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Causatives in Classical Armenian

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Abstract: This paper presents the results of a study of the five causative formations of Classical Armenian. It focuses on the correspondence between the morphosyntactic complexity of causatives and the autonomy of the CAUSEE, which is specified based on the semantic type of the noncausal base verb. The correspondence proves to be incomplete as witnessed by areas of overlap in the lexical distribution of base verbs. While the competing lexical and synthetic causatives reflect the patientive and non-patientive readings of the first argument of the noncausal verb, respectively, the competing synthetic and analytic causatives rather express the contrast in the degree of affectedness of the CAUSEE, which does not fully depend on the semantic properties of the noncausal predicate. The semantic types of causation better correlate with morphosyntactic complexity than with segmental length in Classical Armenian.

Keywords: causation continuum; causative; Classical Armenian; markedness; verbal morphosyntax

1 Introduction

Classical Armenian, the oldest recorded variety of Armenian attested since the 5th century, expresses causation with lexical and synthetic causatives as well as three analytic constructions built with the auxiliary verbs *aṙnem* 'make' and *tam* 'give'.[1] The analytic constructions comprise *aṙnem* + noun/adj. (MAKE-factitive), *aṙnem* + infinitive (MAKE-causative) and *tam* + infinitive (GIVE-causative).[2] The description of

1 This paper relies on a broad understanding of the causative as the semantic type of predicate describing a situation that consists of two sub-events bound by a causal relation, whereby the CAUSER acts upon the CAUSEE so that the latter undergoes a change or performs an action (cf. Dixon 2000; Kulikov 2001; Malchukov 2015; Shibatani and Pardeshi 2002 among others).

2 The infinitive constructions with *t'ołum* 'let', *t'oyl tam* 'allow' and their semantic proxies, which constitute the periphery of the causation domain and have clear modal connotations, will not be addressed here.

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these causative expressions in standard grammars of Classical Armenian remains incomplete. The present paper is a contribution to their study within a typologically oriented framework.

As the only productive valency-increasing derivational category of Classical Armenian, the synthetic causative has received the most attention out of the abovementioned causatives in previous scholarship (see Abrahamyan 1976: 179–186; Aṙakʻelyan 2010: 161–168; Jensen 1959: 36; Meillet 1913: 26; Minassian 1996: 76–77; Tumanyan 1971: 372–377). However, the existing accounts offer only a very general description of its lexical distribution and function. For example, Tumanyan (1971: 373) reports that the synthetic causative can be derived from the majority of transitive and intransitive verbs, cf. *aršawim* intr. 'gallop' → causative *aršawecʻucʻanem* 'make gallop', *iǰanem* intr. 'go down' → causative *iǰucʻanem* 'bring down', *yišem* tr. 'remember' → causative *yišecʻucʻanem* 'make remember'. This generalization overlooks important constraints on the formation of the synthetic causative and its relation to other types of causatives. The cited grammars offer an even more cursory account of the analytic causative constructions. Characteristically, Minassian (1996: 77, 207–208) describes the MAKE-causative as expressing causative meaning ("sens factitif") in contrast to the GIVE-causative expressing causative meaning with a permissive connotation ("sens factitif, permettre, autoriser") but gives no further details on their lexical distribution, use, or relative productivity.

Aside from descriptive grammar, the study of Classical Armenian causatives is furthermore relevant for the discussion of cross-linguistic generalizations on the correspondence between the formal and semantic parameters of causatives (see Dixon 2000; Haspelmath 2016; Shibatani and Pardeshi 2002). The present paper aims to contribute to the discussion of the Classical Armenian evidence in the cross-linguistic perspective.

2 Causatives and the autonomy of the causee

The semantics of causation constitutes a complex domain with a plethora of parameters concerning the causing and caused sub-events and the nature of their relation, see Beavers and Koontz-Garboden (2020: 48–55) and Levshina (2022) for discussion. The present paper will address only some of those parameters and examine a possible correspondence between the formal type of the causative, on the one hand, and the semantic properties of the CAUSEE in relation to those of the first argument of the base verb, on the other. One of the key parameters, discussed in previous scholarship, is the degree of autonomy of the CAUSEE. This parameter is crucial for predictions that the more autonomous the CAUSEE, the more effort is required on part of the CAUSER to initiate its change of state and the more complex the

causative expression tends to be in languages that have multiple ways to express causation. Thus, Dixon (2000: 61–78) discusses the influence of control, volition, and affectedness of the CAUSEE on the morphosyntactic complexity of the causative. Similarly, Shibatani and Pardeshi (2002: 8) argue that the degree of volition of the CAUSEE is one of the two main parameters, along with spatiotemporal overlap, that determines the coding complexity of a causative. The scale of causative meanings characterized by different degrees of the CAUSEE's autonomy can be grasped in terms of the direct-indirect causation scale; see Levshina (2022) on the semantic parameters associated with the direct-indirect distinction.

The autonomy of the CAUSEE partly depends on the semantic type of the base noncausal verb. Based on the results of the *Valency Patterns Leipzig* (*ValPaL*) project, Wichmann (2015: 171–172) concludes that verbs describing actions that are amenable to external control (e.g. 'laugh', 'fear', 'sink') more easily undergo causativization than verbs that describe actions of relatively more autonomous volitional participants which are less easily controlled by an external agent (e.g. 'send', 'say', 'teach'). This explains in particular why ingestive and cognition verbs ('eat', 'know') belong to the transitive verbs which, according to the dataset of *ValPaL*, most often undergo causativization (Wichmann 2015: 171). Amenability to external control correlates with the parameter of affectedness of the first argument characteristic of many intransitive and transitive base verbs of the semantic middle domain; a participant that is typically affected by an external STIMULUS or one's own action is also prone to be affected by an external AGENT (see Kemmer 1993; Næss 2007; Shibatani 2002: 6).

The correlation between the semantic type of the base verb, the autonomy of the CAUSEE, and morphosyntactic complexity can be responsible for the lexico-syntactic distribution of competing causatives. Thus, increasing autonomy of the AGENT of the base verb correlates with increasing syntactic transitivity on the one hand (see Tsunoda 1985; Malchukov 2015, Comrie et al. 2015) and with the morphosyntactic complexity of (or else a constraint on) the derived causative, on the other (Haspelmath 2016). This correlation is confirmed by the evidence of languages with synthetic and analytic causatives, which are more likely to be derived from intransitive and transitive verbs, respectively (Nedyalkov and Silnitsky 1973: 7; Shibatani 2002: 5; Wichmann 2015: 171).

The aforementioned interrelated parameters have been presented by Haspelmath (2016) in a set of cross-linguistic generalizations on the formation of causatives. The principal generalization (Universal 1), on which a series of additional ones is based, reads: "[t]he higher the noncausal meaning of a causal-noncausal pair is on the spontaneity scale, the longer and the more analytic any causative marker on the causal verb form will be" (Haspelmath 2016: 38). Haspelmath's spontaneity scale model includes the following types of meanings: agentive transitive (an agent impinges directly on a patient, e.g. 'break') > unergative = agentive intransitive

(volitional actions that are not directed at another participant, e.g. 'walk') > unaccusative = anticausative[3] (subdivided into "automatic" processes that are easily construed as occurring on their own, e.g. 'freeze', and "costly" processes that typically involve some energy input, e.g. 'split') > agentful = patientive (processes which have an agent-oriented manner component in their meaning and tend not to occur without an external agent, e.g. 'be cut'). The degree of spontaneity decreases from left to right, see Figure 1. A series of additional generalizations, based on Universal 1, have also been proposed and will be discussed in Section 4.

Furthermore, Haspelmath argues that references to morphosyntactic complexity (e.g. synthetic vs. analytic) can be omitted in the formulations of the universals and that it is the phonological length alone that correlates with the position of the noncausal meaning on the spontaneity scale, which in turn is ultimately determined by the frequency of use (Haspelmath 2016: 54–55). According to this hypothesis, verbs with a higher autonomy of the subject occur less frequently in a causative context and therefore receive more overt coding. Haspelmath thus claims that there is a straightforward correspondence between the semantic type of the base verb and the direct-indirect distinction of causatives because "causatives of unergatives and transitives must express indirect causation (almost by definition), and only causatives of unaccusatives can express direct causation" (Haspelmath 2016: 46).

In order to scrutinize to what extent the Classical Armenian evidence conforms to the aforementioned cross-linguistic generalizations, its five causative formations will be specified with respect to their formal features (morphosyntactic complexity and phonological length), to the semantic type of causation, and to the semantic role of the first argument of the base verb. The last parameter will be assessed based on four major types of semantic roles: PATIENT (a participant that corresponds to the first argument affected by an external AGENT), UNDERGOER (a participant that corresponds to the first argument, the state of which changes spontaneously), EXPERIENCER (a participant that corresponds to the first argument, which is affected by a STIMULUS), AGENT (a participant that corresponds to the first argument, initiating a volitional action directed at itself or another participant).

transitive ('cut')	>	unergative ('talk')	>	automatic ('freeze (intr.)')	>	costly ('break (intr.)')	>	agentful ('be cut')

Figure 1: The spontaneity scale (Haspelmath 2016: 34).

3 In the present paper, the term 'anticausative' is used to denote a semantic type of predicates expressing spontaneous events (cf. Kulikov [1998] on terminological caveats).

These semantic roles of base verbs can be arranged in order of their increasing autonomy on the spontaneity scale: PATIENT > UNDERGOER > EXPERIENCER > AGENT. The relative autonomy of UNDERGOER and EXPERIENCER is not straightforward, given that there is no clear-cut semantic boundary between anticausative verbs with an animate UNDERGOER and experiential verbs of sensation and emotion (Kemmer 1993: 128). Whenever the STIMULUS is expressed, the experiential reading is clear in both the base verb and its derived causative. A contextual reading becomes ambiguous when the STIMULUS is not expressed, however. Yet given that the EXPERIENCER typically corresponds to a sentential participant which can, at least for some predicates, control the experiential event to some extent, it shares more semantic features with AGENT than UNDERGOER and can therefore be allocated between the two on the spontaneity scale. Such a relative position of the semantic roles agrees with the relative position of the semantic types on the semantic map proposed within the *VaLPaL* project (Comrie et al. 2015: 8).

The morphosyntactic features and lexical distribution of the five Classical Armenian causative formations are described in Section 3, while their comparative analysis in terms of a causative continuum is provided in Section 4.

3 Morphosyntactic coding and lexical distribution

The personal forms of the Classical Armenian verb express five synthetic tenses (the present, imperfect, aorist, present subjunctive, and aorist subjunctive) and a number of analytic tenses, the most productive of which are the perfect, pluperfect, and future perfect. In the synthetic tenses, valency alternations are coded on the verb by means of inflectional endings are often in conjunction with a productive valency-increasing suffix *-oyc'-* (or its rare variants *-oys-* and *-oyz-*). The inflectional types are redistributed among four productive conjugations and a defective verb *gom* 'exist'. Besides coding tense, number and person, the endings either express oppositional voice (active vs. mediopassive) or are indifferent to voice, in which case one form is used both transitively and intransitively (the latter type is conventionally termed 'labile' in the present paper; cf. Letuchiy 2009). Each verbal paradigm combines both oppositional voice and labile forms, although their ratio varies across the conjugations (see Table 1 for the endings of the present, imperfect and aorist in the four productive conjugations). Note that the use of the oppositional voice is lexically determined only in the present, whereas the imperfect is invariably labile and the aorist invariably distinguishes the two voices except for the 1st person plural (see Bubenik [1997] for a concise overview of the Classical Armenian verbal system).

Given that all of the five causative constructions discussed in the present paper involve personal verb forms, the syntactic transitivity is coded by the active voice in

Table 1: Active, mediopassive, and labile inflections in the present and aorist.

		***e*-conj.**	***i*-conj.**	***a*-conj.**		***u*-conj.**	
PRS IND		ACT	MP	LAB		LAB	
	1SG	*-em*	*-im*	*-am*		*-um*	
	2SG	*-es*	*-is*	*-as*		*-us*	
	3SG	*-ē*	*-i*	*-ay*		*-u*	
	1PL	*-emkʻ*	*-imkʻ*	*-amkʻ*		*-umkʻ*	
	2PL	*-ēkʻ*	*-ikʻ*	*-aykʻ*		*-ukʻ*	
	3PL	*-en*	*-in*	*-an*		*-un*	
IMPF IND		LAB		LAB		LAB	
	1SG	*-ei*		*-ayi*		*-ui*	
	2SG	*-eir*		*-ayir*		*-uir*	
	3SG	*-ēr*		*-ayr*		*-oyr*	
	1PL	*-eakʻ*		*-ayakʻ*		*-uakʻ*	
	2PL	*-eikʻ*		*-ayikʻ*		*-uikʻ*	
	3PL	*-ein*		*-ayin*		*-uin*	
AOR IND		ACT	MP	ACT	MP	ACT	MP
	1SG	*-i*	*-ay*	*-i*	*-ay*	*-i*	*-ay*
	2SG	*-er*	*-ar*	*-er*	*-ar*	*-er*	*-ar*
	3SG	*-Ø*	*-aw*	*-Ø*	*-aw*	*-Ø*	*-aw*
	1PL	*-akʻ* (LAB)	*-akʻ* (LAB)	*-akʻ* (LAB)	*-akʻ* (LAB)	*-akʻ* (LAB)	*-akʻ* (LAB)
	2PL	*-ēkʻ*	*-aykʻ*	*-ēkʻ*	*-aykʻ*	*-ēkʻ*	*-aykʻ*
	3PL	*-in*	*-an*	*-in*	*-an*	*-in*	*-an*

part of every causative paradigm. This common feature aside, the constructions differ in formal and lexico-syntactic properties, which are discussed in Sections 3.1–3.5, and compared in Section 4. The survey of the synchronic evidence is based on the following data. The account of the lexico-syntactic properties of synthetic causatives (Section 3.2.2) is based on the complete list of synthetic causatives attested in the Classical Armenian Bible, and their semantic classification published as a supplement to Kocharov (2023). Given the significantly lower text frequency of the analytic causatives and the potential influence of Greek in the Armenian translation of the Bible, the corpus for the study of the analytic causative has been extended with two non-translated early classical texts, *De Deo* by Eznik Kołbacʻi and *The History of the Armenians* by Agathangełos (see the supplementary material at https://doi.org/10.5281/zenodo.7756976). Given that the analytic factitive construction is typical for a specific semantic type of predicates (Section 3.3), it is characterized in general terms without recourse to quantitative data. Due to the lack of a formal difference and the uncertainty of semantic contrasts between lexical causatives and transitive base verbs, as discussed in Section 3.1, lexical causatives will also be

characterized without quantitative data; the task of delimiting the two functional types in a comprehensive sub-corpus of early Classical Armenian and establishing the relative frequency of the different semantic types of lexical causatives goes beyond the scope of this paper.

3.1 Lexical causatives

There is no formal distinction between base verbs expressing valency alternations of different semantic types, e.g. the active-passive and causative-anticausative alternations, which are both coded with a combination of forms expressing oppositional voice and labile ones, cf. act. *aṙn-ē* tr. '(s)he makes smth.' versus mp. *aṙn-i* intr. 'smth. is done' (active-passive) next to act. *hal-ē* tr. '(s)he melts smth.' versus mp. *hal-i* intr. 'it melts' (causative-anticausative). In the case of suppletive transitivity pairs, the root takes part in the expression of the formal contrast along with the inflection, cf. active *mt-an-ē* (go_in-IPFV-3SG) intr. '(s)he enters' versus active *muc-an-ē* (bring_in-IPFV-3SG) tr. '(s)he brings in'. The case assignment of lexical causatives complies with the default transitive and ditransitive patterns as indicated in Table 2, cf. (1) and (2).

(1) *ew* ***halesc'ē*** *z=nosa* *ibrew* *z=oski*
and melt.AOR_SBJ.3SG.ACT DEF=they.ACC like DEF=gold.ACC
'… and He **shall melt** them like gold…'
(Mal. 3:3)

(2) ***c'uc'anē*** *nma* *z=amenayn* *t'agaworut'iwns* *ašxarhi*
show.3SG.ACT he.DAT DEF=every kingdom.ACC.PL world.GEN
'… **shows** Him all the kingdoms of the world…'
(Mt. 4:8)

It is notoriously difficult to draw a clear-cut semantic distinction between regular agentive transitive verbs and lexical causatives since they refer to a caused change of

Table 2: Case assignment of lexical causatives.

Syntactic type	NOM	ACC	DAT
Transitive	A	O	
	CAUSER	CAUSEE	
Ditransitive	A	O	R
	CAUSER	AFFECTEE	CAUSEE

quality or state of the PATIENT-like participant or an affected CAUSEE, respectively (see Dixon 2000: 38–41; Kemmer and Verhagen 1994: 118–119; Shibatani and Pardeshi 2002: 87–88). One criterion that can be applied to differentiate the two types is whether an AGENT-like participant is added as a result of a valency alternation (causative alternations) or the alternation only involves re-coding of the arguments (the active-passive alternation). In this paper, the term 'lexical causative' is applied to the former type when it is expressed by one lexical morpheme or two lexical morphemes in complementary distribution.

In Classical Armenian, lexical causatives constitute valency pairs with noncausal verbs, the first argument of which can be an UNDERGOER (e.g. *halim* intr. 'melt'/*halem* tr. 'melt'; *meṙanim* intr. 'die'/*spananem* 'kill'), EXPERIENCER (e.g. *tesanem* tr. 'see'/*cʻucʻanem* 'show'), or AGENT (e.g. *mtanem* intr. 'enter'/*mucanem* 'bring in'). The first of these semantic types is relatively often expressed by the lexical causative. Thus, 16 out of the 31 causative-anticausative pairs in the questionnaire suggested in Haspelmath (1993) are expressed by base verbs and can be primarily associated with the costly anticausative and agentful semantic types in terms of Haspelmath (2016) (see Kocharov [2023] for discussion). Further research is required to determine the relative productivity of Classical Armenian lexical causatives in different semantic domains. A preliminary survey of the biblical evidence suggests that unlike the causative-anticausative alternation, causative alternations with experiential and agentive base verbs do not go beyond a few suppletive pairs.

3.2 Synthetic causatives

The synthetic causative is the only productive type of derivational coding of valency-increasing alternations in Classical Armenian. It codes the causative alternation and, less productively, the applicative alternation that adds a RECIPIENT-like participant to the base predicate, cf. (3)–(4) and (5)–(6), respectively.

(3) *Ziard vałvałaki **cʻamakʻecʻaw** tʻzeni=n*
why suddenly be_dry.AOR.3SG fig_tree.NOM=DET
'How **did** the fig tree **wither** all at once?'
(Mt. 21:20)

(4) ***cʻamakʻecʻucʻanē** z=erkir*
make_dry.CAUS.3SG DEF=earth.ACC
'[If he withholds the water,] he **dries up** the earth…'
(Job 12:15)

(5) ***zgecʿaw*** *z=handerj=n* *ayrowtʿean* *iwroy*
put_on.AOR.3SG DEF=clothes.ACC=DET widowhood.GEN own.GEN
'…**put on** her widow's garments.'
(Gen. 38:19)

(6) ***zgecʿusc'es*** *z=ayn* *Aharoni*
clothe.CAUS.AOR_SBJ.2SG. DEF=that.ACC Aharon.DAT
'Then you **shall put** them on Aaron' (not 'make Aaron put them on himself')
(Ex. 28, 41)

3.2.1 Formal properties

The synthetic causatives typically have the default transitive and ditransitive case-frames, cf. (4) and (6) above. Under applicativization, the RECIPIENT can be coded as the direct object, yielding a double accusative construction, cf. (7).

(7) *or* ***zgecʿucʿanēr*** *z=jez* *karmirs*
who put_on.CAUS.IMPF.3SG DEF=you.ACC.PL red_clothes.ACC.PL
'who **clothed** you in scarlet'
(2Kings. 1:24)

The synthetic causative is built with the derivational suffix *-oycʿ-* (stressed)/*-ucʿ-* (unstressed) and its rare equivalents *-oyz-* (stressed)/*-uz-* (unstressed) and *-oys-* (stressed)/*-us-* (unstressed). The causative suffixes are added to the perfective stem or the bare root of the noncausal verb, yielding the formal types listed in Table 3. The types of *pʿaxucʿanem* and *korusanem* result from truncation of the aorist suffix *-i-* (*-i-* + *-a°* > *-ea°*), or, in diachronic terms, from the loss of its allomorph *-w-* before *-u-*, cf. aor. **kor-i-* (*kornčʿim* 'disappear') → causative **kor-i-ucʿ-* > **kor-w-ucʿ-* >

Table 3: Formal types of synthetic causatives in Classical Armenian.

Suffix	Derivation base	Base verb	Causative
-oycʿ/ucʿ-	aorist stem	PRS ***im**-an-am*	PRS ***imacʿ**-ucʿ-anem*
		AOR ***im-acʿ**-ay* 'understand'	AOR ***imacʿ**-ucʿ-i* 'inform'
	root	PRS ***pʿax**-čʿ-im*	PRS ***pʿax**-ucʿ-anem*
		AOR ***pʿax**-e-ay* 'flee'	AOR ***pʿax**-ucʿ-i* 'make run away'
-oys/us-	root	PRS ***kor**-nčʿ-im*	PRS ***kor**-us-anem*
		AOR ***kor**-e-ay* 'disappear'	AOR ***kor**-us-i* 'destroy'
-oyz/uz-	root/aorist stem	PRS ***pʿl**-an-im*	PRS ***pʿl**-uz-anem*
		AOR ***pʿl**-ay* 'collapse'	AOR ***pʿl**-uz-i* 'ruin'

**kor-uc‘-* (cf. the rounding of *i* in front of a labial vowel in GEN **bar-i-oy* > *bar-w-oy* of *bari* ‘good’). See Abrahamyan (1976: 180–181), Minassian (1996: 76), and Aṙak‘elyan (2010: 165) on marginal analogical deviations from these types.

All the synthetic causatives belong to the verb class characterized by a suffix-less perfective stem and an imperfective stem with the suffix *-an-*, cf. 1SG.PRS *imac‘uc‘-an-em*, AOR *imac‘uc‘-i* ‘inform’. Besides the causatives, this verb class includes some fifty base transitive verbs, including canonical agentive transitive verbs of destruction like *bekanem* ‘break’, *hatanem* ‘cut’ and *spananem* ‘kill’. The synthetic causative is a Proto-Armenian innovation which developed while the prototype of the verb class in *-an-em*, inherited from dialectal Proto-Indo-European (see Kocharov 2019: 239–260), was still productive. Note that the suffix *-an-* of the imperfective stem is not part of the valency-increasing coding in derived causatives.

The few causatives built with the unproductive suffixes *-oyz*/*uz-* and *-oys*/*us-* are listed in Table 4. Like the productive causatives with *-oyc‘*/*uc‘-*, these verbs have a 2sg. imperative ending *-o* resulting from the reduction of the causative suffix in word-final position, cf. 3sg. aor. *imac‘-oyc‘*, 2sg. imp. *imac‘-o*; 3sg. aor. *p‘l-oyz*, 2sg. imp. *pl-o*; 3sg. aor. *kor-oys*, 2sg imp. *kor-o*. The consonants were not lost in non-causative stems with identical word-final groups of consonants, cf. 3sg. aor. *e-loyc‘* ‘s/he kindled’, 2sg. imp. *loyc‘*. The imperative form is not attested for *eluzanem* and *əndeluzanem*, and its form is uncertain because the semantic contrast between the causal and noncausal verbs suggests that these causal verbs had become lexicalized as regular transitive verbs compatible with inanimate direct objects. This leaves one with positive evidence for only three causatives in *-oyz*/*uz-* and *-oys*/*us-* derived from noncausal intransitives. All three belong to verbs of destruction, implying direct causation and strong affectedness of the CAUSEE.

3.2.2 Lexico-syntactic properties

The productive synthetic causative type in *-oyc‘*/*uc‘-* can be derived from a wide range of semantic types of base verbs. According to Kocharov (2023), the electronic

Table 4: Unproductive synthetic causatives.

	1st argument	Base verb	Causative
-oyz/*uz-*	AGENT	*elanem* ‘go out’	*el-uz-anem* ‘produce (of sounds)’
	AGENT	*əndelanim* ‘come together’	*əndel-uz-anem* ‘align (of gems)’
	UNDERGOER	*ənklnum* ‘sink’	*ənkl-uz-anem* ‘make sink’
	UNDERGOER	*p‘lanim* ‘collapse’	*p‘l-uz-anem* ‘make fall’
-oys/*us-*	UNDERGOER	*kornč‘im* ‘disappear’	*kor-us-anem* ‘destroy’

concordance of the Armenian Bible (https://www.arak29.org) contains 261 synthetic causatives, distributed across semantic types as indicated in Table 5.[4]

As this table indicates, close to half of the synthetic causatives attested in the Bible are derived from verbs that typically refer to spontaneous events, e.g. *cʻamakʻim* intr. 'become dry' → causative *cʻamakʻecʻucʻanem* tr. 'make dry', cf. (3) and (4) above. The underlying anticausatives may be characterized as automatic in terms of Haspelmath (see Section 2), and their first argument is arguably more autonomous than that of anticausatives with lexical causatives (see Section 3.1). This type expresses direct causation, and the CAUSEE is strongly affected.

Experiential verbs constitute another common semantic type with synthetic causatives; these are centered around intransitive verbs of emotion and cognition, cf. *barkanam* intr. 'become angry' → causative *barkacʻucʻanem* 'make angry', *hawatim* intr. 'become persuaded' → causative *hawatecʻucʻanem* 'persuade'. Synthetic causatives are attested in the Bible for a few experiential verbs of sensation (cf. *cʻawem* intr. 'hurt' → causative *cʻawecʻucʻanem* tr. 'hurt'), and only two perception verbs: *hayim* intr. 'look at' → *hayecʻucʻanem* 'make smth. look at smth.', *lsem* intr. 'listen to' → *lsecʻucʻanem* 'make to listen', cf. (8)–(9).

(8) *na* *cʻawecʻucʻanē* *ew* *miwsangam* *andrēn* *hastatē*
he make_suffer.CAUS.3SG and another_time again comfort.3SG
'he **makes one suffer** and restores one again…'
(Job 5:18 [Cox 2006: 75])

(9) *ənd* *or* *koys* *kami* ***hayecʻucʻanel*** *darjucʻanē* *z=na*
to which side want.3SG look_at.CAUS.INF turn.CAUS.3SG DEF=he.ACC
'in which direction He wants to **make** him [the king] **look**, He turns him.'
(Prov. 21:1)

Table 5: Lexical distribution of synthetic causatives attested in the Bible.

	Transitivity	Typical semantic role of the first argument			
		PATIENT	UNDERGOER	EXPERIENCER	AGENT
Synthetic causatives	intransitive	1	118	58	77
	transitive	n/a	n/a	4	10

4 The comparison to the larger lists of the synthetic causatives provided in Aṙakʻelyan (2010: 161–168) (354 verbs attested in the classical literature without clearly stated chronological limits) and Jungmann and Weitenberg (1993: 117–124) (418 verbs attested in a selection of texts from the 5th to the 10th centuries) suggests that the biblical corpus is fairly representative for 5th-century Classical Armenian. Some 840 causatives mentioned in *Nor baṙgirkʻ haykazean lezui* (Awetikʻean et al. 1836–1837) and listed in the reverse dictionary by Palandjian (1991: 134–140) provide a starting point for research on the distributional properties of the synthetic causative in post-classical texts.

In the Bible, one finds the synthetic causative of four transitive experiential verbs, all verbs of cognition: *imanam* 'understand', *čanačʿem* 'recognize', *moŕanam* 'forget' and *yišem* 'remember', cf. (10)–(11). These causatives take the default ditransitive case-frame. Classical Armenian thus supports the cross-linguistic generalization according to which productive causatives are rarely derived from transitive verbs; where they do occur, such transitive verbs are often experiential, in particular 'see' and 'remember' (Nedyalkov and Silnitsky 1973: 16).

(10) ***imacʿucʿanem*** *docʿa* *z=hramans* *Astucoy*
understand.CAUS.1SG that.DAT.PL DEF=order.ACC.PL god.GEN
'I **make** them **know** the statutes of God.'
(Ex. 18:16)

(11) ***Moŕacʿoycʿ*** *inj* *Astuac* *z=amenayn* *višts* *im*
make_forget.AOR.3SG I.DAT God DEF=all trouble.ACC.PL I.GEN
'God **has made** me **forget** all my trouble…'
(Gen. 41:51)

Note finally that in examples (8)–(11), the CAUSER is in full control of the caused event and the CAUSEE is strongly affected.

The third large class of verbs with synthetic causatives consists of agentive verbs. The vast majority of such verbs are intransitive and typically describe events in which the first argument corresponds to a volitional participant affected in some way by its own action. Here belong, in particular, verbs of motion (e.g. *xotorim* intr. 'depart'), activities (e.g. *šabatʿanam* 'observe Sabbath') and reciprocal actions (e.g. *čakatim* 'clash with smb.').

(12) ***xotorecʿucʿin*** *z=tkars* *i* *čanaparhē* *ardarutʿean*
make_depart.AOR.3PL DEF=powerless.ACC.PL from road.ABL rightousness.GEN
'they **turned aside** the powerless from the righteous way'
(Job 24:4 [Cox 2006: 167])

Only a few synthetic causatives are derived from transitive agentive verbs, which include verbs of grooming (*aganim* 'put on', *merkanam* 'take off', *zgenum* 'put on clothes'), ingestion (in a physical or figurative sense, cf. *čašakem* 'eat', *diem* 'suck', *usanim* 'learn'), change of possession (*baŕnam* 'pick up', *merjaworem* 'redeem for oneself', *žarangem* 'inherit') and the verb of creation *cnanim* 'give birth' (whose causative *cnucʿanem* is strongly lexicalized and means 'serve as a midwife'), cf. (13).

(13) ***usucʿanēr*** *z=nosa* *hanapaz* *i* *tačari=n*
teach.IMPF.3SG DEF=they.ACC.PL daily in temple.LOC=DET
'He **was teaching** daily in the temple.'
(Lk. 19:47)

The synthetic causatives derived from such verbs of grooming express the applicative alternation, which introduces a RECIPIENT that is not co-referential with the AGENT of the base verb, e.g. *aganim* 'put smth. on oneself' → *agucʿanem* 'put smth. on smb.' (and not 'make smb. put smth. on oneself'), cf. (6) above; see Shibatani and Pardeshi (2002: 116–122), Aikhenvald (2011: 93–97), and Bahrt (2021: 218–224) on the causative-applicative syncretism. The verbs of ingestion and change of possession, by contrast, constitute the core of the transitive verbs with synthetic causatives together with the aforementioned transitive experiential verbs of cognition and perception. Cross-linguistically, ingestive verbs belong to those transitive verbs that most often allow for causativization (see Aikhenvald 2011: 91–92; Nedyalkov and Silnitsky 1973: 16; Shibatani 2002: 6–7; Wichmann 2015: 171).

Examples (12)–(13) show that the CAUSEE is strongly affected and the autonomy of the underlying AGENT-like argument of the base verb is strongly reduced; its volitional efforts to fulfill the caused event are backgrounded, whereas the efforts of the CAUSER to bring about the event are foregrounded (see Shibatani [2002: 3] on affectedness in causatives). The causative semantics can perhaps be qualified as sociative rather than indirect in the case of synthetic causatives of agentive verbs (see Shibatani and Pardeshi [2002: 96–103] on the semantic type of sociative causation, which typically involves an agentive CAUSEE and a significant spatiotemporal overlap between the causing and caused sub-events, in contrast to the direct and indirect poles of the causation continuum).

The synthetic causative is rarely derived from lexical passives in Classical Armenian. In the biblical corpus, the clearest case is *snanim* intr. 'be brought up' (the first argument corresponding to an animate participant) → causative *snucʿanem* tr. 'bring up'; no transitive active base verb **snanem* is attested. Note that in this case the causing sub-event spans an extended period of time so that the spatiotemporal overlap between the causing and caused sub-events is not tight and the causative semantics can be qualified as indirect.

One of the phenomena related to the affectedness of the CAUSEE is the lexicalization of some frequently used synthetic causatives that results in their compatibility with patientive direct objects. Thus, for example, the subject of *iǰanem* intr. 'go down' typically corresponds to AGENT or UNDERGOER when the verb expresses the purposeful motion of an animate subject or the spontaneous motion of an inanimate subject, respectively. Both types of subjects are affected in the derived causative *iǰucʿanem* 'bring/put smb./smth. down', cf. (14). However, *iǰucʿanem* can also take inanimate patientive second arguments

such as 'cup' or 'bed' (15), which do not typically occur as subjects of the base motion verb. Such uses reveal the process of lexicalization and integration of the synthetic causative into the functional domain of transitive base verbs.

(14) *ov* ***ǐǰowscʿē*** *z=is* *y=erkir*
who go_down.CAUS.3SG DEF=I.ACC to=earth.ACC
'Who will **bring** me **down** to earth?'
(Obad. 1:3)

(15) ***ǐǰowcʿin*** *z=mahičs=n* *y=orowm* *kayr*
go_down.CAUS.AOR.3PL DEF=bed.ACC.PL=DET in=which.LOC stay.IMPF.3SG
andamaloyc=n
paralyzed=DET
'…they **lowered** the pallet on which the paralyzed man was lying.'
(Mk. 2:4)

In some cases, the synthetic causative undergoes even more far-reaching semantic shifts, cf. *matčʿim* 'approach' → causative *matucʿanem* 'offer' (< 'bring close'), *hatanem* 'cut' → causative *hatucʿanem* 'return' (< 'make separated from oneself').[5] The lexicalization of such synthetic causatives goes hand in hand with their high frequency of use. Thus, only one of the six synthetic causatives attested over 200 times in the Bible (*aprecʿucʿanem* 'save'), is typically used in a meaning that corresponds to the derivational semantics of the causative, see Table 6.[6]

Table 6: Top frequent synthetic causatives attested in the Bible.

Base verb	Synthetic causative	Frequency in the Bible
matčʿim intr. 'approach'	*matucʿanem* tr. 'offer smth.'	606
daṙnam intr. 'turn, return'	*darjucʿanem* tr. 'return smth.'	458
kam intr. 'stand'	*kacʿucʿanem* tr. 'assign smb.'	339
yaṙnem intr. 'rise'	*yarucʿanem* tr. 'raise smth./smb.'	269
aprim intr. 'escape'	*aprecʿucʿanem* tr. 'let smb. escape'	205
hatanem tr. 'cut'	*hatucʿanem* tr. 'return smth. to smb.'	203

5 Note that due to the semantic change, the morphological causative of *hatanem* 'cut' does not violate the constraint on the causativization of canonical agentive transitive verbs.

6 With respect to the Modern Eastern Armenian synthetic causatives, Megerdoomian (2004–2005) points out that the lexicalized (idiomatic) uses of the causative are characteristic of synthetic but not of analytic causatives, given that there is a closer relation between a verb and its internal argument in the former case. By contrast, the external arguments of the embedded clause of the analytic causative, the two predicates of which show a lesser degree of fusion, do not entail idiomatic readings. A similar pattern may be assumed for Classical Armenian.

3.2.3 Competing transitive base verbs and synthetic causatives

It is quite common to find competition between the transitive base verb and the synthetic causative corresponding to the same intransitive verb. In all such cases, the noncausal verb is intransitive, cf. noncausal mp. *tapalim* intr. 'fall off, collapse' (S – UNDERGOER) corresponding to causal active *tapalem* and causative *tapalec'uc'anem* 'roll aside'; mp. *t'axanjim* 'be(come) vexed' (S – EXPERIENCER) next to active *t'axanjem* and causative *t'axanjec'uc'anem* 'frighten'; mp. *xotorim* intr. 'depart' (S – AGENT) next to active *xotorem* and causative *xotorec'uc'anem* tr. 'make depart', cf. (12) and (16).

(16)	***xotoren***	*z=datastans*	*ałk'atac'*
	drive_away.3PL	DEF=justice.ACC.PL	poor.ABL.PL

'**they drive** justice away from the needy ones' (*ekklínontes krísin ptōkhō̃n*) (Is. 10:2)

According to Aṙak'elyan (2010: 166), this pattern reflects a free variation between the causatives and active forms of base verbs, conditioned by increasing productivity of the causative as a marker of transitivity. Note, however, that the oppositional voice is still a productive way of coding transitivity alternations, the active-passive alternation in particular in Classical Armenian. One may assume that the formal contrast between the two types of transitivity pairs concerns the semantics of causation. The AGENT-PATIENT role-frame associated with pairs containing the transitive base verb was in variation with the CAUSER-UNDERGOER, CAUSER-EXPERIENCER, and CAUSER-AGENT role-frames associated with pairs containing the synthetic causative. Both types could include one polysemous noncausal verb, which allowed for patientive as well as non-patientive readings. Thus, the PATIENT in (16) and the affected AGENT in (12) both correspond to the subject of a polysemous base verb *xotorim* intr. 'be driven away (of smth.)' and 'depart (of smb.)', respectively.

The same functional relation applies to suppletive pairs derived from different roots, cf. the lexical and synthetic causatives of *meṙanim* 'die', expressed by *spananem* and *meṙuc'anem*, respectively, cf. (17).

(17)	*ēin*	*meṙealk'=n*	*z=ors*	***meṙoyc'***	*Samp'son*	
	be.IMPF.3PL	dead=DET	DEF=which.ACC.PL	make_die.AOR.3SG	Samson	
	i	*mahu=n*	*iwrum*	*aṙawel*	*k'an*	*z=ors*
	in	death.LOC=DET	own.LOC	more	than	DEF=which.ACC.PL
	span	*i*	*kendanowt'ean*	*iwrum*		
	kill.AOR.3SG	in	life.GEN	own.LOC		

'the dead whom he **killed** at his death were more than those whom he **killed** during his lifetime.' (*hoùs* ***ethanátōsen*** *Sampsṓn en tō̧̃ thanátō̧ autoũ, pleíous hupèr hoùs* ***ethanátōsen*** *en tȩ̄̃ zōȩ̄̃ autoũ*) (Judg. 16:30)

In (17), the transitive verb refers to the enemies being killed by Samson through direct physical contact in battle (noncausal pair 'be killed'), while the synthetic causative describes Samson's making the Philistines die by causing the house of the gathering to collapse (noncausal pair 'die'). The semantic contrast is rather subtle given that the affected UNDERGOER expressed by the direct object of the synthetic causative is a close contextual synonym of the genuine PATIENT expressed by the direct object of the transitive base verb. Note that two different expressions correspond to the same verb form of *thanatóō* 'kill' in the parallel Greek passage and its English translation. In both cases, the causation is arguably direct, while the corresponding noncausal verbs belong to the costly and automatic anticausatives, respectively.

3.3 The analytic factitive

The factitive construction is built with the causal verb *aṙnem* 'make' + noun or adjective. The nominal part of the construction expresses the quality exerted by the CAUSER upon the CAUSEE. When the substantival part contains an adjective, the analytic predicate has the default transitive case-frame (Jensen 1959: 144), cf. (18). When a noun is used, the double accusative construction is applied, cf. (19).

(18) *Dow* ***lowsawor*** ***aṙnes*** *z=čṙag* *im*
you light make.2SG DEF=lamp.ACC my
'For you **light** my lamp…' (*hóti sù* ***phōtieĩs*** *lúkhnon mou*)
(Ps. 17:29 [= LXX *Ps.* 18:28])

(19) ***arar*** *z=mez* ***t'agawors***
make.AOR.3SG DEF=I.ACC.PL king.ACC.PL
*'He **made** us **into kings**…' (*kaì* ***epoiēsen*** *hēmãs* ***basileían***)
(Rev. 1:6)

The biblical evidence, including (19), shows that the factitive construction can be a calque of the underlying Greek construction *poiéō* 'make' plus the infinitive.[7]

The MAKE-factitive is a causal counterpart of the construction *em*/*linim* + noun or adjective, which expresses a state or a change-of-state event ('be/become X'). This pair of constructions typically expresses the causative-anticausative alternation. It is an analytic counterpart of the productive class of denominal/deadjectival anticausatives in *-ana-* and derived synthetic causatives, cf. Table 7. Unlike the anticausative *em*/*linim*-construction, anticausatives in *-ana-* typically express a dynamic process or the resulting change-of-state event ('become X').

7 See Gibson (2005) on the *poiéō*-construction.

Table 7: Morphosyntactic relations between synthetic and analytic expressions of inchoative and factitive predicates.

Base substantive	Derivation type	Anticausative	Causative
adj. *spitak* 'white'	Synthetic	*spitakanam*	*spitakacʻucʻanem*
	Analytic	*spitak linim*	*spitak aṙnem*
n. *tʻagawor* 'ruler'	Synthetic	*tʻagaworanam*	*tʻagaworacʻucʻanem*
	Analytic	*tʻagawor linim*	*tʻagawor aṙnem*

The grammatical contrast between the synthetic and analytic causative expressions may be assessed with respect to the aspectual properties of their noncausal pairs. In the synthetic causative there is a tight spatiotemporal overlap between the causing and caused sub-events, whereas the caused sub-event, expressed by the stative construction, typically persists after the causing sub-event is over.

3.4 The MAKE-causative

Among the dated early Classical Armenian texts, the MAKE-causative is attested only in the Bible. A list of attestations is given in Table 8. All of these attestations except Lk. 14:23 in (20) translate the Greek causative *poiéō*-construction. In the biblical corpus, one finds the MAKE-causative derived from anticausatives (*patahim* 'happen' and *orsord linim* 'become a hunter') and agentive intransitives (activity verb *mełančʻem* 'sin', motion verbs *mtanem* 'enter' and *xotorem* 'depart').

(20) *El* *i* *čanaparhs* *ew* *i* *cʻangs* *ew* ***ara***
go_out.IMP to road.ACC.PL and to hedge.ACC.PL and make.IMP
aysr ***mtanel***
here enter.INF
'Go out into the roads and the hedges and **urge them to come in**…' (*éxelthe eis tàs hodoùs kaì phragmoùs kaì* ***anánkason eiseltheĩn***)
(Lk. 14:23)

Table 8: Attestations of the *aṙnem*-causative in the Armenian Bible.

Base verb	MAKE-causative
mełančʻem intr. 'sin'	Is. 29:21
mtanem intr. 'enter'	Lk. 14:23; Job 14:3
orsord linim intr. 'become a hunter'	Mk. 1:17
patahim intr. 'happen'	Jer. 32:23
xotorem intr. 'depart'	Prov. 14:27

(21) *El valvałaki i hraparaks ew i p'ołoc's k'ałak'i=d*
go_out.IMP at_once to square.ACC.PL and to street.ACC.PL city.GEN=2DET
*ew z=ałk'ats … **moyc** aysr*
and DEF=poor.ACC.PL bring_in.IMP here
'Go out at once into the streets and lanes of the city and **bring in** here those who are poor…' (*éxelthe takhéōs eis tàs plateías kaì rhúmas tẽs póleōs, kaì toùs ptōkhoùs … **eiságage** hõde*)
(Lk. 14:21)

Given the limited evidence, it is not clear whether the MAKE-causative is a genuine grammatical phenomenon of Classical Armenian or simply mimics the Greek original. For example, Lk. 14:21 and Lk. 14:23, cf. (21) and (20), respectively, describe two successive orders to fill the house with strangers given by a landlord to a servant. While the first order is expressed by the imperative of *eiságō* in Greek and the synthetic causative in Armenian, the second order is expressed by *anankázō eiseltheĩn* in Greek and the analytic causative in Armenian. The Armenian text may have been adjusted to the Greek in the use of a simplex and an analytic expression, respectively. However, the choice of a generic light verb *aṙnem* to translate *anankázō* reveals a certain degree of independence of the Armenian construction.

Another indication of the independence of the Armenian MAKE-causative from the Greek text is the case assignment. In the Greek *poiéō*-construction, the CAUSEE is invariably coded by the accusative, reflecting the default case-frame of *poiéō*. In the Armenian translations, however, one finds a split between the coding of the CAUSEE with the accusative and the dative. Meager as it is, the evidence points to a distribution between accusative coding of the CAUSEE with a causative of an anticausative (*orsord linim* 'become a hunter' in Mk. 1:17, *patahem* 'happen' in Jer. 32:23) as opposed to dative coding with a causative of an agentive intransitive base verb (*mełanč'em* 'sin' in Is. 29:21; *mtanem* 'enter' in Job 14:3), cf. (22) and (23).

(22) ***ararin patahel** iwreanc' amenayn č'areac'=s aysoc'ik*
make.AOR.3PL happen.INF oneself.DAT.PL all.ACC bad.ABL.PL=DET this.ABL.PL
'they **made** all of these bad things **happen** to themselves' (LXX, Jer. 39, 23: kaì **epoíēsas sumbẽnai** autoĩs pánta tà kakà taũta)
(Jer. 32:23)

(23) *nma **ararer** **mtanel** i datastan aṙajï k'o.*
he.DAT make.AOR.2SG enter.INF to judgement.ACC before you.GEN
'You **made** him **enter** into judgement before you.' (toũton **epoíēsas eiseltheĩn** en krímati enṓpión sou)
(Job 14:3 [Cox 2006: 118])

The distinctive features of the Classical Armenian MAKE-causative may be tentatively explained as a blend of the genuine GIVE-causative with the dative coding of the CAUSEE (see Section 3.5) and a calque of the *poiéō*-construction. Independent uses like the one in Lk. 14:23 would then witness a marginal spread of the construction to translate Greek analytic expressions other than the *poiéō*-causative. Even if the MAKE-causative is the result of language interference, it should still be considered part of the Classical Armenian causative continuum given that its rise was not suppressed by a much more productive synthetic causative and the GIVE-causative.

3.5 The GIVE-causative

The GIVE-causative is moderately productive and is well attested both in the early translations from Greek and in the original early Classical Armenian texts. Some 64 verbs are found with the GIVE-causative in the Bible, Eznik's *De Deo* and Agat'angełos' *History of the Armenians* (see the supplementary material at https://doi.org/10.5281/zenodo.7756976). In the Bible, the GIVE-causatives of 13 verbs always translate the corresponding Greek construction of *dídōmi* 'give' plus the infinitive; such cases can be considered translation calques.[8] Altogether, the large proportion of independent uses shows that the construction may well belong to genuine Classical Armenian grammar unless one assumes that it had originated in the Bible translation as a calque from Greek and spread to non-translated literary texts to express predicates which would have otherwise been expressed by synthetic causatives.

3.5.1 Formal properties

The GIVE-causative is typically construed with the default ditransitive case-frame, cf. (24). In the GIVE-causative of anticausatives, however, the CAUSEE can be coded by the accusative, cf. (25). The CAUSEE is often omitted in the GIVE-causative when derived from ditransitive verbs, in particular *berem* 'bring', cf. (26). The omission of the CAUSEE is characteristic of indirect causation, in which the affectedness of the AFFECTEE is foregrounded (Kemmer and Verhagen 1994: 130–136).

8 Curiously, 29 out of the 110 biblical attestations (ca. 26%) of the GIVE-causative are found in the Books of the Maccabees. Only one of these attestations translates the Greek *dídōmi*-construction. This distributional anomaly can point to an idiosyncratic feature of the translator of these particular books or to a post-classical phenomenon related to the transmission of the books. Further research is required in the light of the critical edition of Maccabees (Amalyan 1996) where four text groups are established, three of which, according to Amalyan, were translated from three different foreign sources.

(24) ***tayr*** *hroy* ***iǰanel*** *y=erknicʿ* *y=erkir* ….
give.IMPF.3SG fire.DAT go_down.INF from=sky.ABL.PL to=earth.ACC
'he **makes** fire **come down** out of the sky to the earth' (*hína kaì pũr* ***poiḗ*** *ek toũ ouranoũ* ***katabaínein*** *eis tèn gẽn*)
(Rev. 13:13)

(25) *tal* *z=Hogi=n* *Astucoy* ***bnakel*** *i* *sirts* *mardkan*
give.INF DEF=spirit=DET God.GEN dwell.INF in heart.LOC people.GEN
'**to make** the Spirit of God **dwell** in men's hearts…'
(Yuzbashyan and Muradyan 2003: 1632–1633 [§690])

(26) ***tur*** ***berel*** *inj* *pʿayts* *i* *Libananē*
give.IMP carry.INF I.DAT wood.ACC.PL from Lebanon.ABL
'**send** me … timber from Lebanon … ' (*kaì* ***apósteilón*** *moi xúla … ek toũ Libánou*)
(2Chron. 2:8)

3.5.2 Lexico-syntactic properties

The attestations of the GIVE-causative in the Bible, Eznik's *De Deo* (Mariès and Mercier 1959) and Agatʿangełos' *History of the Armenians* (Yuzbashyan and Muradyan 2003) include cases of the causation of anticausative, experiential, and agentive verbs, cf. Table 9.

The table shows that the causativization of transitive agentive verbs constitutes the main lexico-syntactic prototype of the GIVE-causative, in sharp contrast to the synthetic causative described in Section 3.2. A closer look at the evidence allows one to identify the core of that prototype. Only ten verbs have analytic causatives that are attested more than once. Among these, two lexical groups are best attested in the biblical corpus: a) verbs of dislocation: *tanim* tr. 'carry away' (22×), *berem* tr. 'bring' (12×) and *acem* tr. 'drive' (9×); b) ingestive verbs: *əmpem* tr. 'drink' (22×) and *utem* tr. 'eat' (13×).

Table 9: Type frequency of the GIVE-causative in the Bible, Eznik's *De Deo* and Agatʿangełos' *History of the Armenians*.

Semantic role of the 1st argument	Transitivity	
	Intransitive	Transitive
UNDERGOER	6	–
EXPERIENCER	2	4
AGENT	17	34

The verbs of the first group are particularly prominent. Their analytic causatives consistently translate Greek simplex verbs and never the *dídōmi*-construction in the Bible. None of them is attested in the form of a synthetic causative. *Tanim* and *acem* typically have a volitional direct object (corresponding to the AFFECTEE of the derived causative) and can be viewed as lexical causatives corresponding to agentive intransitive verbs of motion. The direct object of *berem* 'bring', by contrast, is typically non-volitional.

All of the verbs of this group are three-argument transitive verbs with a TARGET/SOURCE argument. The GIVE-causative of such verbs may reflect a constraint on forming synthetic causatives from three-argument transitive verbs. A comparable explanation may be suggested for the occasional GIVE-causative derived from other three-argument verbs of dislocation and change of possession including *aṙnum* 'get' (Agatʻangełos §179; Eznik §23), *dnem* 'put' (Agatʻangełos §109), *ənkenum* 'cast' (Agatʻangełos §136), *hanem* 'drag' (Agatʻangełos §206), *kaxem* 'hang' (Agatʻangełos §69) and *tałem* 'burry' (Rev. 11:9).

The evidence of the ingestive verbs *utem* and *əmpem* is somewhat ambiguous. It is not always easy to decide whether *tam* is used as a lexical verb followed by the infinitive of purpose or as the light verb of the causative construction, cf. (27).

(27)	*z=ayn*	***et***	*jez*	***utel***
	DEF=that	give.AOR.3SG	you.DAT	eat.INF

(*toũto **édōken** humĩn **phageĩn***)
a. '**gave** it to you **to eat**' (biclausal reading)
b. '**made/let** you **eat** it' (causative/permissive reading)
(Lev. 10:17)

Moreover, the GIVE-causative of *utem* always translates the Greek *dídōmi*-construction in the Bible except for *Rev.* 2:17, where *tam* translates *dídōmi* without a dependent infinitive, cf. (28). By contrast, the GIVE-causative of *əmpem* mostly translates the Greek lexical causative *potízein* 'give to drink' and cannot be considered a calque; cf. also the GIVE-causative of *klanem* 'swallow' (Eznik §23) within the same lexical group.

(28)	***tacʻ***	*nma*	***utel***	*i*	*mananayē=n*	*tʻakʻucʻeloy*
	give.AOR_SBJ.1SG	he.DAT	eat.INF	from	manna.ABL=DET	hide.PTCP.ABL

'I **will let/give** him (to) **eat** some of the hidden manna…'
(***dṓsō*** *autῷ toũ mánna toũ kekrumménou*)
(Rev. 2:17)

The GIVE-causative of the remaining 29 transitive verbs is attested more than once only for five verbs (*pahem* 'guard' 3×, *gorcem* 'work' 2×, *mełančʻem* 'do wrong' 2×, *xawsim* 'say' 5×, *yałtʻem* 'overcome' 2×), all of which denote activities and can easily

be construed as agentive intransitives under antipassivization. Six more hapax GIVE-causatives translate the Greek *dídōmi*-construction and are derived from the following verbs: *grem* 'write', *hatucʿanem* 'return', *mucʿanem* 'bring', *spananem* 'kill', *žaṙangem* 'inherit', *zgenum* 'put on'. It remains unclear whether the GIVE-causatives of any of these verbs could be licensed by genuine Classical Armenian grammar when not influenced by the Greek text. While *hatucʿanem* 'return', *mucʿanem* 'bring', *žaṙangem* 'inherit' can be attributed to the lexical group of three-argument verbs of dislocation and change of possession for which the GIVE-causative may be expected, the GIVE-construction with canonical agentive transitive *spananem* (*1Kings* 24:8) translates the Greek *poiéō*-construction and has a clear permissive reading. The remaining 11 hapaxes constitute evidence for the use of the GIVE-causative in the domain of agentive transitive verbs beyond the aforementioned semantic prototypes, including *anuanem* 'name', *aṙnem* 'make', *banam* 'open', *čarčarem* 'torment', *kapem* 'bind', *kardam* 'read aloud', *koxem* 'trample on', *norogem* 'renew', *pndem* 'fasten', *šinem* 'build' and *taracanem* 'spread'.

The GIVE-causative of only two agentive intransitives is attested more than once in the examined texts: *ancʿanem* 'pass by' and *nstim* 'sit down' (the occurrence of *barbaṙem* in Agatʿangełos §499 is a textual borrowing from Acts 2:4, so the latter context must be classified as a hapax). Of these, both occurrences of the causative of *nstim* and two out of three occurrences of the causative of *ancʿanem* translate the Greek *dídōmi*-construction. Four other hapax GIVE-causatives of agentive intransitives translate the *dídōmi*-construction: *caṙayem* 'serve', *jagem* 'satiate oneself', *paterazmim* 'fight' and *yaṙnem* 'rise up'. The remaining nine hapaxes constitute evidence for the use of the GIVE-causative in the domain of agentive intransitives: *bnakem* 'dwell', *čašakem* 'dine', *dadarem* 'stop', *daṙnam* 'turn', *dlam* 'stop', *erkir paganem* 'worship', *hangčʿim* 'repose', *mtanem* 'enter', *šnam* 'commit adultery' and *veranam* 'go up'.

The GIVE-causative is rarely derived from non-agentive verbs. In the examined sources, it is attested for only six experiential verbs, including four transitive ones: *arhamarhem* 'disdain' (emotion; Sir. 17:12), *aṙnum* 'perceive' (cognition; Agatʿangełos §179), *gitem* 'know' (cognition; Ezra 4:16) and *tesanem* 'see' (perception; Tob. 10:13),[9] cf. (29); and two intransitive ones: *lsem* 'listen to' (perception) and *hamberem* 'wait for' (cognition), cf. (30). Of these, only the analytic causative of *tesanem* in (29) translates the Greek *dídōmi*-construction and may be a calque.

9 To be sure, Job 31:35 contains the use of *tam* in the direct meaning 'give' with a gerundive *lsel* 'a hearing' in the accusative: *O tacʿē inj lsel.* 'Who might grant me a hearing?' (τίς δῴη ἀκούοντά μου) (Cox 2006: 204, 338f.).

(29) ***tacʿē*** ***tesanel*** *inj* *zawaki*
give.AOR_SBJ.3SG see.INF I.DAT child.GEN
'…**grant** that I **may see** thy children…' (***dǫ́ē*** *moi* ***ideĩn*** *sou paidía ek Sarrhas tẽs thugatrós mou*)
(Tob. 10:13)

(30) *tʿe* *caṙay* *or* *ənd* *unkn* *očʿ* *lsē* *ənd*
if servant who with ear.ACC not hear.3SG with
mkanuns ***tan*** ***lsel*** *nma*
back.ACC.PL give.3PL hear.INF he.DAT
'…the slave who has not heard with his ear, they **let** him **hear** with his back.'
(Mariès and Mercier 1959, §59[10])

Finally, the GIVE-causative is marginally attested for predicates describing spontaneous events occurring to inanimate subjects, typically natural phenomena: *cagem* 'radiate (of light)' (Agatʿangełos §566), *dołam* 'tremble (of earth)' (Ps. 103:32), *iǰanem* 'go down (of fire)' (Rev. 13:13), cf. (24), where the Armenian GIVE-causative corresponds to the *poiéō*- and not the *dídōmi*-construction.

Furthermore, the GIVE-causative can be derived from stative/inchoative quality predicates with animate subjects, cf. *aržani linel* 'become worthy' (Agatʿangełos §431), *xotačarak linel* 'become herbivore' (Agatʿangełos §179), and *yaytni linel* 'become evident' (Acts 10:40). Although the Armenian causative translates the *dídōmi*-construction in (31), the CAUSEE is coded by the dative in translation, against the accusative in the Greek original. Moreover, the abovementioned contexts from Agatʿangełos (§§179, 431) show that such a complex analytic construction was grammatical in Classical Armenian.

(31) *Z=na* *Astuac* *yaroycʿ* *y=errord* *awur* *ew* ***et***
DEF=he.ACC God make_rise.AOR.3SG in=third day.LOC and give.AOR.3SG
nma ***yaytni*** ***linel***
he.DAT visible be.INF
'God raised Him up on the third day and **granted** that He **be revealed**…'
(*toũton ho theòs égeiren [en] tḛ̃ trítę̰ hēméra̧ kaì* ***édōken*** *autòn emphanẽ* ***genésthai***)
(Acts 10:40)

10 According to Conybeare et al. (1913: 175), this passage is a borrowing from the Armenian translation of the Story of Akhikar. Conybeare's edition of the text reads the passage as follows: … *or ənd akanǰn očʿ lsē ənd tʿikunsn* ***lsecʿucʿanen***. '…him that with his ears heareth not, they **make** to **hear** through his back.' (p. 229, trans. p. 51). Although Conybeare's edition does not represent the most conservative text version, the use of the morphological causative is confirmed by parallel passages from all five versions selected as representative of the existing text groups in Martirosyan 1969 (see pp. 119, 168, 212, 264). When the age and direction of textual borrowing allows it, one might argue that the mismatch in causative expressions represents the morphosyntactic variation characteristic of early Classical Armenian literature.

The permissive semantics of the GIVE-causative is foregrounded in negated contexts. The negation cancels the predication expressing the CAUSER's control over the causing sub-event. The permissive use licenses the application of the construction to verbs that typically express causation with the help of the morphological causative. Thus, the GIVE-causative of *daṙnam* 'return' is found only once in a negated context (32) as opposed to over 450 attestations of the morphological causative of *daṙnam* in the Bible.

(32) *Sawuł … **oč‘ et nma daṙnal** i tun hawr iwroy*
Saul not give.AOR.3SG he.DAT return.INF to home.ACC father.GEN his.GEN
'Saul … **did not let** him **return** to his father's house.'
(1Kings 18:2)

Although the permissive semantics of negated GIVE-constructions is most clear with volitional CAUSEEs, it also may provide an explanation of the construction with a non-volitional CAUSEE, cf. (33), where it competes with the synthetic causative. The standard translations of the passage in (33) (see Mariès and Mercier 1959: 650; Blanchard and Young 1998: 166), account for the formal difference in the causative expressions by rendering the analytic causative with a permissive modal verb ("jamais ils ne permettraient", 'it would not be allowed').

(33) *et‘ē iwrak‘anč‘iwr ok‘ i noc‘anē **iǰuc‘anel** karēr*
if each who fromhe.ABL.PL make_descend.INF can.IMPF.3SG
*z=na oč‘ erbēk‘ **tayin** nma **elanel** y=erkins*
DEF=he.ACC not ever give.IMPF.3PL it.DAT go_up.INF to=sky.ACC.PL
'If each one of them [magicians] were able **to make** it **descend**, it would never **be allowed to ascend** to the heavens.' (trans. Blanchard and Young 1998: 166).
(Mariès and Mercier 1959, §316)

3.5.3 Competing synthetic and analytic causatives

Synthetic and analytic causatives derived from the same base verb are attested for 13 out of 63 verbs with the GIVE-causative attested in the Armenian Bible translation; see the supplementary material at https://doi.org/10.5281/zenodo.7756976. All these verbs are agentive, both intransitive and transitive. Except for the case of *čašakel*, the synthetic causative has a significantly higher text frequency, see Table 10.

In six of the cases, mentioned in Table 10, some attestations of the GIVE-causative always translate the Greek *dídōmi*-construction and may be translation calques. However, the availability of the *dídōmi*-construction does not guarantee that the analytic causative of the Armenian translation is a calque. For example, the well attested synthetic causative of *zgenum* 'put smth. on oneself' codes an applicative alternation resulting in the meaning 'put smth. on smb.' (see Section 3.2). By contrast, the only biblical attestation of the GIVE-causative expresses the causative alternation that introduces an external AGENT and yields the indirect causative meaning 'make/let one put smth. on oneself', cf. (34). Here the use of the analytic causative is functionally motivated and need not be a calque.

(34) *Ew* ***tuaw*** *nma* ***zgenul*** *behezs* *spitaks* *surbs* …
and give.AOR.3SG she.DAT clothe.INF byssus.ACC.PL white.ACC.PL pure.ACC.PL
'It **was given** to her **to clothe** herself in fine linen' (*kaì* ***edóthē*** *autḕ hína* ***peribálētai*** *bússinon lampròn katharón*)
(Rev. 19:8)

In other cases, the two causatives primarily express the contrast between direct and indirect causation, cf. (35) and (36), where the two causatives of *veranam* 'go up' describe a direct impact fully controlled by the CAUSER and indirect causation involving the communicative effort of the CAUSER.

Table 10: Text frequency of contrasting synthetic and analytic causatives in the Bible (the shaded cells correspond to contexts that translate the Greek *dídōmi*-construction).

Base verb	Text frequency of causatives		
	Synthetic	Analytic	Analytic causative translates *dídōmi*-construction in the Greek text
anc'anel 'pass by'	69	3	2 (Num. 21:23; 2Chron. 20:10)
bnakel 'dwell'	49	1	
caṙayel 'serve'	11	1	1 (Lev. 18:21)
čašakel 'dine'	1	1	
dadarel 'stop'	15	1	
daṙnal 'return'	503	1	
hangč'el 'repose'	45	1	
jagel 'satiate oneself'	22	1	1 (Job. 31:31)
nstel 'sit down'	39	2	2 (1Kings 3:6; Rev. 3:21)
veranal 'go up'	35	1	
yaṙnel 'rise up'	156	1	1 (1Sam. 24:8)
žaṙangel 'inherit'	27	1	1 (Deut. 9:6)
zgenul 'put on'	59	1	1 (Rev. 19:8)

(35) ***verac'oyc'*** *z=is* *Ogi*
make_ascend.AOR.3SG DEF=I.ACC spirit
'then the spirit **took** me **up**'
(Ezek. 3:12)

(36) *amenayn azgac'* ***etun*** ***veranal*** *aṙ_hasarak y=ark'ayut'iwn=n*
all race.DAT.PL give.AOR.3PL go_up.INF together to=kingdom.ACC=DET
'they [prophets] **enabled** all races **to rise** together to the kingdom'
(Thomson 1970: 167)
(Yuzbashyan and Muradyan 2003: 1623 [§672])

In (37) and (38), both the synthetic and the analytic causative of *əmpem* 'drink' translate Greek *potízein* 'give to drink' and are used in parallel contexts. This case shows that the direct and indirect interpretation of the causation depends on context and may be orthogonal to the semantic type of a predicate.

(37) ***arbusc'ē*** *knoǰ=n* *z=ǰur=n*
make_drink.AOR_SBJ.3SG woman.DAT=DET DEF=water.ACC=DET
'…he **shall make** the woman **drink** the water.' (***potieĩ*** *tèn gunaĩka tò húdōr*)
(Num. 5:26)

(38) ***tac'ē*** ***əmpel*** *knoǰ=n* *z=ǰur=n*
give.AOR_SBJ.3SG drink.INF woman.DAT=DET DEF=water.ACC=DET
'he **shall make** the woman **drink** the water…' (***potieĩ*** *tèn gunaĩka tò húdōr*)
(Num. 5:24)

The difference between the causative meanings expressed by the synthetic and analytic causatives therefore cannot be reduced to the semantic properties of the first argument of the noncausal verb but also concerns the semantic features of the corresponding CAUSEE of the causal verb (Aikhenvald 2011: 97–100; Dixon 2000: 62–74).

With respect to the evidence reviewed here, one may suggest that the preferential use of the GIVE-causative with verbs of dislocation and ingestion reflects an early stage in the grammaticalization of the construction that had moderately extended beyond its semantic prototype to the domains of agentive transitives as well as agentive and non-agentive intransitives in order of decreasing productivity.[11] This grammaticalization process seems to have been largely independent of the influence of the Greek *dídōmi*-construction.

11 According to Megerdoomian (2004–2005), the Modern Eastern Armenian GIVE-causative has passed beyond the lexical restrictions that one observes in Classical Armenian insofar as the limited revised evidence of the latter allows one to judge.

4 The causative continuum of Classical Armenian

The formal and semantic parameters allow us to arrange the five Classical Armenian formations, described in Section 3, in a causative continuum as summarized in Table 11. The formal types are arranged according to their morphosyntactic complexity (lexical < synthetic < analytic), case coding of the CAUSEE (accusative < dative), and productivity (as reflected in the type frequency in the study corpus). The MAKE-factitive is placed between the synthetic and analytic causatives because while being an analytic construction, it contains less dedicated verbal morphology (adjective/noun as opposed to the infinitive of the analytic causatives) and its CAUSEE is never coded by the dative. The synthetic and analytic causatives with a lower type frequency, as attested in the study corpus, are located to the left of those with the higher type frequency.

The lexical causative typically expresses direct causation with the full control of the CAUSER and a strongly affected CAUSEE. This type formally overlaps with the type expressing transitive verbs, and their passive alternation yields a cross-linguistically common passive-anticausative syncretic pattern (see Bahrt 2021: 81–82). This most compact expression of causativity corresponds to noncausal verbs with patientive and costly anticausative meanings. A few suppletive pairs with lexical causatives and base verbs of the semantic types higher on the spontaneity scale (like *tesanem* 'see'/*c'uc'anem* 'show') are exceptional and constitute only very marginal counter-evidence against Haspelmath's Universal 1, see below.

Table 11: Formal and semantic features of the Classical Armenian causatives.

Formal type of the causative								
Noncausal	Lexical caus.	Synthetic *-oyz-*, *-oys-*	*-oyc'-*	Analytic MAKE-fact.	MAKE-caus.		GIVE-caus.	
Case coding of the CAUSEE								
NOM.	ACC.	ACC.	ACC.	ACC.	ACC.	DAT.	ACC.	DAT.
1st arg. of the noncausal verb/2nd arg. of the causal verb								
P (intr)	P		[P]					
U (intr)	P	[P]	P_U	P_U	[U_P]		[U_P]	[U_P]
E (intr)	[P]		P_E					[E_P]
E (tr)	[P]		P_E					[E_P]
A (intr)	[P]		P_A			[A_P]		A_P
A (tr)			[P_A]					A_P

P, PATIENT; U, UNDERGOER, E, EXPERIENCER, A, AGENT; the subscript letters indicate background properties of semantic roles accompanying the causativization. The types in square brackets are attested for less than 10 lexical items in the study corpus.

The synthetic causative is the default way to causativize intransitive verbs, the first argument of which is characterized by a certain degree of autonomy (the subject of automatic anticausatives, experiential and agentive verbs; only a few lexical passives have synthetic causatives). Depending on the semantic class of the base verb and its contextual readings, the synthetic causative typically expresses direct or sociative causation. Classical Armenian allows the causativization of a small group of transitive verbs of cognition and verbs with an affected AGENT-like participant. Synthetic causatives are not derived from canonical transitive and ditransitive base verbs. The first argument of noncausal verbs is strongly affected under causativization, and the contrast between the semantic roles of noncausal verb is largely neutralized. The strong degree of affectedness of the CAUSEE is the starting point for the secondary extension of the lexical compatibility of synthetic causatives to canonical patientive direct objects and the lexicalization of causatives to verbal forms with regular transitive semantics.

A few causatives in *-oyz-* and *-oys-*, being unproductive types, take an intermediate position between lexical and synthetic causatives. They constitute the periphery of overt causative coding. When not lexicalized, they are derived from anticausatives and express the direct causation (verbs of destruction) typical of lexical and synthetic causatives centered on the patientive and costly anticausative semantic types, on the one hand, and the automatic anticausative type, on the other hand.

The argument features of the MAKE-factitive overlap with those of the lexical and synthetic causatives paired with anticausatives. Their relatively more complex form correlates with the aspectual difference that implies less spatiotemporal overlap between the causing and caused sub-events of the causative situation (cf. Haiman 1985: 110). Note that the degree of morphosyntactic complexity of the MAKE-factitive in Classical Armenian contradicts the model suggested by Lehmann (2016: 926–927), according to which causatives derived from adjectives tend to be lower on the causation continuum than causatives of anticausatives.

The analytic causatives express sociative and indirect causation of agentive transitive verbs of dislocation and ingestion, less consistently of agentive intransitives and rarely of experiential and anticausative verbs. The marginal extension of the construction to the last semantic type can be partly accounted for by the influence of the *dídōmi*-construction in the Bible, especially when one is dealing with unique occurrences of the analytic causative. Nonetheless, the use of analytic causatives to express the causative-anticausative alternation can be considered as a genuine Classical Armenian phenomenon in a relatively high number of contexts, in particular with anticausatives expressing natural phenomena. The GIVE-causative is not fully grammaticalized; it has a limited lexical distribution and coincides with the infinitival construction with *tam* ‘give’ expressing purpose. It is often difficult to

distinguish between the causative and permissive readings of the GIVE-causative. In causative uses, the first argument of the noncausal verb is not strongly affected and the CAUSEE retains the semantic features of the subject of the noncausal verb.

The grammatical status of the MAKE-causative is controversial given that it predominantly translates the Greek *poiéō*-construction and is not found in early non-translated early classical texts. The MAKE-causative of anticausatives and agentive intransitives expresses sociative or indirect causation. Altogether, the relatively stronger and weaker degree of the CAUSER's control may be correlated with the coding of the CAUSEE by the accusative and dative case, respectively; in support of this semantic approach, see Dixon (2000: 45–59), Kemmer and Verhagen (1994), Kulikov (2001: 890).

None of the examined causatives is productively derived from canonical transitive agentive verbs like 'break', 'hit', or 'kill'. The causation of such predicates requires a polypredicative construction in Classical Armenian.

The semantic prototypes of the reviewed causative expressions generally agree with the cross-linguistically common tendency to express events with a higher degree of autonomy of the CAUSEE (or more indirect causative meanings) using more complex coding. The complexity of coding concerns morphosyntactic parameters such as the grammatical autonomy and linguistic distance between the morphological constituents expressing the causing and caused sub-events (see Dixon 2000: 74–78; Haiman 1985: 105), rather than the length of the causatives in terms of formal segments (Haspelmath 2008: 22–24, 2016: 54–55; Levshina 2016). In particular, the relative length of the Classical Armenian causatives shows systematic deviations from an expected coding of indirect causation with longer markers; cf. the 3rd singular forms in the present and aorist in Tables 12 and 13 (where the relative position of the MAKE-factitive is established with respect to the synthetic causative derived from denominal anticausative verbs).

The relative length of the 3rd person singular forms in Tables 12 and 13 depends on the type of the aorist stem from which the synthetic causative is derived. In verbs

Table 12: Relative length of the causatives of *mtanem* 'enter' and *bnakem* 'dwell' (number of phonemes given in brackets).

	Present 3sg.		**Aorist 3sg.**	
Noncausal	*mtanē* (5)	*bnakē* (5)	*emut* (4)	*bnakeacʻ* (7)
Lexical causative	*mucanē* (6)	–	*emoycʻ* (5)	–
Synthetic causative	*mtucʻanē* (7)	*bnakecʻucʻanē* (11)	*mtoycʻ* (5)	*bnakecʻoycʻ* (9)
GIVE-causative	*mtanel tay* (9)	*bnakel tay* (9)	*mtanel et* (8)	*bnakel et* (8)
MAKE-causative	*mtanel aṙnē* (10)	–	*mtanel arar* (10)	–

Table 13: Relative length of the synthetic causative and MAKE-factitive.

	Adjective	Present	Aorist
base adjective	*spitak* 'white' (6)		
analytic anticausative		*spitak ē* (7)	*spitak ełew* (10)
MAKE-factitive		*spitak aṙnē* (10)	*spitak arar* (10)
synthetic anticausative		*spitakanay* (10)	*spitakac'aw* (10)
synthetic causative		*spitakac'uc'anē* (13)	*spitakac'oyc'* (11)

with a root aorist, the length corresponds to the scale of morphosyntactic complexity (lexical > synthetic > analytic) and rather neatly correlates with the direct-indirect causation continuum. However, the GIVE-causative is shorter than the synthetic causative in by far the most productive Classical Armenian verb class characterized by an aorist stem in *-ec'-*, as illustrated by the causatives of *bnakem* 'dwell'. Furthermore, the MAKE-causative is phonologically longer than the GIVE-causative but, unlike the latter, is not attested for agentive transitive verbs and thus should take a relatively lower position in the causation continuum.[12]

The relative position of the three formal types of synthetic causative and the two types of analytic causative, indicated in Table 11, supports the generalization proposed by Shibatani and Pardeshi (2002: 109–116) according to which the position of a formation on the causation continuum depends on its relative productivity. The unproductive causatives in *-oys-* and *-oyz-* are derived from costly anticausatives, while the productive type in *-oyc'-* is typically derived from automatic anticausatives and predicates higher on the spontaneity scale. Furthermore, the less productive MAKE-causative is derived from a narrower range of semantic types that the more productive GIVE-causative. Note however that the synthetic causative is more productive than the analytic constructions, although the latter are more typical for the expression of indirect causation, contrary to Shibatani and Pardeshi's (2002: 112) generalization on the correlation between indirect causation and productivity.

The Classical Armenian causative continuum shows a significant correspondence between morphosyntactic complexity and semantic type of the base verb. Many of the universals suggested by Haspelmath (2016) hold true, see Table 14. Thus,

12 The lack of robust correspondence between semantic type of causation and formal length does not undermine the role of frequency of use (see Haspelmath 2008), only that frequency seems to correlate with morphosyntactic complexity rather than with segmental length, cf. the biblical occurrences of *mtanem* 'come in' 1256×: *mucanem* 45×: *mtanel tam* 1×, and *anc'anem* 'pass by' 693×: *anc'uc'anem* 59×: *anc'anel tam* 3× (based on www.arak29.org). In both cases, the text frequency decreases with the increase of morphosyntactic complexity and indirectedness of causation.

Universals 3, 7, 9 (Haspelmath 2016: 49) and 10 uncontroversially apply to Classical Armenian. Other universals may apply with modifications. Thus, Universal 9 (Haspelmath 2016: 46) fails to predict the derivation of the synthetic causative from agentive intransitive ("unergative") base verbs next to the more complex GIVE-causative derived from agentive intransitive and transitive base verbs. One of the two universals that refer to syntactic transitivity (Universal 6) also works for Classical Armenian.

However, given that different formal types of causatives, characterized by varying degrees of affectedness of the CAUSEE, can be derived from the same semantic types, the Classical Armenian facts do not support the main generalization, Universal 1, and its special case, Universal 4. Thus, for example, the expectation that if a synthetic causative is used with base verbs of agentive intransitives, analytic causatives will not be required with anticausatives lower on the spontaneity scale, is not fulfilled. Universal 8 also does not apply to Classical Armenian because it

Table 14: Universals of causative verb formation (Haspelmath 2016).

Universals referring to the semantic type of the base verb		**CArm.**
Universal 1	The higher the noncausal meaning of a causal-noncausal pair is on the spontaneity scale, the longer and the more analytic any causative marker on the causal verb form will be.	–
Universal 3	If an analytic causative can be used with base verbs of some type, it can be used with base verbs of all types higher on the spontaneity scale.	+
Universal 4	If a synthetic causative can be used with base verbs of some type, analytic causatives will not be required with base verbs lower on the spontaneity scale.	–
Universal 7	If a language has synthetic causatives based on unergative verbs, it also has synthetic causal verbs corresponding to unaccusative noncausal verbs.	+
Universal 9 (p. 46)	If a language has several causative markers of different lengths, then the longer markers tend to be used with unergative bases, and the shorter markers tend to be used with unaccusative bases.	±
Universal 9 (p. 49)	If a language generally has causatives of costly base verbs, then it also generally has causatives of automatic verbs (and all base verbs higher on the spontaneity scale).	+
Universal 10	If a language has causatives of any kind of base verb, then it also has causatives of all base verb types higher on the spontaneity scale.	+
Universals referring to syntactic transitivity		
Universal 6	If a language has synthetic causatives of transitive verbs, it also has synthetic causatives of intransitive verbs.	+
Universal 8	If a language has several causative markers of different lengths, then the longer markers tend to be used with transitive bases, and the shorter markers tend to be used with intransitive bases.	–

is formulated with respect to the length and not morphosyntactic complexity of causatives. As mentioned above (see Tables 12 and 13), the GIVE-causative that is typically used with transitive base verbs is phonologically shorter than the synthetic causative.

5 Conclusions

The present paper has offered a description of the lexical distribution and grammatical features of the five expressions of causativity in Classical Armenian, including the lexical and synthetic causative and three analytic constructions with the verbs *aṙnem* 'make' and *tam* 'give'. The study shows that the morphosyntactic complexity of the causative formations partly correlates with a continuum of lexico-syntactic types of predicates, with the autonomy of the first argument increasing from patientive intransitives to agentive transitives. The lexical causatives are centered on patientive and costly anticausative verbs, while the synthetic causative is productive for a wide range of intransitive types starting from automatic anticausatives and predicates higher on the spontaneity scale. The MAKE-factitive primarily corresponds to anticausatives and is opposed to the corresponding semantic type of synthetic causatives in aspectual features. The MAKE-causative is a transitional type, which may be a product of Greek influence on the Armenian of the Bible translation, and is best attested with agentive intransitives. The GIVE-causative is centered on agentive transitive verbs, primarily verbs of dislocation and ingestion, but excludes canonical agentive transitive verbs.

The aforementioned form-meaning correlation is not strict, and one finds areas of overlap in the lexical distribution of the various causative formations, which can be explained by the (in)directness distinction of causation and the degree of affectedness of the CAUSEE. Given that the latter parameter proves not to be fully dependent on the lexical type of the noncausal base verb, Classical Armenian provides evidence against a typological generalization, according to which the degree of spontaneity of the noncausal meaning of a causal-noncausal pair defines the phonological length and the morphosyntactic type of the causative in languages with several causative formations.

Non-Leipzig abbreviations

ACT	active
AOR	aorist

AOR_SBJ	aorist subjunctive
IMPF	imperfect
LAB	labile
MP	mediopassive

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References

Abrahamyan, Ašot A. 1976. *Grabari jeŕnark* [A textbook of Old Armenian]. Yerevan: Luys.

Aikhenvald, Alexandra Y. 2011. Causatives which do not cause: Non-valency-increasing effects of a valency-increasing derivation. In Alexandra Y. Aikhenvald & R. M. W. Dixon (eds.), *Language at large: Essays on syntax and semantics*, 86–142. Leiden: Brill.

Amalyan, Hayk, M. 1996. *Girkʻ makabayecʻwocʻ* [The books of the Maccabees]. Yerevan: Academy Press.

Aŕakʻelyan, Varag D. 2010. *Grabari kʻerakanutʻiwn* [A grammar of Old Armenian]. Yerevan: Viamir.

Awetikʻean, Gabriēl, Xačʻatur Siwrmēlean & Mkrtičʻ Awgerean. 1836–1837. *Nor baŕgirkʻ haykazean lezui* [New dictionary of the Armenian language]. Venice: St. Lazar.

Bahrt, Nicklas. 2021. *Voice syncretism*. Berlin: Language Science Press.

Beavers, John & Andrew Koontz-Garboden. 2020. *The roots of verbal meaning*. Oxford: Oxford University Press.

Blanchard, Monica J. & Robin D. Young. 1998. *A treatise on god written in Armenian by Eznik of Kołb (floruit c.430–c.450): An English translation, with introduction and notes*. Leuven: Peeters.

Bubenik, Vit. 1997. The verbal system of Classical Armenian. In John Hewson & Vit Bubenik (eds.), *Tense and aspect in Indo-European languages: Theory, typology, diachrony*, 67–81. Amsterdam: Benjamins.

Comrie, Bernard, Iren Hartmann, Martin Haspelmath, Andrej Malchukov & Søren Wichmann. 2015. 1. Introduction. In Andrej Malchukov & Bernard Comrie (eds.), *Valency classes in the world's languages*, vol. 1: *Introducing the framework, and case studies from Africa and Eurasia*, 3–26. Berlin: De Gruyter Mouton.

Conybeare, Frederick C., James R. Harris & Agnes S. Lewis. 1913. *The Story of Ahikar: From the Aramaic, Syriac, Arabic, Armenian, Ethiopic, Old Turkish, Greek and Slavonic Versions*, 2nd edn. Cambridge: Cambridge University Press.

Cox, Claude E. 2006. *Armenian job: Reconstructed Greek text, critical edition of the Armenian with English translation*. Leuven: Peeters.

Dixon, R. M. W. 2000. A typology of causatives: Form, syntax and meaning. In Alexandra Y. Aikhenvald & R. M. W. Dixon (eds.), *Changing valency: Case studies in transitivity*, 30–83. Cambridge: Cambridge University Press.

Gibson, Diana. 2005. *Causative verbs in Ancient Greek: The development of the periphrastic construction*. Oxford: University of Oxford dissertation.

Haiman, John. 1985. *Natural syntax: Iconicity and erosion*. Cambridge: Cambridge University Press.

Haspelmath, Martin. 1993. More on the typology of inchoative/causative verb alternations. In Bernard Comrie & Maria Polinsky (eds.), *Causatives and transitivity*, 87–120. Amsterdam: John Benjamins.

Haspelmath, Martin. 2008. Frequency vs. iconicity in explaining grammatical asymmetries. *Cognitive Linguistics* 19(1). 1–33.

Haspelmath, Martin. 2016. Universals of causative and anticausative verb formation and the spontaneity scale. *Lingua Posnaniensis* 58(2). 33–63.

Jensen, Hans. 1959. *Altarmenische Grammatik*. Heidelberg: Winter.

Jungmann, Paul & Joseph J. S. Weitenberg. 1993. *A reverse analytic dictionary of Classical Armenian*. Berlin: Mouton de Gruyter.

Kemmer, Suzanne. 1993. *The middle voice*. Amsterdam: Benjamins.

Kemmer, Suzanne & Arie Verhagen. 1994. The grammar of causatives and the conceptual structure of events. *Cognitive Linguistics* 5(2). 115–156.

Kocharov, Petr. 2019. *Old Armenian nasal verbs: Archaisms and innovations*. Leiden: Leiden University dissertation. Available at: https://hdl.handle.net/1887/72201.

Kocharov, Petr. 2023. Anticausatives in Classical Armenian. *Journal of Historical Linguistics* 13(2). 255–294. (Supplement materials: doi.org/10.5281/zenodo.6883258).

Kulikov, Leonid. 1998. Passive, anticausative and the classification of verbs: The case of Vedic. In Leonid Kulikov & Heinz Vater (eds.), *Typology of verbal categories: Papers presented to Vladimir Nedjalkov on the occasion of his 70th birthday*, 139–153. Tübingen: Niemeyer.

Kulikov, Leonid. 2001. Causatives. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher & Wolfgang Raible (eds.), *Language typology and language universals*, 886–898. Berlin: Walter de Gruyter.

Lehmann, Christian. 2016. Latin causativization in typological perspective. In Paolo Poccetti (ed.), *Latinitatis rationes: Descriptive and historical accounts for the Latin language*, 917–943. Berlin: De Gruyter Mouton.

Letuchiy, Alexander. 2009. Towards a typology of labile verbs: Lability vs. derivation. In Patience Epps & Alexandre Arkhipov (eds.), *New challenges in typology: Transcending the borders and refining the distinctions*, 223–244. Berlin: De Gruyter Mouton.

Levshina, Natalia. 2016. Finding the best fit for direct and indirect causation: A typological study. *Lingua Posnaniensis* 58(2). 65–82.

Levshina, Natalia. 2022. Semantic maps of causation: New hybrid approaches based on corpora and agrammar descriptions. *Zeitschrift für Sprachwissenschaft* 41(1). 179–205.

Malchukov, Andrej. 2015. Valency classes and alternations: Parameters of variation. In Andrej Malchukov & Bernard Comrie (eds.), *Valency classes in the world's languages*, vol. 1: *Introducing the framework, and case studies from Africa and Eurasia*, 73–130. Berlin: De Gruyter Mouton.

Mariès, Louis & Charles Mercier. 1959. *Eznik de Kołb. De Deo. Édition critique du texte arménien*. Paris: Firmin-Didot.

Martirosyan, Artashes A. 1969. *Patmut'iwn ew xratk' xikarac' imastnoy* [History and Counsel of Xikar the Wise], vol. 1. Yerevan: Academy Press.

Megerdoomian, Karine. 2004–2005. Transitivity alternation verbs and causative constructions in Eastern Armenian. *Annual of Armenian Linguistics*. 24–25. 13–34.

Meillet, Antoine. 1913. *Altarmenisches Elementarbuch*. Heidelberg: Winter.

Minassian, Martiros. 1996. *Grammaire descriptive de l'arménien classique*. Genève: Fondation des Frères Ghoukassiantz.

Næss, Åshild. 2007. *Prototypical transitivity*. Amsterdam: Benjamins.

Nedyalkov, Vladimir P. & Georgiy G. Silnitsky. 1973. The typology of morphological and lexical causatives. In Ferenc Kiefer (ed.), *Trends in Soviet theoretical linguistics*, 1–32. Dordrecht: Reidel.

Palandjian, Haroutiun. 1991. *Rückläufiger Wortindex zum „Venediger Wörterbuch" der armenischen Sprache*. Hamburg: Helmut Buske.

Shibatani, Masayoshi. 2002. Introduction: Some basic issues in the grammar of causation. In Masayoshi Shibatani (ed.), *The grammar of causation and interpersonal manipulation*, 1–23. Amsterdam: Benjamins.

Shibatani, Masayoshi & Prashant Pardeshi. 2002. The causative continuum. In Masayoshi Shibatani (ed.), *The grammar of causation and interpersonal manipulation*, 85–126. Amsterdam: Benjamins.

Thomson, Robert. 1970. *The teaching of Saint Gregory: An early Armenian catechism*. Cambridge, MA: Harvard University Press.

Tsunoda, Tasaki. 1985. Remarks on transitivity. *Journal of Linguistics* 21(2). 385–396.

Tumanyan, Eteri G. 1971. *Drevnearmjanskij jazyk* [Ancient Armenian]. Moscow: Nauka.

Wichmann, Søren. 2015. Statistical observations on implicational (verb) hierarchies. In Andrej Malchukov & Bernard Comrie (eds.), *Valency classes in the world's languages*, vol. 1: *Introducing the framework, and case studies from Africa and Eurasia*, 155–181. Berlin: De Gruyter Mouton.

Yuzbashyan, Karen & Paroyr Muradyan. 2003. Agat'angełos. Patmut'iwn hayoc' [Agathangelos. History of the Armenians]. In Hovhannes Gyzoghian (ed.), *Armenian classical authors*, vol. 2, 1289–1735. Antelias: Armenian Catholicosate of Cilicia.