneysen’s law, the replacement could be ascribed to dialectal PIE. In any account, the Old Armenian thematicised nasal stem has the root shape that derives from the full grade of the root. It can only be compared to *\*liġʰ-n(é)h<sub>2</sub>-*, if one assumes that the root shape of the PFV stem replaced the root shape of the inherited nasal stem without affecting the nasal suffix: dial. PIE IPFV *\*liġʰ-n(é)h<sub>2</sub>-* → PArm. IPFV *\*liġʰ-nHe/o-* : PFV *\*leigʰ-s-* → IPFV *\*leigʰ-nHe/o-*. This scenario seems less economical compared to the alleged derivation of the nasal stem from the thematicised IPFV root stem: *\*leigʰ-e/i-* > *\*leize-* → *\*leiz-an-e-* (or later *\*liz-an-e-*).

The stem *lizu-* is probably adjusted to the *u*-stem of *lezu* ‘tongue’.

§ 2.5.1-3.10. *Xacnem* tr. ‘bite’, aor. act., past ptc., caus. n/a (Bible). *NBHL* 1: 912; *HAB* 2: 317f.; *RADCA*: 116.

◇ Competing paradigmatic classes: *xacatem* ‘bite’ — the *at*-suffix has an iterative derivational meaning.

◇ Related nouns: *xayt* ‘bite’ (see *EDAIL*: 324f.).

- Transitivity:  $S_A$ .

The cited contexts represent antipassive alternation of the base transitive verb ‘bite so.’

- Actionality: ACHIEVEMENT.

The only two attestations of the verb come from the Bible (1, 2). In both cases, the ACHIEVEMENT verb is used in habitual contexts. Most clearly the ACHIEVEMENT construal is seen in (2), where the ACTIVITY meaning ‘chew’ is excluded.

(1) *Mic.* 3, 5: <...> or *xacanen* *atamambk' iwreanc' ew k'arozen nma zxałatut' iwn* <...>. “When they have something to bite with their teeth, They cry, “Peace” <...>.”

(2) *Deut.* 8, 15: *Ew ac zk'ez ənd anapatn mec ew ənd ahagin, ur awjn xacanēr ew karič* <...>. “He led you through the great and terrible wilderness, with its fiery serpents [lit. “serpents that bite” — *PK.*] and scorpions <...>.”

ETYM: Arm. *xac-* is traditionally compared to Skt. *khādati* ‘bite, eat, digest’, PIr. *\*xād-* ‘devour, eat’: Khot. *khās-* ‘eat, drink’; NPers. *xāyīdan/xāy-* ‘chew, gnaw, eat’; see Cheung 2007: 445; Djahukian 2010: 310f.; *EDAIL*: 323f.; *LIV*<sup>2</sup>: 359f.<sup>198</sup> In order to account for the word-initial *\*kh-* and the long *\*-ā-* in Indo-Iranian, Lubotsky (*p. c.*) reconstructs *\*kHaHd-*. According to him, the Old Armenian verb can be an early Iranian loanword or a parallel borrowing from a common source with the Proto-Indo-Iranian.

Whatever was the exact source of the root, it had to be extended with a secondary stem-forming suffix in order to yield an affricate. Kortlandt (1987 = 2003: 80) opts for an *\*s*-stem. The reconstruction of a *\*ie/o*-stem is doubtful (see § 1.4.2 on the *\*Cs-* and *\*C<sub>i</sub>-* clusters). Cf. semantically close *kcanem* ‘bite; sting’ with a comparable issue (§ 2.5.1-2.26).

<sup>198</sup> The history of Lith. *kąsti*, OCS *kqsati* ‘bite’, both probably from the same PIE root, remains unclear (cf. *EDSIL*: 243).

## § 2.5.2. Evaluation

## § 2.5.2-1. Grammatical features

The *n*-verbs of the *e/i*-conjugation include non-agentive verbs (intransitive, transitive, and ambitransitive), agentive verbs (intransitive, transitive, and ambitransitive) as well as verbs unspecified for agentivity (intransitive and ambitransitive); see §§ 2.5.2-1.1–2.5.2-1.8.

Table 13. Transitivity alternations of *an(e/i)*-verbs

Verb	Agentivity	Intransitive	Transitive	Extended transitive	Type
IPFV <i>-an-</i> : PFV <i>-Ø-</i>					
<i>aganim</i> 1	+	mp	mp	caus	L <sub>MP</sub>
<i>aganim</i> 2	+	—	mp	caus	L <sub>MP</sub>
<i>anc'anem</i>	±	act	caus	—	L <sub>ACT</sub> , C
<i>anican-e/i-m</i>	+	mp	act	—	E
<i>ankan-e/i-m</i>	+	mp	act	—	E
<i>ankanim</i>	±	mp	—	—	?
<i>arkan-e/i-m</i>	+	mp	act, mp	—	E, L
<i>awcan-e/i-m</i>	+	mp	act	—	E
<i>bekan-e/i-m</i>	±	mp	act	—	E
<i>bucan-e/i-m</i>	+	mp	act	—	E
<i>busanim</i>	–	mp	caus	—	C
<i>cnanim</i>	±	mp	mp	caus	L <sub>MP</sub>
<i>c'uc'anem</i>	+	mp	act	—	E
<i>dizan-e/i-m</i>	±	mp	act	—	E
<i>elanem</i>	±	act	—	—	L <sub>ACT</sub>
<i>etcan-e/i-m</i>	±	mp	act	—	E
<i>ergican-e/i-m</i>	+	mp	act, caus	—	E, C
<i>gtan-e/i-m</i>	+	mp	act	—	E
<i>harc'an-e/i-m</i>	+	mp, act	—	act	E, L <sub>ACT</sub>
<i>harkan-e/i-m</i>	+	mp	act	—	E
<i>hasanem</i>	±	act, caus	caus	—	L <sub>ACT</sub> , L <sub>CAUS</sub> , C
<i>hatan-e/i-m</i>	±	mp	act	caus	E
<i>hecanim</i>	+	mp	caus	—	C
<i>iĵanem</i>	±	act	caus	—	L <sub>ACT</sub> , C
<i>ĵeranim</i>	–	mp	mp	—	L <sub>MP</sub>
<i>kcanem</i>	+	—	act	—	E
<i>klan-e/i-m</i>	+	—	act, mp	—	E, L <sub>MP</sub>

<i>lk'an-e/i-m</i>	±	mp	act	caus	E
<i>lucan-e/i-m</i>	±	mp	act	—	E
<i>luc'anem</i>	+	—	act	—	E
<i>macanim</i>	—	mp	caus	—	C
<i>meřanim</i>	—	mp	caus	—	C
<i>mtanem</i>	±	act	caus	—	L <sub>ACT</sub> , C
<i>mucan-e/i-m</i>	±	mp	act	caus	E
<i>nerkan-e/i-m</i>	+	mp	act	—	E
<i>ototan-e/i-m</i>	—	mp	act	—	E
<i>ořogan-e/i-m</i>	—	mp	act	—	E
<i>p'lanim</i>	—	mp	caus	—	C
<i>p'rcanim</i>	+	mp	—	—	?
<i>sksanim</i>	±	mp	—	—	?
<i>snanim</i>	—	mp	caus	—	C
<i>spanan-e/i-m</i>	+	mp	act	—	E
<i>sp'acanim</i>	+	—	mp	—	L <sub>MP</sub>
<i>stetcan-e/i-m</i>	+	mp	act	—	E
<i>suzan-e/i-m</i>	+	mp	act	—	E
<i>šijanim</i>	—	mp	caus	—	C
<i>tesanem</i>	+	—	act	—	E
<i>t'k'an-e/i-m</i>	+	mp	act	—	E
<i>usanim</i>	+	mp	mp	caus	E, L <sub>MP</sub>
<i>zangan-e/i-m</i>	+	mp	act	—	E
<i>zařacanim</i>	±	?	?	—	?
<i>zbawsanim</i>	+	mp	caus	—	C
<i>zercan-e/i-m</i>	+	mp	act	caus	E
IPFV -an- : PFV n/a					
<i>aracanem</i>	±	—	*act	—	*E
<i>arcarcanem</i>	±	—	act	—	E
<i>eluzanem</i>	+	—	act	—	E
<i>əndelanim</i>	+	mp	caus.	—	C
<i>ənt'erc'anem</i>	+	—	*act	—	*E
<i>gercanem</i>	+	—	*act	—	*E
<i>hiwcanim</i>	—	mp	—	—	?
<i>imanim</i>	—	mp	—	—	?
<i>lizanem</i>	+	—	act	—	E
<i>t'řanim</i>	±	mp	—	—	?
<i>xacanem</i>	+	act	act	caus	L <sub>ACT</sub> , E



Voice is expressed by means of an alternation of the thematic vowel *-e-* and *-i-*, respectively, in the present tense, and by the active and mediopassive voice inflection in the aorist. As always, the imperfect tense is labile (see § 1.3.1-2).

There are a few exceptions from the default pattern. Some verbs use mediopassive forms in the transitive construction: *aganim* 1, *aganim* 2, *arkan-e/i-m*, *cnanim*, *ĵeranim*, *klanim*, *sp'acanim*, *usanim*. Conversely, some verbs use active voice forms in the intransitive construction: *anc'anem*, *elanem*, *harc'anem*, *hasanem*, *iĵanem*, *mtanem*, *lizanem*, *xacanem*.

This paradigmatic class participates in a wide range of transitivity marking patterns. The equipollent pattern is by far the most widespread type (33 verbs). Several verbs combine the equipollent and labile patterns (*arkan-e/i-m*, *harc'an-e/i-m*, *klan-e/i-m*, *usanim*, *xacanem*). Only nine verbs follow the pure causative pattern (*busanim*, *ændelanim*, *hecanim*, *macanim*, *meĵanim*, *p'lanim*, *snavim*, *šĵanim*, *zbawsanim*). A few more verbs combine the causative and equipollent patterns (*ergican-e/i-m*), or the causative and labile patterns (*anc'anem*, *hasanem*, *iĵanem*, *mtanem*).

#### § 2.5.2-1.1. Causatives

The *an(e/i)*-class contains derived verbs in *-oyc'/uc'* (labeled as “causatives” or “morphological causatives” in the traditional grammar of Old Armenian), which can express a transitive derivative of the base intransitive verb or an extended transitive derivative of the base transitive verb.

The transitivising meaning is expressed by the suffix *-oyc'/uc'* and does not constitute the derivational semantics of the paradigmatic class with the IPFV *an*-stem and the PFV  $\emptyset$ -stem. However, the fact, that this particular paradigmatic class was picked up for the valency-increasing derivation, allows to assume its pivotal role for marking argumental alternations in the prehistory of Armenian. This class must have contained a sufficient amount of lexical causatives to serve as the source of analogy for the *-oyc'/uc'* derivatives. For example, the prototype of *spananem* ‘kill’, a lexical causative of *meĵanim* ‘die’, could be one of the sources of analogy.<sup>199</sup>

Causative verbs have the lexicalised grammatical feature [+dynamic]. Therefore, the respective Proto-Armenian verbal class had to be characterised by that feature as well.

<sup>199</sup> In Middle Persian, the causative stems in *-ēn-* and *-an-* could be derived from primary verbs and nouns. This new type of causatives was added to the older Iranian type of *aya*-causatives (Sundermann 1989: 151f.). Depending on the age of the Proto-Armenian *oyc'*-causatives, their restriction to the *an-e/i*-class could, in theory, be supported by the Iranian influence.

## § 2.5.2-1.2. Non-agentive intransitive verbs

PFV -Ø-: *busanim* ‘grow’; *macanim* ‘adhere’; *meṛanim* ‘die’; *p’lanim* ‘collapse’; *snanim* ‘be nourished’, *šijanim* ‘fade away’.

PFV n/a: *hiwcanim* ‘wane’; *imanim* ‘be understood’.

See other non-agentive intransitive nasal verbs in §§ 2.1.2-1.1 (-*n-u-*), 2.3.2-1.1 (-*n-e/i-*), 2.4.2-1.1 (-*an-a-*), and 2.6.2-1.1 (-*nč’-i-*).

The transitive counterparts are expressed by the derived causatives (*busanim*/*busuc’anem*, *macanim*/*macuc’anem*, *meṛanim*/*meṛuc’anem*, *p’lanim*/*p’luzanem*, *snanim*/*snuc’anem*, *šijanim*/*šijuc’anem*) or is missing (*hiwcanim*, *imanim*). Given that *imanim* is a secondary formation, *hiwcanim* is the only verb, the missing transitive counterpart of which can be an archaism (cf. *k’alc’num* ‘become hungry’ and *linim* ‘become’ without transitive counterparts).

The non-agentive intransitive *an(e/i)-*verbs express a telic process (ACHIEVEMENT or ACCOMPLISHMENT) or a state (STATE). Whenever the ACHIEVEMENT construal is lexicalised (*meṛanim* and *p’lanim*), the IPFV nasal stem can only express the secondary aspectual meanings (habitual, iterative, distributive, etc.), cf. *zart’num* ‘awake’ of the *n(u)*-class. The [+dynamic] verbs have RESULT (but not PURPOSE) lexical feature. The resulting STATE is expressed by the periphrastic perfect unless it is exceptionally expressed by the imperfect tense, cf. example (1) in § 2.5.1-2.31 (*macanim*).

## § 2.5.2-1.3. Non-agentive transitive verbs

PFV -Ø-: *oṛogan-e/i-m* ‘flow’.

PFV n/a: —.

See other non-agentive transitive nasal verbs in §§ 2.3.2-1.2 (-*n-e/i-*) and 2.4.2-1.2 (-*an-a-*).

The only verb which takes a non-agentive subject and is used in the active transitive or derived passive constructions is *oṛogan-e/i-m*. Unlike the transitive non-agentive verbs of the *n(e/i)-* and *an(a)*-classes, *oṛogan-e/i-m* takes a non-animate subject, which corresponds to the THEME semantic role.

The verb has the lexicalised feature [+dynamic] and is unspecified for the aspectual features [±telic] and [±durative]. The [+dynamic] feature sets the verb apart from the non-agentive transitive verbs of the *n(e/i)-*class (*unim*) and *an(a)*-class (e.g. *imanam*).

## § 2.5.2-1.4. Non-agentive ambitransitive verbs

PFV -Ø-: *jeranim* ‘have a fever’; *otolan-e/i-m* ‘inundate’.

PFV n/a: —.

This functional category is not represented in other nasal classes.

In *jeranim*, the use of the transitive and intransitive construction (with the accusative or ablative complement, respectively) does not entail a change of the thematic role of the UNDERGOER argument linked to the non-agentive subject.

In the case of *ototan-e/i-m*, the mediopassive voice marks the promotion of the GOAL argument to the subject position while the THEME argument is degraded to the oblique case position.

The two verbs of this functional group are durative, although they differ in the lexicalised values of the [ $\pm$  telic] and [ $\pm$  dynamic] parameters.

#### § 2.5.2-1.5. Agentive intransitive verbs

PFV -Ø-: *hecanim* ‘mount a horse’; *p’rcanim* ‘escape’; *zbawsanim* ‘take rest’.

PFV n/a: *andelanim* ‘approach’; *xacanem* ‘bite’.

See other agentive intransitive nasal verbs in §§ 2.1.2-1.2 (-*n-u-*), 2.2.2-1.1 (-*n-a-*), 2.3.2-1.3 (-*n-e/i-*), 2.4.2-1.3 (-*an-a-*), and 2.6.2-1.2 (-*nč’i-*).

The verbs *andelanim*, *hecanim*, *p’rcanim* and *zbawsanim* are mediopassive. By contrast, *xacanem* takes the active voice. It disturbs the correlation between the syntactic intransitivity and the use of the mediopassive voice in the *an(e/i)*-class. Note that this particular verb may be an early Iranian loanword (see § 2.5.1-3.10).

All of the listed verbs have the lexicalised dynamicity; *zbawsanim* is [-telic]; *andelanim* and *p’rcanim* are [+telic]; *xacanem* is [-durative]; *andelanim* is [+durative]; other features are unspecified in the remaining verbs. The telic verbs of motion *andelanim* and *p’rcanim* have core peripheral GOAL and SOURCE arguments, and are in that regard comparable to the directed motion *n(u)*-verbs with the PFV *i*-stem.

#### § 2.5.2-1.6. Agentive ambitransitive verbs

PFV -Ø-: *aganim* 1 ‘stay overnight; remain’; *aganim* 2 ‘put on (shoes)’; *anican-e/i-m* ‘curse’; *ankan-e/i-m* ‘interlace; allocate’; *arkan-e/i-m* ‘cast down; cast upon’; *bucan-e/i-m* ‘feed’; *c’uc’anem* ‘show’; *gtan-e/i-m* ‘find’; *harc’an-e/i-m* ‘ask’; *harkan-e/i-m* ‘strike’; *kcanem* ‘bite’; *klan-e/i-m* ‘swallow’; *luc’anem* ‘kindle’; *nerkan-e/i-m* ‘plunge’; *sp’acanim* ‘put on’; *spanan-e/i-m* ‘kill’; *stetcan-e/i-m* ‘model’; *suzan-e/i-m* ‘conceal’; *tesanem* ‘see’; *t’k’an-e/i-m* ‘spit’; *usanim* ‘learn’; *zangan-e/i-m* ‘mix’; *zercan-e/i-m* ‘take off; escape’.

PFV n/a: *aracanem* ‘graze’; *arcarcanem* ‘kindle’; *awcan-e/i-m* ‘anoint’; *eluzanem* ‘produce’; *ergican-e/i-m* ‘tear apart’; *ant’erc’anem* ‘read’; *gercanem* ‘shave’; *lizanem* ‘lick’.

See other agentive ambitransitive nasal verbs in §§ 2.1.2-1.4 (-*n-u-*), 2.2.2-1.2 (-*n-a-*), 2.3.2-1.4 (-*n-e/i-*), 2.4.2-1.5 (-*an-a-*), and 2.7.2-1.1 (-*anč'-e-*).

The listed verbs have a volitional AGENT as an obligatory argument. The verbs of this group include transitive verbs that allow for passivisation and follow the equipollent transitivity marking pattern. Even when the AGENT argument is unexpressed in the passive construction, it is implied by the context.<sup>200</sup>

This group constitutes the majority of the *an(e/i)-*verbs. It also contains the majority of *an(e/i)-*verbs that are attested exclusively in the imperfective forms as hapaxes within the source material (*aracanem*, *arcarcanem*, *ant'erc'anem*, *gercanem*, *lizanem*) and a verb from the outside of the source material (*eluzanem*). These facts allow to conclude that the given lexicosyntactic profile was pivotal for the *an(e/i)-*verbs in the synchrony of Old Armenian. In particular, all these verbs have the lexicalised features [+ agentive] and [+ dynamic].

This group includes the deponent verbs *aganim 2*, *arkanim*, *sp'acanim*, and *usanim* 'learn', in which the mediopassive forms are used in both the transitive and intransitive constructions. In these verbs, including the three verbs of clothing, the mediopassive voice expresses the reflexive meaning (cf. mp. *zgec'ay* intr. 'clothe oneself' from the *n(u)*-class).

The verb *klan-e/i-m* 'swallow' is peculiar in that it can be used in the active and mediopassive voice in the transitive construction. It reminds of another autobenefactive verb, *utem* 'eat', aor *keray* 'eat', that uses the active forms in the present but the mediopassive forms in the aorist in the transitive construction.

The synthetic forms of *tesanem* are not attested in the passive construction. In this respect, *tesanem* behaves in the same way as *luc'anem* (see § 2.5.1-2.30). However, unlike *luc'anem*, *tesanem* does participate in the antipassive intransitive construction, in which the GOAL argument is expressed by the oblique complement. Another peculiarity of *tesanem*, determining its marginal membership in the class, is that its agentive status is questionable since, as is common with verbs of perception, its subject may receive an EXPERIENCER reading.

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<sup>200</sup> Many listed verbs are lexical causatives that are not attested in the passive construction (*aganim 2*, *ankan-e/i-m*, *aracanem*, *arcarcanem*, *eluzanem*, *ergican-e/i-m*, *ant'erc'anem*, *gercanem*, *kcanem*, *klan-e/i-m*, *lizanem*, *luc'anem*, *sp'acanim*, *tesanem*). Although it is possible that the lack of mediopassive forms was lexically determined in those verbs, I count them as ambitransitive verbs by default. In some cases, there is circumstantial evidence in favour of this analysis. Thus, *aracanem* is a by-form of the commonly attested suffixless verb *arac-e/i-m* which does occur in the passive construction; *arcarcanem* is a hapax attested along with *arcarc-e/i-m* intr. 'glow', tr. 'kindle', and constitutes the transitive counterpart of non-agentive *arcarcim* on a par with *arcarcem*.

## § 2.5.2-1.7. Intransitive verbs unspecified for agentivity

PFV -Ø-: *anc'anem* 'pass by'; *ankanim* 'fall'; *elanem* 'go out, rise'; *hasanem* 'reach'; *iĵanem* 'descend'; *mtanem* 'enter'; *sksanim* 'begin'.

PFV n/a: *třanim* 'fly'.

See other intransitive nasal verbs unspecified for agentivity in § 2.1.2-1.3 (-*n-u*-).

Except for the “aspectual predicate” *sksanim*, these verbs denote directed motion.<sup>201</sup> As is usually the case, verbs of generalised motion can describe the motion of virtually any kind of moving entities without a restriction on the agentivity feature. Along with the description of the agentive motion, such verbs can describe the spatial motion of inanimate non-volitional objects, e.g. *anc'anem* 'pass (of a torch)' (*Gen.* 15, 17), *hasanem* 'reach (of a dream)' (*Eccles.* 5, 2), etc. Note also the impersonal modal use of 3sg. *hasanē* 'it reaches; becomes necessary', still in the active voice (*Rev.* 10, 11).

The aforementioned verbs of directed motion differ from the *an*-verbs of the *a*-conjugation, which describe primarily the manner of motion and not the direction of motion, cf. *ant'anam* 'run'; *loganam* 'bathe'; *slanam* 'fly, rush' (see § 2.4.2-1.3). While motion verbs of the *n(u)*- and *an(a)*-classes have the lexicalised [+agentive] feature, those of the *an(e/i)*-class do not have such a restriction.

An important morphological feature of these verbs, except *ankanim* and secondary *třanim*, is that they use the active voice in the intransitive construction. This may be considered an archaism compared to a more systematic use of the mediopassive voice to mark intransitivity at later stages, which is seen, in particular, in *třanim*. This archaism echoes the use of the active voice for agentive motion verbs in PIE, e.g. *\*h<sub>1</sub>ei-mi* 'I go'. Such voice assignment might be due to the use of the accusative case to mark the SOURCE, TARGET, or ITINERARY arguments at an older stage of Proto-Armenian or in dialectal PIE, cf. Gk. ἀλυσκάνω tr. 'run away, avoid', from a relevant morphological form, which assigned the accusative case to the SOURCE argument (*Od.* 22, 330: ἀλύσκανε κῆρα μέλαιναν 'was escaping black fate'). Such case assignment is characteristic for *lk'an-e/i-m* 'leave', probably inherited from dial. PIE *\*likʷ-nHe/o-* (see § 2.5.1-2.28). By contrast, the motion verbs of the *an(a)*-class do not express the TARGET argument with the bare accusative case, cf. *andelanam* *and* + acc. 'approach smb.' (example (1) in § 2.4.1-2.4). Unlike *an(e/i)*-verbs, *n(u)*-verbs are verbs of ablative motion and their core SOURCE argument could be expressed by the ablative phrase.

We find examples when the morphological causative has the same argument structure and lexical meaning as active voice forms of the base verb, cf. (3) in § 2.5.1-2.21 (caus.

<sup>201</sup> The verb *třanim*, secondarily derived from *třnum*, denotes an ablative motion with the explicit SOURCE argument and must be taken as a verb of directed motion rather than a verb of manner of motion (cf. § 2.1.2-2.1).

*hasuc'anem* intr. 'reach; touch' beside *hasanem* 'id.') where the TARGET argument is marked by the prepositional phrase *i* + acc. and not by the bare accusative of the direct object. Peculiarly, caus. *hasuc'anem* also fulfills the regular causative function (tr. 'make smb. reach smth.') in the Bible (e.g. *Gen.* 18, 8).

#### § 2.5.2-1.8. Ambitransitive verbs unspecified for agentivity

PFV-Ø-: *bekan-e/i-m* 'break'; *cnanim* 'give birth; be born'; *dizan-e/i-m* 'pile up; amass'; *ełcan-e/i-m* 'corrupt, ruin'; *hatan-e/i-m* 'cut; become separated'; *lk'an-e/i-m* 'abandon; become weak'; *lucan-e/i-m* 'loosen'; *zařacanim* or *zařacanem* 'turn away, be perplexed about'.

See other ambitransitive nasal verbs unspecified for agentivity in §§ 2.1.2-1.5 (-*n-u*-) and 2.4.2-1.6 (-*an-a*-).

Unlike the verbs considered in § 2.5.2-1.6, these verbs can take non-agentive subjects. The causative/anticausative transitivity pairs constitute the core of this category (*bekanem* tr. 'break' / *bekanim* intr. 'break'; *cnanim* tr. 'give birth' / intr. 'be born'; *dizanem* tr. 'pile up' / *dizanim* intr. 'amass'; *ełcanem* tr. 'ruin' / intr. 'perish'; *hatanem* tr. 'cut, separate' / *hatanim* intr. 'be cut off, separated'; *lucanem* tr. 'make loose' / *lucanim* intr. 'become loose'). The equipollent transitivity marking pattern suggests that the transitive member of the pair is the basic one.

The causative transitivity marking pattern is marginally attested in *hatanem* intr. 'separate from so.' / *hatuc'anem* tr. 'separate smb. from so.' and *lk'anem* intr. 'become weak' / *lk'uc'anem* tr. 'make weak'.

The agentive intransitive *dizanim* intr. 'come together (of people)' represents the reflexive alternation of the transitive *dizanim* 'pile up'.

The transitivity pair *lk'anem* tr. 'abandon' / *lk'anim* intr. 'be abandoned' represents the active/passive alternation, the passive member of which coincides with the previously mentioned anticausative verb *lk'anim* intr. 'become weak'.

#### § 2.5.2-1.9. Derivational morphology: prefixal verbs

Five types of prefixes are attested in *an(e/i)*-verbs:

- 1) *Ař*:- *ař-anc'anem* 'be delirious'; *ař-ełcanem* 'dissolve, explain (of a riddle)'; *ař-iřanem* 'descend'.
- 2) *Ānd*:- *ānd-elan-e/i-m* 'come together'; \**ān-klanim* 'sink'; *ānd-eluzan-e/i-m* 'embed; align'.
- 3) *Y*:- *y-anc'anem* 'commit a fault'; *y-atanem* 'cut off'.<sup>202</sup>

<sup>202</sup> See *EDAIL*: 763f. against the view on *yatanem* as a phonetic (orthographic) variant of *hatanem*.

4) *Z-*: *z-anc'anem* 'pass, surpass'; *z-ankanem* 'mix'; *z-etcanim* 'be(come) confused'; *z-arkan-e/i-m* 'beat down; hit oneself'; *z-atanem* 'divide'.

5) *Z-ar-*: *z-ar-anc'em* 'be delirious'.

Most of these prefixes have directional value and repeat the prepositions used in directive prepositional phrases. Thus, for example *ar-iġanem* is a hapax found as a locative form of a gerundive in Agat'angelos 2003: 1656 (<...> *noynpēs ew zawrk'n and lusoyñ lc'in zar i storews amenayñ, ew arajñ c'ġkeal yariġanelñ lusoyñ, ew zawrk'n and nmin*. "<...> so too these hosts filled everything below with their light, and as the light streamed forward so did the hosts with it.", trans. Thomson 1976: 277). It contains the prefix *ar-* that repeats the preposition *araj* 'forward' in the same passage. The prefix *z-* is specific in that it typically refers to the direct or indirect object and is also found in reflexive verbs in which the object is co-referential with the subject.

The potential cases of inherited prefixal verbs with the nasal affix (*p'lanim*, *p'rcanim*, and *šġanim*) find parallel in Gk. ἀπ-εχθ-άνομαι intr. 'detest' (not in *DGIVS*; the stimulus argument is in the dative case, cf. *Il.* 6, 140; *Il.* 3, 454, or the ablative case, cf. *Od.* 2, 202; also attested Hom. ἀπ-εχθ-αίρω, cf. *Il.* 3, 415; *Od.* 4, 105).

## § 2.5.2-2. Stem variation patterns

### § 2.5.2-2.1. -an-i- and -č'-i-

This pattern is represented by *t'ġč'im/t'ġranim* 'fly'. A parallel between Gk. ἀλδήσκω 'grow'/ἀλδαίνω 'make grow' and Arm. *zatč'im/zatanem*, evoked by Klingenschmitt (1982: 78), presupposes that IPFV *\*ske/o-*stems and IPFV infixed stems could participate in the causative/inchoative alternation, in which nasal stems marked the transitive member. This assumption poorly explains *t'ġč'im/t'ġranim* 'fly'. Rather, IPFV *t'ġč'im* should be considered as a competing stem of *t'ġnum* (see § 2.5.1-3.49 on the chronology of the latter, and § 2.1.2-2.2 on the stem variation pattern -n-u- vs. -č'-i-).

Altogether, the variation between the Proto-Armenian sources of *c'*- and *an-*stems need not be ignored. Pairs like Arm. *mat-č'-im* 'approach' vs. *anc'-an-em* 'pass' and *hayc'em* 'search' (PIE *\*h<sub>2</sub>is-ské-*; *LIV<sup>2</sup>*: 260) vs. *gtanem* 'find' (PIE *\*ui-né-d-*; *LIV<sup>2</sup>*: 665f.) suggests a hypothesis that the original contrast between the two IPFV suffixes had to do with the actionality of the verb and might have been sensitive to the [ $\pm$  durative] aspectual feature in the first place. An in-depth investigation of such variation remains a task for the future.

### § 2.5.3-2.2. -an-e- vs. -u-

Pedersen (1906: 355) noticed the connection between the *an(e/i)-*verbs and the suffixless verbs of the *u-*conjugation, particularly *dizum/dizanem*, *lizum/lizanem* and

*stetcum/stetcanem* (see also Godel 1965 = 1982: 22, 27). Among these, *dizum* is not attested in the examined source material and is found in the writings of Hesychius of Jerusalem in a transitive construction and with the habitual meaning. The forms *lizum* and *lizanem* are found in parallel contexts and can be viewed as free variants in the synchrony of Old Armenian. The verb *stetcum* is found once as an equivalent of transitive *stetcanem*. To these can be added *heljum* tr. 'suffocate', the transitive counterpart of *heljnum* and *heljanim* intr. 'choke' (see § 2.1.1-1.3), and *zercum* 'take off' (Agat'angelos), a transitive equivalent of *zercanem* (Ezrik Kořbac'i).

The choice between the two IPFV stems seems to be free of grammatical contrasts. The fact that all of the competing verbs of the *u*-conjugation are [+telic] allows to include this lexical aspectual feature into their grammatical potential, which overlaps with the grammatical potential of the *an*-verbs of the *e/i*-conjugation. These were probably equivalent competing stems which both could be counterparts for the PFV root stem of transitive verbs.

#### § 2.5.3-2.3. -*an-e/i-* vs. -*e/i-*

The pattern is rather common and is represented by such pairs as *anicanem* vs. *anicem* 'curse'; *aracanem* vs. *aracem* 'graze'; *arcarcanem* vs. *arcarcem* 'kindle'; *kcanem* 'bite' vs. *kcem* 'prickle'; *lizanem* vs. *lizem* 'lick'; *lk'anem* vs. *lk'em* 'leave'; *nerkanem* vs. *nerkem* 'colour'; *ořotanem* vs. *ořořem* 'inundate'; *ořoganem* vs. *ořogem* 'flow'; *yanc'anem* vs. *yanc'em* 'surpass'; *zetcanim* vs. *zetcem* 'corrupt oneself; be confused'.<sup>203</sup>

There is no definite grammatical contrast between the *an*-verbs and the non-nasal verbs of the *e/i*-conjugation. The latter represents the default verbal class in the synchrony of Old Armenian and it predictably tended to expand by means of other non-productive classes, including the nasal verbs. The *an*-verbs of the *e/i*-conjugation were strongly exposed to this process since they shared the same conjugation with the non-nasal type. This process was facilitated by a common model for deriving root nouns from the *an*-verbs of the *e/i*-conjugation, which in turn provided base nouns for derivating new denominal non-nasal verbs, cf. *kcanem* 'bite' → *kic* 'a bite' → *kcem* 'prickle'. The replacement of the older *an*-verbs by non-nasal verbs perhaps extended to the post-classical period, cf. *ořoganem* → post-classical *ořogem*. In some cases, one may even assume post-classical interpolations, e.g. aor. subj. *anicec'ic'*, v.l. *anicic'* (Bible).

Rarely, an *an*-verb appears as hapax next to a common non-nasal verb (*aracem* → *aracanem*). Such cases of recharacterisation of a verb by the nasal suffix could have been

<sup>203</sup> Meillet (1896 = 1977: 26) mentions *ayc'anem*, as if a by-form of *ayc'em* 'search'. However, it seems to be a ghost verb. Godel (1965 = 1982: 22) mistakenly cites *narkanem* instead of *nerkanem* as a by-form of *nerkem*.



influenced by nasal verbs that were close in meaning and co-occurred with the base verbs in the texts, cf. example (1) in § 2.5.1-3.1.

§ 2.5.3-2.4. *-an-e/i-* vs. *-at-*

A relatively rare type of stem variation is represented by *bekan-e/i-m* (also *bekem*, see § 2.5.3-2.3) vs. *bek-t-em* (also *bekbekem*) ‘break’ and *xacanem* vs. *xac-at-em* ‘bite’. The (*a*)*t-* suffix has a distinct iterative value, which partly overlaps with the secondary aspectual meanings of the base ACHIEVEMENT *an*-stem verbs.

§ 2.5.2-2.5. *-an-e/i-* vs. *-n-u-* (see 2.1.2-2.1).

§ 2.5.2-2.6. *-an-e/i-* vs. *-an-a-* (see 2.4.2-2.1).

### § 2.5.2-3. PIE outlook

§ 2.5.2-3.1. The dial. PIE IPFV *\*nHe/o-* stem next to the PFV *\*e/o-* stem

The vast majority of the *an(e/i)-*verbs have PIE roots and none are securely identified borrowings from Hurro-Urartian, Iranian,<sup>204</sup> Syriac, and Greek. The prototype of the *an*-class ceased to be productive when speakers of Proto-Armenian came in contact with these languages. The cases of analogical spread of the *an(e/i)-*stem are limited to verbs with the Proto-Armenian PFV root stem. By contrast, Iranian, Greek, and Syriac borrowings were introduced into the more recent paradigmatic class with the PFV *\*(e)c’-* stem.

As an archaic type, the *an*-class had already been present in the early Proto-Armenian verbal system before the Proto-Armenian apocope. The apocope affected the inherited active and mediopassive endings, e.g. Arm. 1 sg. *-m* can be derived from PArm. *\*-mi* and *\*-mai*. Thus, the voice marking of the Old Armenian nasal verbs does not necessarily reproduce that of the pre-apocope Proto-Armenian.

There is little doubt that the IPFV *an*-suffix is akin to Gk. *-αvo/ε-* (Klingenschmitt 1982: 159–161).<sup>205</sup> The common prototype of these suffixes was, perhaps, an allomorph of the prototype of Arm. *-ne/i-* and Gk. *-νε/ο-* (see § 2.3.2-2).

According to Klingenschmitt (1982: 106f., 159ff.), *\*-n(H)e/o-* and *\*-an(H)e/o-* resulted from PIE infixes with roots in a laryngeal. The distribution of the two variants

<sup>204</sup> The verb *xacanem* is a suspect for being an archaic Iranian loanword on the assumption that the borrowing occurred before the early PArm. *\*s-* stems ceased to be productive (see § 2.5.1-3.10).

<sup>205</sup> See further details on the Ancient Greek verbal class in Meyer 1873: 86–96; Thurneysen 1894: 78–84; Debrunner 1917: 85; Vendryes 1923; Schwyzler 1939: 699, 746–749; Chantraine 1961: 221–223; van de Laar 2000: 343f.

depended on the root consonant preceding the infix. If the consonant was a sonorant capable of vocalisation, the infix resulted in *\*-n-*; otherwise, it yielded a prevocalised variant (PIE *\*-C-n-H-* > PGk., PArm. *\*-<sup>a</sup>n-*).<sup>206</sup> The infixed stems in *\*-n(e)-u-* did not have a prevocalised outcome (Gk. <sup>x</sup>-*ανυ-*, Arm. <sup>x</sup>-*anu-*) because both grades of the *\*-n(e)-u-* suffix would have a non-syllabic *\*n* followed by the vowels *\*e* or *\*u*. According to Klingenschmitt, the thematic vowel *\*-e/o-* was restored in *\*CR-n(-)h<sub>1</sub>-e/o-*, *\*CR-n(-)h<sub>2</sub>-e/o-*, and *\*CR-n(-)h<sub>3</sub>-e/o-* to PGk.-Arm. *\*CR-n(-)H-e/o-* on the analogy of the suffixless thematic conjugation. This scenario of thematicisation can be applied to the PIE nasal suffix *\*-n(e)h<sub>2</sub>-* — dial. PIE *\*-nh<sub>2</sub>-e/o-* > *\*-nHe/o-* (cf. Meillet 1934: 222).<sup>207</sup>

There have been attempts to derive Gk. *-ανο/ε-*, *-νε/ο-* and Arm. *-ane/i-*, *-ne/i-* from a prevocalised allomorph of PIE *\*-ne/o-*. Pedersen (1893: 297) explained Gk. *-ανο/ε-* by an allomorph of PIE *\*-ne/o-* added to roots in a heavy coda (*\*VC* and *\*VCC*) with recourse to Sievers' law (cf. also Meillet 1934: 222). The following distribution is observable in Homeric Greek. Roots in a consonant with a long vowel or diphthong could have the suffix *-ανε/ο-* (e.g. *ἀμαρτάνω*, aor. *ἀμαρτεῖν* 'miss the mark'), while roots in a consonant with a short vowel could have either the infix combined with the suffix *-ανε/ο-* (e.g. *ἀνδάνω*, aor. *ἀδεῖν* 'delight'), or else the suffix *-νε/ο-* (e.g. *δάκνω*, aor. *δακείν* 'bite'); see Thurneysen 1894: 79–81; van de Laar 2000: 342–347. Thus, the prevocalised suffix is indeed found only after heavy codas.

There are two problems with the reconstruction of *\*-ne/o-* as the prototype of Gk. *-ανο/ε-*, *-νε/ο-* and Arm. *-ane/i-*, *-ne/i-*. Firstly, Ancient Greek *νῦ/νυ-* verbs could have roots with a heavy coda (e.g. *πῆγγνῦμι* 'fix'). There was no allomorph <sup>x</sup>-*ανυ-* as a parallel to *-ανο/ε-*. Like in Ancient Greek, there is no Arm. <sup>x</sup>-*anu-* next to *-nu-* by contrast with Arm. *-ane-* next to *-ne-*. Secondly, Sievers' law did not operate in Proto-Armenian, cf. *bařnam* 'carry' from *\*b<sup>h</sup>rg<sup>h</sup>-n(e)h<sub>2</sub>-* (PArm. *\*b<sup>(h)</sup>arj<sup>(h)</sup>na-*) and *dařnam* 'turn' from *\*d<sup>h</sup>rg<sup>h</sup>-n(e)h<sub>2</sub>-* (PArm. *\*d<sup>(h)</sup>arj<sup>(h)</sup>na-*). To explain Gk. *-ανο/ε-* with Sievers' law, it is necessary to explain the lack of <sup>x</sup>-*ανυ-* in Ancient Greek *νυ-* verbs with heavy roots and derive Gk. *-ανο/ε-* and Arm. *-ane-* from independent formations — PGk. *\*-ne/o-* and PArm. *\*-nHe/o-*. Unless a justification is provided on these points, the reconstruction of *\*-nHe/o-* remains preferable.

<sup>206</sup> PIE *\*RHV* > Arm. *aRV* is regular, cf. Arm. *amařn* 'summer' from *\*sm<sub>h</sub>er-m*, Skt. *sámā*, OHG *sumar* 'id.' (Beeke 2003: 193f.), and an instrument noun *\*drep-n(H)-* attested in Gk. *δρεπάνη* 'sickle' and Arm. *artewan* 'eyebrow' from *\*drep-* 'pluck, cut off' (de Lamberterie 1983; EDG: 353).

<sup>207</sup> There has been an attempt to explain the Slavic thematic nasal suffix *-ne-* from PIE *\*-n(e)h<sub>2</sub>-* (Stang 1942: 58f.). In fact, the OCS type with the thematic nasal present and thematic aorist (pres. *dvignetъ* tr. 'move', aor. *dvīže*) strongly reminds the type of Arm. *lk'anem*, aor. *elik'*. According to Villanueva Svensson 2011: 39f., the Slavic thematic nasal stem could substitute the infixed stem, which extends the parallelism with the Old Armenian type.

Given that Sievers' law is not applicable to Proto-Armenian, there is no reason to treat Arm. *lk'anem* with a light root *lik'* as an irregular outcome of its potential early Proto-Armenian prototype. In particular, Sievers' law does not justify the reconstruction of PArm. *\*li-n-k<sup>w</sup>-<sup>ə</sup>ne/o-* as a parallel to Gk. λι-μ-π-άνω (as suggested in Meillet 1903b: 78; Barton 1965: 32; Hamp 1975: 106). PArm. *\*li-n-k<sup>w</sup>-<sup>ə</sup>ne/o-* entirely relies on the comparison to Gk. λιμπάνω which is poorly attested and represents a productive Ancient Greek type. Besides this defective comparative evidence, PArm. *\*li-n-k<sup>w</sup>-<sup>ə</sup>ne/o-* requires a costly set of analogical levellings. The infix must have been eliminated by levelling of the root shape of PFV *\*lik<sup>w</sup>-e/o-* after the sound change PIE *\*R* > PArm. *\*aR* (otherwise there would have been no condition for the rise of the prevocalised suffix in the IPFV stem) and before the sound change PArm. *\*k<sup>w</sup>e* > Arm. *č'e* (otherwise the variant *<sup>x</sup>lič'* would have been introduced into the IPFV stem as a result of levelling). A reverse analogy, from the IPFV stem to PFV *\*e-lič'-e-*, is then required to explain the root-final *-k'* in Arm. aor. *elik'*. The requirement of counter-directed levellings makes the reconstruction of PArm. *\*li-n-k<sup>w</sup>-<sup>ə</sup>ne/o-* highly problematic.

Thus, an explanation is required that would cover much of the Ancient Greek and Old Armenian material without recourse to Sievers' law. The following assumptions may be suggested: 1) dialectal PIE had a paradigmatic class with the thematic PFV root stem and the thematised nasal suffix *\*-nHe/o-*; 2) the prevocalised allomorph *\*-<sup>ə</sup>nHe/o-* developed in roots ending in a phoneme with a lower sonority than *\*n*.

Assumption 1 prescribes that the older layer of the *\*nHe/o-* stems had the root zero grade and no infix (against Meillet 1900b = 1977: 75f.). It explains the spread of the IPFV *\*nHe/o-* stem to verbs that had the thematic PFV root stem. Secondary nasal stems could be derived either from the PFV stem or from the IPFV stems.<sup>208</sup> It is not clear how much of that analogical spread happened at the common source of the Greek and Armenian branches. Recognisable models of the analogical spread will be discussed in § 2.5.2-3.2.

Assumption 2 explains the distribution of the allomorphs of *\*-nHe/o-*. It must be taken into account while deciding on the antiquity of specific Old Armenian nasal stems. Thus, *aganim* 1 'spend (the night)' and *aganim* 2 'put on clothes' must be Proto-Armenian innovations formed after the sound change PIE *\*u* > PArm. *\*g* took place, and not direct descendants of dial. PIE *\*h<sub>2</sub>(e)u-nH-e/o-*.

The verbs that could have inherited their IPFV stem from dialectal PIE and allow for the reconstruction of the PFV *e/o-* stem are listed in Table 14.

<sup>208</sup> As pointed out by van de Laar, the higher frequency of aorist forms of Gk. *ανε/o-* verbs indicates that the PFV stem was pivotal in the paradigm of such verbs. This property, rooted in the lexical aspectual features, may be reconstructed for dialectal PIE. It could condition the variation of IPFV stems and the spread of *\*-nHe/o-* in the two closely related branches.

All these verbs are dynamic except *macanim* which can also represent a later stem derived from the PArm. PFV \*s-stem (cf. Gk. aor. ἔμαξα).

Table 14. Grammatical features of *an(e/i)*-verbs with inherited PFV \**e/o*-stems

	Transitivity	Agentivity	Lexical Aspectual Features
Probable			
<i>mtanem</i>	[– transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]
Possible			
<i>ankanim</i>	[– transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]
<i>arkan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>hasanem</i>	[– transitive]	[± agentive]	[+ telic], [+ durative], [+ dynamic]
<i>macanim</i>	[– transitive]	[– agentive]	[± telic], [± durative], [± dynamic]
<i>p'lanim</i>	[– transitive]	[– agentive]	[+ telic], [– durative], [+ dynamic]
<i>sp'acanim</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
Doubtful			
<i>awcan-e/i-m</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>gtan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>harkan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>klan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>lk'an-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [± durative], [+ dynamic]
<i>spanan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]

The lexicalised [– durative] aspectual feature characterises the majority of verbs in Table 14.<sup>209</sup> If this property is inherited, the \**nHe/o*-suffix mainly expressed the secondary imperfective meanings such as habitual, iterative, the historical present, etc. In this respect, the \**nHe/o*-suffix contrasts with the \**n(e)u*-suffix, for which the durative aspectual meaning was typical. Another common trait of the listed verbs is the lexicalised telicity, which characterises all the verbs except *macanim* which again is an outlier.

Vendryes (1923) noticed that the Ancient Greek verbs in *-avε/o-* had the [– durative] construal and could be [± telic] or [+ telic], cf. *ibid.*, p. 266: “Les presents de ce type sont en effet des ponctuels, c’est à dire que tout en indiquant le développement d’un process — ce

<sup>209</sup> To these may be added *klan-e/i-m* with its lexicalised [– durative] aspectual feature. However, it remains unclear whether the expected reconstruction of *klan-e/i-m* would be \**gul-nHe/o-* or \**gul-ṇHe/o-* (see § 2.5.2-3.1 for the discussion of the phonotactic restrictions on the formation of the prevocalised allomorph of the suffix). In the former case, the \**an*-stem must be the inner-Armenian innovation.

qui est la valuer proper du présent — ils impliquent la considération special d'un moment du process: ce sont des presents ingressifs (“je me mets à...”) ou, plus rarement, des presents terminatifs (“j’aboutis à...”).<sup>210</sup> Similar conclusion is drawn by van de Laar (2000: 343–345) who added that some verbs attested in the post-epic period denote motion, both ablative (ἐρρυνγάνω, φυγγάνω) and allative (κιγγάνω, κυνθάνω), cf. the Old Armenian motion verbs in the cognate class. The shared grammatical features of the Ancient Greek and Old Armenian classes could have been inherited from the common source.

The lexicalised [+ agentive] feature qualifies all the listed verbs except *p'lanim* and *macanim*. Altogether, *ankanim*, *hasanem*, *lk'an-e/i-m*, and *mtanem* can be used as non-agentive. Thus, Old Armenian provides evidence that the dial. PIE *\*nHe/o*-verbs were unspecified for agentivity. This claim can be further supported by the non-agentive Gk. *ane/o*-verbs such as τυγγάνω intr. ‘happen to be at’, λανθάνω tr. ‘escape notice’, intr. ‘forget’, πανθάνω tr., intr. ‘suffer’, aor. ἔπαθον, etc.

The Gk. *ane/o*-class includes many transitive verbs, cf. ἀλδάνω tr. ‘nourish’, ἀλφάνω tr. ‘bring in, yield’, ἀνδάνω tr. ‘delight’, δαγκάνω tr. ‘bite’, ἐρῶκάνω tr. ‘reject’, θιγγάνω tr. ‘touch’, κευθάνω tr. ‘hide’, μανθάνω tr. ‘learn’, etc. Altogether, many Gk. *ano/ε*-verbs are labile and employ the active inflexion for transitive and intransitive uses, cf. δαρθάνω intr. ‘go to bed’; ἐρυγγάνω intr. ‘roar’; λαγγάνω tr. ‘obtain’, intr. ‘obtained’; ἰζάνω tr. ‘make sit’, intr. ‘settle’; κιγγάνω, κιχάνω intr. ‘reach’; κλαγγάνομαι intr. ‘cry’; κυδάνω tr. ‘glorify smb’, intr. ‘glorify oneself’; λιμπάνω intr. ‘leave’, λυγγάνομαι intr. ‘cry’, ὀλισθάνω, φυγγάνω ‘flee, avoid’, etc. (Vendryes 1923: 268). Given that Table 14 includes transitive, intransitive, and ambitransitive verbs with the equipollent and labile marking patterns, one may tentatively assume that the original type was unspecified for transitivity.

### § 2.5.2-3.2. The spread of the IPFV *\*nHe/o*-stem in Proto-Armenian

As mentioned above, verbs with inherited PFV root stems were the older identifiable analogical source for the spread of *\*nHe/o*-stems.

The ablaut variants of the root shape were eliminated within the Proto-Armenian period. As a result, the root shape may be associated with any of the three tense-aspect stems which constituted the original PIE verbal paradigm. The inherited PFV stem was not always the source of the attested root shape as becomes clear from *harc'anem* < IPFV *\*pr(k)-ske/o*-<sup>211</sup> and *gitem* < IPFV/RES *\*uoid-*.

<sup>210</sup> Vendryes (1923: 267) pointed out that the telic presents in *-άνω* compete with the atelic presents in *-σκω* (cf. πανθάνω along with πάσχω; see also Vendryes 1911: 177).

<sup>211</sup> Other notorious examples include Arm. aor. *eber* ‘he carried’ from PIE *\*h<sub>1</sub>e-b<sup>h</sup>er-e/o-* and *nstaw* ‘he set down’ from dial. PIE *\*ni-sisd-e/o-*.

The Proto-Armenian *\*nHe/o*-verbs can be arranged into two groups: a) verbs the root shape of which originates from the IPFV stem (see § 2.5.2-3.2.1); b) verbs the root shape of which originates from the PFV stem (see § 2.5.2-3.2.2).

In (a), the *\*nHe/o*-stem represents a secondary imperfective formation. Such property is primarily expected for verbs that belong to the actional classes of STATES and ACTIVITIES, in which the present and imperfect forms were more frequently used than the aorist forms. However, other actionalities can be involved. This type of change can be illustrated by the lexicaliation of the IPFV stem *\*pr(k̄)-ske/o-*, as a result of which the *\*ske/o*-suffix lost its imperfective value and turned into an aspectually neutral PArm. *\*c*-stem. That stem was secondarily disambiguated by the IPFV nasal suffix. Thus, PIE *\*pr(k̄)-ske/o-* [+ durative] → PArm. *\*pr(k)ske/o-* [± durative] → PArm. *\*harc'-* [- durative] / *\*harc'-ane-* [+ durative].<sup>212</sup> Thus, the older PFV stem was completely eliminated.

In (b), the *\*nHe/o*-stems either continue an inherited nasal formation with a substituted root shape (i), or represent a substitution of an older IPFV stem by a secondary stem derived from the inherited PFV stem (ii). These innovation patterns are expected for ACHIEVEMENTS. The remaining actionalities are controversial.

#### § 2.5.2-3.2.1. The PArm. *\*nHe/o*-stem derived from the inherited IPFV stems

a) Thematic root stem. In some Ancient Greek verbs, *ανε/o*-stems compete with the IPFV thematic root stem, with which they share the PFV thematic root stem (cf. Chantraine 1961: 171–175). With such verbs, secondary *ανε/o*-stems could be derived from IPFV root stems in the full grade. Thus, one finds *λανθάνω/λανθάνομαι* (4 times in Homer) ‘escape notice’ next to *λήθω/λήθομαι* (32 times in Homer), whence *ληθάνομαι* (1 time in Homer). The full grade of *ληθάνομαι* is taken over from *λήθω* and not aor. *ἔλαθον*. Similarly, one finds *κυνθάνω* (Hsch.) ‘hide’ next to *κεύθω/κεύθομαι* (13 times in Homer), whence *κευθάνω* (1 time in Homer); aor. *ἔκυθον*. Perhaps, the IPFV thematic root stem was recharacterised by the nasal suffix in order to underline some specific aspectual meaning, e.g. the lexicalised [- durative] aspectual feature (cf. Vendryes 1923: 267–273).

Given that Arm. *suzan-e/i-m* is an exact formal match of the aforementioned *κευθάνω*, including its root in the full grade, it is tempting to explain the Old Armenian verb as an outcome of IPFV *\*kéud<sup>h</sup>-nHe/o-*, a replacement of IPFV *\*kéud<sup>h</sup>-e/o-*. Similarly, *dizanem* may be explained from IPFV *\*d<sup>h</sup>eig<sup>h</sup>-nHe/o-*, a replacement of the older infix stem (cf. Lat. *fungō* ‘form’, PCelt. *\*di-n-g-o-* ‘knead, form’) based on parallel IPFV *\*d<sup>h</sup>eig<sup>h</sup>-e/o-*, just like *lizanem* may be explained from IPFV *\*leig<sup>h</sup>-nHe/o-*, a replacement of IPFV *\*leig<sup>h</sup>-e/o-* (cf. Arm. *lizem*)

<sup>212</sup> A comparable recharacterisation of the older IPFV stem is found in Gk. *ἀλύ-σκ-ω* → *ἄλυ-σκ-άνω* ‘avoid’ and *ὀφείλω* → *ὀφλ-ισκ-άνω* ‘owe’.

next to the infix stem (cf. Lat. *lingō* ‘lick’, OE *liccian* ‘lick’). Here may also belong Arm. *oʀogan-e/i-m* if from IPFV *\*sreu-e/o-* ‘flow’ (cf. Skt. *srāvati*, etc. *LIV*<sup>2</sup>: 588). Finally, the sound change PIE *\*u > PArm. \*g* allows to reconstruct the same type in *aganim 1* and *aganim 2*.

The spread of the nasal suffix to thematic root stems was conditioned by the co-occurrence of both types of the IPFV stem with the thematic aorist in Ancient Greek. Although the combination of the thematic IPFV root and PFV root stems is relatively frequently attested only in Greek, cf. *λείπω* next to *λιπών* (Meillet 1934: 202), the extension of the nasal suffix to thematic IPFV stems in Proto-Armenian might point to the existence of such paradigmatic class in the Armenian branch as well.

The generalisation of the root shape from the IPFV thematic root stem may be illustrated by PFV/IPFV *ber-* ‘carry’ and few other verbs, in which the IPFV stem was not recharacterised by a nasal suffix (cf. Meillet 1900b = 1977: 76).

There seems to be no plausible traces of the Old Armenian nasal stems derived from IPFV athematic root stems. The case of *lizem/lizanem* suggests that Proto-Armenian thematised the PIE athematic stem like Proto-Greek: PIE *\*leigʰ-* (Skt. *réhmī*) → *\*leigʰ-e/o-* (Gk. *λείχω*, Arm. *lizem*).

Table 15. Grammatical features of *an(e/i)*-verbs with inherited IPFV *\*e/o*-stems

	Transitivity	Agentivity	Lexical Aspectual Features
Probable			
<i>aganim 1</i>	[± transitive]	[± agentive]	[– telic], [+ durative], [± dynamic]
<i>aganim 2</i>	[+ transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
Possible			
<i>awcan-e/i-m</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>bucan-e/i-m</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>dizan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [+ durative], [+ dynamic]
<i>elanem</i>	[– transitive]	[± agentive]	[± telic], [± durative], [+ dynamic]
<i>eluzanem</i>	[+ transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>etcan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [± durative], [+ dynamic]
<i>gercanem</i>	[+ transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>hatan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [± durative], [+ dynamic]
<i>ĵeranim</i>	[± transitive]	[– agentive]	[– telic], [+ durative], [– dynamic]
<i>lizanem</i>	[+ transitive]	[+ agentive]	[± telic], [+ durative], [+ dynamic]
<i>lucan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [± durative], [+ dynamic]
<i>macanim</i>	[– transitive]	[– agentive]	[± telic], [± durative], [± dynamic]
<i>oʀogan-e/i-m</i>	[± transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]

<i>snanim</i>	[– transitive]	[– agentive]	[+ telic], [+ durative], [+ dynamic]
<i>spananem</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>sp'acanim</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>suzanem</i>	[+ transitive]	[± agentive]	[± telic], [± durative], [+ dynamic]
<i>tesanem</i>	[+ transitive]	[– agentive]	[± telic], [± durative], [± dynamic]
<i>usanim</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>zercan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]

Except *aganim* 1 and *aganim* 2, verbs in Table 15 can alternatively be derived from some other inherited formations, including, in particular, the causative-iterative formations (see (d) below in this paragraph), and sigmatic stems (see § 2.5.2-3.2.2c). A caus.-iter. *\*eie/o*-stem would not work for *aganim* 1 and *aganim* 2, because the change of pretonic *\*o* to *\*a* was blocked in the open syllable by the following *\*u* as in *ořoganem*.

Altogether, the sigmatic origin of PFV *\*keud<sup>h</sup>-s-* (cf. ἔκευσα; and also ἔλησα next to ληθάνω), *\*d<sup>h</sup>eig<sup>h</sup>-s-*, and *\*leig<sup>h</sup>-s-* is complicated since it requires a secondary thematisation of the PFV stem in order to explain the lenition of *\*-j-* to *-z-* (§ 2.5.2-3.2.2c). In the case of Arm. *ořogan-e/i-m*, a PFV *\*s*-stem, attested in Gk. ἔρρευσα, Skt. *asrausīt*, is inconsistent with the sound change PIE *\*μ* > PArm. *\*g* in intervocalic position.

Among the remaining verbs that can be derived from the IPFV thematic stem, such reconstruction finds comparative support for *awcan-e/i-m* (cf. Lat. *unguō*; LIV<sup>2</sup>: 267), *řeranim* (cf. Gk. θέρομαι, OIr. *fo-geir*; LIV<sup>2</sup>: 220) and *tesanem* (cf. Gk. δέκομαι; LIV<sup>2</sup>: 110). The reconstruction of the thematic root stem is purely hypothetical, albeit formally possible, for the remaining verbs in Table 15.

If one accepts that the lexicalised [– telic] aspectual feature (ACTIVITIES and STATES) determined the pivotal morphological status of the IPFV stem as the source of the root shape, the following verbs receive justification for the IPFV thematic root stem: *aganim* 1 (*\*h<sub>2</sub>eu-e/o-*) and *řeranim* (*\*g<sup>wh</sup>er-e/o-* ‘have a fever’).

Only few verbs have a lexicalised [– durative] feature that renders the reconstruction of the pivotal IPFV stem unlikely — *spananem*, *sp'acanim*, *zercan-e/i-m*. The root shape of all these verbs can be alternative explained by the PFV root or *\*s*-stems.

Many verbs in Table 15 have variable [± telic] and [± durative] parameters and the hypothesis on the pivotal role of the [– telic] construal can be subject to quantitative research based on a larger corpus.

b) *\*ske/o*-stem. Verbs with inherited IPFV *\*ske/o*-stems constitute a salient example of a recharacterised IPFV stem among the *an(e/i)*-class. The most obvious example is PIE IPFV *\*pr(k)-ske/o-* yielding Arm. PFV *harc'*-, whence IPFV *harc'-ane-* ‘ask’ (cf. Kortlandt 1996a = 2003: 114 among others). Here may also belong *anc'anem*, if from *\*h<sub>2</sub>nt-ske/o-* or *\*snt-ske/o-*



(see § 2.5.1-2.3 for alternative solutions).<sup>213</sup> It is also possible that forms with the root full grade could be analogically formed in Proto-Armenian, including *anc'anem*, if from *\*h<sub>2</sub>ent-ske/o-*, *c'uc'anem*, if from *\*skeuh<sub>1</sub>-ske/o-*, and *luc'anem*, if from *\*leuk-ske/o-* (cf. Meillet 1900b = 1977: 76; Godel 1965 = 1982: 22, where the present explanation is considered for *anc'anem*, *c'uc'anem*, and *harc'anem*, but not *luc'anem*). Given that the PIE proto-type had the zero-grade of the root (Meillet 1934: 221; *LIV*<sup>2</sup>: 19), it is unclear what would be the source of the analogical spread of *\*-ske/o-* to the Proto-Armenian roots in the full grade. The reconstructions with the full grade are counted as doubtful in Table 16.

Table 16. Grammatical features of *an(e/i)*-verbs with inherited IPFV *\*ske/o-*stems

	Transitivity	Agentivity	Lexical Aspectual Features
Probable			
<i>harc'an-e/i-m</i>	[± transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
Doubtful			
<i>anc'an-e/i-m</i>	[– transitive]	[± agentive]	[+ telic], [+ durative], [+ dynamic]
<i>c'uc'an-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [± durative], [+ dynamic]
<i>luc'anem</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]

Chantraine (1961: 223–227) characterised Gk. *σχε/ο*-verbs as [+ durative] and [+ telic] (“il souligne la *durée* de l'action, en même temps qu'il en envisage l'*aboutissement*”, p. 223; “ils semblent exprimer une action que l'on répète pour réussir”, p. 224); cf. Schwyzer 1939: 706–712. The evidence of the Old Armenian nasal verbs complies with that grammatical profile except for *luc'anem*. A lexicalised [– durative] feature of the latter verb makes it an outlier and favours the reconstruction of a PFV *\*s*-stem (see § 2.5.2-3.2.2c).

c) *\*ie/o-stem*. Perhaps the most controversial pattern of morphological renovation consisted of verbs, the *an(e/i)*-stems of which contained roots in non-etymological affricates. These affricates have been explained by some scholars as going back to PIE *\*ie/o-*stems added to roots in a consonant (Godel 1965 = 1982: 22–25; de Lamberterie 1982a: 64; Klingenschmitt 1982: 196; Olsen 1988, 1993).

The aforementioned formal possibility has been criticised, in particular, by Barton (1989: 147) and Kortlandt (1994 = 2003: 104f.) for phonological reasons, discussed in § 1.4.2, as well as morphological arguments. These scholars claimed that nasal verbs (including

<sup>213</sup> It has been suggested to derive the root of *ayc'em* ‘search; visit’ from PIE IPFV *\*h<sub>2</sub>is-ske/o-* (Skt. *icchāti* ‘seek’, etc.; Godel 1965 = 1982: 22; *LIV*<sup>2</sup>: 260; *EDAIL*: 64). However, the change from *\*h<sub>2</sub>iC-* to *ayC-* is problematic. Alternatively, *hayc'em* ‘ask’ has been derived from PIE *\*h<sub>2</sub>eis-ske/o-* (cf. Lat. *aeruscāre* ‘beg’, Lith. *ieškóti* ‘look for’; see Kortlandt 1984 = 2003: 55; Beekes 2003: 182).

*anicanem, hecanim, mucanem, and xacanem*) could not have been derived from underlying IPFV *\*ie/o*-stems because a PIE IPFV *\*ie/o*-stem could not become a PFV root stem in prehistoric Armenian. However, the shift from an IPFV stem to a PFV one is rather trivial, and there is clear evidence that it happened at several chronological levels in the prehistory of Old Armenian, cf. aor. *eharc* ‘he asked’ from PIE ipf. *\*h<sub>1</sub>e-pr(k̄)-ske-t*; aor. *eber* ‘he carried’ from PIE ipf. *\*h<sub>1</sub>e-b<sup>h</sup>ere-t*; aor. *ehan* ‘draw’ from PArm. *\*pā-ne-* < PIE *\*(s)peh<sub>2</sub>-* (Gk. *σπάω* ‘break’). Kortlandt’s claim that nasal presents “supply a present tense to an aorist stem” (1994 = 2003:105) may be correct only for the stage of Proto-Armenian when the inherited aorist and imperfect tenses had merged together into the syncretic Proto-Armenian preterite tense and the grammatical contrast between the prototypes of aorists *elik*’ and *eber* had been neutralised. Thus, the imperfect tense form *\*h<sub>1</sub>e-sed-ie-t* could theoretically yield the stem of aor. *hec-aw*, whence *hec-anim*. A lexicalised *\*ie/o*-stem is found in some Old Armenian verbal roots, cf. *ǰnǰ-em* ‘wipe’, aor. *ǰnǰ-ec’i* from PIE *\*g<sup>wh</sup>en-ie/o-*, etc. (Godel 1965 = 1982: 22; Martirosyan frthc. § M 502.4 with references). The case of *harc’anem* is particularly telling and shows that the PIE marked IPFV stem could end up in a nasal class with the PFV root stem.

Kortlandt (*loc. cit.*) argues that the secondary IPFV formation in PArm. *\*-sk-ie/o-* > Arm. *-č’-* (cf. Arm. *čanač’em* ‘know’ from PArm. *\*janac-ie/o-* < PIE *\*ǵnh<sub>3</sub>-ske/o-*) shows that *\*-ie/o-* remained a markedly imperfective suffix after the sound change PArm. *\*sk* > *\*c*. The *\*ie/o-* suffix was added because that sound change made the IPFV *\*ske/o-* stem similar to the PFV *\*c-* suffix that had been derived from the PFV sigmatic stem of roots in *\*-t-* and *\*-k̄-* (with *\*ts* > *\*c* > *c’* and *\*ks* > *\*c* > *c’*; see § 1.4.2). Two considerations should be taken into account here. Firstly, the postulated process serves as an example of renovation of the older IPFV stem with an additional IPFV suffix — exactly the same process that Kortlandt rejects in the case of Proto-Armenian nasal suffixes renovating the IPFV *\*ie/o-* stems (PArm. IPFV *\*janac-* → *\*janac-ie/o-* > *čanač’-* and not PArm. PFV *\*jan-* → *\*jan-ie/o-* > *ˀcanǰ-* or *ˀčanǰ-*). Secondly, and most importantly, Kortlandt’s argument is valid only if the IPFV *\*ie/o-* stem productivity lasted until after the collapse of the PIE imperfect in Proto-Armenian. Unless such chronological restriction is proven, the rejection of nasal stems derived from inherited *\*ie/o-* stems must be taken as arbitrary.

The assumption that the imperfect of verbs with no PFV stem (e.g. suppletive verbs) produced the Proto-Armenian aorist is dubious. Although PIE IPFV *\*b<sup>h</sup>er-e/o-* (whence from Arm. *eber*) might indeed have had the suppletive PFV stem in PIE, PIE IPFV *\*pr(k̄)-ske/o-* clearly was coupled with PFV *\*prek̄-* (cf. *LIV*<sup>2</sup>: 490).

Thus, the scepticism about the reconstruction of *\*ie/o*-stems as the source of the root shape of the Old Armenian *an(e/i)*-verbs concerns the historical phonology alone, and not morphology.<sup>214</sup>

According to the analysis accepted in §§ 2.5.1-2.24 and 2.5.1-2.46, Arm. *ijānem* (together with *šijānim*) represents a secondary *an*-stem derived from IPFV *\*h<sub>1</sub>eid<sup>h</sup>-ie-*.

For the reasons discussed in § 1.4.2, the sound changes PIE *\*k<sub>1</sub>i*, *\*k<sup>(w)</sup>i*, *\*t<sub>1</sub>i* > Arm. *c*; PIE *\*g<sub>1</sub>i*, *\*g<sup>(w)</sup>i*, *\*d<sub>1</sub>i* > Arm. *c*, PIE *\*g<sup>h</sup>i*, *\*g<sup>(w)h</sup>i*, *\*d<sup>h</sup>i* > Arm. *j* are considered doubtful. Instead, one expects *č*, *č*, and *ǰ*.

Table 17. Grammatical features of *an(e/i)*-verbs with inherited IPFV *\*ie/o*-stems

	Transitivity	Agentivity	Lexical Aspectual Features
Probable			
<i>ijānem</i>	[– transitive]	[+ agentive]	[+ telic], [± durative], [+ dynamic]
Doubtful			
<i>awcan-e/i-m</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>bucan-e/i-m</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>etcan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [± durative], [+ dynamic]
<i>ergican-e/i-m</i>	[+ transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>gercanem</i>	[+ transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>hiwcanim</i>	[– transitive]	[– agentive]	[+ telic], [+ durative], [+ dynamic]
<i>lizanem</i>	[+ transitive]	[+ agentive]	[± telic], [+ durative], [+ dynamic]
<i>lucan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [± durative], [+ dynamic]
<i>macanim</i>	[– transitive]	[– agentive]	[± telic], [± durative], [± dynamic]
<i>sp'acanim</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>zercan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]

Neither of the verbs listed in Table 17 have a lexicalised [– telic] aspectual feature that would promote the IPFV stem as the source of their root shape. In two cases, the lexicalised

<sup>214</sup> The reconstruction of both IPFV *\*ie/o*- and PFV *\*s*-stem is backed up by Ancient Greek where these two stems are often found within one paradigm, cf. *δάπτω*, aor. *ἔδαψα* ‘devour’ (cf. *bucan-e/i-m* ‘feed (oneself)’), *κόπτω*, aor. *ἔκοψα* ‘strike’ (cf. *kcanem* and *xacanem* ‘bite’), *φαίνω*, aor. *ἔφηνα* ‘bring to light’ (cf. *luc'anem* ‘kindle’), *πράσσω*, aor. *ἔπρηξα* ‘pass through’ (cf. *anc'anem* ‘pass’), *έλάω*, aor. *ἤλασα* ‘drive’ (cf. *mucan-e/i-m* ‘bring into’), *ἕζομαι*, *ἕζω*, aor. *εἶσα* ‘make sit; seat oneself’ (cf. *hecanim* ‘ride’), *κλαίω*, aor. *ἔκλουσα* ‘cry’ (cf. *anican-e/i-m* ‘curse’); see further examples in van de Laar 2000: 405–408. If Ancient Greek and Old Armenian were closely related dialectal PIE, a similar distribution may be postulated for at least some of the inherited early Proto-Armenian verbs, and hence, either of the two stems could potentially determine the root shape.

[– durative] aspectual feature speaks in favour of a pivotal PFV stem and against an IPFV *\*ie/o-* stem (*sp'acanim* and *zercan-e/i-m*). Thus, aspectual features do not offer any important evidence to counterbalance the sound laws and make the reconstruction of an IPFV *\*ie/o-* stem plausible. And yet, one instance of a lexicalised IPFV *\*ie/o-* stem seems to be rather secure as regards both its form and function (*ij'anem* and cognate *šij'anim*).

d) Causative-iterative *\*o-eie/o-* stem. There is a formal possibility to derive some Proto-Armenian roots from PIE causative-iteratives with the structure *\*Co(R)C-eie/o-*, the imperfect tense forms of which would introduce the original IPFV stem to the Proto-Armenian PFV stem as outlined in (1); see Godel 1965 = 1982: 24,<sup>215</sup> Viredaz 2004–2005: 85; 2018: 165, 202–205.<sup>216</sup> Possible continuants of that type are presented in Table 18 below.

- (1) PIE IPFV *\*h<sub>1</sub>loid<sup>h</sup>-eie/o-* > PArm. IPFV *\*eloyz-e-* → PArm. IPFV *\*eloyz-an-e-*  
 PIE PFV ? → PArm. PFV *\*eloyz-e-* > PArm. PFV *\*eloyz-*

In line with that analysis, Godel (*loc. cit.*) reconstructed *\*srou-eie/o-* for *ořogan-e/i-m* which he glossed ‘je fais couler, j’irrigue’. In fact, early attestations of the verb rather point to the non-agentive meaning ‘flow over so.’ in its transitive usage with the active voice. This does not fit well the causative interpretation proposed by Godel. Yet, the *\*Co(R)C-eie/o-* type of stem might express iterative meanings so that the argument structure does not refute such reconstruction for the Proto-Armenian verbs in question. Another concern here is the sound change PIE *\*euV* > Arm. *ogV* which has been rejected by Godel (1965 = 1982: 24, 26, 31) together with the possibility to derive *ořogan-e/i-m* from *\*sreu-e/o-*. However, that sound change remains the best way to explain PIE *\*k<sup>w</sup>ieu-* > Arm. aor. *č'ogay* ‘went’. Taking that into account, *ořogan-e/i-m* can be explained as reflecting the IPFV thematic root stem; see point (a) above. Such reconstruction is supported by external comparative evidence: Skt. *srávati* intr. ‘flow’ and Gk. *ῥέω* ‘id.’ are semantically closer to

<sup>215</sup> Godel’s remark on the early reconstruction of the causative stem in Hübschmann 1897: 420f. is somewhat misleading. Hübschmann reconstructed the *o*-grade for the verbal root and provided nominal cognates (Gk. *ῥόφος* ‘stream’, etc.) without claiming the origin of the stem.

<sup>216</sup> Most recently, Viredaz (2018: 165) has argued in favour of the causative provenance of *ořogan-e/i-m*, *snanim*, and *usanim*. Viredaz has also mentioned *bucanim* and *dizan-e/i-m* among the phonetically possible continuants of the type with reference to the thematic root stem and sigmatic stem as alternative reconstructions. Viredaz rejects the causative origin of *eluzanem* and *suzanem* for phonetic reasons, considering PIE *\*Vd<sup>h</sup>V* > Arm. *VzV* as a non-existing sound law. The possibility of the causative provenance of *hatan-e/i-m* and *sp'acanim* is disregarded.

*oʀogan-e/i-m* ‘id.’ than Skt. *srāvayati* ‘make flow’, which makes the reconstruction of the thematic root stem a better option.<sup>217</sup>

*Hatan-e/i-m* can also be derived from the causative-iterative stem if one takes into account the change of pretonic \**o* to \**a* in an open syllable, namely, if from \**h<sub>2</sub>od-eie/o-*.

Most of the verbs in Table 18 follow the equipollent transitivity marking pattern, the transitive member of which may be considered pivotal. Such is the case of *bucan-e/i-m*, *dizan-e/i-m*, *eluzanem*, *hatan-e/i-m*, *oʀogan-e/i-m*, and *suzan-e/i-m* (see Table 13 in § 2.5.2-1). Exceptions are *snanim* with a lexicalised passive alternation and *usanim* with a lexicalised reflexive alternation of the underlying ditransitive predicate ‘teach smb. so.’; both verbs have the causative transitivity marking pattern. Depending on one’s view on which of the listed verbs (if any) must be derived from an \**eie/o*-stem, difference in the transitivity marking may prove to be significant.

Table 18. Grammatical features of *an(e/i)*-verbs with inherited IPFV \**eie/o*-stems

	Transitivity	Agentivity	Lexical Aspectual Features
Possible			
<i>bucan-e/i-m</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>dizan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [+ durative], [+ dynamic]
<i>eluzanem</i>	[+ transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>hatan-e/i-m</i>	[+ transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>lizanem</i>	[+ transitive]	[+ agentive]	[± telic], [+ durative], [+ dynamic]
<i>oʀogan-e/i-m</i>	[+ transitive]	[– agentive]	[± telic], [± durative], [+ dynamic]
<i>snanim</i>	[– transitive]	[– agentive]	[+ telic], [– durative], [+ dynamic]
<i>suzanem</i>	[+ transitive]	[± agentive]	[± telic], [± durative], [+ dynamic]
<i>usanim</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]

Given that PIE verbs of the \**eie/o*-class had no separate PFV stem, the aspectual contrast must have been neutralised in the IPFV stem. Although this morphological type is grouped with the PARM. \**an*-verbs derived from IPFV stems, usual expectations about the validity of the [– telic] (for pivotal IPFV stems) and [– durative] (for pivotal PFV stems) need not apply.

e) \**k*-stem. At least one Old Armenian *an(e/i)*-verb can be derived from the \**k(e/o)*-stem (see Brugmann 1913: 464–467; Schwyzer 1939: 774–776; Chantraine 1961: 162f., 194f.;

<sup>217</sup> Martirosyan frthc. § M 502.6 admits the causative provenance of *oʀogan-e/i-m* (in view of Skt. caus. *srāvayati* ‘make flow’ and against *srāvati* ‘flow’ and Gk. *ῥέω* ‘id.’), but no other verb listed in Table 18. He does not explain how the argument structure of *oʀogan-e/i-m* complies with the causative semantics of the reconstruction.

Risch 1974: 279; van de Laar 2000: 366f. on this type) — *busanim* ‘grow’, if from dial. PIE IPFV *\*b<sup>h</sup>eb<sup>h</sup>uH-k-* (cf. Gk. *πέφυκα* ‘grow’); see § 2.5.1-2.11. Other traces of the *\*k(e/o)-*stem have been postulated for PArm. *\*ptah<sub>2</sub>-k-* in *t’ak’č’im*, aor. *t’ak’eay* intr. ‘fear’ (Gk. *πτήσσω* ‘scare’) as well as PArm. *\*klu-k(e/o)-* in pres. *lsem* ‘hear’, aor. *luay* without a completed lexicalisation (see Meillet 1936: 133; Klingenschmitt 1982: 157f.). These three verbs are non-agentive, which might be a salient grammatical feature of the *\*k(e/o)-*suffix which predominantly recharacterised the perfect in Ancient Greek.

The direction of the spread of the root shape from the IPFV to the PFV part of the paradigm, assumed here for *boys-/bus-* and *t’ak’-*, is the same as in *berem*, *hanem*, and *harc’anem* (cf. Meillet 1925a: 217f.).

The case of *t’k’an-e/i-m* ‘spit’ from PArm. *\*ptuH-k-* (cf. Gk. *πτύω* ‘spit’) is formally comparable. However, the *\*k-*stem is an inner-Armenian innovation that took place after the palatalisation of velars after *\*u* (otherwise one would expect *\*t’san-e/i-m*). Moreover, the agentive semantics sets it apart from the aforementioned verbs.

**Table 19. Grammatical features of *an(e/i)-*verbs with inherited IPFV *\*k-*stems**

	Transitivity	Agentivity	Lexical Aspectual Features
Probable			
<i>busanim</i>	[– transitive]	[– agentive]	[+ telic], [+ durative], [+ dynamic]
Doubtful			
<i>t’k’anem</i>	[± transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]

#### § 2.5.2-3.2.2. The PArm. *\*nHe/o-*stem derived from the inherited PFV stems

a) Thematic root stems. The elimination of the infixed stem took place independently in Proto-Armenian and other branches. In Proto-Greek, the *\*nHe/o-* suffix (or later *\*ne/o-* and *\*ane/o-*) could be derived from the inherited IPFV infixed stem (cf. PIE *\*b<sup>h</sup>u-n(e)-d<sup>h</sup>-* → *πυνθάνομαι* ‘learn’, PIE *\*li-n(e)-k<sup>w</sup>-* → *λιμπάνω* ‘leave’), thus providing the source of the *-v-ανο/ε-* type.<sup>218</sup> In Proto-Armenian, the secondary IPFV *\*nHe/o-*stem were derived from the

<sup>218</sup> The PIE infixed stem could also be replaced by the Proto-Greek thematic root stem, cf. PIE *\*li-n(e)-k<sup>w</sup>-* → PGk. *\*leik<sup>w</sup>-e/o-* > Gk. *λείπω* ‘leave’ (next to rare *λιμπάνω*); PIE *\*b<sup>h</sup>u-n(e)-d<sup>h</sup>-* → PGk. *\*b<sup>h</sup>eud<sup>h</sup>-e/o-* > Gk. *πέυθομαι* ‘learn’ (16 times in Homer next to *πυνθάνομαι* 2 times in Homer). One observes the increasing productivity of the *-v-ανο/ε-* type in the post-Homeric period, when a *-v-ανο/ε-* stem could be formed in virtually every verb with a thematic PFV stem in a short vowel + obstruent. In some cases, one finds a Homeric thematic stem next to a post-Homeric *-v-ανο/ε-*stem, cf. Hom. aor. *ἤρυγον*, Hom. pres. *ἐρέυγομαι* next to post-Hom. pres. *ἐρυγγάνω* ‘roar’; Hom. aor. *ἔφουγον*, Hom. pres. *φεύγω* next to post-Hom. pres. *φυγγάνω*. From this perspective, the Homeric variant reading pres. *λιμπάνω* (next to common Hom. pres. *λείπω*) as well as the rare

PFV root stem (*\*uid-e/o-* → *gtanem* ‘find’, *\*lik<sup>w</sup>-e/o-* → *lk’anem* ‘leave’).<sup>219</sup> The resulting secondary nasal verbs are indistinguishable from the inherited type in which the *\*nHe/o-* suffix originated in terms of their morphological features so that these varieties are considered together in Table 14 (§ 2.5.2-3.1).

Table 20. Distribution of the *\*nHe/o-* stem and infixed stem across IE languages

PIE root	Gk. and Arm. verbs	Infixed stem in other branches
<i>*b<sup>h</sup>eg-</i>	Arm. <i>bekan-e/i-m</i>	Skt. <i>bhanákti</i> , Lith. <i>bengiù</i> , OIr. <i>bongid</i>
<i>*b<sup>h</sup>eug-</i>	Arm. <i>bucanem</i>	Skt. <i>bhuñjáte</i> , Lat. <i>fungor</i>
<i>*d<sup>h</sup>eiǵ<sup>h</sup>-</i>	Arm. <i>dizanem</i>	PCelt. <i>*dingo-</i> , Lat. <i>fungō</i>
<i>*h<sub>1</sub>euk-</i>	Arm. <i>usanim</i>	Lith. <i>jùnkti</i>
<i>*h<sub>2</sub>po-h<sub>3</sub>elh<sub>1</sub>-</i>	Arm. <i>p’lanim</i>	PGrm. <i>*fallan-</i>
<i>*h<sub>3</sub>erg-</i>	Arm. <i>harkan-e/i-m</i>	Hitt. <i>ḫarnink-</i>
<i>*leiǵ<sup>h</sup>-</i>	Arm. <i>lizanem</i>	Lat. <i>lingō</i> , PGrm. <i>*likkon-</i>
<i>*leik<sup>w</sup>-</i>	Gk. <i>λιμπάνω</i> , Arm. <i>lk’anem</i>	Skt. <i>riṇákti</i> , Lith. <i>linkù</i> , Lat. <i>linquō</i>
<i>*leug-</i>	Arm. <i>lucanem</i>	MW <i>-lwnǵ</i>
<i>*ueid-</i>	Arm. <i>gtanem</i>	Skt. <i>vindáti</i> , OIr. <i>-finnadar</i>

b) Athematic root stem. In some nasal verbs the PFV root stem may be an inherited member of a paradigm. It is commonly accepted that the root *cin-* of *cnanim* was derived from dial. PIE PFV *\*ǵenh<sub>1</sub>-* (Gk. *ἔγενετο*), and that its nasal stem replaced PIE IPFV *\*ǵi-ǵ(e)nh<sub>1</sub>-* (not an infixed stem). Another rather secure representative of this class is *harkan-e/i-m*, the missing root-final velar of which (aor. *har-i*) can be explained as a result of simplification of a three-consonant cluster with a velar in the word-final position in the 3 sg. aor. act. (see § 2.5.1-2.20). Yet another plausible case is *tesanem* (full-grade mp. *\*deḱ-*, cf. Gk. *ἔδεκτο*).<sup>220</sup> These verbs are counted as “probable” in Table 21.

Homeric *πυθάνομαι* (next to common Hom. pres. *πέυθομαι*) can be viewed as inner-Greek innovations. However, the possibility of an inherited infix cannot be completely excluded either.

<sup>219</sup> For that reason, Arm. *lk’anem* cannot be adduced, together with Skt. *riṇákti*, as comparative evidence for the reconstruction of the PIE nasal stem (against Brugmann 1913: 315; Ivanov 2007: 82).

<sup>220</sup> The reconstruction of the PFV athematic root stem, as assumed in *LIV*<sup>2</sup> (s.vv), is not supported by comparative evidence in the cases of *ankanim* (*\*sng<sup>w</sup>-*; thus, Barton’s choice to derive *ankanim* from PFV athematic *\*sng<sup>w</sup>-* (1989: 145) is a possibility on a par with PFV thematic *\*sng<sup>w</sup>-e/o-*), *hasanem* (*\*sh<sub>1</sub>k<sub>1</sub>-*), *jeranim* (*\*g<sup>w</sup>h<sub>1</sub>er-*), *p’lanim* (*\*h<sub>2</sub>po-h<sub>2</sub>lh<sub>1</sub>-*), and *snanim* (*\*ken-*).

Table 21. Grammatical features of *an(e/i)*-verbs with inherited PFV root stems

	Transitivity	Agentivity	Lexical Aspectual Features
Probable			
<i>cnanim</i>	[± transitive]	[– agentive]	[+ telic], [– durative], [+ dynamic]
<i>harkan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>tesanem</i>	[+ transitive]	[– agentive]	[± telic], [± durative], [± dynamic]
Possible			
<i>ankanim</i>	[– transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]
<i>arkan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>awcan-e/i-m</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>bekan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]
<i>bucan-e/i-m</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>elanem</i>	[– transitive]	[± agentive]	[± telic], [± durative], [+ dynamic]
<i>etcan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [± durative], [+ dynamic]
<i>gercanem</i>	[+ transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>hasanem</i>	[– transitive]	[± agentive]	[+ telic], [+ durative], [+ dynamic]
<i>hatan-e/i-m</i>	[+ transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>hiwcanim</i>	[– transitive]	[– agentive]	[+ telic], [+ durative], [+ dynamic]
<i>jeranim</i>	[± transitive]	[– agentive]	[– telic], [+ durative], [– dynamic]
<i>lucan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [± durative], [+ dynamic]
<i>macanim</i>	[– transitive]	[– agentive]	[± telic], [± durative], [± dynamic]
<i>mtanem</i>	[– transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]
<i>p'lanim</i>	[– transitive]	[– agentive]	[+ telic], [– durative], [+ dynamic]
<i>snanim</i>	[– transitive]	[– agentive]	[+ telic], [– durative], [+ dynamic]
<i>sp'acanim</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>spanan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>usanim</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>zercan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]

This type of derivation can also be assumed for some other verbs listed in Table 21, although most of them contain a formal ambiguity and are classified as “possible”.<sup>221</sup> They can be alternatively analysed as going back to a PFV thematic root stem (the type of aor. *lk'-i*, pres. *lk'anem*), or an IPFV thematic root stem (the type of aor. *ber-i*, pres. *berem*), or else a

<sup>221</sup> See an overview of the formation in PIE and, in particular, Ancient Greek in Brugmann 1913: 113–138; Schwyzer 1939: 683–686; van de Laar 2000: 328–339.



PFV \*s-stem. The reconstruction of the root stem finds comparative support for *bucan-e/i-m* (act. \**b<sup>h</sup>eug-*, cf. Skt. conj. mp. *bhójate*).

The only verb with the lexicalised [– telic] aspectual feature is *ĵeranim*. This grammatical parameter makes it likely that the root shape *ĵer-* goes back to IPFV \**g<sup>wh</sup>er-e/o-*.

The lexicalised [– durative] aspectual feature makes the PFV stem a likely source of the root shape in *arkan-e/i-m*, *bekan-e/i-m*, *mtanem*, *p'lanim*, *snanim*, *sp'acanim*, *spanan-e/i-m*, and *zercan-e/i-m*. It should be noted, however, that the indicated feature does not facilitate the choice between the different types of PFV stems (thematic, athematic, or sigmatic), and only decreases the plausibility of the IPFV thematic root stem as a source of the root shape.

Although *tesanem* is unspecified for durativity, the pivotal role of its non-durative uses is confirmed by the fact that the aorist forms with the punctive meaning dominate early classical texts: 3 sg. and 3 pl. aorist forms alone constitute a quarter of all occurrences of the verb in the Bible.

The data presented in Table 21 suggests that the PArm. \**nHe/o*-stem was unspecified for agentivity and transitivity by the time when the analogical spread from the thematic to athematic root stem took place.

The grammatical profile of the verbs listed in Table 21 can be contrasted with the distribution of the grammatical features of *n(e/i)*-verbs, which may be derived from the same \**nHe/o*-class of the age before the split into the \**an-* and \**n-*series of suffixes.

PArm. IPFV \**h<sub>2</sub>(e)r-nHe/o-* (*ařnem*), \**d<sup>h</sup>eh<sub>1</sub>-nHe/o-* (*dnem*), and \**p(e)h<sub>2</sub>-nHe/o-* (*hanem*) align with *arkan-e/i-m*, *harkan-e/i-m*, *gercanem*, *hatan-e/i-m*, *sp'acanim*, and *spanan-e/i-m* insofar as their lexicalised agentivity and transitivity are concerned. Non-agentive intransitive \**k<sup>l</sup>ei-nHe/o-* (*linim*) aligns with *cnanim*, *hiwcanim*, *macanim*, *snanim*, and *tesanem* as [– agentive] as well as with agentive [– transitive] motion verbs *ankanim*, *elanem*, *hasanem*, and *mtanem*.

The limited available evidence allows to assume that the \**nHe/o*-class was unspecified for agentivity and transitivity before the split of \**nHe/o-* into two suffixes. Presumably, that class could take the equipollent transitivity marking pattern. Later on, some of the verbs of this class, like it was the case with some verbs of the parallel \**nu*-class, lexicalised the intransitive member of its transitivity pair and thus changed to the causative pattern. Thus, *p'lanim* may be derived from a dialectal PIE ambitransitive verb \**h<sub>2</sub>pó-h<sub>3</sub>lh<sub>1</sub>-nH-e/o-* tr. 'make fall', intr. 'fall', the intransitive member of which lexicalised in Proto-Armenian providing a case of change from the equipollent to the causative transitivity marking pattern (PIE tr. act. 'make fall', intr. mp. 'fall' → PArm. intr. mp. 'fall', caus. 'make fall').

Like the *an(e/i)*-verbs from Table 21, all the above-mentioned *n(e/i)*-verbs are telic and are unspecified for the [± durative] aspectual feature.

c) PFV \*s-stem. The existence of the PFV \*s-stem in Proto-Armenian is debated. This morphological type is notorious for its wide spread across the IE branches with very few lexical cognates. This is usually interpreted as a sign of the independent productivity of PFV \*s-stems in separate branches (cf. Meillet 1908: 85f.; 1934: 213f.; Watkins 1962; Drinka 1995 among others). In what follows, the evidence of the Old Armenian *an(e/i)*-class is examined.

Old Armenian retained a few suggestive traces of the dialectal PIE paradigmatic pattern characterised by the IPFV \**n(e)u*-stem and the PFV \*s-stem (see § 2.1.2-3). The question arises whether Proto-Armenian had a class with the IPFV \**nHe/o*-stem and PFV \*s-stem. None of Gk. *ανο/ε*-verbs has a sigmatic aorist. Sometimes a sigmatic aorist is attested side by side with a thematic aorist and the secondary *ανο/ε*-stem. In such cases, the nasal stem forms a paradigmatic pattern with the thematic aorist, and not with the sigmatic one. Thus, *ἰζάνω* ‘make sit down’, derived from pres. *ἰζώ*, has no immediate relation to aor. *εἶσα* (see Schwyzer 1939: 749–756; Chantraine 1961: 175–182; van de Laar 2000: 342f.). Given that the \**nHe/o*-class may be a Greek-Armenian innovation, one might argue that the lack of sigmatic stems in the Ancient Greek outcome of that class is an archaism that can be postulated for Proto-Armenian as well.

If the IPFV \**nHe/o*-stem was reserved to verbs with the PFV root stems, its spread to verbs with the PFV \*s-stem must be an inner-Armenian innovation. This view is supported by cases in which Old Armenian nasal stems contain root shapes that can be explained by PArm. \*s-stems. Thus, *meṛanim*, with the full grade of the root and the root-final *r*, cannot be explained by postulating PArm. \**mr-nHe/o*- as a replacement of PIE IPFV \**mr-ie/o*- ‘die’. Rather, the root shape of the secondary IPFV *meṛanim* goes back to PArm. PFV \**mer-s*.<sup>222</sup>

The sigmatic origin of *anican-e/i-m*, *hecanim*, and *meṛanim* is accepted in Barton 1989, on the assumption that the inherited PIE PFV root stems tended to change to Proto-Armenian sigmatic stems. This argument is very weak, since many inherited root stems did not change to sigmatic ones (as acknowledged by Barton himself, *ibid.*, p. 149, who admitted inherited root stems in *aganim* 1, *aganim* 2, *ankanim*, *cnanim*, *p’lanim*, and *usanim*). Barton provides rather vague parameters that would be responsible for such morphological variation between the root and sigmatic stems and limits himself to a claim that the PFV root stem is expected for telic, intransitive, or transitive “subjective” verbs. As Tables 19 and 20 suggest, neither of these parameters determined the choice between the root and \*s-stems.

<sup>222</sup> Along these lines, one could also analyse aor. *luay* of *lsem* ‘hear’ as going back to PArm. \**kleu-s*, secondarily derived from PIE \**kleu-* (Skt. *áśravam*, Gk. *ἐκλυον*; see Kortlandt 1987 = 2003: 80; 1999 = 2003: 130; 2018: 150). Although, in this case, one may be dealing with an archaism as well (cf. Skt. 2 *śróṣi*).

Perhaps, the easiest way to account for the analogical spread of the *\*nHe/o*-stem from verbs with the PFV root stem (thematic and athematic) to those with the PFV *\*s*-stem is to assume that it took place after the rise of the affricates from *\*Cs*-clusters within the early Proto-Armenian period.<sup>223</sup> At this point, the morphological boundary between the root and the *\*s*-suffix must have disappeared as well as the morphological contrast between the original root stems and *\*s*-stems. In my opinion, this stage was crucial for the spread of nasal suffixes. A full account of this process makes it difficult to assume a second layer of restored *\*s*-stems (see § 1.4.2).

Once PArm. PFV *\*aneid-s-* had yielded PFV *\*aneic-* (Arm. *anēc'*), the secondary IPFV stem *\*aneic-an-* could be derived in order to eliminate the variation of root-final consonants of the IPFV and PFV stems, cf. (1). It is not economical to assume that the variation was eliminated by replacing *\*aneic-* with *\*aneid-s-*, which in turn was eliminated by the secondary nasal stem at the following stage. A comparable levelling took place due to the variation in root auslauts provoked by other sound changes, cf. (2) and (3). The direction of levelling could depend on the relative frequency of the IPFV and PFV stems within a verbal paradigm (the IPFV stem could be the dominant in (3) below and in some of the verbs analysed in § 2.5.2-3.2.1).

- |     |       |      |                                |   |                            |   |                     |   |                     |
|-----|-------|------|--------------------------------|---|----------------------------|---|---------------------|---|---------------------|
| (1) | PArm. | IPFV | <i>*aneid-ie/o-</i>            | > | <i>*anēj̄-e-</i>           | → | <i>*anēj-an-e-</i>  | > | <i>anicane-</i>     |
|     |       | PFV  | <i>*aneid-s-</i>               | > | <i>*anēj-</i>              | > | <i>*anēj-</i>       | > | <i>anēc-/anic-</i>  |
| (2) | PArm. | IPFV | <i>*leuk-e/o-</i>              | > | <i>*leus-e-</i>            | → | <i>*leuc-an-e-</i>  | > | <i>luc'ane-</i>     |
|     |       | PFV  | <i>*leuk-s-</i>                | > | <i>*leuc-</i>              | > | <i>*leuc-</i>       | > | <i>loyc-/luc-</i>   |
| (3) | PArm. | IPFV | <i>*eleud<sup>h</sup>-e/o-</i> | > | <i>*eleuz-e-</i>           | > | <i>*eleuz-an-e-</i> | > | <i>eluzane-</i>     |
|     |       | PFV  | <i>*eleud<sup>h</sup>-s-</i>   | > | <i>*eleuj<sup>h</sup>-</i> | → | <i>*eleuz-</i>      | > | <i>eloyz-/eluz-</i> |

In Ancient Greek and Indo-Iranian, the PFV *\*s*-stem often co-occurs with the thematic IPFV root stem (Gotō 2013: 113; van de Laar 2000: 399–403; Willi 2018: 435). If the same paradigmatic class was productive in early Proto-Armenian, at least some of the sigmatic

<sup>223</sup> Pedersen (1906: 423) writes: “Von den alten *s*-aoristen ist vielfach mit hülfe der endung *-anem* ein präsens neugebildet worden. Dies geschah wohl zum theil um eine lautlich entwickelte grosse differenz zwischen dem präsens und dem aorist zu beseitigen.” Perhaps, the same process is implied by Kortlandt (1987 = 2003: 80), who states that “Nasal presents derived from sigmatic aorist stems are not rare in Armenian <...>.” In my opinion, one should speak of the root levelling from the PFV part of the paradigm to the IPFV one rather than assume some kind of derivation. This terminological caveat seems to be important for understanding the analogical nature of the spread of nasal stems and the purely paradigmatic (and not derivational) ties between the nasal and sigmatic stems. The derivational model behind *ant'erc'anem* from aor. *ant'erc'ay* of *ant'er'num* or the causatives derived from the PFV *oyc'/uc'*-stem clearly belonged to a relatively more recent stage of Proto-Armenian.

stems revealed by the *an(e/i)*-verbs can be archaic, and some of the *an*-stems can be replacements of the older thematic stems derived according to the model outlined in (2), cf. Arm. *luc'anem* next to Skt. *rócate* ‘shine’ from PIE IPFV *\*leuk-e/o-* (*LIV*<sup>2</sup>: 418). Similarly, the co-occurrence of the PFV *\*s*-stem with the IPFV *\*ie/o-* stem in Ancient Greek (van de Laar 2000: 405–408) allows assuming replacement of the IPFV *\*ie/o-* stem by a secondary *an*-stem within the model described in (1).

Willi (2018: 344, 421) argued that the change from the PFV root stem to the PFV *\*s*-stem might have been motivated by a tendency to avoid the loss of stem-final obstruents in Ancient Greek verbs like *ζεῦξαι*- from PIE PFV *\*i(e)uǵ-* ‘yoke’ (*LIV*<sup>2</sup>: 316). This observation may prove to be relevant for Proto-Armenian continuants of the PIE PFV root stem as well. The pivotal paradigm form of the 3 sg. in *\*-VK-t* could lose the velar in Proto-Armenian, cf. *kat'n* ‘milk’ from PIE *\*glkt-* (*EDAIL*: 345f.). The velar loss may be postulated in *ehar* ‘stroke’, as if from a rare survivor of the PFV athematic root stem to a *\*CeRK-* root — PIE *\*h<sub>1</sub>e-h<sub>2</sub>erg-t* > PArm. *\*h<sub>1</sub>e-h<sub>2</sub>er-t* (cf. *harkan-e/i-m* ‘strike’, § 2.5.1-2.20). Like in Ancient Greek (or together with it, cf. Gk. *ἐπιγῆξαι*, Arm. *sp'acanim*), the loss of the velar could be avoided in early Proto-Armenian by extending the stem with the PFV *\*s*-suffix. This scenario increases the probability of the sigmatic origin of the root shape in *bucan-e/i-m*, *dizan-e/i-m*, *etcan-e/i-m*, *gercanem*, *macanim*, *sp'acanim*, and *zercan-e/i-m*. However, the above-mentioned analysis is arbitrary since these verbs can be explained as sigmaticised PFV root stems anyway.

Two verbs unrelated to the issue of *\*Cs*-clusters discussed in § 1.4.2 — *meřanim* and *sksanim* — are counted as probable continuants of *\*s*-stems in Table 22. In both cases, the sigmatic stem is best explained as an early Proto-Armenian innovation.

The expected outcome of PIE *\*d<sup>h</sup>s* is Arm. *j* (see § 1.4.2). The change from PIE *\*d<sup>h</sup>s* to Arm. *z* would require a secondary thematicisation of the sigmatic stem. It is more economical to reconstruct the thematic IPFV root stem together with the conditioning sound change PIE *\*Vd<sup>h</sup>V* > *\*VzV* (see § 1.4.3). This issue concerns *eluzanem* (cf. Skt. *ródhati*, etc.; *LIV*<sup>2</sup>: 248) and *suzanem* (cf. Gk. *κεύθω*; *LIV*<sup>2</sup>: 358) which are classified as doubtful examples of the type in Table 22. Similarly, the sound changes PIE *\*g<sup>(w)h<sub>1</sub>s</sup>*, *\*g<sup>h</sup>s* > Arm. *z* (intervocalic) are dubious and a straightforward reconstruction of the IPFV thematic stem remains a preferable solution for *dizan-e/i-m* and *lizanem*.

There seems to be no significant contrast between the grammatical features of verbs with PFV root and *\*s*-stems, which would allow facilitate the choice between the two morphological types. The most secure examples of the *\*s*-stem, *meřanim* and *sksanim*, do not allow to specify the [ $\pm$  transitive] and [ $\pm$  agentive] parameters. It is peculiar, however, that the probable continuants of the PFV *\*s*-stem are intransitive (*meřanim*) or can have an intransitive construal (*sksanim*); both verbs are mediopassive in the synchrony of Old Armenian. Intransitive verbs with the sigmatic aorist are also found in Greek and Sanskrit.

However, unlike Watkins' (1962: 52–60) suggestion, based on Kuryłowicz's findings, the [– transitive] feature can hardly be reconstructed for PIE sigmatic formations. On the contrary, the sigmatic stem commonly correlates with higher transitivity (see Narten 1964; recently, Willi 2018: 435 on the Greek sigmatic stems). The intransitive character of some PArm. \*s-stems must be considered an inner-Armenian innovation. Note that the PFV \*s-stems of *meṛanim* and *sksanim* were most probably derived from the active voice root stems PIE \**h<sub>1</sub>e-g<sup>w</sup>em-t* and \**h<sub>1</sub>-mer-t*.

Table 22. Grammatical features of *an(e/i)*-verbs with inherited PFV \*s-stems

	Transitivity	Agentivity	Lexical Aspectual Features
Probable			
<i>meṛanim</i>	[– transitive]	[– agentive]	[+ telic], [– durative], [+ dynamic]
<i>sksanim</i>	[± transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]
Possible			
<i>anc'an-e/i-m</i>	[– transitive]	[± agentive]	[+ telic], [+ durative], [+ dynamic]
<i>anican-e/i-m</i>	[± transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>awcan-e/i-m</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>bucan-e/i-m</i>	[± transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>etcan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [± durative], [+ dynamic]
<i>gercanem</i>	[+ transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>hecan-e/i-m</i>	[– transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>hiwcanim</i>	[– transitive]	[– agentive]	[+ telic], [+ durative], [+ dynamic]
<i>kcanem</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>lucan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [± durative], [+ dynamic]
<i>luc'anem</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>macanim</i>	[– transitive]	[– agentive]	[± telic], [± durative], [± dynamic]
<i>mucan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [± durative], [+ dynamic]
<i>sp'acanim</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>t'ranim</i>	[– transitive]	[± agentive]	[± telic], [± durative], [+ dynamic]
<i>xacanem</i>	[+ transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]
<i>zercan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [– durative], [+ dynamic]
Doubtful			
<i>dizan-e/i-m</i>	[± transitive]	[± agentive]	[+ telic], [+ durative], [+ dynamic]
<i>eluzanem</i>	[+ transitive]	[+ agentive]	[± telic], [± durative], [+ dynamic]
<i>lizanem</i>	[+ transitive]	[+ agentive]	[± telic], [+ durative], [+ dynamic]
<i>suzanem</i>	[+ transitive]	[± agentive]	[± telic], [± durative], [+ dynamic]

The inner-Armenian spread of the PFV \*s-suffix to inherited PFV root stems explains the *e*-grade and the absence of the *ē*-grade in the roots of Proto-Armenian sigmatised stems in transitive verbs for which the active forms could be pivotal. Thus, the generalisation of the full grade in the Greek sigmatic aorist, probably triggered by Osthoff's law (Meillet 1934: 213; Willi 2018: 489f.), can be unrelated to the lack of lengthened grades in potential continuants of the Old Armenian sigmatic stems.

Presumably, the Proto-Armenian \*s-stems could renovate both thematic and athematic PFV root stems. A possible illustration of the former is provided by *kcanem*, if from PFV \**gid-s*- with a root in the zero-grade. This hinders the direct comparison of PArm. \**gid-s*- to Skt. *adikṣi* 'I showed' as evidence for the zero-grade sigmatic stem postulated for the mediopassive forms next to the full grade e.g. in Meillet 1934: 213.

According to a widespread opinion, the grammatical function of the PIE \*s-suffix was to derive telic verbs from atelic ones with the athematic or IPFV thematic root stems (as opposed to verbs with characterised IPFV stems and PFV root stems); see Cowgill 1973 among others. Thus, the expected aspectual features of the genuine \*s-formations would be [+ telic], [± durative], [+ dynamic] (ACHIEVEMENTS and ACCOMPLISHMENTS). All of the verbs in Table 21 comply with that profile.

### § 2.5.2-3.3. Recent PArm. \**an*-formations

a) The PArm. \**nHe/o*-verbs derived from extended roots. Some PArm. \**an*-verbs were derived from roots containing unexplained inner-Armenian root extensions. Such are cases of *ankani-e/i-m* (from PArm. \**snh,u-&-*), *stelcan-e/i-m* (from PArm. \**stel-&-*), and *t'k'anem* (from PArm. \**ptuH-k<sup>(w)</sup>-*).

These three verbs have comparable grammatical features with lexicalised [+ dynamic], [+ telic], and [+ agentive] features. Based on this evidence, one may argue that these particular grammatical values were part of the derivational semantics of the PArm. \**nHe/o*-class at the age when the extended roots were introduced into that class.

**Table 23. Grammatical features of *an(e/i)*-verbs derived from extended roots**

	Transitivity	Agentivity	Lexical Aspectual Features
<i>ankani-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>stelcan-e/i-m</i>	[+ transitive]	[+ agentive]	[+ telic], [+ durative], [+ dynamic]
<i>t'k'anem</i>	[± transitive]	[+ agentive]	[+ telic], [– durative], [+ dynamic]

b) Recent Proto-Armenian patterns of the IPFV stem variation. Several types of variation between IPFV stems in the recent prehistory of Old Armenian and in its synchrony are described in § 2.5.2-2: *-an-i* vs. *-n-u-*, *-an-i* vs. *-č'i-*, *-an-e* vs. *-u-*, *-an-e/i* vs. *-e/i-*, *-an-e/i-* vs. *-at-*.

## Section 2.6. The *nč*'-stem of the *e/i*-conjugation

### § 2.6.1. Evidence

The verbal class contains only three verbs: *erknč'im* 'fear', *kornč'im* 'perish', and *martnč'im* 'fight'.

#### § 2.6.1-1. IPFV -*nč*'- : PFV -*i*-

§ 2.6.1-1.1. *Erknč'im* intr. 'fear' (Bible+), aor. mp. *erkeay*, past ptc. *erkuc'eal*, caus. *erkuc'anem* tr. 'frighten'. *NBHL* 1: 698; *HAB* 2: 64f.; *Künzle* 2: 225; *RADCA*: 141; *Zeilfelder* 2004: 94f.

◇ Related words: *erkiwt* (*erkewt*, *erkeṭ*, *erkit*) 'fear', *erkč'ot* 'coward; timid'.

- Transitivity: S<sub>0</sub>.

Although *erknč'im* is a typical EXPERIENCER verb, it has prohibitive uses that imply a certain degree of the subject's control. The STIMULUS argument can be marked by the ablative prepositional phrase *i/y-* + abl.

- Actionality: ACHIEVEMENT/STATE.

I could not find a context where the punctive reading of the aorist form would be ascertained by adverbs and noun phrases denoting an exact time reference such as 'at once', 'suddenly', etc. Both uses were probably possible. Note the English translation of (2) and (3), although it should not be taken as reference.

- (1) *Is.* 51, 13: *Ew mořac'ar zAstuac zArarič' k'o <...> ew erknč'eir mist zamenayn awurs yeresac' srtmtet'ean neč'in k'o <...>.* "That you have forgotten the Lord your Maker <...> that you fear continually all day long because of the fury of the oppressor <...>."
- (2) *Ex.* 14, 31: *<...> ew erkeaw žořovurdn i Tearnē, ew hawatac'in yAstuac ew i Movsēs cařay nora.* "<...> the people feared the Lord, and they believed in the Lord and in His servant Moses."
- (3) *Mt.* 14, 30: *Ew teseal zhotmn sastik erkeaw, ew ibrew sksaw anktmel, ařatakeac' ew asē: <Tēr, p'rkea zis!>* "But seeing the wind, he became frightened, and beginning to sink, he cried out, <Lord, save me!>"

ETYM: Arm. *erki-* goes back to PIE *\*duei-* intr. 'fear',<sup>224</sup> cf. Gk. δειδω, possibly Toch. B *wāy-* intr. 'be frightened', tr. 'frighten', and Lat. *dīrus* 'fearful' (Klingenschmitt 1982: 78f.;

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<sup>224</sup> The verb is traditionally interpreted as a semantic derivative from PIE *\*duei-* intr. 'divide into two, bifurcate, hesitate', itself from PIE *\*duo-* 'two'. Even if this semantic change is correct, it had to take place before the separation of the Greek and Armenian branches, and, if the Tocharian

*LIV*: 130f.; *EDAIL*: 267f.; *EDL*: 171; Malzahn 2010: 900f.; Peyrot 2013: 818).<sup>225</sup> The mediopassive voice of *erknč'im* is perhaps an archaism, cf. parallel Skt. mp. *bhāye* intr. 'fear' (Meillet 1910–1911a = 1962: 87).

The IPFV *erknč'* is best explained as a result of a contamination between a *n(u)*-stem and a *č'(i)*-stem (Clackson 1994: 115). The analysis of *-nč'* as a result of a secondary infixation in a *č'(i)*-stem must be abandoned. There is no proof that the infixation remained productive until after the derivation of the prototype of *erk-č'-ot*. The secondary infixation can barely be explained by phonetic reasons in *erknč'im* and *martnč'im*, since there are verbs of the *č'(i)*-class with roots in a velar (cf. *hangč'im* 'relax', *pakč'im* 'feel giddy', *t'akč'im* 'hide') and a dental (cf. *zartč'im* 'awaken', *ostč'im* 'jump', *xrtč'im* 'become anxious').<sup>226</sup>

As noticed in § 2.1.2-2.2, there could have been a grammatical contrast between the [+ telic] *n(u)*-stem and [- telic] *č'(i)*-stem in early classical texts. One might assume that a *nč'(i)*-stem was created to express the secondary [- telic] semantics based on the [+ telic] IPFV stem of *n(u)*-verbs. Besides *erknč'im*, this explanation works rather well for *kornč'im* 'be lost', where the resultative meaning ([- telic]) can be derived from the underlying telic meaning 'become lost; disappear'. However, *martnč'im* does not comply with this derivational analysis. Moreover, in the case of *erknč'*, the *č'*-stem is most probably the older

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and Latin cognates belong to the same etymon, in core PIE. Thus, the verb provides as legitimate evidence for the operation of Lex Meillet (PIE *\*duV-* > Arm. *erkV-*) along with an equally unambiguous case of PIE *\*dueh<sub>2</sub>-ro-* > Arm. *erkar* 'long (in temporal and spatial meanings)', Gk. *δηρός* 'long', etc. The semantic derivation from 'two' to 'doubt' is attested in Old Armenian, cf. Eznik Kołbac'i 2003: 462: *Ew minč' der na zays xorhēr, Ormizd ew Arhmn yłec'an yargandi mawr iwreanc', Ormāzdn i yaštñ ařneloy, ew Arhmn i yerkuanaloy anti*. "While he was still thinking this, Ormizd and Arhmn were conceived in their mother's womb, Ormizd from the sacrifice-making and Arhmn from the questioning." (trans. Blanchard & Young 1998: 102), where *erkuanam* intr. 'hesitate' is clearly derived from *erku* 'two'. However, such inner-Armenian convergence of the notions 'two' and 'doubt' can scarcely be concerned as a solid argument in favour of the secondary spread of *er-* from *erku* 'two' to *erki-* 'fear'. Against Lex Meillet, see Beekes 2003: 199f.

<sup>225</sup> Note an extended PIE root variant *\*duei-s-* tr. 'hate' (Iir. *\*duaiš-* 'hate' (Skt. *dvéṣti*, Av. *daibiš-*; see *ESSJa* 2: 491f.; *AIW*: 763; *EWAia* 1: 770; Werba 1997: 199; Cheung 2007: 82). Although the Old Armenian verb can be derived from *\*dueis-* on formal grounds, the lexical and syntactic features reconstructed for *\*dueis-* make the unextended prototype more likely.

<sup>226</sup> The prenasalisation of a labial in PIE *\*pi-ph<sub>3</sub>-e/o-* 'drink' > PArm. *\*pi<sup>m</sup>be-* > Arm. *əmpem* is often cited as a supporting example. However, PArm. *\*pi<sup>m</sup>b-e/o-* reflects the same morphological phenomenon as Gk. *πίμπλημι* 'fill' and *πίμπρημι* 'kindle'. The analogical influence of the inherited infixed stems is possible. Altogether, the phonetic context (high vowel between two labial obstruents) must have played a crucial role in the epenthesis of a nasal.



one as suggested by Arm. *erk-č'-ot* 'coward' (cf. *naxanj-im* 'envy' → *naxanj-ot* 'jealous'; see Olsen 1999: 522f.).

The PArm. IPFV stem *\*erkič'*- has been compared to Gk. Hom. *δειδίσσομαι*, Att. *δεδίττομαι* tr. 'scare' (this meaning is dominant in Homer), intr. 'fear' (*Il.* 2, 190), and, perhaps, *δεδίσκομαι* tr. 'scare' (Stesich. Fr. S11, 6; Aristoph. *Lysistr.* 564, 1), if not a post-Homeric innovation as per Clackson 1994: 115; *EDG*: 308.

According to Meillet (1936: 109), Arm. *\*erkič'*- and Gk. *δειδίσσομαι*, *δεδίττομαι* go back to parallel stems in *\*-sk-ie/o-* (otherwise attested in e.g. Gk. *ἐγρήσσω* intr. 'keep watch; be awake'). Based on that hypothesis, de Lamberterie assumes that an inchoative mediopassive verb *\*dui-skie/o-* intr. 'become afraid' was derived from the older PFV *\*dui<sup>y</sup>-e/o-* (cf. Gk. aor. act. *δίε* intr. 'fear' (e.g. *Il.* 5, 566) and Arm. *erkeay* from *\*erki-ay*). Its regular Proto-Armenian outcome *\*erkič'e-* was extended by a secondary *-n-* and provided with the regular mediopassive marking, whence *erki-n-č'-i-*). In Greek, a causative verb was derived from it by means of reduplication yielding *\*de-dui-skie/o-* tr. 'scare' (1998: 891; 2013: 17).

However, the above-mentioned view can be questioned. The Ancient Greek forms *δειδίσσομαι* and *δεδίττομαι* can be explained as going back to *\*de-dui-k-ie/o-* or an analogical form after the verbs in *-σσω*, cf. *πτήσσω* intr. 'duck (for fright)', rarely tr. 'frighten', *κνώσσω* intr. 'sleep', *ἐγρήσσω* intr. 'keep watch; be awake' (cf. *EDG*: 308). The co-existence of two perfect stems, *\*de-duoi-/\*de-dui-* (Hom. 1 pl. perf. *δείδιμεν*; *Il.* 7, 196) and *\*de-duoi-k-/\*de-dui-k-* (Hom. perf. *δείδοικα*, Att. *δέδοικα*, along with Dor. pres. *δεδοίχω*) must be projected onto some stage of Proto-Greek, and one may tentatively suggest that a causative deponent *\*de-dui-k-ie/o-* had been derived from the Proto-Greek *k*-perfect, which would explain the vowel *-e-* in the reduplicated syllable among other things (Clackson 1994: 115 with doubts).

The reconstruction of the *\*skie/o-*stem is not obligatory for Old Armenian either. PArm. *\*erkič'*- can be explained as a result of a secondary extension of the *\*ie/o-*suffix to the inherited *\*ske/o-*stem within Proto-Armenian (cf. Klingenschmitt 1982: 78f.; *LIV*<sup>2</sup>: 130, where the Old Armenian IPFV stem is derived from a *\*ske/o-*stem).<sup>227</sup> Alternatively, PArm. *\*erkič'*- can be derived from PArm. *\*dui-k-ie/o-*. This possibility is formally plausible (see § 1.4.2 for

<sup>227</sup> Thus, Kortlandt (1994 = 2003: 105) argued that the renovation of the IPFV *\*ske/o-*stem happened after the sound change *\*-sk- > \*c*, which made the marked IPFV stem look like the marked PFV stem of denominal verbs *\*(e)c-* and *\*(a)c-* (Arm. *-ec'* and *-ac'*). Within this hypothesis, PIE *\*ǵnh<sub>3</sub>-ske/o-* would have first given PArm. *\*janac-* and then been extended with *\*-ie/o-* to yield *\*janač'e-* (before the consonant shift) > *\*canač'e-* (after the consonant shift) and ultimately *čanač'e-* (with the assimilation *c...č' > č'...č'*). Note, however, that this analysis depends on three interrelated assumptions: 1) the *\*ie/o-*suffix remained productive after the rise of affricates from *\*Cs*-clusters; 2) the simplification of *\*Cj*-clusters was later than that of *\*Cs*-clusters; 3) PArm. *\*c<sub>j</sub>* yielded *\*č' > Arm. č'* (see § 1.4.2 on the controversies related to this sound change).

\**k<sub>i</sub>* > č') and supported by such cases as *amač'em* intr. 'be ashamed' next to *amawt* 'shame', presumably, related in a similar way as Gk. ἀλλάσσω 'change' and ἀλλακτός 'matter of change' (Godel 1975b = 1982: 79; Clackson 1994: 40).

The latter analysis of *erknč'*- does not entail that other *nč'(i)*-stems need to be derived from inherited \**k-ie/o-*stems. The contamination between *n(u)*- and *č'(i)*-stems must be a relatively recent process and could affect *č'(i)*-stems from both \**ske/o-* (→ \**c-ie/o-*) and \**k-ie/o-*.

As an alternative to the aforementioned derivation of Arm. PFV *erki-* from the (dial.) PIE thematic stem (cf. Gk. δίε), one might think of the formally legitimate reconstruction of PFV \**duei-* or \**duei-s-* (the latter option being supported by Hom. ξ(δ)δειςα).

§ 2.6.1-1.2. *Kornč'im* intr. 'perish, disappear', aor. mp. *koreay*, past ptc. *koruseal*, caus. *korusanem* tr. 'destroy, hide', 'lose'. *NBHL* 1: 1120; *HAB* 2: 645; Künzle 2: 380f.; *RADCA*: 141; Zeilfelder 2004: 153.

◇ Related words: *kor* adj. 'bent', adv. 'down', *korust* 'loss, waste', *korusič'* 'destroyer'.

- Transitivity: *S*<sub>0</sub>.

Apart from the active alternation tr. 'destroy' (= 'make disappear'), the morphological causative *korusanem* can have the PATIENT argument as its subject with the meaning tr. 'lose' (= 'have smb./so. disappeared'), cf. *korusič'* 'loser' (both early classical). The STIMULUS argument, when expressed, is marked by the ablative prepositional phrase *i/y-* + abl.

- Actionality: ACHIEVEMENT (1); ACCOMPLISHMENT (2).

- (1) *Heb.* 1, 11: *Nok'a kornč'in, ew du kas ew mnas* <...>. "They will perish, but You remain."
- (2) *Lk.* 15, 17: <...> *k'ani varjkank' ic'en i tan hawr imoy hac'alic'k', ew es ast sovamah kornč'im* <...>. "How many of my father's hired men have more than enough bread, but I am dying here with hunger!"
- (3) *Sir.* 20, 24 (*LXX* = *Sir.* 20, 22): *Ē or korusanē* [caus. pres. act.] *zanjn vash amawt'oy, ew kornč'i* [pres. mp.] *yaknarut'ean iwrum*. "One may lose his life through shame, or lose it because of human respect."

ETYM: The root is traditionally derived from PIE \**g<sup>w</sup>er(H)-* attested in Lith. *gùrti, sugurė'ti* intr. 'decay, break down', *gùrinti* tr. 'break', and Tocharian *A kur-* 'become weak' (cf. Meillet 1898 = 1977: 43f. with reservations; Klingenschmitt 1982: 78f.).<sup>228</sup> Meillet claimed that

<sup>228</sup> Interestingly, the Tocharian cognate AB pres. *kárnäsk'ä/e-*, from *kärn-* tr. 'strike', is found in non-agentive intransitive contexts, cf. A-320a5 *ñare-lwā pretāñ kašt yokeyo kakärnuššeñc* "the hell-animals and pretas were afflicted with hunger and thirst"; also A-212a6: *mokoneyo kākärnu* "afflicted with old-age" (Adams 2013: 173f.). As in Old Armenian, PIE \**-m-* would not have survived

Arm. *korcanem* ‘prostrate’ and *korcan* ‘prostrated’ go back to the same root with the extension *-c-*, cf. *ketc* ‘affected’ and *ketem* ‘hurt’, *stelcanem* ‘produce’ and *stetn* ‘branch’.

The IPFV stem is best explained as an extension of the  $\check{C}'i$ - onto the nasal suffix *-n-* of the *u*-conjugation (cf. *p'axnum*, aor. *p'axeay*; § 2.1.2-3.5) — *\*kori-nu-* (genuine *\*-rn-* would yield Arm. *\*kořn-*).<sup>229</sup> The reconstructed stem runs into the difficulty of explaining the retention of the *\*o* in the pretonic open syllable.

The stem-final *s* in caus. *kor-us-* may be tentatively explained by the analogical influence of the abstract noun *korust*, or else by a velar suffix that recharacterised the older causative *\*eu*-stem (see § 2.5.1-1).

§ 2.6.1-1.3. *Martnč'im* tr., intr. ‘fight’, aor. *martey*, past ptc. *martuc'eal*, caus. n/a. *NBHL* 2: 231; *HAB* 3: 289; *Künzle* 2: 450; *RADCA*: 141; *Zeilfelder* 2004: 182.

◇ Related words: *mart*, *i*-stem ‘fight’.

- Transitivity:  $S_A$ .
- Actionality: ACTIVITY.

(1) *Gen.* 32, 24: *Ew mnac' Yakob miayn, ew martew ayr mi and nma minč'ew c'arawawt.*  
“Then Jacob was left alone, and a man wrestled with him until daybreak.”

ETYM: The verb goes back to PIE *\*(s)merd-* ‘crush, hurt’ (Lat. *mordeō* ‘bite’, OAv. *mōrəndaṭ* ‘ruin’, PGrm. *\*smertan-* ‘hurt’; see Klingenschmitt 1982: 81; Olsen 1999: 90; *EDL*: 389; *EDPG*: 457).<sup>230</sup> Perhaps, an extended root variant of PIE *\*mer(h<sub>2</sub>)-* intr. ‘hurt’, cf. Gk. *μάρναμαι* intr. ‘fight’, Skt. *mṛṇāti* tr. ‘crush’ (Klingenschmitt 1982, *loc. cit.*; *EDG*: 907).

Klingenschmitt reconstructed PArm. *\*marti-n-č'* as a formation built on the analogy of *kornč'im*. Alternatively, one may assume that PArm. *\*marti-n-č'* results from a recharacterisation of PArm. *\*marti-nu-* next to PArm. *\*kori-nu-*.

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yielding *-rr-* in Tocharian, and one must postulate *\*krən-* in order to explain the aberrant development of *\*-rn-* (Malzahn 2010: 575–576; Peyrot 2013: 733).

<sup>229</sup> Given the productivity, albeit limited, of abstract nouns in *-ust* (cf. *aprust* ‘livelihood’ derived from *aprem* ‘live’; see Weitenberg 1980), *korust* must not be taken as secure evidence for the *\*kor-u-* stem.

<sup>230</sup> De Vaan (*EDL*, *loc. cit.*) evoked Gk. *ἀμερδω* ‘deprive’ and reconstructed PIE *\*h<sub>2</sub>merd-*. Such a reconstruction would work for Old Armenian given that laryngeals seem to have avoided vocalisation in the word initial position in front of *\*m*, cf. PIE *\*h<sub>3</sub>meig<sup>h</sup>-o-* (Av. *maēya-* ‘cloud’) > Arm. *mēg* ‘mist, fog’ along with *\*h<sub>3</sub>mig<sup>h</sup>-(V)l-* > Arm. dial. *\*mglim* ‘be cloudy’ (Gk. *ὀμιχλη*, Lith. *miqlà* ‘fog’, OCS *mьgla* ‘haze’; see *EDAIL*: 457f).

## § 2.6.2. Evaluation

### §2.6.2-1. Grammatical features

Table 24. Transitivity alternations of *nč'(i)*-verbs

Verb	Agentivity	Intransitive	Transitive	Extended transitive	Type
<i>erknč'im</i>	–	mp	caus	—	C
<i>kornč'im</i>	–	mp	caus	—	C
<i>martnč'im</i>	+	mp	—	—	?

All of these verbs are intransitive and mediopassive. While *erknč'im* and *kornč'im* follow the causative transitivity marking pattern, the pattern of *martnč'im* is unclear, since its causative is not attested, and it is not found in the transitive construction.

#### § 2.6.2-1.1. Non-agentive intransitive verbs

PFV *-i-*: *erknč'im* 'fear'; *kornč'im* 'disappear'.

See other non-agentive intransitive nasal verbs in §§ 2.1.2-1.1 (*-n-u-*), 2.3.2-1.1 (*-n-e/i-*), 2.4.2-1.1 (*-an-a-*), and 2.5.2-1.2 (*-an-e/i-*).

The transitive counterparts of both verbs are expressed by derived causatives (*erknč'im/erkuc'anem*, *kornč'im/korusanem*). The aspectual parameters [ $\pm$  telic], [ $\pm$  durative], and [ $\pm$  dynamic] are unspecified for these verbs. These verbs are similar to the non-agentive intransitive *n(u)*-verbs regarding their formal and semantic features. It supports the hypothesis that the *nč'(i)*-stem results from the contamination between the *n(u)*- and *č'(i)*-stems.

#### § 2.6.2-1.2. Agentive intransitive verbs

PFV *-i-*: *martnč'im* 'fight'.

See other agentive intransitive nasal verbs in §§ 2.1.2-1.2 (*-n-u-*), 2.2.2-1.1 (*-n-a-*), 2.3.2-1.3 (*-n-e/i-*), 2.4.2-1.3 (*-an-a-*), and 2.5.2-1.5 (*-an-e/i-*).

The verb is an atelic durative predicate. The verb describes a reciprocally directed action and in this respect can be compared to the motion *n(u)*-verbs with the PFV *i*-stem.

### § 2.6.2-2. PIE outlook

The three verbs that belong to this class most probably represent an inner-Armenian innovation — a secondary extension of IPFV *nu*-stems with competing *č'(i)*-stems based on their common PFV *i*-stem. The blending of IPFV *nu-* and *č'(i)*-stems is not surprising in view

of the overlapping grammatical profiles of the two classes. See further discussion in Tumanjan 1971: 337; Djahukian 1982: 182; Klingenschmitt 1982: 78–79.

The formally comparable contamination is found in the Umbrian perfect in  $-nk\check{i}$ - (see recently Willi 2010) and the Tocharian present suffix  $*-n\check{a}\check{s}\check{s}\check{a}/ske$ -. Tocharian, perhaps accidentally, offers a parallel to Old Armenian. The outcome of the  $*-n\check{a}\check{s}\check{s}\check{a}/ske$ - stem is attested in four intransitive verbs: Toch. B  $k\check{a}m$ - ‘come’,  $l\check{a}t$ - ‘go out’,  $t\check{a}m$ - ‘be born’,  $y\check{a}p$ - ‘enter’ (Peyrot 2013: 446). Finally, Hitt.  $tarna$ - ‘let go’ (see *EDHIL*: 846–848) which can be adduced as a yet another distant morphological parallel.

The secondary infixation of IPFV  $\check{C}'(i)$ -stems is unlikely because it goes against the general tendency of eliminating infixed stems from the verbal system. A few fossilised infixed stems have been reconstructed for Proto-Armenian. Thus,  $kangun$  ‘straight, standing’, historically a middle participle in  $-un$ - from the otherwise unattested pres.  $*kangim$  ‘stand’, if related to  $kam$  ‘stand’, can be derived from PArm.  $*ka-n-k(e/o)$ - with the  $*k(e/o)$ -suffix of non-agentive verbs otherwise preserved in  $*klu-k(e/o)$ - >  $lsem$  ‘hear’. However, the instances where the nasal followed a vowel could barely serve as a source of analogy for stems in  $*-VRC$ -, whence the alleged  $*-VR-n-C$ -. Moreover, it seems improbable that a characterised suffixed stem would utilise a recessive morphological element to create an hyper-characterised form.

## Section 2.7. The *anč'*-stem of the *e/i*-conjugation

### § 2.7.1. Evidence

The given paradigmatic class contains only one verb *metanč'em* 'sin; do wrong'.<sup>231</sup> This class is structurally close to the *nč'(i)*-class in that it is characterised by what looks like a blend of IPFV *an(e/i)*- and *č'(i)*-stems. The PFV root stem of *metanč'em* synchronically aligns with the PFV root stem of the vast majority of the *an(e/i)*-verbs.

#### § 2.7.1-1. IPFV *-anč'* : PFV *-Ø*

§ 2.7.1-1.1. *Metanč'em* intr. 'sin', tr. 'commit (a sin)', aor. mp. *metay*, past ptc. *metuc'eal*, caus. *metuc'anem* tr. 'make sin' (Bible+). *NBHL* 2: 247; *HAB* 3: 298; Künzle 2: 455; *RADCA*: 126; Zeilfelder 2004: 184. The verb has an irregular aorist subjunctive *metic'e* (instead of expected <sup>x</sup>*metc'e*), as if derived from aor. <sup>x</sup>*metey*.

◇ Competing paradigmatic classes: *metanam* (*Judith* 11, 14; Yovhannēs Mandakuni, 5<sup>th</sup> century). The hapax 3 sg. act. pres. subj. *metanč'esc'e* (*Josh.* 2, 20), as if derived from aor. <sup>\*</sup>*metanč'-ec'-i* (pres. <sup>\*</sup>*metanč'-em*), attested next to the expected 3 sg. mp. pres. subj. *met-ic'-ē* (*Lev.* 4, 2), can be easily explained by a reanalysis of an IPFV *anč'*-stem as part of the root due to its isolated character.

◇ Related words: *metk'*, *a*-stem 'sin', *metank'* 'sin'.

- Transitivity: S<sub>A</sub> (1); A-O (2).

The verb may take the direct object of content, expressed by nouns *metk'* and *metank'* 'sin' as part of a *figura etymologica* (2). More often, the direct object is omitted yielding an intransitive verb of activity (1). For the active voice assignment in an intransitive verb of activity, cf. *sxalem* intr. 'make mistake'. The verb may be construed as antipassive with the meaning 'sin against smb.', in which case the MALEFACTIVE argument receives an indirect object marking, cf. dat. sg. *inj* 'to me' in (3).

- Actionality: ACHIEVEMENT (2), ACTIVITY (1).

- (1) Eznik Kořbac'i 2003: 501: *Na ew tanjel isk č'er awrēn znosa, zi gitēr t'e ayloc' baniw metanč'en*. "So too it would not be equitable to punish them, because he would know that by the word of others they sin." (trans. Blanchard & Young 1998: 190).
- (2) *Ex.* 32, 30: *Duk' metayk' zmetsd zayd zmec <...>*. "You yourselves have committed a great sin <...>."

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<sup>231</sup> See § 2.4.2-2.11 on *sk'anč'anam* 'wonder' and *sk'anč'eli* 'admirable' derived from <sup>\*</sup>*sk'anč'em* 'admirable'. The underlying stem <sup>\*</sup>*sk'anč'e-*, perhaps, goes back to PArm. IPFV <sup>\*</sup>*z-kanK-(i)e-*.

- (3) Agat'angelos 2003: 1413: <...> *ew vasn ahin Tearn oč' erbēk' metan inj* <...>. “<...> yet for fear of the Lord they never harmed me <...>.” (trans. Thomson 1976: 233).

ETYM: The root of *met-anč'em* and *met-k'* is traditionally reconstructed as PIE *\*mel-* or *\*melh<sub>1</sub>-*, cf. Gk. μέλεος ‘idle; miserable’ < PGk. *\*méleuos*, βλάσ-φημος ‘slandorous’, OIr. *mell* ‘error’, Lat. *malus* ‘bad’, Lith. *mėlas* ‘lie’, and Toch. B *mäl-* ‘wound; damage’, etc. (EDAIL: 465; EDG: 925; EDPC: 264; EDL: 360; Klingenschmitt 1982: 81).<sup>232</sup> The morphological properties of the Old Armenian verb are puzzling. Apart from the fact that it invariably takes the active voice in the present indicative and the mediopassive voice in the aorist indicative, its IPFV *anč'*-suffix is isolated.

Meillet (1910–1911 = 1962: 89) assumed that the *-a-* of the IPFV stem is the same as the *-a-* of the PFV *\*met-ā-* (→ aor. *metay*), whence IPFV *meta-nč'*. This analysis is arbitrary since the *-a-* of the mediopassive endings may be secondary.

Klingenschmitt (1982: 81–84) suggested several solutions. According to him, the verb can be derived from Proto-Armenian paradigm IPFV *\*melh<sub>1</sub>-ske/o-* : PFV *\*melh<sub>1</sub>-*, in which: 1) the root vocalism of the PFV athematic root stem was levelled across the paradigm; 2) the IPFV stem was extended by a secondary infix on the analogy of the Proto-Armenian infixed stems to *\*CHnC-* (> *\*CanC-*) roots; 3) the laryngeal vocalised in the singular forms of the PFV athematic root stem and provoked the rise of the analogical mediopassive voice in the aorist tense as opposed to the active voice of the present tense; 4) the etymological *\*-l-* changed to *-t-* under the influence of the noun *metk'* where it can be explained by the nominal suffix with a nasal, e.g. *\*mel-neh<sub>2</sub>*.<sup>233</sup> As an alternative, Klingenschmitt postulated a Proto-Armenian denominal formation in *\*-n-č'-e-* derived from the noun stem *\*mela-*. As Olsen (2012) justly noted, the weakest point of these solutions is the lack of clear sources of analogy. Thus, no *\*CH-n-C-* stem left trace in Old Armenian to validate the assumption of an early Proto-Armenian secondary infixation in *\*melh<sub>1</sub>-ske/o-*. Nor is there a clear analogical motivation for the formation of a denominal verb with a PFV root stem and an IPFV *\*n-ske/o-* stem.

Given that the PFV root stem is often found in the *an*-verbs of the *e/i*-conjugation (see § 2.5.2-3.2), it seems preferable to derive IPFV *metanč'-e-* from *\*metan-e/i-* with a secondary introduction of the IPFV *č'*-suffix which is found in several agentive intransitive verbs. Note that the morphological structure of the verb cannot be accounted for as a contamination between paradigmatic patterns, in which case IPFV *<sup>x</sup>-an-č'-im* and PFV *<sup>x</sup>-e-ay*

<sup>232</sup> The reconstruction of the root final laryngeal is facultative for Old Armenian. De Lamberterie (2005: 352) noticed that monosyllables with the root vocalism *-e-* tended to generalise *-t-*, cf. *met* ‘sin’, *get* ‘beauty’, *tet* ‘place’, etc., which may also be the case of *met(k')*.

<sup>233</sup> Olsen (2012) reconstructed PIE *\*mel-s-* instead, cf. OIr. *mell* ‘fault’.

would be expected. One would rather assume an analogical extension of  $-č'(e)-$  to the underlying  $*metan(i)-$  on the functional analogy of *atač'em* 'pray', *amač'em* 'be ashamed', *čanač'em* 'recognise', all verbs of mental activities with the characteristic combination of IPFV  $-č'$  and the active voice inflection in the present tense.

This analysis seems to be the most economical explanation of the PFV root stem *met-*. In theory, Arm. PFV root stem *met-* may continue a PFV root or an  $*s$ -stem (see § 2.5.2-3.2.2c). The root levelling based on the PFV stem is peculiar for an atelic verb.

## § 2.7.2. Evaluation

### § 2.7.2-1. Grammatical features

Table 25. Transitivity alternations of *anč'(e)*-verbs

Verb	Agentivity	Intransitive	Transitive	Extended transitive	Type
<i>metanč'em</i>	+	act/mp	act/mp	caus	L <sub>ACT</sub> /L <sub>MP</sub>

The active present forms are in contrast with the mediopassive aorist forms. All forms are used in transitive and intransitive constructions. The morphological causative serves to derive an extended transitive verb meaning 'cause smb. to sin'.

The verb follows the mixed transitivity marking pattern in which one part of the paradigm uses the labile active forms, and another part uses the labile mediopassive forms.

#### § 2.7.2-1.1. Agentive ambitransitive verbs

PFV-Ø-: *metanč'em* 'sin'.

See other agentive ambitransitive nasal verbs in §§ 2.1.2-1.4 ( $-n-u-$ ), 2.2.2-1.2 ( $-n-a-$ ), 2.3.2-1.4 ( $-n-e/i-$ ), 2.4.2-1.5 ( $-an-a-$ ), 2.5.2-1.6 ( $-an-e/i-$ ), and 2.6.2-1.2 ( $-nč'-i-$ ).

Particularly close are the verbs with a lexicalised object. Such verbs can take a direct object of content in the transitive construction and are used to denote ACTIVITIES in intransitive contexts, characterised by *an-e/i*-stems, cf. *anican-e/i-m* 'curse', *ankan-e/i-m* 'weave', *harc'an-e/i-m* 'ask', *stelcan-e/i-m* 'model', and *usanim* 'learn'.

### § 2.7.2-2. Stem variation patterns

#### § 2.7.2-2.1. $-anč'-e-$ vs. $-an-a-$

The verb *metanam* is a secondary *an(a)*-verb derived from *metk'* according to a productive denominal derivation. It is clearly a later formation compared to *metanč'em*. There seems to be no semantic difference in the use of these two verbs.



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**§ 2.7.2-3. PIE outlook**

The verb represents a Proto-Armenian innovation based on an older *\*an-i*-verb. The *č'*-suffix was introduced on the analogy of other mental process verbs such as *atač'em* 'pray'. Thus, the verb may be added to the Proto-Armenian *\*nHe/o*-class considered in Section 2.5.

The question of the original PFV stem, asigmatic or sigmatic (two formally plausible options), constitutes a part of the general issue considered in §§ 2.1.2-3.2 and 2.5.2-3.2.2.



## CHAPTER 3. CONCLUSIONS

### Section 3.1. The evolution of the Proto-Armenian nasal classes

#### § 3.1.1. The traces of the IPFV *\*n(e)u*-stem

The following Proto-Armenian nasal classes with the IPFV *\*n(e)u*-stem can be reconstructed based on the Old Armenian evidence: a) IPFV *\*-n(e)u-* : PFV  $\text{-}\emptyset\text{-}$  or PFV *\*-s-*; b) IPFV *\*-nu-* : PFV  $\text{-}\emptyset\text{-}$  or *\*-s-* with roots in the *e*-grade; c) IPFV *\*-n(e)u-* : PFV *\*-eh<sub>1</sub>-* or *\*-eh<sub>1</sub>-s-*.

While the class (a) is inherited from core PIE, the classes (b) and (c) can represent dialectal PIE innovations shared by the Greek and Armenian branches. It is possible that the classes (b) and (c) could mark the transitive and intransitive members of transitivity pairs, respectively. This assumption is supported by the fact that the class (c) included only intransitive agentive and non-agentive verbs in Proto-Armenian.

The Ancient Greek continuants of the class (b) often co-occur with the infixed verbs of other branches (see § 2.1.2-3.1). It can be explained by the substitution pattern that was used to replace the infixed stem by a stem with more transparent morphological boundaries. Arm. *ant'ernum* 'read aloud' and, perhaps, Arm. *lnum* also fit into that substitution pattern. Note that, like many Ancient Greek  $\nu\bar{u}$ -verbs with roots in the full grade and PFV *\*s*-stems, *ant'ernum* has a root in a velar.

According to a widespread opinion, the PIE nasal stems marked the derived causative or the transitive member of transitivity pairs. The Hittite *nu*-causatives and residual traces of causative nasal verbs in other branches seem to support this view. Yet, nasal verbs can express the transitivity alternations by voice endings in many Indo-European branches, including Indo-Iranian, Greek, and Armenian. From this perspective, the ambitransitive argument structure of *lnum* tr., intr. 'fill up' and *xnum* tr., intr. 'close' can be an archaism.

Another instance of the PIE ambitransitive *\*n(e)u*-verbs is reflected in Arm. *ya'nem* intr. 'arise'. This verb goes back to the intransitive forms of the PIE nasal motion verb (cf. Gk. ὀρνυμαι, Skt. *ṛṇváti* intr. 'come to motion'), the transitive alternation of which was expressed by the active forms of the same verb (cf. Gk. ὀρνύμι, Skt. *ṛṇóti* tr. 'set in motion').

The Proto-Armenian *n(e)u*-class contained two ditransitive verbs with the inherited nasal stems and the active/reflexive alternation — *a'num* 'take' and *zgenum* 'clothe oneself'. Although *a'num* 'take' continues the inherited core PIE *\*n(e)u*-stem, its reflexive semantics ('receive so. for oneself' → 'take so.') brings it closer to Gk. mp. ἄρνυμαι as opposed to YAv. act. *fr̥r̥nao-* tr. 'offer (homage)'. One can assume that Proto-Armenian generalised the stem of mediopassive forms which marked the reflexive alternation of the

underlying ditransitive verb. Thus, along with the most archaic nasal stems, *ar̄num* reflects an inner-Armenian innovation. Another salient example of a lexicalised mediopassive form of a nasal verb is Arm. *zgenum* ‘clothe oneself’, aligned with Gk. mp. ἔννυμαι ‘clothe oneself’ as opposed to Gk. act. ἔννυμι ‘clothe someone’, both from dial. PIE ambitransitive verb act. *\*ues-nu-* tr. ‘put clothes on smb.’, mp. *\*ues-nu-* intr. ‘dress oneself’. In this case, an inner-Armenian innovation is based on the dial. PIE *\*nu-* class with roots in the *e*-grade, itself a shared Greek-Armenian innovation.

A gradual cline towards the intransitive syntax of the Proto-Armenian *\*nu-* verbs shows itself in the moderate productivity of the class (c), which contains some secondary intransitive verbs (e.g. *k’atc’num* ‘be hungry’, *hefjnum* ‘suffocate’, etc.) and words of unknown origin, possibly, non-IE (e.g. *pšnum* ‘see’).

When compared to dial. PIE *\*nHe/o-* verbs reflected as predominantly telic and largely non-durative Old Armenian verbs, the aspectual profile of dial. PIE *\*nu-* verbs seems to be less restrictive. One third of Old Armenian *n(u)-* verbs, treated in Section 2.1 are atelic, and only three verbs are non-durative with their IPFV *n(u)-* stem expressing only secondary aspectual meanings. The increase in the number of atelic verbs went hand in hand with the spread of the intransitive syntax (cf. *c’asnum* intr. ‘be angry’, *k’atc’num* intr. ‘be hungry’, *zbatnum* intr. ‘be occupied’), and can be considered an inner-Armenian innovation. The spread of PArm. *\*nu-* verbs with the PFV *\*i-* stem introduced the nasal suffix to the morphology associated with the stative/inchoative alternation (‘be/become X’), and hence to the domain of verbs with the [–dynamic] aspectual feature, thus accomplishing the change of the original transitivity function of the core PIE *\*n(e)u-* suffix to its opposite. The few Old Armenian stative *nu-* verbs either allow for an agentive interpretation (cf. *c’asnum*, *zbatnum*) or denote temporary states (*k’atc’num*) as opposed to durable and permanent states such as *gitem* ‘know’ and *karem* ‘be able’. These kind of statives represent a transition stage between the dynamic and stative verbs.

The most recent layer of morphological innovations related to the PArm. *\*nu-* class results from the contamination between the *n(u)-* and *č’(i)-* stem that shared the PFV *\*i-* stem. Here belong three verbs with the anticausative and reciprocal meanings.

The atelic *nu-* verbs had the pivotal IPFV stem that conditioned the root shape, cf. *ur̄-n-um* ‘puff up’, aor. *ur̄-e-ay* (the same change did not happen to *yar̄-n-em*, aor. *yar̄-e-ay*, with the lexicalised [–durative] aspectual feature), *zbatnum* ‘be occupied’, past ptc. *zbat-eal*, and, perhaps, also *jer̄-num* ‘heat up’, aor. *jer̄-ay*. The root levelling pattern is relatively recent since it postdates the sound changes *\*rn > \*r̄n* and *\*ln > \*l̄n*.

In other verbs, the lexicalised [–durative] aspectual feature conditioned the root levelling based on the PFV stem, cf. *ənkenum* with *\*in > \*en* on the analogy of the aorist (here may also belong the verbs *yenum* ‘lean’ and *zgenum* ‘clothe oneself’ with the

[± durative] aspectual feature). The same levelling pattern applied to the phasal verb *sksnum* ‘begin’, the root shape of which most probably goes back to the PFV \*s-stem.

### § 3.1.2. The traces of the \**n(e)h*<sub>2</sub>-stem

Within the Arm. *n(a)*-class, *banam* and *stanam* can continue the inherited nasal stems. The protoform of *banam*, be it \**b<sup>h</sup>h*<sub>2</sub>-*n(e)h*<sub>2</sub>- or \**b<sup>h</sup>h*<sub>2</sub>-(*e*)*n*- (whence secondary PGk. \**p<sup>h</sup>an-**ie/o-*), may be a Greek-Armenian innovation created to derive an ambitransitive dynamic verb ‘make/be(come) visible’ from the underlying stative verb PIE \**b<sup>h</sup>eh*<sub>2</sub>- ‘shine’, cf. the dynamic verb \**ues-nu-* ‘clothe so./oneself’ derived in the common ancestor of the Greek and Armenian branches from the stative PIE \**ues-* ‘be clothed’. PIE \**sth*<sub>2</sub>-*n(e)h*<sub>2</sub>- or \**sth*<sub>2</sub>-(*e*)*n*- ‘posit; allot’ attested in the Armenian and Italic branches reflects the PIE transitive derivative of PIE \**steh*<sub>2</sub>- intr. ‘stand up’ (IPFV \**sti-steh*<sub>2</sub>-).<sup>234</sup> The reflexive alternation of the nasal verb was lexicalised in Proto-Armenian along similar lines to *aṛnum* ‘take’ and *zgenum* ‘clothe oneself’ from the PArm. \**n(e)u*-class.

In view of this evidence, the ambitransitive argument structure and dynamicity of *luanam*, *sparṅnam*, and *t’anam* can be analysed as an archaism.

The PIE \**n(e)h*<sub>2</sub>-class remained productive in Proto-Armenian, as one can see from *baṛnam*, *daṛnam*, and *sparṅnam*. Like PIE \**n(e)h*<sub>2</sub>-verbs, these three verbs reflect the zero grade of the root. The nasal stem of *baṛnam*, *daṛnam*, and *sparṅnam* must be older than the \**rjn*-cluster simplification and the ensuing sound change \**rn* > *rn*. By contrast, *oṛnam*, with its root in the *o*-grade, is a recent inner-Armenian formation.

Old Armenian inchoative *an(a)*-verbs represent another possible instantiation of the PIE \**n(e)h*<sub>2</sub>-class. At least in part of these verbs, the nasal stem can be derived from \**n<sub>o</sub>h*<sub>2</sub>-, an allomorph of the PIE \**n(e)h*<sub>2</sub>-suffix. The zero-grade of the suffix was typical for mediopassive forms. One can tentatively assume that some ambitransitive \**n(e)h*<sub>2</sub>-verbs expressed the anticausative/causative alternation and changed the equipollent transitivity marking pattern to the causative one. This resulted in the lexicalisation of the intransitive members of transitivity pairs. The same kind of change is found in the Proto-Armenian denominal \**ā-ie/o*-verbs and it is similar to the lexicalised reflexives of the \**na*- and \**nu*-classes (cf. *aṛnum*, *stanam*, *zgenum*). These inner-Armenian innovations must then be considered an independent parallel to the inchoative denominal \**n(e)h*<sub>2</sub>-verbs that underly the Germanic 4<sup>th</sup> weak class.

<sup>234</sup> The reconstructions \**b<sup>h</sup>h*<sub>2</sub>-(*e*)*n*- and \**sth*<sub>2</sub>-(*e*)*n*- rely on the hypothesis that the PIE infixed stems continue the pre-PIE type with the IPFV \*(*e*)*n*-suffix (see Section 1.2). According to that view, nasal stems with bi-consonant roots like PIE \**b<sup>h</sup>h*<sub>2</sub>-(*e*)*n*- did not turn into the infixed stem.

After the IPFV *an(a)*-stem had established itself in Proto-Armenian, it recharacterised some of the inherited PArm. *\*a*-stems. The spread of the IPFV *an(a)*-stem was conditioned by the [+ telic] and [+ dynamic] aspectual features associated with PArm. *\*an*-verbs as opposed to atelic and often stative *\*a*-verbs like *mnam* ‘remain’, *c’ankam* ‘desire’, etc.

The PFV stems *ba-c’-*, *sta-c’-*, and *t’a-c’-* go back to the PIE PFV athematic root stems *\*b<sup>h</sup>(e)h<sub>2</sub>-*, *\*st(e)h<sub>2</sub>-*, and *\*t(e)h<sub>2</sub>-* or else to the secondary Proto-Armenian PFV *\*s*-stems *\*b<sup>h</sup>eh<sub>2</sub>-s-*, *\*steh<sub>2</sub>-s-*, and *\*teh<sub>2</sub>-s-*. The latter formal possibility remains without a comparative support.

The root vocalism of PFV *barj-* and *darj-* points to the direction of the root levelling going from the IPFV stem to the PFV one in *bar<sup>h</sup>nam* and *dar<sup>h</sup>nam*. The later pres. *spar<sup>h</sup>n-am* and aor. *spar<sup>h</sup>n-ac’-i* show the same direction. These three *n(a)*-verbs have unspecified durativity and telicity parameters and it is not obvious whether or not the observed levelling pattern correlates with specific lexical aspectual features.

### § 3.1.3. The traces of the *\*nHe/o*-stem

The Ancient Greek verbs in *-νε/o-* and *-ανε/o-*, as well as the Old Armenian verbs in *-ne/i-* and *-ane/i-* most probably go back to the thematicised nasal suffix *\*nHe/o-* and its allomorph *\*<sup>2</sup>nHe/o-*. The *\*nHe/o*-verbs typically had a thematic PFV root stem and tended to replace the IPFV stem of the infixed verbs (see § 2.5.2-3.2). Thus, the PIE infixed stem could change to the *\*nHe/o*-stem or the *\*nu*-stem in dialectal PIE or early Proto-Armenian. While the nasal suffix was added to the IPFV infixed stem in Proto-Greek, it was added to the PFV stem in Proto-Armenian.

The dialectal PIE spread of the *\*nHe/o*-suffix was not limited to the replacement of the infixed stem. In Ancient Greek, the use of the nasal suffix extended to the formation of secondary imperfectives from various primary IPFV stems, cf. ἵζω ‘make sit’ → ἰζάνομαι, οἰδέω ‘swell’ → οἰδάνω, etc. A similar process can be postulated for some of the Old Armenian *an(e/i)*-verbs, cf. *aganim* ‘spend (the night)’, *harc’anem* ‘ask’, *iĵanem* ‘go down’. One wonders whether or not the *\*nHe/o*-suffix could form secondary imperfectives already in dialectal PIE, cf. Hom. κευθάνω and Arm. *suzanem* ‘hide’.

The *\*nHe/o*-suffix analogically extended to verbs with the PFV root or *\*s*-stems in Proto-Armenian. The decay of productivity can be dated to the period before the influx of Urartian and Iranian loanwords (*xacanem* ‘bite’ is the only potential archaic Iranian loanword of this kind). In some cases, secondary PArm. *\*an*-stems can be identified in verbs with roots in a consonant of a lower sonority than *n*, e.g. *aganim* ‘put on (clothes)’ from PIE *\*h<sub>2</sub>eu-* (cf. § 2.5.1-2.2).

In many cases, it is impossible to identify the source of the root shape of a secondary nasal stem with certainty. In § 2.5.2, some additional arguments have been put forward based on the analysis of the lexical aspectual features of *an(e/i)*-verbs.

In particular, the sound changes discussed in § 1.4.2 suggest the sigmatic origin of the non-etymological root-final dental affricates in nasal verbs. The lexicalised [– durative] aspectual feature supports the hypothesis that the root shape comes from the PFV stem in *kcanem*, *luc'anem*, *meřanim*, *sksanim*, *sp'acanim*, *zercan-e/i-m*, and *xacanem*. No *an(e/i)*-verbs have been found with roots in an affricate and the lexicalised [– telic] aspectual feature. Thus, the hypothesis that such Old Armenian nasal continue the IPFV *\*ie/o*-stem remains without neither formal nor functional justification. All the *an(e/i)*-verbs with the lexicalised [– telic] aspectual feature have a root shape that can be explained from the older IPFV stem, e.g. *aganim* 'spend the night' < *\*h<sub>2</sub>eu-e/o-*, *řeranim* 'have a fever' < *\*g<sup>wh</sup>er-e/o-*. Both of the outlined models of the IPFV stem renovation remained in use in the course of the pre-written stage of the language, cf. Arm. IPFV *otot-e-* → IPFV *otot-an-e-* 'inundate' and PFV *ant'erc'-* → IPFV *ant'erc'-ane-* 'read'.

Nasal verbs with the unspecified [ $\pm$  telic] and [ $\pm$  durative] parameters escape the aforementioned disambiguation procedure. Altogether, it should be noted that at least 20 verbs of the *an(e/i)*-class have been identified with the lexicalised [– durative] aspectual feature as opposed to only 7 verbs with the lexicalised [– telic] aspectual feature. This points to an overall cline towards the actional class of ACHIEVEMENTS in the *an(e/i)*-class and circumstantially supports the hypothesis of the sigmatic origin of roots in affricates within this particular verbal class.

The Old Armenian *an(e/i)*-verbs provide evidence that their dialectal PIE prototype was unspecified for agentivity and transitivity. The equipollent transitivity marking pattern is the majority type in the *n(e/i)*- and *an(e/i)*-verbs, which are predominantly ambitransitive. If the formal match between Gk. *κευθάνω* tr. 'hide', *κευθομαι* intr. 'hide oneself' and Arm. *suzanem* tr. 'conceal' results from the shared nasal stem and not parallel innovations, the reconstruction of the ambitransitive argument structure receives an etymological support.

Such verbs commonly do not have derived causatives. The equipollent pattern and the constraint on the derivation of causatives can be tentatively postulated for the dial. PIE *\*nHe/o*-class.

In some cases, the intransitive non-agentive verbs of this class can be explained as the result of the lexicalisation of the intransitive member of a transitivity pair in Proto-Armenian. For example, *p'lanim* may continue the PIE nasal verb with the anticausative meaning 'be lost, destroyed' (cf. Gk. *ἀπόλλυμαι*, PGrm. *\*fallan-*) and the causative meaning 'destroy' (cf. Gk. *ἀπόλλυμι*, Lat. *aboleō*). Like Proto-Germanic, Proto-Armenian could have

lexicalised the anticausative counterpart of the original transitivity pair. The lexicalised transitive member of a transitivity pair is represented by *luc'anem* 'kindle'.

The root shape of some Old Armenian *an(e/i)*-verbs can be explained by the PFV \*s-stem. Given that the Ancient Greek *ανε/ο*-verbs do not have sigmatic aorists, such *an(e/i)*-verbs can be explained by the inner-Armenian spread of the PFV \*s-suffix. Unlike Ancient Greek, where the sigmatic aorist predominantly characterised transitive verbs, the PArm. PFV \*s-stem can be postulated for transitive (e.g. *luc'anem* 'kindle', *mucanem* 'bring to') and intransitive verbs (e.g. *meřanim* 'die'). By contrast to its cognate *mtanem* intr. 'enter', *mucanem* reflects the root full grade, which could have been responsible for the marking of transitivity prior to the inner-Armenian spread of the PFV \*s-suffix to the inherited root stems. Thus, *mucanem* cannot be considered a strong argument in favour of the transitive value of the PArm. PFV \*s-suffix as a match to Greek.

The agentive intransitive verbs could also be part of this class (*anc'anem* 'pass by', etc.). The antiquity of that functional type is supported by Arm. *linim* intr. 'become', which can be derived from the PIE nasal verb with the agentive intransitive meaning 'lean' (cf. Lat. *dēclīnō*, Av. *nisrinaoiti*, Gk. *κλίνω*, etc.).



## Section 3.2. Nasal verbs and the position of the Armenian branch in the Indo-European language family

The Old Armenian nasal verbs contain a very limited amount of isoglosses that could point to the closer affinity of the Armenian branch to other branches. In order to evaluate the available isoglosses, it is essential to keep in mind that exclusive correspondences shared by two branches have different values for proving their closer relationship.

Exclusive matches between verbal classes or separate tense-aspect stems count among the strongest arguments. In the case of Ancient Greek and Old Armenian, here may belong the nasal classes characterised by the *\*nu*-stem with the full-grade of roots and the *\*nHe/o*-stem (§§ 2.1.2-3.2, 2.5.2-3.1). In particular, these verbal classes set the Greek and Armenian branches apart from the Indo-Iranian branch. Although the verbal suffix *\*-eh<sub>1</sub>-* can be securely reconstructed for PIE, its resultative perfect (and intransitive preterite) value in Ancient Greek and Old Armenian may represent a shared innovation (§ 2.1.2-3.3).

Gk. aor. ἐγένετο and Arm. aor. *cnaw* continue the PFV root stem with the full grade and mediopassive endings (§ 2.5.1-2.12). This combination of features, irregular in the PIE verbal morphology, can be explained by a shared innovation. Here can also belong the equation of Arm. aor. *arari* and Gk. aor. ἀραρεῖν (§ 2.3.1-1.1). While the reduplicated aorist was an established PIE morphological type, the aorist with a full reduplication of the root was not, which makes the lexical match between the cited forms a strong isogloss. Another example of this kind, albeit less secure, is the *\*k*-perfect, that may be tentatively suggested for Gk. perf. πέφυκα 'grow' and Arm. *busanim* if from dial. PIE *\*b<sup>h</sup>e-b<sup>h</sup>uH-k-* (§ 2.5.1-2.11).

The Old Armenian intransitive denominal *an(a)*-verbs and the Germanic inchoative nasal verbs probably continue the same PIE morphological type. However, their proto-type *\*n(e)h<sub>2</sub>-*class, that produced denominal verbs in other branches including Tocharian, was unspecified for transitivity. The intransitive meaning of the Armenian and Germanic denominal nasal verbs most likely represents independent innovations (§ 2.4.2-3.1).

The relevance of the lexical match combined with matching grammatical morphemes decreases with the increase in the productivity of the grammatical morphemes. For examples, while the reduplicated perfect, taken as an inflectional category, unambiguously sets the Indo-Iranian and Greek verbal systems apart from the Anatolian one, the *lexical match* between Skt. conj. *búbodhati* 'should have noticed' and Gk. πέπυσμαι 'have recognised', derived from the same PIE root *\*b<sup>h</sup>eud<sup>h</sup>-*, is not very significant as a witness of the close affinity between the two branches because the perfect tense forms could have been built independently in these branches according to productive grammatical rules. When applied rigorously, this methodological principle casts doubt on the possibility to assuredly reconstruct any PIE tense-aspect stem to a specific root, when forms of daughter languages represent morphological types that could have remained productive in the

prehistory of branches involved in the comparison. Altogether, according to the same principle, none of the reconstructions based on the productive morphological types can be assuredly excluded either. Thus, based on Skt. *búbodhati* and Gk. *πέπυσμαι* one may reconstruct *\*b<sup>h</sup>e-b<sup>h</sup>(o)ud<sup>h</sup>*- even though it will remain fundamentally hypothetical.

From this perspective, if one assumes a moderately productive *\*nu*-stem to roots in the *e*-grade for the common stage of the Greek and Armenian branches, the significance of the lexico-morphological match between Gk. *ἔννυμαι* and Arm. *zgenum* will decrease, even though the reconstruction *\*ues-nu-* will remain a plausible option (§ 2.1.1-2.6). Altogether, given that the assumed productivity of such a stem is lower than that of the PIE reduplicated perfect, the plausibility of a common source of Gk. *ἔννυμαι* and Arm. *zgenum* is higher than that of Skt. *búbodhati* and Gk. *πέπυσμαι* in the above-cited example. If, on the contrary, one rejects the productivity of the *\*nu*-stem with roots in the *e*-grade at the Greek-Armenian stage, Gk. *ἔννυμαι* and Arm. *zgenum* turn into a strong lexico-morphological isogloss. If one chooses to derive Gk. *ἔννυμαι* and Arm. *zgenum* from PIE stative *\*ues-* after the ablaut ceased to operate, the isogloss remains strong by virtue of its restrictive chronology and the match of the nasal suffix added to the lexicalised full grade of the root. Alternatively, one can argue that Gk. *ἔννυμαι* and Arm. *zgenum* were independently derived from the PFV stem with the *e*-grade. This approach requires proving that this productive derivational pattern was an independent innovation in each branch. Unless such proof is found, the principle of economy makes this approach superfluous. The same considerations apply to the relevance of the *\*k*-perfect as a shared morphological type next to the lexical match between *πέφῶκα* 'grow' and *busanim*, and the mediopassive aorist with the full grade next to the lexical match between *ἔγένετο* and Arm. *cnaw*.

A more complex type of isogloss involves several morphologically opposed verbal classes. In Ancient Greek, the *νυ*-verbs typically take the sigmatic aorists while the *ανε/ο*-verbs typically take the thematic aorists. Armenian aorists of the *an(e/i)*-verbs like *gti* 'found' and *lk'i* 'left' unambiguously go back to thematic stems (§§ 2.5.1-2.18, 2.5.1-2.28). Altogether there are possible traces of the sigmatic stems in the *n(u)*-class including aor. *ant'erc'ay* 'read' (§ 2.1.1-2.2). While each reconstructed sigmatic stem can reflect a Proto-Armenian innovation, as part of a paradigmatic class they may be compared to the respective Ancient Greek class. Neither of the Old Armenian *an(e/i)*-verbs contain assured traces of the inherited sigmatic stem and a comparable paradigmatic class is missing in Ancient Greek. The plausible continuants of the Proto-Armenian transitive sigmatic stems like *luc'i* 'kindled' and *muci* 'brought in' (§§ 2.5.1-2.30, 2.5.1-2.34) represent a relatively weak isogloss with the predominantly transitive sigmatic stems in Ancient Greek since Old Armenian bears evidence of the secondary spread of sigmatic stems to the inherited root stems of transitive and intransitive Proto-Armenian *\*ane*-verbs (§ 2.5.2-3.2.2). An

assumption of the markedly transitive PFV sigmatic stems of the Greek *vu*-class and the Old Armenian *nu*-class seem to be more motivated (§ 2.1.2-3.2). Thus, the sigmatic proto-type of Arm. *muci* could be a productive replacement of the athematic root stem (cf. *\*mer-* → *\*mer-s-* → *mer-ay* ‘died’) or result from the inner-Armenian analogy to the oppositional transitive sigmatic stems of the *\*n(e)u*-class. The elimination of the lengthened grade from the active voice of the sigmatic aorist perhaps also happened independently in Proto-Greek and Proto-Armenian, where Osthoff’s law did not operate.

The significance of the lexical match increases when one observes a semantic change that sets a pair of cognates apart from other cognates. This type of isogloss can be illustrated by Gk. ἄρνυμαι and Arm. *arnum*, which go back to a lexicalised reflexive/passive alternation of the underlying extended transitive verb that can be reconstructed based on the Indo-Iranian cognates (see § 2.1.1.-1.1). Here may also belong the case of Gk. φαίνω ‘make visible’ and Arm. *banam* ‘open’ that can be explained by a shared nasal stem changing the argument structure of the underlying intransitive PIE verb *\*b<sup>h</sup>eh<sub>2</sub>-* ‘shine’ (§ 2.4.1-2.2).

The case of Gk. κεύθάνω and Arm. *suzanem* ‘hide’ is more complicated (§ 2.5.1-2.45). The root *\*keud<sup>h</sup>-* has a post-PIE *\*T...D<sup>h</sup>* consonant structure and could be formed at any time after the split of core PIE. Given that it is attested only in Greek and Armenian, it may well have been formed in the common ancestor of these two branches. The suffixes *-ανε/o-* and *-ane-* remained moderately productive in the respective branches, which decreases the significance of a lexico-morphological match between Gk. κεύθάνω and Arm. *suzanem*. An independent formation of these two nasal stems can be envisaged, given that secondary *an-e/i-*stems were derived from roots in the full grade in Old Armenian (e.g. *lizanem*; § 2.5.1-3.9), and secondary *ανε/o-*stems were derived from IPFV stems in Greek (e.g. ἴζω → ἰζάνω), which makes the derivation from the well attested κεύθω a plausible possibility. Altogether, the fact that secondary nasal stems were derived from only a very limited number of thematic stems in Ancient Greek increases the significance of the lexical match between Gk. κεύθάνω and Arm. *suzanem*.

Cases, when a non-exclusive lexical match is accompanied by an exclusive match of productive morphological forms represent the least significant type of isogloss. Here belong cases such as Gk. aor. δῖε and Arm. aor. *erkeay* ‘became afraid’ if from *\*dui-e/o-* (§ 2.6.1-1.1), Gk. aor. δέχτο ‘received’ and Arm. aor. *tesī* ‘saw’ (< *\*‘perceived’*) (§ 2.5.1-2.47), Gk. aor. ἔπτατο ‘flew’ and Arm. *ant’ac’ay* ‘run’ (? § 2.4.1-2.5), Gk. aor. ἀρόμην or ἠράμην ‘gained’ and Arm. *ari* ‘took’ (§ 2.1.1-1.1), Gk. aor. εἶσα ‘made to sit’ and Arm. aor. *hecay* ‘saddled, rode’ (given that the sigmatic stem lexicalised with the reflexive meaning derived from the underlying transitive verb in Proto-Armenian), Gk. aor. ἔπηξα ‘fixed’ and Arm. aor. *sp’acay* ‘put on’ (§ 2.5.1-2.43), Gk. aor. ἐπλησα, Skt. aor. *apras*, and Arm. *lc’i* (if from *\*pleh<sub>1</sub>-s-* and not *\*pleh<sub>7</sub>-*; § 2.1.1-2.3), etc. The same holds true of the potential exclusive match

between OCS 1 sg. *-děxǔ* and Arm. *edi* (if the latter is to be derived from PIE *\*d<sup>h</sup>ēh<sub>1</sub>-s-* / *\*d<sup>h</sup>eh<sub>1</sub>-s-* and not from the root stem; § 2.3.1-1.2).

The least significant are matching roots, which can represent archaic continuants of the PIE lexical items. Thus, Arm. *hasanem* next to Gk. ἤκω may point to PIE *\*seh<sub>1</sub>k-* ‘reach, arrive’ that did not survive in other branches (§ 2.5.1-2.21). In the same way, an etymological match between Arm. *gercanem* ‘shave’ and Toch. B *wark-* ‘shear’ does not prove a close affinity of the two branches (§ 2.5.1-3.6).

Although the aforementioned matches between Ancient Greek and Old Armenian are of unequal quality, they significantly outnumber exclusive isoglosses shared by Old Armenian with other ancient Indo-European languages. Some of the correspondances between the Old Armenian nasal verbs and nasal verbs of other branches must be considered as dubious. For example, *lizanem* ‘lick’ is, perhaps, an inner-Armenian derivative from the thematicised root stem *\*leiǵ<sup>h</sup>-e/o-* and, as such, must be compared to Gk. λείγω rather than to Lat. *lingō* and PGrm. *\*luk(k)ōn* (§ 2.5.1-3.9). Similarly, Lith. *jauk-inti* ‘tame’ (next to *jù-n-kti* ‘get used to’) can hardly be directly compared to Arm. *us-an-im* ‘learn’ (§ 2.5.1-2.50).

How much of the Greek-Armenian isoglosses could develop due to language contact and how much are inherited from the exclusive ancestor of the two branches is impossible to establish. However, in order to disprove the hypothesis of the Greek-Armenian subgroup of the language family one has to find, in particular, decisive arguments against the above-mentioned structural similarities between the Greek and Armenian nasal classes and embedded lexical matches.

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## SAMENVATTING

Het Oudarmeens werd voor het eerst opgetekend in het begin van de 5e eeuw van onze tijdrekening, ongeveer drie millennia nadat de Armeense tak van het Proto-Indo-Europees was afgesplitst. Hoewel het exacte traject en de precieze omstandigheden van hun komst naar de zuidelijke Kaukasus nog steeds onderwerp van discussie zijn, waren daar volgens historische bronnen al in de 6e eeuw voor onze jaartelling sprekers van het Armeens aanwezig. In vergelijking met het Grieks en Sanskriet laat het Oudarmeens een sterker effect van taalcontact en interne drift zien, wat heeft geleid tot een ingewikkelde combinatie van archaïsmen en innovaties. Het huidige proefschrift draagt bij aan de studie van dergelijke archaïsmen en innovaties door een groep van de Oudarmeense verbale klassen te onderzoeken die zonder problemen met hun Indo-Europese prototypes kunnen worden verbonden: de zogenaamde nasale klassen, waarin een dentale nasaal in het affix de imperfectieve stam van het paradigma markeert.

Traditioneel houdt de vergelijkende historische grammatica van het Oudarmeens zich hoofdzakelijk bezig met formele morfologische overeenkomsten, terwijl de lexicale en syntactische categorieën die aan morfologische veranderingen ten grondslag liggen grotendeels zijn verwaarloosd. Daarentegen wordt in het huidige proefschrift de evolutie van de nasale klassen van het Proto-Indo-Europees naar het Oudarmeens onderzocht aan de hand van een reeks formele en semantische parameters, waaronder de morfologische structuur van het verbale paradigma, de argumentstructuur, en de aspectuele betekenissen. Dit diachrone onderzoek van veranderingen in de aspectuele en valentie-veranderende alternanties die geassocieerd zijn met bepaalde Oudarmeense nasale werkwoorden en verbale klassen introduceert een nieuw niveau van gedetailleerde analyse in de historische grammatica van het Oudarmeens. In het bijzonder beschrijft het proefschrift de Proto-Armeense veranderingen van de markering van transitiviteit die de nasale klassen hebben ondergaan, de analogische verspreiding van de nasale suffixen op basis van aspectuele betekenissen, de richting van de paradigmatische levelling van de vorm van de werkwoordswortel, en de paradigmatypes van nasale klassen die gepostuleerd kunnen worden voor het Proto-Armeens en dialectaal Proto-Indo-Europees.

## SUMMARY

Old Armenian was first recorded in the beginning of the 5<sup>th</sup> century CE, around three millennia after the split of the Armenian branch from Proto-Indo-European. According to historical sources, speakers of Armenian were already present in the South Caucasus in the 6<sup>th</sup> century BCE, although the exact path and conditions of their arrival to the region remain a puzzle. In comparison to Greek and Sanskrit, Old Armenian shows a stronger impact of language contact and internal drift resulting in an intricate combination of archaisms and innovations. The present dissertation contributes to the study of such archaisms and innovations by examining a set of Old Armenian verbal classes that can be securely connected to their Indo-European prototypes, namely, the so-called nasal classes with a dental nasal phoneme in the affixes marking the imperfective stem of their paradigms.

Traditionally, the comparative historical grammar of Old Armenian has been concerned mainly with formal morphological correspondences, whereas the lexico-syntactic categories behind the morphological changes have been largely neglected. By contrast, in the present dissertation, the evolution of the nasal classes from Proto-Indo-European to Old Armenian is examined according to a set of formal and semantic parameters including the morphological structure of the verbal paradigm, the argument structure, and the aspectual meanings. This diachronic account of developments in the aspectual and valency-changing alternations associated with particular Old Armenian nasal verbs and verbal classes brings Old Armenian historical grammar to a new level of detail. In particular, the dissertation describes Proto-Armenian changes of transitivity marking that affected the nasal classes, analogical spread of the nasal suffixes based on aspectual meanings, the direction of root levelling over the verbal paradigm, and paradigmatic types of nasal classes that can be postulated for Proto-Armenian and dialectal Proto-Indo-European.

## CURRICULUM VITAE

Petr Kocharov was born on 17 December 1981 in Leningrad, USSR (currently St. Petersburg, Russia). In 1999, he entered the Department of General Linguistics of St. Petersburg State University. During his first university years he got interested in several domains of linguistics including semiotics, psycholinguistics, and language history. Eventually, he chose Indo-European studies as his major with a specialisation in the historical grammar of Old Armenian. While being a student, he was awarded a one-year scholarship to follow the program in the Indo-European linguistics at the *École pratique des hautes études* (Paris, 2003/2004) that he accomplished with the diploma of the EPHE. In 2005, he graduated from St. Petersburg State University with distinction. From 2005 to 2008, he underwent a postgraduate program at St. Petersburg State University and earned the degree of Candidate of Sciences. As part of his postgraduate program, he was awarded a scholarship to study the Indo-European linguistics and Old Armenian philology at Leiden University (2007/2008). At present, he is a researcher at the Institute for Linguistic Studies of the Russian Academy of Sciences in St. Petersburg and a part-time lecturer at St. Petersburg State University.

