האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

16-19 June 2026
DiGS, Padova

Two causatives, four millennia: The Semitic causative templates from Old Akkadian to modern day

Iris Tanza-Kamil
iris.kamil@mail.huji.ac.il
tanzakamil.com

Abstract

The Semitic root-and-template/pattern system is declining.

In Classical Semitic languages most roots could be inserted into more than one pattern.

These pattern alternations express(ed) transitivity alternations (causatives/anticausatives).

Modern Semitic languages increasingly reduce the productivity of this system.

Roots mostly appear in only one pattern.

The patterns' original function as causatives reduces in productivity.

In Ethiosemitic, Modern South Arabian, and Modern Aramaic, causative functions are entirely lost.

Abstract

In Akkadian (ca. 2600-500 BCE) the causatives were aspectually distinguishable:

Certain roots could derive either an atelic causative or a telic causative.

From Classical Hebrew (ca. 1st mill. BCE) onwards, only remnants of this system remain.

This includes:

Classical and Modern Standard Arabic, various Arabic ‘dialects’, Classical and Middle Aramaic

This talk will present this process of loss, focussing on the two causative templates:

D and H/Š/L

Three functional stages:

1. Causative patterns differentiated based on aspect, fully predictable system
2. Some semantic predictability; however, largely lexicalised
3. Patterns completely lexicalised

Roadmap

Step 1: Akkadian

The loss of aspect and Focus

Conclusion

The Semitic cognate causatives

Step 2: Hebrew

Step 3: Ethiosemitic

Roadmap

Step 1: Akkadian

The loss of aspect and Focus

Conclusion

The Semitic cognate causatives

Step 3: Ethiosemitic

Step 2: Hebrew

The Semitic cognate causatives

√ šrYqZ + Template

Table 1: Akkadian template derivations

Template	Function		Form	Meaning	
XaYāZu	infinitive	⇨	šarāqu	‘to steal’	} verbs
naXYuZu	passive infinitive	⇨	našruqu	‘to be abducted’	
XaYYaZu	participle.M	⇨	šarrāqu	‘thief’	} nouns
XaYYaZītu	participle.F	⇨	šarrāqītu	‘female thief’	
XaYZu	verbal adjective	⇨	šarqu	‘stolen’	} adjectives
XaYYiZu	participial adj.	⇨	šarriqu	‘thieving’	

The Semitic cognate causatives

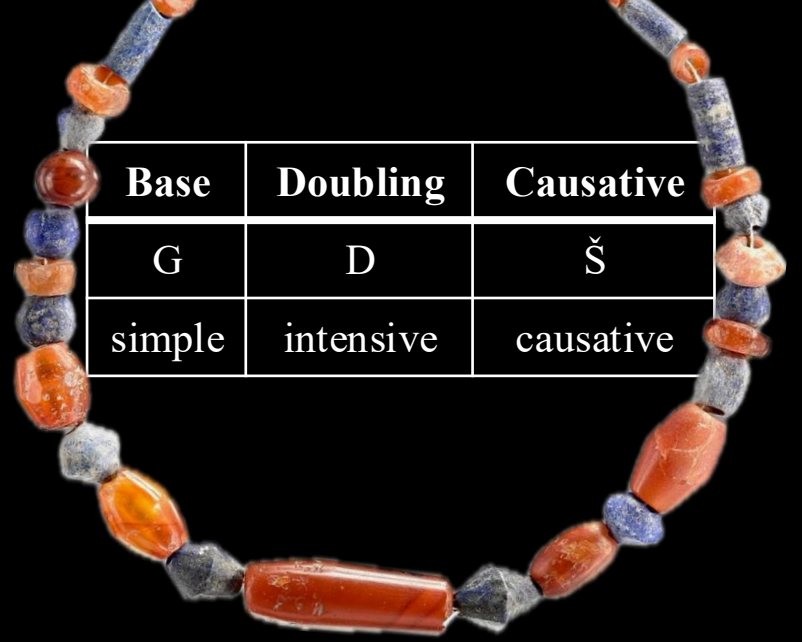
In most Semitic languages three general template ‘patterns’ are differentiated:

- A base pattern, characterised by ‘minimal’/unmarked morphology,
- A doubling pattern, characterised by a geminated second root radical, and
- A ‘causative’ pattern, characterised by a H/Š affix.

Table 2: Akkadian template patterns

	Base pattern	**Doubling pattern**	**‘Causative’ pattern**
infinitive	*XaYāZ-u*	*XuYYuZ-u*	*šu-XYuZ-u*
perfective	*i-XYuZ*	*u-XaYYiZ*	*u-ša-XYiZ*
imperfective	*i-XaYYaZ*	*u-XaYYaZ*	*u-ša-XYaZ*
resultative	*XaYiZ*	*XuYYuZ*	*šu-XYuZ*

The Semitic cognate causatives



In most Semitic languages three general template ‘patterns’ are differentiated:

- A base pattern, characterised by ‘minimal’/unmarked morphology,
- A doubling pattern, characterised by a geminated second root radical, and
- A ‘causative’ pattern, characterised by a H/Š affix.

Table 2: Akkadian template patterns

	Base pattern	**Doubling pattern**	**‘Causative’ pattern**
infinitive	*XaYāZ-u*	*XuYYuZ-u*	*šu-XYuZ-u*
perfective	*i-XYuZ*	*u-XaYYiZ*	*u-ša-XYiZ*
imperfective	*i-XaYYaZ*	*u-XaYYaZ*	*u-ša-XYaZ*
resultative	*XaYiZ*	*XuYYuZ*	*šu-XYuZ*

Table 3: The causatives across Semitic

Branch	Language	TAM	G	D	L	Š/H
East Semitic	Akkadian	(RES)	XaYiZ	XuYYuZ	-	šuXYuZ
North-West Semitic	Ugaritic	(PFV)	XaYa/i/uZa	XaYYiZa	-	šaXYiZa
Canaanite (NWS)	Phoenician	(PFV)	XaYaZ	XiY̯eZ	-	jiXYiZ
Canaanite (NWS)	Biblical Hebrew	(PFV)	XaYaZ	XiY̯eZ	-	hiXYiZ
Canaanite (NWS)	Modern Hebrew	(PST)	XaYaZ	XiY̯eZ	-	hiXYiZ
Aramaic (NWS)	Official Aramaic	(PFV)	XeYaZ	XaYYeZ	-	ʔaXYeZ
Aramaic (NWS)	Christian Urmi	(PST)	XYiZ	XuYəZ	-	muXYəZ
North Arabian	Modern Standard Arabic	(PST)	XaYaZa	XaYYaZa	XāYaZa	ʔaXYaZa
North Arabian	Moroccan Arabic	(PFV)	XYVZ	XVYYVZ	-	-
Modern South Arabian	Mehri	(PST)	X(ə)YūZ / XīYəZ	(a)XōYəZ		həXYūZ
Modern South Arabian	Soqotri	(PRF)	XéYo/eZ	Xó/éYiZ	-	ʔéXYeZ / XYeZ
Ancient South Arabian	Sabaic	(PFV)	*XaYaZa	*XaYYaZa	-	*haXYaZa
Ethiosemitic	Gəʕəz	(PRF)	XaY(a)Za	XaYYaZa	XāYaZa	-
Ethiosemitic	Tigre (Gindaʕ)	(PRF)	XaYZa	XaYYaZa	XāYaZa	-
Ethiosemitic	Amharic	(JUSS)	yə-XYaZ	yə-XaYYəZ	yə-XāYYəZ	-
Ethiosemitic	Wolane	(PFV)	XɛYɛZ-	XēYɛZ-	XāYɛZ-	-

The Semitic cognate causatives

- D stems: ‘factitive’, ‘intensive’
- H/Š stems: ‘causatives’
- L stems: lexical, +transitivity, subject-affectedness (Mullins 2005)

- Morphological overlaps: H & Š cognate, often realised as ʔ
  - D: ʔ/H in coda may assimilate to following consonant
  - L: ʔ/H in coda may assimilate to preceding vowel

The puzzle: A system of cognate causatives with different meanings
→ Overarching consensus: argument structure and agency

- Hebrew (Doron 2003, Arad 2005, Kastner 2020; i.a.)
- Arabic (Arbaoui 2010, Glanville 2018)
- Akkadian (Kouwenberg 1997, Kamil 2025)

The Semitic cognate causatives

Three functional stages:

1. Akkadian
   - ❖ Causative patterns differentiated based on aspect, fully predictable system
2. Arabic, Aramaic, Classical/Modern Hebrew
   - ❖ Mostly syntactic predictability; some semantic predictability; however, largely lexicalised
3. Ethiosemitic, Modern South Arabian, Neo-Aramaic (Khan 2008)
   - ❖ Patterns completely lexicalised;
   - ❖ In ES & MSA: causation expressed through external morpheme *-(ä)s –ʔ(a)*

Step 1: Akkadian

In Akkadian, the two causatives D and Š may be differentiated based on their telicity features (Kamil 2025).

- D patterns carry [-telic]
- Š patterns carry [+telic]

Evidence?

1. Combinatory restrictions with (a)telic roots
2. In/for adverbial tests
3. Context differences in telicity-unspecified roots

Step 1: Akkadian

1. Combinatory restrictions with (a)telic roots

Table 4: Emission ROOTS and their causative derivations

	ROOT	G	D	Š
a.	√ršk	‘drip’	‘drop’	/
b.	√rš	‘glow’	‘heat up’	/
c.	√ṣr	‘drip, flow’	‘pour out’	/
d.	√brq	‘flash’	/	‘cause lightning to strike’
e.	√br	‘flicker’	/	‘cause to flicker’
f.	√ṣrḫ	‘flare up, twinkle’	/	‘cause to flicker’
g.	√šgm	‘thunder, roar’	/	‘make resound’
h.	√ḫlʾ	‘shine’	‘make bright’	‘illuminate’
i.	√ntk	‘drip’	‘drop’	‘let drip’
j.	√nwr	‘shine’	‘make bright, light fire’	‘make shine, light fire’
k.	√qtr	‘smoke (intr.)’	‘smoke (tr.)’	‘cause to smoke’

Step 1: Akkadian

2. In/for adverbial tests

Table 5: In-/for-adverbial modifications with 'day'

		G	D	Š	Total
In-adverbs	ina n ūmī(m)	5	/	1	6
	adi n ūmī(m)	3	/	1	4
	n ūmā(m)	1	/	1	2
For-adverbs	ana n ūmī(m)	20	1	1	22
	kala ūmi(m)	11	/	1	12
	n ūmī(m)	17	8	/	25
	Total	57	9	5	71
	percent of total	80.28%	12.68%	7.04%	

(1)

ina 3-ti ūm-ē	*ana*	*šēp*	*Aššur*
in 3 day-PL.OBL	DAT	foot.PL	DN
bēl-i=ya	*lu*	***u-še-kniš***	
		√knš 'submit'	
lord-OBL=my	PREC	1.SG-CAUS-submit.PFV	

"(All of Urartu) in three days I made (them) submit at the feet of my lord Aššur" (RIAo Shalmaneser I 1:40f, MA)

Step 1: Akkadian

3. Context differences in telicity-unspecified roots

(2)

ana	*šūpuš*	*ellip-āt-i*	*qereb*	*qīš-āt-i*	*iṣṣ-ē*	*rabût-e*
DAT	making	ship-PL-OBL	near.CSTR	forest-PL-OBL	tree-PL.OBL	great-PL.OBL

uqqir-ū	*ina*	*naphar*	*māt-āt-i=šunu*
3.D.√wqr.'rare'.PFV-PL.M	in	entirety.CSTR	land-PL-OBL=their

"For the manufacture of ships, they made the great trees rare in all of their lands" (OIP 2 118:10)

(3)

mê	*balaṭ*	*napišt-i=šunu*	*a-kla*	*maštīt-u*
water.OBL	living.CSTR	life-OBL=their	1SG-√kl'. 'confine'.PFV	drink-NOM

u-ša-qir	*ana*	*pī=šun*
1.SG-CAUS-√wqr..'rare'.PFV	DAT	mouth.PL=their

"I held back the water necessary for their living, I made the drink rare for their mouths" (Streck Asb. 74 ix 34)

Step 1: Akkadian

Interim summary:

- D stems carry [-telic] and combine almost only with [-telic] or unspecified roots
- Š stems carry [+telic] and combine only with [+telic] or unspecified roots

➢ Combinatory rules completely rely on the compatibility of roots and causative features

… where does that happen?

→ FocusP

Step 1: Akkadian

→ FocusP

- Simpson & Wu (2002)
  - Agreement phrase that primes and then enforces an Agreement relation in further derivation
    - E.g., French negation, Mandarin progressive *zai … ne*
  - Diachronically highly instable

- Here: ‘priming phrase’ for causative derivation:
  1. Blocks morphological root properties (like Ablaut) from further projection → regularisation
  2. Docking point for syn/sem features of causatives that determine all further derivation

Immediately after *v*P

Step 1: Akkadian

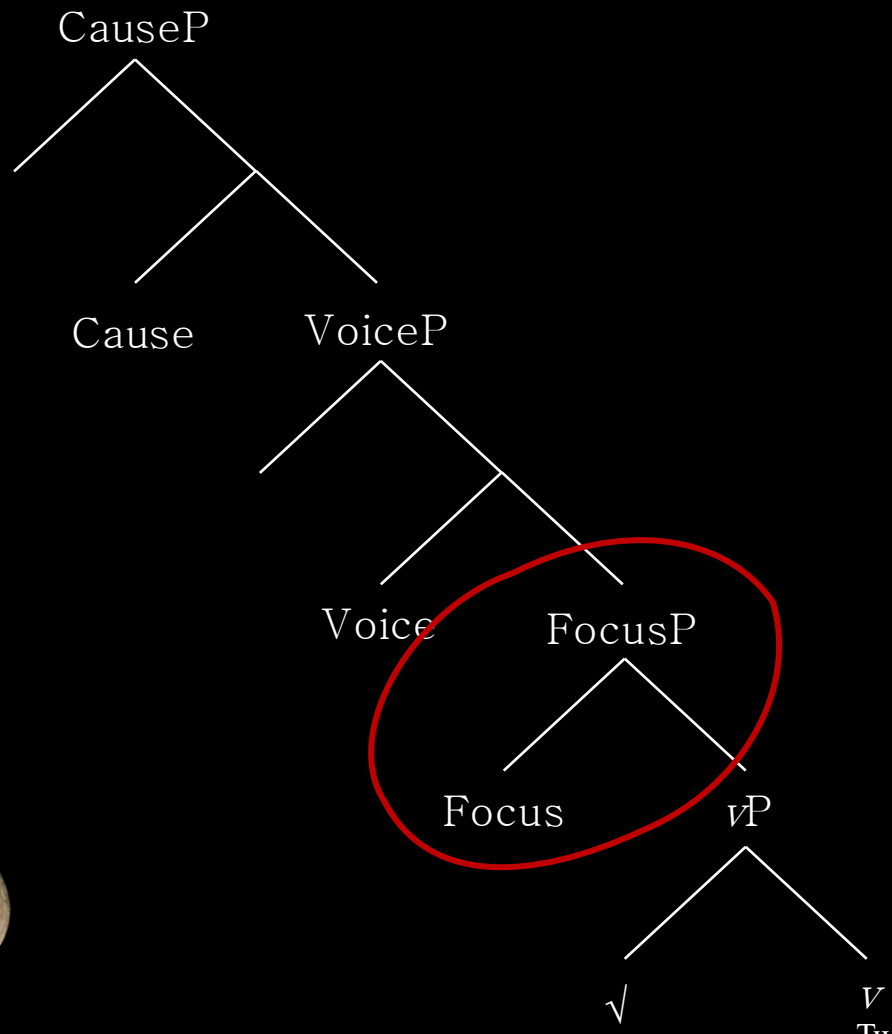


Table 6: Paradigms of the template patterns

	G	D	Š
Perfective	i-XYV$_R$Z-Ø	u-XaYYiZ-Ø	u-ša-XYiZ-Ø
(a/u)	*i-prus-Ø*	*u-parris-Ø*	*u-ša-pris-Ø*
(a/a)	*i-lmad-Ø*	*u-lammid-Ø*	*u-ša-lmid-Ø*
(u/u)	*i-kkud-Ø*	*u-nakkid-Ø*	*u-ša-kkid-Ø*
(i/i)	*i-kpil-Ø*	*u-kappil-Ø*	*u-ša-kpil-Ø*
Imperfective	i-XaYYV$_T$Z-Ø	u-XaYYaZ-Ø	u-ša-XYaZ-Ø
(a/u)	*i-parras-Ø*	*u-parras-Ø*	*u-ša-pras-Ø*
(a/a)	*i-lammad-Ø*	*u-lammad-Ø*	*u-ša-lmad-Ø*
(u/u)	*i-nakkud-Ø*	*u-nakkad-Ø*	*u-ša-kkad-Ø*
(i/i)	*i-kappil-Ø*	*u-kappal-Ø*	*u-ša-kpal-Ø*
Stative	XaYiZ-Ø	XuYYuZ-Ø	šu-XYuZ-Ø
(a/u)	*paris-Ø*	*purrus-Ø*	*šu-prus-Ø*
(a/a)	*lamid-Ø*	*lummud-Ø*	*šu-lmud-Ø*
(u/u)	*nakid-Ø*	*nukkud-Ø*	*šu-kkud-Ø*
(i/i)	*kapil-Ø*	*kuppul-Ø*	*šu-kpul-Ø*

Step 1: Akkadian

→ FocusP

- Simpson & Wu (2002)
- 'Priming phrase' for causative derivation:
  1. Blocks morphological root properties (like Ablaut) from further projection → regularisation
  2. Docking point for syn/sem features of causatives that determine all further derivation

Immediately after *v*P

FocusP encodes the causative telicity through:

a. Projection from root telic feature, or
b. Pragmatic choice (→Focus)

Step 1: Akkadian

→ FocusP

(4) 'Feature chemistry'

a. D stems:

[-telic]	+ [*u*D]	
[[P]] = ∃*e*, *d*[...(*x*,*d*,*e*)]	+ λ*y*.λ*e*.OPERATOR[P](*e*) → λ*y*.λ*e*.DO[λ*x*.λ*e*.λ*d*...(*x*,*d*,*e*)]	→ Agent at Voice

b. Š stems:

[+telic]	+ [*u*D]	
[[P]] = ∃*e*[...(*e*)]	+ λ*y*.λ*e*.OPERATOR[P](*e*) → λ*y*.λ*e*.CAUSE[...(*e*)](*e*)	→ Causer at Cause

For links between Agent/Causer and aspect: Folli & Harley (2005), Schäfer (2009), Demirdache & Martin (2015)

Step 1: Akkadian

This leads us to the second restriction: The primitive predicate

Causative and root may not overlap in their primitive predicates. Roots encoding DO may only causativise through the Š stem.

- DO is encoded in roots that conceptually require an agentive argument
  - Unergatives: *run*, *sing*
  - Agent-transitives: *hit*, *build*, *murder*

Step 1: Akkadian

Interim summary:

- D and Š causatives carry telicity features that ‘match up’ with root features, resulting in ~99% predictability of which root derives which causative
- The causative telicity feature is borne on Focus
  - There, it interacts with [*u*D], a requirement for the Merge of an external argument, leading to the derivation of two distinct semantic operators DO and CAUSE
    - DO instantiates the derivation of an Agent at Voice
    - CAUSE instantiates the derivation of a Causer at Cause

Step 2: Hebrew

Back in the day, everything was in order …

… now everything is a mess.

I argue that most Semitic languages retain remnants of this system, which is undergoing a process of lexicalisation, involving:

1. The loss of productivity of the causative templates,
2. The loss of their semantic (and increasingly syntactic) functions,
3. The gradual fossilisation of roots to template patterns.

Step 2: Hebrew

Branch	Language	TAM	G	D	L	Š/H
Canaanite (NWS)	Biblical/Modern Hebrew	(PFV)	XaYaZ	XiY̯eZ	-	hiXYiZ

- G: projection of ‘old’ roots (Agranovsky 2025)
  - *qafaʔ* ‘freeze’, *ʔahav* ‘love’, *ratsaχ* ‘murder’
- D: rarely intensive, causative/factitive for noncausal roots; currently productive (Agranovsky 2025)
  - Intensive: *ʃavar* ‘break’ vs. *ʃiber* ‘shattered’
  - Causative: *baʃal* ‘ripen’ vs. *biʃel* ‘cook, boil’
  - Productive denominative: *ʃulχan*’table’ vs. *ʃilχen* ’table sth’
- H: causative, labile, lexical, denominative
  - Causative: *raqad* ‘dance’ vs. *hirqid* ‘make so. dance’
  - Labile: *baʃal* ‘ripen’ vs. *hivʃil* ‘ripen (tr. & intr.)’
  - Lexical: *hibit* ‘look at’ (<√nbt)
  - Denominative: *ʕozen* ‘ear’ vs. *heʕezin* ‘listen’

Step 2: Hebrew

Branch	Language	TAM	G	D	L	Š/H
Canaanite (NWS)	Biblical/Modern Hebrew	(PFV)	XaYaZ	XiY̯eZ	-	hiXYiZ

Remnants of aspect-differentiation?

Noncausal predicates

- CoS: *baʃal* ‘ripen’ vs. *biʃel* ‘cook, boil’ vs. *hivʃil* ‘ripen (tr. & intr.)’
- Adjectival: *qarav* ‘near (intr.)’ vs. *qirev* ‘near (tr.)’ vs. *hiqriv* ‘sacrifice, make to be near’

Step 2: Hebrew

Branch	Language	TAM	G	D	L	Š/H
Canaanite (NWS)	Biblical/Modern Hebrew	(PFV)	XaYaZ	XiYeZ	-	hiXYiZ

But the rules are not always clear √pt̠ḥ

G: ‘open’
D: ‘open (int.)’ BH
‘develop’ MH

Step 2: Hebrew

Branch	Language	TAM	G	D	L	Š/H
Canaanite (NWS)	Biblical/Modern Hebrew	(PFV)	XaYaZ	XiYeZ	-	hiXYiZ

But the rules are not always clear √pt̄ḥ

(5) ***hāfaχ-ətā*** ***misəpəd=ī*** ***lə=māḥol*** ***l=ī*** ***pittaḥ-əta*** ***saq=ī***
turn.PFV-2SG.M lament=my DAT=dancing DAT=me open.D.PFV-2SG.M sack=my
wa=tə-ʔazzəre=nī ***simə̄ḥa***
and=2-gird.D.ipfv.sg.m=me joy
'You turned my lament into dancing, you undid my sackcloth and girded me with joy' (Psalms 30:12)

Step 2: Hebrew

Branch	Language	TAM	G	D	L	Š/H
Canaanite (NWS)	Biblical/Modern Hebrew	(PFV)	XaYaZ	XiYeZ	-	hiXYiZ

But the rules are not always clear √ptħ

(6) **ʕido ben ha=ʃloʃʕɛsrɛ piteʕaħ ʔaplikatsja**
PN son.CSTR the=thirteen develop.PST.3M.SG application
lɛ=mɛniʕat ʕomas-im bɛ=batei ħol-im
DAT=prevention load-PL in=house.PL.CSTR sick.PCPL-PL
"The thirteen-year-old Ido developed an app to prevent (patient) loads in hostpitals" (https://www.ynet.co.il/health/article/hk5jf26119#google_vignette; 15.03.2022; accessed 09.06.2026)

Step 2: Hebrew

Branch	Language	TAM	G	D	L	Š/H
Canaanite (NWS)	Biblical/Modern Hebrew	(PFV)	XaYaZ	XiYeZ	-	hiXYiZ

But the rules are not always clear √pt̠ħ

(7) ***īm=pārəħ-āh*** ***ha=gɛfɛn*** ***pittaħ*** ***ha=səmādar***
if=bloom.PFV-3SG.F the=grape vine open.D.PFV.3SG.M the=blossom
'(Let us see) If the vine has flowered, if (its) blossoms have opened' (Song of songs 7:13)

Step 2: Hebrew

Branch	Language	TAM	G	D	L	Š/H
Canaanite (NWS)	Biblical/Modern Hebrew	(PFV)	XaYaZ	XiY̯eZ	-	hiXYiZ

Table 7: Hebrew TAM system

	XaYaZ	**iXYaZ**	**XoYeZ**	
Biblical Hebrew	*perfective*	*imperfective*	*participle*	Aspect
Modern Hebrew	*past*	*future*	*present/participle*	Tense

The loss of aspect and Focus

- Classical Semitic languages (i.e., pre-modern stages): dominant aspect-marking
  - Akkadian, Gəʕəz, Hebrew, Aramaic, Arabic, Ancient South Arabian
- Modern Semitic languages: dominant tense-marking
  - Hebrew, Aramaic, Arabic “dialects“ (e.g., Moroccan) , Tigrinya, Amharic
  - But: Saudi Arabic, most Ethiosemitic, MSAL are still aspect-leaning
- Aspect → Tense (Dahl 1985; Bybee & Dahl 1989; Bybee, Perkins & Pagliuca 1994)
  - Stative→perfect→perfective pathways, e.g., in Hebrew (Grasso 2025)
- But what does this mean for the case of Semitic aspectual causatives?

The loss of aspect and Focus

- Shift in the way events are described: completed/ongoing → anterior/simultaneous/posterior

- With loss of aspectual distinctions, causation events are no longer actively differentiated on this basis
  - ➢ Lexicalisation of aspect-induced meanings
    - ❉ Hebrew: *qarav* 'near (intr.)' vs. *hiqriv* 'sacrificed (lit. caused to be(come) near)'
    - ❉ Hebrew: *bataχ* 'have confidence' vs. *biteaχ* 'insured' vs. *hivtiaχ* 'promise'

- The semantic feature of telicity is lost at Focus
- Focus remains as an Agreement shell (Simpson & Wu 2002)
  - ❉ Morphological regularisation through D & Š/H remains throughout Semitic

Table 3 (repeated): The causatives across Semitic

Branch	Language	TAM	G	D	L	Š/H
East Semitic	Akkadian	(RES)	XaYiZ	XuYYuZ	-	šuXYuZ
North-West Semitic	Ugaritic	(PFV)	XaYa/i/uZa	XaYYiZa	-	šaXYiZa
Canaanite (NWS)	Phoenician	(PFV)	XaYaZ	XiY̯eZ	-	jiXYiZ
Canaanite (NWS)	Biblical Hebrew	(PFV)	XaYaZ	XiY̯eZ	-	hiXYiZ
Canaanite (NWS)	Modern Hebrew	(PST)	XaYaZ	XiY̯eZ	-	hiXYiZ
Aramaic (NWS)	Official Aramaic	(PFV)	XeYaZ	XaYYeZ	-	ʔaXYeZ
Aramaic (NWS)	Christian Urmi	(PST)	XYiZ	XuYəZ	-	muXYəZ
North Arabian	Modern Standard Arabic	(PST)	XaYaZa	XaYYaZa	XāYaZa	ʔaXYaZa
North Arabian	Moroccan Arabic	(PFV)	XYVZ	XVYYVZ	-	-
Modern South Arabian	Mehri	(PST)	X(ə)YūZ / XīYəZ	(a)XōYəZ		həXYūZ
Modern South Arabian	Soqotri	(PRF)	XéYo/eZ	Xó/éYiZ	-	ʔéXYeZ / XYeZ
Ancient South Arabian	Sabaic	(PFV)	*XaYaZa	*XaYYaZa	-	*haXYaZa
Ethiosemitic	Gəʕəz	(PRF)	XaY(a)Za	XaYYaZa	XāYaZa	-
Ethiosemitic	Tigre (Gindaʕ)	(PRF)	XaYZa	XaYYaZa	XāYaZa	-
Ethiosemitic	Amharic	(JUSS)	yə-XYaZ	yə-XaYYəZ	yə-XāYYəZ	-
Ethiosemitic	Wolane	(PFV)	XɛYɛZ-	XēYɛZ-	XāYɛZ-	-

The loss of aspect and Focus

- The semantic feature of telicity is lost at Focus
- Focus remains as an Agreement shell (Simpson & Wu 2002)
  - ❉ Morphological regularisation through D & Š/H remains throughout Semitic
  - ❉ At first: retention of syntactic properties (e.g., Hebrew still differentiates Agent and Causer subjects between its D and H derivations, see Alexiadou & Doron 2012)

(8) ***ha=soxen*** ***biteax*** ***et-ha-mexonit.***
the=agent secure.D.PST.3SG.M ACC=the=car
'The agent insured the car. ' (Alexiadou & Doron 2012:2a)

(9) ****ze*** ***še*** ***hu*** ***nahag*** ***bi=zhirut*** ***biteax*** ***et=ha=mexonit***
it that he drive.PST.3SG.M in=carefulness secure.D.PST.3SG.M ACC=the=car

(10) ***ze*** ***še*** ***hu*** ***nahag*** ***bi=zhirut*** ***hivtiax*** ***še*** ***hu*** ***ya-xzor*** ***xay***
it that he drive.PST.3SG.M in=carefulness secure.H.PST.3SG.M that he 3-return.PST.SG.M alive
'His having driven carefully guaranteed that he would return alive' (Alexiadou & Doron 2012:2b-c)

The loss of aspect and Focus

- The semantic feature of telicity is lost at Focus
- Focus remains as an Agreement shell (Simpson & Wu 2002)
  - ❉ Morphological regularisation through D & Š/H remains throughout Semitic
  - ❉ At first: retention of syntactic properties (e.g., Hebrew still differentiates Agent and Causer subjects between its G and D derivations, see Alexiadou & Doron 2012)
  - ❉ Gradually: loss of syntactic properties
    - ➤ Tigre: rarely allows L 'intensives'
    - ➤ ES: pattern is lexical and loses all grammatical functions

Step 3: Ethiosemitic

- Subgroup of Westsemitic languages spoken in Ethiopia and Eritrea
  - Subgrouping (Huehnergard & Pat-El 2019:3)
  - Gəʕəz
  - Tigre
  - Tigrinya
  - South Ethiosemitic
    - Amharic, Argobba
    - Harari
    - East Gurage
      - Silt'e
      - Zay
      - Wolane
    - Outer Gunän Gurage
      - A (Gafat, Kistane)
      - B
        - Muher
        - West Gurage (Chaha, Mesqan, Inor, etc.)

Figure 1: Geographic distribution of Gəʕəz (Butts 2019: map 6.1)

Step 3: Ethiosemitic

Gəʕəz: säbärä

√sbr ‘break’

Amharic: säbbärä

Tigre: säbrä

G	D	L
		sābärä

Zway: sɛbɛr

Harari: säbärä

Gafat: säbärä

Tigrinya: säbärä

Muher: säbbäräm

Argobba: säbbärä

Step 3: Ethiosemitic

√brk ‘bless’

Gəʕəz: bäräkä

Amharic: märräqä

Tigre: bäräkä

G	D	L

Zway: bārɛk

Harari: bäräkä?

Gafat: bäräkä

Tigrinya: bäräkä

Muher: märräqäm

Argobba: merräka

Step 3: Ethiosemitic

√msl ‘equal, resemble’

Gəʕəz: mäsälä

Amharic: mässälä

Tigre: məssəla

G	D	L
		māsälā

Zway: mɛsɛl

Harari: mäsälä

Mäsqän: məsəl (‘picture’)

Tigrinya: məsəl-ə

Muher: mässäläm

Argobba: mässälä

Step 3 : Ethiosemitic

In most ES languages, one given root can only be inserted into one template pattern.

- Rules for which root goes into which pattern are yet unexplored!

Table 8: Amharic template by root type distributions (Cowley 1969)

	G base	D base	L base
ROOT classes found	all types	Agentive-transitives, eventive unaccusatives	Psych-roots, unergatives
ROOT classes not found		Unergatives, psych-roots	Eventive unaccusatives, property concept roots

Step 3 : Ethiosemitic

To form causatives, ES languages make use of the morpheme *-(ä)s or -ʔä* (a freed H/Š morpheme)

Table 9: Causative derivations in ES for √frs ‘collapse’

	Base	**Causative**	
Gəʕəz:	G *färäsä* ‘be demolished’	G *ʾäfräsä* ‘demolish, destroy’	Same pattern
Gogot	D *färräsä* ‘be demolished’	D *ʾäfärräsä* ‘demolish’	
Tigre	G *färsä* ‘perish, collapse’	L *ʾäfāräsä* ‘destroy’	Pattern change
Tigrinya	G *färäsä* ‘collapse (intr. & tr.)’	L *ʾäfāräsä* ‘demolish’	

Move from non-concatenative morphology → concatenative morphology

Step 3 : Ethiosemitic

A crucial issue to theory: ES TAM is still aspect-leaning (Meyer 2016)

⇒ BUT: *Heavy* influences from Cushitic
preserved the Afroasiatic argument structure-marking morphemes (H/Š, T, N) but concatenatively!

Conclusion

Three functional stages:

1. Akkadian
   - ❖ Causative patterns differentiated based on aspect, fully predictable system

2. Arabic, Aramaic, Classical/Modern Hebrew
   - ❖ Mostly syntactic predictability;
   - ❖ some semantic predictability;
   - ❖ largely lexicalised

3. Ethiosemitic, Modern South Arabian, Neo-Aramaic
   - ❖ Patterns completely lexicalised

References

Image references:

Byblos figure: https://collections.louvre.fr/en/ark:/53355/cl010135670
Necklace: https://collections.louvre.fr/en/ark:/53355/cl010143146
Ištar amulet: https://collections.louvre.fr/en/ark:/53355/cl010142917
Ugaritic needle: https://collections.louvre.fr/en/ark:/53355/cl010137799
Aksumite coins: https://archaeology.org/wp-content/uploads/2023/06/Aksum-King-Ezana-Coins-Combo.jpg

References

Agranovsky, Vera. 2025. *Mechanisms of productive derivation in the verbal system of Modern Hebrew*. Jerusalem: Hebrew University of Jerusalem PhD.

Alexiadou, Artemis & Edit Doron. 2012. The syntactic construction of two non-active voices: Passive and middle. *Journal of Linguistics* 48(1). 1–34. https://doi.org/10.1017/S0022226711000338.

Arad, Maya. 2005. *Roots and patterns: Hebrew morpho-syntax* (Studies in Natural Language and Linguistic Theory 63). Dordrecht: Springer. https://doi-org/10.1007/1-4020-3244-7.

Arbaoui, Nor Elhouda. 2010. *Les dix formes de l'arabe classique à l'interface syntaxe/phonologie: pour une déconstruction du gabarit*. Paris 7 PhD Thesis.

Butts, Aaron Michael. 2019. GəʕəZ. In *The Semitic Languages*, 117–144.

Bybee, Joan L. & Östen Dahl. 1989. The creation of tense and aspect systems in the languages of the world. John Benjamins Amsterdam.

Bybee, Joan L, Revere Dale Perkins, William Pagliuca, & others. 1994. *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*. Vol. 196. University of Chicago Press Chicago.

Cowley, R. 1969. A and B Verbal Stem-Type in Amharic. *Journal of Ethiopian Studies*. Institute of Ethiopian Studies 7(1). 1–13.

Dahl, Östen. 1985. *Tense and Aspect Systems*. Oxford: Basil Blackwell.

Demirdache, Hamida & Fabienne Martin. 2015. Agent control over non culminating events. In *Verb Classes and Aspect*, 185–217. John Benjamins Publishing Company.

References

Demirdache, Hamida & Fabienne Martin. 2015. Agent control over non culminating events. In *Verb Classes and Aspect*, 185–217. John Benjamins Publishing Company.

Doron, Edit. 2003. Agency and voice: The semantics of the Semitic templates. *Natural language semantics* 11(1). 1–67. https://doi.org/10.1023/A:1023021423453.

Folli, Raffaella & Heidi Harley. 2005. Flavors of v: Consuming Results in Italian & English. In Paula Kempchinsky & Roumyana Slabakova (eds.), *Aspectual Inquiries* (Studies in Natural Language and Linguistic Theory 62), 95–120. Dordrecht: Springer Netherlands. https://doi.org/10.1007/1-4020-3033-9_5.

Glanville, Peter John. 2018. *The lexical semantics of the Arabic verb*. Oxford: Oxford University Press.

Grasso, Kevin. 2025. The Stative to Perfective Path in Semitic and in Typological Perspective. In Elitzur A. Bar-Asher Siegal, Nora Boneh, Eitan Grossman & Aynat Rubinstein (eds.), *Language Change: Theoretical and Empirical Perspectives*, 275–303. Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-85292-3_10.

Huehnergard, John & Na'ama Pat-El. 2019. Introduction to the Semitic Languages and Their Histories. In John Huehnergard & Na'ama Pat-El (eds.), *The Semitic Languages* (Routledge Language Family Series), vol. 21, 1–21. 2nd edn. Abingdon & New York: Routledge.

Kamil, Iris. 2025. *Intention, Aspect, and Argument Structure. The Morphosyntax and Morphosemantics of the Akkadian Verb*. University of Edinburgh PhD Thesis.

Kastner, Itamar. 2020. *Voice at the interfaces: The syntax, semantics and morphology of the Hebrew verb*. Berlin: Language Science Press. https://doi.org/10.5281/zenodo.3865067.

References

Khan, Geoffrey. 2008. *The Jewish neo-Aramaic dialect of Urmi* (Gorgias Neo-Aramaic Studies 2). Gorgias Press ed. Piscataway, NJ: Gorgias Press.

Kouwenberg, N. J. C. 1997. *Gemination in the Akkadian verb* (Studia Semitica Nederlandica 33). Assen: Van Gorcum.

Meyer, Ronny. 2016. Aspect and tense in Ethiosemitic languages. In Lutz Edzard (ed.), *The morpho-syntactic and lexical encoding of tense and aspect in Semitic*, 159–239. Wiesbaden: Harrassowitz Verlag.

Mullins, Christopher. 2005. On the origin and inherent meaning of the L-stem. *IULC Working Papers* 5(1).

Schäfer, Florian. 2009. The causative alternation. *Language and Linguistics Compass* 3(2). 641–681. https://doi.org/10.1111/j.1749-818X.2009.00127.x.

Simpson, Andrew & Zoe Wu. 2002. Agreement, Shells, and Focus. *Language* 78(2). 287–313. https://doi.org/10.1353/lan.2002.0058.

האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

አመሰግናለሁ

תודה

Two causatives, four millennia: The Semitic causative templates from Old Akkadian to modern day

And a special thanks to Malka Rappaport-Hovav, Vera Agranovsky, Yuval Katz, Juwal Schieber, Elitzur Bar-Asher Siegal, and Mauro Tosco and Guglielmo Inglese

Iris Tanza-Kamil
iris.kamil@mail.huji.ac.il
tanzakamil.com