

# A note on the origin of the Classical Armenian causative

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# Classical Armenian causative: synchrony

*mtanem* 'come in'

- Lexical causative: *mucanem* 'bring in'
- Morphological causative: *mt-uc'-anem* 'bring in, make come in'
- Analytical causatives: *mtanel arnem* 'make come in'  
*mtanel tam* 'make/let come in'
- Analytical factitive: n./adj. + *arnem* 'make' *p'arawor arnem* 'glorify'  
vs. Analytical inchoative: n./adj. + *linim* 'become' *p'arawor linim* 'be(come) glorious'



# Classical Armenian causative: synchrony

Lexico-syntactic features of the morphological causative:

- are rarely derived from passive verbs;
- are typically derived from verbs the first argument of which has some degree of autonomy (spontaneous events, experiential events, events with affected agent)
- are predominantly derived from intransitive verbs except for a few experiential and reflexive transitive verbs
- are not derived from canonical agentive and semantically transitive verbs

Tumanyan 1971: 372–377; Abrahamian 1976: 179–186; Jungmann & Weitenberg 1993: 117–124; Arak'elyan 2010: 161–168; Kocharov frthc.

# Classical Armenian causative: synchrony

- Aorist stem + *-oyc'*- (stressed) / *-uc'*- (unstressed):  
prs. *im-an-am*, aor. *im-ac'-ay* 'to understand'  
→ caus. prs. *im-ac'-uc'-anem*, aor. *im-ac'-uc'-i* 'to inform', ipv. *im-ac'-o* 'inform!'
  - Root + *-oyc'*- (stressed) / *-uc'*- (unstressed)  
prs. *c'as-n-um*, aor. *c'as-e-ay* 'to be angry'  
→ caus. prs. *c'as-uc'-anem*, aor. *c'as-uc'-i* 'to offend', ipv. *c'as-o* 'offend!'
- 
- Aorist stem + *-oyz/uz-*, *-oys/us-*  
prs. *p'l-an-im*, aor. *p'l-ay* 'to collapse'  
→ caus. prs. *p'l-uz-anem*, aor. *p'l-uz-i* 'to make fall', ipv. *p'l-o* 'make fall !'
  - Root + *-oys/us-*  
prs. *kor-nč'-im*, aor. *kor-e-ay* 'to disappear'  
→ caus. prs. *kor-us-anem*, aor. *kor-us-i* 'to destroy', ipv. *kor-o* 'destroy!'

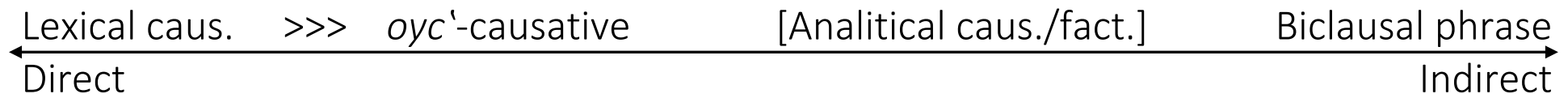
# The decay of the PIE *\*eye/o*-causative

- The merger of PIE *\*eye*-causatives and thematic transitive verbs after the loss of intervocalic *\*y*:

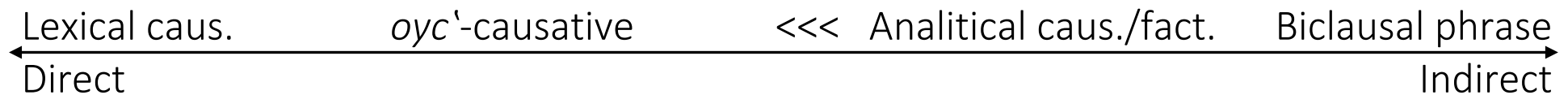
PIE *\*top-eje/o-* → CArm. *t'at'aw-em* tr. 'to immerse', cf. OCS *topiti* etc.

PIE *\*b<sup>h</sup>er-e/o-* → CArm. *ber-em* tr. 'to carry', cf. Gk. φέρω etc.

## Scenario A



## Scenario B



# Existing proposals

- -c'- of the causative suffix is connected to:
  - \**ske/o*-present
  - \**ye/o*-present
  - \**s*-aorist
- Formal transponats \**-e<sub>u</sub>-ske/o-*, \**-o<sub>u</sub>-ske/o-* (Godel 1975: 124; Schmitt 2007: 136).
  - Little explanatory value (cf. Klingenschmitt 1982: 264f.)

# Existing proposals

- Kortlandt (1999 = 2003: 129f.): the causative suffix *-oyc' / uc'*- developed through the reanalysis of sigmatic aorists of roots ending in *\*-V $\grave{u}$ K-s-* and *\*-V $\grave{u}$ t-s-*.
  - Ample evidence for Proto-Armenian sigmatic aorists, from which nasal presents were derived.
  - The transitive function of *\*s*-aor. in Greek, cf. ἔστη-σ-α tr. vs. ἔστη-ν intr.

But

- Limited evidence: *luc'anem* 'kindle' from PIE *\*le $\acute{u}$ k-* (LIV<sup>2</sup>: 418f.).
- The reanalysis of sigmatic stems would yield mono-consonantal roots: *luc'-anem* → *l-uc'anem*. No evidence for inherited disyllabic roots in *-oyc'*.



# Existing proposals

- Olsen (1999: 550–552, 575; esp. 2019: 292f.):

-oyc' < \*-eh<sub>1</sub>u-t-je/o-

← ptc. \*-eh<sub>1</sub>u-to- (next to \*-eh<sub>1</sub>u-ti- > -oyt'; Gk. -ευσις is a parallel formation)

← \*-eh<sub>1</sub>u-je/o- (cf. Greek denominal verbs in -εύω)

← agent nouns \*-eh<sub>1</sub>u- (cf. Greek agent nouns in -εύς).

But

- PIE *\*med<sup>h</sup>-je/o-* > Arm. *mēj* 'middle'.
- Why had a present stem grammaticalized into a formation with a root aorist?

Frequency of forms derived from the aorist and present stems of the 10 top-frequent causatives in the Bible (based on the online version of the Constantinople 1895 edition at [www.arak29.am](http://www.arak29.am)).

	aorist stem	present stem		aorist stem	present stem
<i>darjuc'anem</i> 'to turn'	310	148	<i>hatuc'anem</i> 'to return smth.'	145	58
<i>matuc'anem</i> 'to offer'	273	240	<i>zatic'anem</i> 'to separate'	142	8
<i>kac'uc'anem</i> 'to set'	273	66	<i>usuc'anem</i> 'to teach'	117	9
<i>yaruc'anem</i> 'to raise'	233	36	<i>ijuc'anem</i> 'to lower'	76	20
<i>aprec'uc'anem</i> 'to save'	146	59	<i>barjuc'anem</i> 'to elevate'	68	26

# Existing proposals

- A revision of Olsen's proposal

Prs. *\*-eu-je/o-* : aor. *\*-e<sub>u</sub>-s-* → aor. *\*-e<sub>u</sub>-c-* (cf. *\*<sub>u</sub>es-* → *\*<sub>u</sub>ec-* > *zgec* '-ay' 'put on')  
→ prs. *\*-e<sub>u</sub>c-ane-*

- One might think of the parallel of Greek transitive verbs in -εύω (especially with a volitional DO) and thematic base nouns like μῶμος 'blame' next to μωμ-εύ-ω tr. 'to blame smb.': Fraenkel 1906: 200ff.; Risch 1974: 332ff.:

κελεύω tr. 'to urge, exhort' (Il.23.767)

λωβεύω tr. 'to mock' (Od.23.15)

μνηστεύω tr. 'to seek in marriage' (Od.18.277)

μωμεύω tr. 'to blame' (Od.6.274)

κτιλεύω 'to tame' (Pi.Fr.238)

νυμφεύω tr. 'to take as a wife' (E.Med. 625)

ὀμηρεύω 'to take a hostage' (E.Rh.434) (Aeschin.3.133)

ὀρθεύω 'to make rise' (Eur.Orest.405), etc.

λώβη 'dishonour'

μνηστός 'wedded'

μῶμος 'blame'

κτίλος 'obedient'

νύμφη 'maiden'

ὄμηρος 'hostage'

ὀρθός 'straight'

## Further attempts...

- Greppin (1975: 122f.)

“This [nominal] suffix [-*oyc'*] is clearly entwined with the factitive suffix *-uc'anem* <...>. However, whether *-oyc'* is a back formation from a pre-existing verb or *-anem* is added to a pre-existing stem in *-oyc'* is unclear.”

<i>mat-oyc'</i> ‘access’	<i>mat-č'im</i> ‘to approach’	caus. <i>mat-uc'-anem</i> ‘to offer’
<i>mac-oyc'</i> ‘glue’	<i>mac-anim</i> ‘to stick to’	caus. <i>mac-uc'-anem</i> ‘to glue’
<i>sar-oyc'</i> ‘frost’	<i>sar-num</i> intr. ‘to freeze’	caus. <i>sar-uc'-anem</i> tr. ‘to freeze’

- Djahowkyan 1982: 192

Forms in *-oyc'* can be second members of compounds and simplex nouns

*mart-us-oyc'* ‘teacher of fighting’, *us-uc'-anem* ‘to teach’

*sar-oyc'* ‘ice’

# Causative back-formation vs. verbal nouns in -oyc'

- Back-formations from the causative rely on a productive model:

*anc'anem* 'to pass' → *anc'-k'* 'passage'

*anicanem* 'to curse' → *anēc-k'* 'curse'

*elanem* 'to go out' → *el-k'* 'exit'

- Nouns in -oyc' derived from base verbs
  - Barely mentioned in standard reference books: Meillet 1913: 25–37; Jensen 1959: 43–45; Tumanyan 1971: 138–152; Olsen 1999; Schmitt 2007: 230; Aṙak'elyan 2010.

## *mat-oyc'*: a causative back-formation

- *Mat-oyc'* 'offer' ← *matuc'anem* 'to offer'

*Buz. 5, § 28: Ew zays atôt's matowc'anêr êrêc'n yařaj k'an zmatowc'aneln pataragin, ew yet aysorik matoyc' katareac' zpataragamatoyc'n zamenayn:*

“The priest offered this prayer before the offering of the sacrifice, and after this he completed the offering of the entire sacrifice of the liturgy” (trans. Garsoïan 1989: 209)

→ *pataraga-matoyc'*, *a-st.* 'offering of the sacrifice; liturgy' (*Buz. 5, § 28*)

→ *srba-matoyc'* 'reverent; indoctrinated' (*Koriwn, § 17; Ag. § 138*)

## *mat-oyc'*: a noun derived from base verb

- *Mat-oyc'* 'approach' ← *matč'im* 'to approach'

Toponym the Ascent of Adummim (the main route from Jericho to Jerusalem)

*Josh. 15:7:*     *or ē handēp matowc'in Ełomimay*  
                  ἢ ἐστὶν ἀπέναντι τῆς προσβάσεως Αδδαμιν  
                  “which is opposite the ascent of Adummim”

→ *an-mat-oyc'*, *i-st.* 'unapproachable' (e.g. *1Tim. 6:16*, etc.)

→ *džowara-mat-oyc'* 'difficult to approach' (*2Mac. 12:21*; *Koriwn, § 10*)

- A morphological type overshadowed by productive causative back-formations.

## Further evidence

Nominal stems in *-oyc'* attested in the dated 5<sup>th</sup> century sources  
*apud* Jungmann & Weitenberg 1993: 274:

- unambiguous causative back-formations like *matoyc'* 'offer'
- unambiguous nouns derived from base verbs like *matoyc'* 'approach'
- controversial cases

# Causative back-formations in *-oyc'*

1/2

*-anc'oyc'* 'letting go down'

1) *loys-anc'oyc'* 'letting the light pass' (*Ag.* §734)

← *anc'-uc'-anem* tr. 'let pass'

*-hat-oyc'* 'recompensing'

2) *varj-a-hatoyc'* 'rewarding' (*K* §2; *LP* §39)

← *hat-uc'-anem* tr. 'give back'

*-hetoyc'* 'suffocated'

3) *jr-a-hetoyc'* 'suffocated with water' (*Ag.* § 557)

← *hetj-uc'-anem* tr. 'suffocate'

*-ijoyc'* 'letting go down'

4) *loys-ijoyc'* 'letting the light down' (*Buz.* 5, § 6)

← *ij-uc'-anem* tr. 'bring down'

*-kařoyc'* 'fixing eyes on smth.; constructing'

5) *akn-kařoyc'* 'with eyes fixed on' (*Buz.* 6, § 8)

← *kař-uc'-anem* tr. 'fix eyes'

6) *naw-a-kařoyc'* 'shipbuilder' (*MX* 1, § 4)

← *kař-uc'-anem* tr. 'construct'

*-kec'oyc'* 'saving; saved'

7) *amen-a-kec'oyc'* 'all-saving' (*Ag.* § 368)

← *kec'-uc'-anem* tr. 'vivify'

8) *ařxarh-a-kec'oyc'* 'saving the world' (*Ag.* § 854)

9) *k'ristos-a-kec'oyc'* 'saved by Christ' (*Ag.* § 826)



# Causative back-formations in -oyc'

2/2

-lc'oyc' 'filling'

10) *amen-a-lc'-oyc'* 'all-filling' (*Ag.* § 492)

← *lc'-uc'-anem* tr. 'fill up'

-sařoyc' 'freezing'

11) *sastk-a-sařoyc'* 'freezing (winter)' (*MX* 3, § 67)

← *sař-uc'-anem* tr. 'freeze'

-šijoyc' 'extinguishing'

12) *amen-a-šijoyc'* 'all extinguishing' (*Wis.* 16:17)

← *šij-uc'-anem* tr. 'extinguish'

-uřoyc' 'swollen'

13) *p'k'oc'-uř-oyc'* 'swollen with breath' (*Ag.* § 406)

← *uř-uc'-anem* tr. 'make swell'

-usoyc' 'one that teaches; taught'

14) *amen-usoyc'* 'all-teaching' (*Ag.* § 257)

15) *ardar-usoyc'* 'righteously teaching' (*Ag.* § 16)

16) *astuac-usoyc'* 'taught by God' (*1Thess.* 4:9)

17) *awrēns-usoyc'* 'law teacher' (*Acts* 5:34)

18) *k'atc'r-usoyc'* 'sweetly instructing' (*Ag.* § 482, 847)

19) *mart-usoyc'* 'fighting instructor' (*Ez.* § 56)

← *us-uc'-anem* tr. 'teach'

# Nouns in *-oyc'* derived from base verbs

## Simplex nouns

- *ag-oyc'* 'holder' (Ex. 37:10, 14) ← *aganim* tr. 'pun on'
- *hang-oyc'* 'road junction' (MX 2, § 46) ← *ankanim* 'fall; end' (*yang* 'end') (Djahukyan 2010: 445)
  - 'road station' (MX 2, § 46) ← ? *hangč'im* 'rest'
  - hang-oyc'* 'knot' (Buz. 5, § 38; Elišē) ← ? *ankanem* tr. 'weave'
- *mat-oyc'* 'approach' (Josh. 15:7) ← *matč'im* intr. 'approach'
- ? *zr-oyc'* 'discours, news' ← ?
- *vaṭ-a-yaroyc'* 'getting up early' (1Kings 29:10) ← *yaṛnem* 'get up'
  - ...ew *vaṭayaroyc' linic'ik' i čanaparh ew lowsasc'i jez ew gnasjik'*:  
"Start early in the morning, and leave as soon as you have light."  
(καὶ ὀρθρίσατε ἐν τῇ ὁδῷ, καὶ φωτισάτω ὑμῖν, καὶ πορεύθητε)

# Ambiguous cases

- *diwr-a-hasoyc'* (Ag. § 886)

‘easily understood (by S)’

← *hasanem* tr. ‘understand’

‘made easy to understand (by external A)’

← *\*hasuc'anem* ‘explain’

- *...zi heštānkalk' ew diwrahasoyc'k' txmaragownic'n ew marmnakan irôk' zbateloc'n linic'in.*

“...that they might be intelligible and easily understood by the ignorant and those occupied with worldly affairs.” (Thomson 1976: 418f.)

- *sahman-a-t'ak'oyc'* (Ag. § 330)

‘one that is hiding within limits (of S)’

← *t'ak'č'im* intr. ‘hide’

‘one that is hidden within limits (by external A)’

← *t'ak'-uc'-anem* tr. ‘hide’

- *ew oč' et'ē anč'ap'akal bnowt'iwn=n Astowcoy sahmanat'ak'oyc' ew kołmnap'ak ic'ē...*

“and not that the immeasurable nature of God is limited or circumscribed...” (Thomson 1970: 65)

# Ambiguous cases

- *zawr-a-hatoyc'*

‘one with a detaching army’

← *hatanim* intr. ‘to separate oneself’

‘one that is detaching an army’

← *hat-uc'-anem* tr. ‘to detach’

- *1Mac. 9:63: Ew ibrew etes Bak'idd, **zawrahatoyc' linēr**, ew gayr pašarêr:*  
“When Bacchides learned of this, he **assembled** all his **forces**, and sent orders to the men of Judea.”
- *1Mac. 6:56: ...et'ê **zawrk'n** amenayn i na **hatan**.*  
“...with the **forces** that **had gone** with the king.”
- *2Mac. 14:39: **hatoyc' zawr** aweli k'an zhing hariwr*  
“...**sent** more than five hundred **soldiers**”

# Derivational semantics of verbal nouns in *-oyc'*

- Anticipated/achieved result of a purposeful action expressed by an agentive verb

n. <i>agoyc'</i>	'binding, jointing' (*'a unit to put on')
n. <i>hangoyc'</i>	'knot' (*'a unit to interlace')
n. <i>hangoyc'</i>	'road junction/station' (*'a destination', *'a place to rest')
n./adj. <i>matoyc'</i>	'ascent' (*'a place to approach'), 'adv. to approach'
adj. <i>diwra-hasoyc'</i>	'easy to understand'
adj. <i>vaŋa-yaroyc'</i>	'having waken up early'
? adj. <i>sahmana-t'ak'oyc'</i>	'hiding within limits (by itself)'
? adj. <i>zawra-hatoyc'</i>	'preparing/having a detached army'

# Irregular participles of verbs with *i*-stem aorists

- | • Verbal noun in -oyc'          | Ptc. of the base verb | Base verb                        |
|---------------------------------|-----------------------|----------------------------------|
| n. <i>agoyc'</i>                | <i>ag-eal</i>         | <i>aganim</i>                    |
| n. <i>hangoyc'</i> 'knot'       | <i>ank-eal</i>        | <i>ankanim</i> or <i>ankanem</i> |
| ? n. <i>hangoyc'</i> 'station'  | <i>hang-uc'-eal</i>   | <i>hangč'im</i>                  |
| n./adj. <i>matoyc'</i>          | <i>mat-uc'-eal</i>    | <i>matč'im</i>                   |
| adj. <i>diwra-hasoyc'</i>       | <i>has-eal</i>        | <i>hasanem</i>                   |
| adj. <i>vafa-yaroyc'</i>        | <i>yar-uc'-eal</i>    | <i>yařnem</i>                    |
| ? adj. <i>sahmana-t'ak'oyc'</i> | <i>t'ak'-uc'-eal</i>  | <i>t'ak'č'im</i>                 |
| ? adj. <i>zawra-hatoyc'</i>     | <i>hat-eal</i>        | <i>hatanim</i>                   |
- were verbal nouns back-formed from irregular participles?
  - or had the participle in *-eal* recharacterized agentive/reflexive verbal adjectives?
- Verbs of agentive directed motion.

# Sources of causative affixes: a typological outlook

Song 1991<sup>1</sup>

- Stage 1    Bicausal purposive construction is used to express causation.
- Stage 2    The association between the causative semantics and the purposive grammatical element (PURP) is strengthened.
- Stage 3    PURP takes over the causative function while the original causative predicate (e.g. light verb 'make', 'do', 'cause' etc.) is omitted.
- Stage 4    In its causative use, PURP [is reduced into an affix and] becomes productive.

PURP = any grammatical element expressing the cause or purpose meaning (for example, directional, goal, dative, benefactive markers).

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<sup>1</sup> "On the rise of causative affixes: a universal-typological perspective". *Lingua* 82: 151–200.

# Typology of the sources of causative affixes

Song 1991: 176

(27) *Thai*

khăw khiăñ còtmaăy **hây** khun tòop  
he write letter PURP you answer  
'He wrote a letter so that you would answer.'

Stage 1

(28) *Thai*

Săa năa **tham** **hây** nísaa tii chăñ  
Saka cause PURP Nisa hit I  
'Saka made Nisa hit me.'

Stage 2

(29) *Thai*

Săakhaă **hây** dèk wĩñ  
Saka PURP child run  
'Saka had a child run.'

Stage 3



# Typology of the sources of causative affixes

Song 1991: 177ff. Ijaw (Niger-Congo) directional/causative suffix *-mọ*

(30) *Ijọ*

(a) tọbọw wẹni-**mọ**

child walk-DIR

'Walk towards the child.'

Stage 1

(32) *Ijọ*

(a) erí áru-bi **mịẹ** bile-**mọ**-mí

he canoe-the make sink-CS-ASP

'He made the canoe sink.'

Stage 2

(c) áràú tọbọw bünü-**mọ**-mí

she child sleep-CS-ASP

'She laid the child down to sleep.'

Stage 3

# Grammaticalization of the factitive construction -*oyc'*

- Factitive construction with verbal nouns in -*oyc'* (goal, purpose, anticipated result)

- Stage 2      *hat-oyc'*      *arar*      z=*zawrs*  
detach-PURP      made      OBJ=fources

“he made the army departing / to depart”

*Buz.* (2003: 380): ...*ibrew zawra hatoyc'n arnēr Šapowh Parsic' t'agaworn z zawrs iwr i veray ašxarhin Hayoc'...*

“...at the time that Šapuh king of Persia was disposing his forces against the Armenian realm...” (Garsoïan 1989: 189)

- Stage 3      *hat-oyc'*      *zawr*  
detach-CAUS      OBJ=fources

*2Mac.* 14:39: *hatoyc' zawr aweli k'an zhing hariwr*  
“prepared more than five hundred soldiers”

- Reanalysis: 3sg. aor. *hat-oyc' arar* → *hat-oyc' [arar]* → 3sg. aor. *hatoyc'-∅*.

## Why the verbal class with aor. $-\emptyset$ - : prs. $-an$ -?

- Why do the causatives not belong to the productive denominal class in  $-em$ , cf. *t'agawor* 'king' → *t'agaworem* 'to rule'?
- Verbal nouns in  $-oyc'$ - were reanalyzed as the 3sg. aorist form without a stem suffix and with a zero ending like *e-bek- $\emptyset$*  'broke' and *e-ber- $\emptyset$*  'brought'.
- The vast majority of transitive verbs with the root aorist belong to the class with the present  $an$ -stem, cf. 3sg. aor. *e-bek- $\emptyset$* , prs. *bek-an- $\bar{e}$* .
- Primary verbs in  $-anem$  include canonical transitive agentive verbs *bekanem* 'break', *hatanem* 'cut', *spananem* 'kill' etc.

# Factitive construction in Classical Armenian

- Productive

Out of 340 occurrences of *arnem* in the Gospels (Arakelyan 2018):

- 54x in the factitive construction (ca. 16%)
- 1x in the analytical causative with *arnem* (Lk. 14:23)

- Competes with the morphological causative

<i>mecac'-uc'-anem</i> (Lk. 1:46)	<i>mec arnem</i> (Lk. 1:15)	'to magnify'
<i>patrastec'-uc'-anem</i> (MX, III, 63)	<i>patrast arnem</i> (Num. 16:16)	'to prepare'
<i>spitakec'-uc'-anem</i> (Mk. 9:2)	<i>spitak arnem</i> (Mt. 5:36)	'to make white'
<i>t'agaworec'-uc'-anem</i> (Judg. 9:6)	<i>t'agawor arnem</i> (Rev. 1:6)	'to let rule'

## Causative continuum: PArm. > CArm.

Lexical caus.	<i>*eye/o</i> -caus.	[Factitive	Analytical caus.]	<b>PArm. 1</b>
Direct				Biclausal
				Indirect
Lexical caus.		Factitive	Analytical caus.	<b>PArm. 2</b>
Direct				Biclausal
				Indirect
Lexical caus.	<i>oyc'</i> -caus.	Factitive	Analytical caus.	<b>CArm.</b>
Direct				Biclausal
				Indirect

- The morphological causative may be a recent Proto-Armenian phenomenon.
- Whatever be the etymology of *-oyc'* its original function need not be associated with the causative semantics.

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