



UNIVERSITÀ
DI TORINO

Anatolian

Class 4: Anatolian (morpho)syntax



Anatolian syntax

- **Hittite syntax** better explored (also from different theoretical angles), no monographic treatment available (but Luraghi 1990)
- **Luwian syntax**: monographic treatment in a formal framework (Giusfredi 2020)
- Minor languages: no systematic treatment, due to poor status of attestation

- Comparative Anatolian view of selected topics in Luraghi (2017)



UNIVERSITÀ
DI TORINO

Word order



Word order: verb final and Wackernagel's law

piran=ma= at= mu m^DXXX.^DU-as DUMU m^mzida
before CONN 3SG.N/A 1SG.OBL A.:NOM child Z.

^m*maniyahhiskit*

administer:3SG.PRET.ITER

‘Before me Armadatta, the son of Zida, had administered it.’

KUB 1.1 i 28 (Hittite);

[tiy]ammis=pa=ti [t]ap-PIŠ-sa naw[a a]yari

earth:NOM CONN PTC heaven:NOM NEG become:3SG.PRS

‘And the earth does not become heaven.’ KUB 35.54 ii 43–44 (Cun. Luvian);

ni= pa= si musanti

NEG PTC 3PL.OBL satisfy:3PL.PRS

‘They cannot be satisfied.’ KUB 32.18 9 (Palaic);

fak= m= λ= it= in qλdān=k artimu=k

CONN CONN 3SG.DAT PTC PTC Q:NOM and A.:NOM and

katsarlokid

bring.destruction:3PL.PRS

‘May the gods Qλdāns and Artemis bring destruction to him.’ 23.10 (Lydian).

Word order changes largely
pragmatically motivated (e.g.
Luraghi 1990, Goedegebuure 2014)

Wackernagel's law in Hittite

Host	Quotative	1 st /2 nd PRO.PL	3 rd PRO	ACC/DAT PRO	REFL	local particles
<ul style="list-style-type: none"> Accented word (+ (y)a/(m)a/man) Connectives: <i>nu, šu, ta</i> 	= <i>war</i> (Luw. - <i>wa-</i> , Lyc. -(<i>u</i>) <i>we-</i>)	= <i>naš</i> = <i>šmaš</i>	= <i>a-</i>	= <i>mu</i> = <i>ta/du</i> = <i>še/i</i>	= <i>za</i>	= <i>an</i> = <i>apa</i> = <i>ašta</i> = <i>kan</i> = <i>šan</i>

NB: order not identical across Anatolian lgs.

Clitic chains

Wackernagel's enclitic < PIE

Sentence initial connectives: Luw. *a*=, Pal. *a*=/*nu*=, Lyd. *ak*= (PA *ō< *óh₁), Lyc. *s*= **BUT** also Hattic *pala/bala* → **Anatolian areal** feature? (Watkins 2001)



Hittite: NP order

AN: (1) *parkuin išnan*
pure.ACC dough.ACC
'pure dough'

→ exception: postposed *humant-*,
dapiant- 'all' and participles

GN: (2) URU *Nešaš LUGAL-uš*
N.GEN king.NOM
'the king of Nesa'

utnē hūman 'the entire land'

DN: (3) *apūn memiyan*
DEM.ACC word(c).ACC
'that word/matter'

DGN: (4) *kāš tandukešnaš DUMU-aš*
DEM.NOM mortality.GEN son.NOM
'this mortal (lit. this child of mortality)' KUB 7.5 i 8



Hittite: verb fronting

ḥalinaš teššummiuš tarlipit šuwamuš 2-ki petumeni
clay.GEN vessel.ACC.PL t.INST full.ACC.PL twice bring.PRS.1PL

tarueni=ma=at ešhar
say.PRS.1PL=CONN=3SG.ACC.N blood(N).ACC

DUMU.É.GAL-*iš* ^d*Hantašepan* LUGAL-*iš* *kiššari dai*
servant.NOM H.ACC king.DAT hand.DAT put.PRS.3SG

“Twice we bring inside the clay vessels full of t. (we **call** it blood);
the palace servant puts a H. divinity in the hand of the king.”
(KBo 17.1 i 18'-28')



Word order in Lycian



verb fronting

mê= (e)ne tubidi qlaj ebi se Malija se
CONN 3SG.OBL strike:3PL.PRS precinct local and *M.*:NOM and
tasa miñtaha
oath:N/A.PL *m.*:ADJ.N/A.PL

‘The local precinct and Malija and the oaths of the *minti* will strike him.’

TL 75.5 (Lycian);

ebêñne χupā mê= (e)nê prñnawate Trijêtezi
this:ACC tomb:ACC CONN 3SG.ACC build:3SG.PRET *T.*:NOM
‘This tomb, Trijêtezi built it.’ TL 8.1–2 (Lycian).



left dislocation



UNIVERSITÀ
DI TORINO

Grammatical relations

Neuter nouns in Anatolian

- Neuter plural subjects = singular agreement

^m*Āskali=ma uddār*

A.DAT=CONN word(N).NOM.PL

'Accusations arose against Askali.' (KBo 3.34 ii 18)

arāiš

rise.PST.3SG

Traces in Latin, Indo-Iranian,
Greek (Dahl 2021)



- Banned from A position

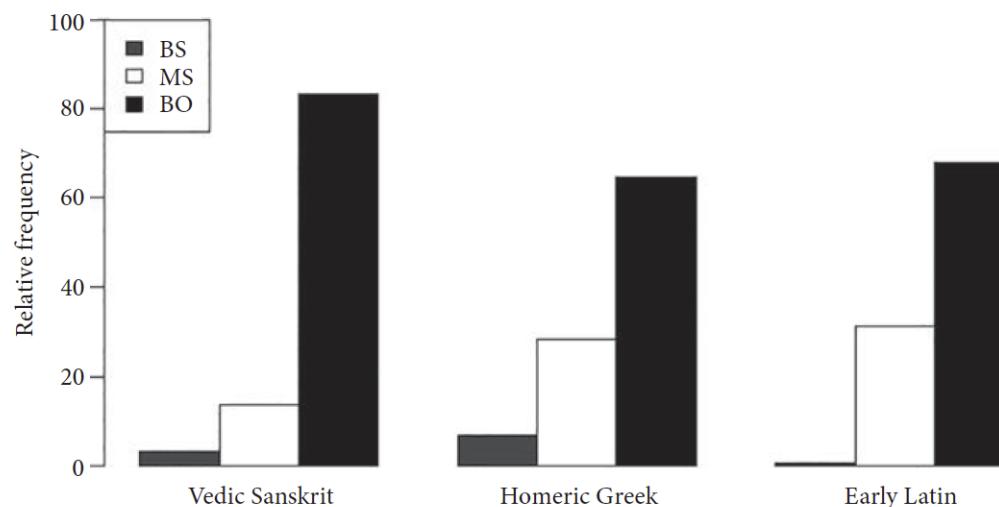


Fig. 2.2 Distribution of neuter nouns in core argument functions
BS = Bivalent Subject; MS = Monovalent Subject; BO = Bivalent Object

Split ergativity in Anatolian

LUGAL- <i>u</i> - 'king (c.)' <i>pahhur</i> 'fire' (n.)	
A	LUGAL- <i>uš</i> <i>pahhuwen-anza</i>
S	LUGAL- <i>uš</i> <i>pahhur</i>
P	LUGAL-<i>un</i> <i>pahhur</i>

Already Laroche (1962):

- CLuw. *-antiš*, *-antinzi*
- Lyc. - *ēti*

s=ēne

CONN=3SG.ACC

tr̄mili-j-ēti

Lycian-adj-*ant.NOM.PL*

‘The Lycian oaths will destroy him.’ (TL 149,10)

tesēti:

oath(n).*ant.NOM.PL*
qāñti:

destroy/seize?.*PRS.3PL*


shared **Anatolian** feature



The origin of *-anza*

- Garrett (1990): *-anza* ABLATIVE > ERGATIVE

URU	<i>Samuhann=a...</i>	<i>alwanzešnaza</i>	<i>šer</i>	<i>šunnista</i>
S.ACC=CONJ		witchcraft.ABL/ERG	above	fill.PST.3SG
'And he filled Samuha ... with witchcraft' > 'And witchcraft filled Samuha.'				
(StBoT 24 ii 78, from Garrett 1990a: 278)				

Problems:

- *-anza* is the ablative allomorph of *r/n*-stems, against expected more common *-(a)z* (PIE *-óti, *-ti), e.g. *nēpiš-za* 'from the sky'
 - ablative used as Agent of the passive instead of the instrumental only from MH onwards (Melchert 1977)

Alternative account

Stage I (OH):

-ant-s/eš derivational 'individualizing' suffix with neuter nouns in A (PIE poss. **-e/ont-*)



Stage II (NH): *-ants/-anteš* ergative inflectional case endings

Table 4.3 Distribution of derivational and ergative
-ant- (adapted from Goedegebuure 2018)

Status of <i>-ants</i>	Language Stage		
	OH/MH/Murs II	NH	Tot.
Derivational suffix	51	—	51
Potentially ergative	107	101	208
Tot.	158	101	259

**NB: Luwian *-ant-*
always derivational!**

Split intransitivity: 3rd person enclitics

Object clitics → transitive verbs

<i>takku</i>	GU₄.MAH_i	<i>kuiški</i>	<i>wemiezzi</i>	<i>t=an_i</i>	<i>parkunuzi</i>
if	bull	INDF.NOM	find:PRS.3SG	CONN=3SG.AC	purify:PRS.3SG
'If anyone finds a bull and castrates it' (KBo 6.2 iii 33)					

Unaccusative intransitives → subject clitics

<i>n=aš</i>	<i>karū/nawi</i>	paizzi
CONN=3SG.NOM	already/yet	go.PRS.3SG
'He has already / hasn't yet gone.'		

Unergative intransitives → no subject clitics

<i>nu=wa=šši</i>	EGIR-an	<i>nuntarnut</i>
CONN=QUOT=3SG.DAT	back	hurry.PST.3SG
'He hurried after him.' (KUB 12.26 ii 14-15)		

The rise of split intransitivity in Hittite

Motion verbs		<i>-a-</i>	\emptyset
<i>arhi-</i>	arrive at	2	1
<i>araihi-</i>	arise	1	—
<i>hink^a/ta-</i>	bow	2	1
<i>huja^bhi-</i>	run	—	9
<i>iānnāi^ami-</i>	go	2	—
<i>pai^ami-</i>	go	21	7
<i>pittia-</i>	flee	1	—
<i>šalik^a-</i>	approach	—	1
<i>šamen^ami-</i>	withdraw	2	—
<i>tīia^ami-</i>	step	15	2
<i>uua^ami-</i>	come	1	—
<i>uah^ami-</i>	turn	1	2
Total		48	23

Change-of-state verbs		<i>-a-</i>	\emptyset
<i>akhi-</i>	die	24	—
<i>hark^ami-</i>	perish	2	—
<i>idalaueš^ami-</i>	turn bad	1	—
<i>kiš^a-</i>	become	2	—
<i>kištančia-</i>	starve	1	—
<i>mija^a- (mai-)grow</i>		1	—
<i>parkueš^ami-</i>	become	1	—
GEME- <i>re</i> ^a <i>mi-</i>	clean	—	—
	become a slave	1	—
		33	—

(21) states, spontaneous events > directional motion verbs > manner-of motion verbs



The origin of split intransitivity

Anatolian innovation: traces in Palaic, Luwian, and Lycian

- A. Analogy:** analogically built from object clitic to index P-like S arguments (Luraghi 1990, Teffeteller 2015)

- B. Contact:** development of enclitic pronominal systems in contact with Akkadian and Ugaritic (Viti 2015), areal trait of Anatolia (Watkins 2001)



Null referential objects

Widespread feature in ancient IE languages, reconstructable to **PIE** (Luraghi 2010, Viti 2015)

Vedic

ánu púrvāḥ_i kṛpate Ø_i vāvaśānā
to former:ACC.PL yearn:PRS.3SG.MD long.for:PTCP.NOM

‘She yearns for former (Dawns) with eager longing for (them).’

RV 1.113.10; Keydana 2009: 136

Ancient Greek

ἀλλά που αὐτὸν_i θυμὸς ἐποτρύνει καὶ Ø_i ἀνώγει
but PTCL 3SG.ACC heart:NOM move:PRS.3SG and force:PRS.3SG

‘But certainly (his) heart moves him and forces (him).’

Il. 15.43; Luraghi 2003: 181

Latin

*ad hanc te_i amentiam natura peperit, voluntas Ø_i
to DEM.ACC.F 2SG.ACC fury(F):ACC nature:NOM generate:PST.3SG will:NOM
exercuit, fortuna Ø_i servavit*
train:PST.3SG fate:NOM preserve:PST.3SG

‘Nature generated you to this fury, will trained (you), and fate preserved (you).’

Cicero, Cat. 1.25; Luraghi 1997: 241

Null referential objects in Hittite

$[(nu \; hašš)]az \; hulliš_i \quad dāi \quad [(nu \; and)a \; \emptyset_i \; (peššizzi)]^{11}$
CONN hearth:ABL pine.cone:ACC take:PRS.3SG CONN inside throw:PRS.3SG
‘[And from the hear]th he takes a pine cone [and throws (it) inside].’

KBo 17.11+ i 40

Table 2: Distribution of NOs and anaphoric resumption in OH

Text	DO omission		Anaphoric resumption	
	NOs	Ambiguous spelling	Clitic pronouns	Tonic pronouns
rituals	25	18	58	10
Laws	11	5	53	9
Anitta	1	–	8	–
Zalpa	3	–	11	–
Chronicle	2	–	20	1
instruction	1	–	–	–
CTH 631	49	8	7	3
Total	91	31	157	23
			180	

Demise of
NOs from
OH > NH



Non-canonical subjects

Widespread feature in ancient IE languages, reconstructable to PIE (Viti 2017, Barðdal 2023, Barðdal et al. 2023)

Mich schauderte und — ekelte.
me.ACC felt.horrified.3SG and Ø.ACC felt.disgusted.3SG
'I felt horrified and disgusted.'

Suae quemque fortunae paenitet
his.own(GEN.SG) each(ACC.SG) lot(GEN.SG) regret(PRES.3SG)
'Each man is discontent with his lot' (C. Fam. 6.1.1)

Ancient Greek (isolate; Aesch. Ch. 946)
hōi mélei kryptadíou máchas
REL.DAT.SG care.for.PRS.3SG clandestine.GEN.SG battle.GEN.SG
'who cares for the clandestine battle'



Non-canonical experiencer subjects

Accusative

- (1) *mān antuhšan SAG.DU-ŠU ištarakzi*
if man.ACC head=3SG.POSS ail.PRS.3SG
'If a man has head pains.' (KUB 8.36 ii 12-13)

Dative

- (2) *nu=šši maħħan kāšti kāninti*
CONN=3SG.DAT when hunger.DAT thirst.DAT
nakkešta
become_troublesome.PST.3SG
'When it (=the population) started to suffer hunger and thirst.' (KUB 14.15 iii 45-46)



UNIVERSITÀ
DI TORINO

Relative clauses

Huggard 2015, Melchert 2016, Inglese 2016,
Motter 2023



Correlative dyphtic

[REL₁ N₁ V] [PRO₁ V]

Old Indic (from Lühr 2005: 84)

agne *yam* *yajñam* *adhvaraṁ* *viśvataḥ* *paribhūr* *asi*
Agni:VOC REL.ACC sacrifice:ACC offering:ACC all.around surrounding be:PRS.2SG
sa *id* *deveṣu* *gacchati*
DEM.NOM truly god:DAT.PL go:PRS.3SG

“Agni, the sacrifice and the offering that you completely encompass, that sacrifice truly goes to the gods.” (*RV* 1,1,4)

Ancient Greek

hós *ke* *theoīs* *epipeíthētai* *mála* *t'* *ékluon*
REL.NOM PTC god:DAT.PL obey:SUBJ.PRS.3SG.MID indeed PTC hear:AOR.3PL
autoû
DEM.GEN

“Whoever obeys the gods, they indeed listen to him.” (Hom. *Il.* 1.218)

Lehmann 1974, Justus 1976



Hittite

GIŠ	SUKUR	^{H.I.A} =ma	U	GIŠ	PA	^{H.I.A}	kue	harkanzi
spear(PL.N)=PTC	CONJ	scepter(PL.N)		REL.ACC.PL.N		hold:PRS.3PL		
<i>nu=šmaš=at=kan</i>			1-aš		LÚ	MEŠEDI	<i>arha</i>	<i>dai</i>
CONN=3PL.DAT=3PL.ACC.N=PTC			one:NOM	guard			away	take:PRS.3SG

“But which spears and scepters they hold, one guard takes these away from them.”
(KBo 4.9 Rev. v 3-5)⁵⁴



Luwian and Lydian

<i>kalmiyanin</i>	- <i>ti</i>	- <i>an</i>	<i>kuis</i>	<i>ata</i>
stick.ACC.SG	REFL	he/it.ACC	which.NOM.SG	make.PST3SG
<i>a</i>	- <i>ti</i>	<i>kalmiyanin</i>	<i>laddu</i>	
INTR	REFL	stick.ACC.SG		take.IMP3SG
“He who made it a stick for himself should take the stick for himself.” ²⁷⁰				

Lydian (Text 45, line 5)

<i>ak=it</i>	<i>esλ taacλ</i>	<i>qis</i>	<i>fēnsλibid</i>
CONJ=PTC	this votive-object.D-LSg	REL-Nsg	violate.Pr3Sg
‘Whoever <i>violates</i> this votive object...’			



Lycian

Lycian (TL 101, 3–5; Limyra)

*kbi: tike: ti ñtepi tadi: a[t]la[h]i: tibe: kbijehi tibe=te:
other some.ASg REL-NSg in put.Pr3Sg his own or another's.ASg or=PTC
ala[h]adi ti: m=ene: mā[h]āi: tubeiti wed[rēñ]ni
inter.Pr3Sg REL-NSg CONJ=3ASg god.NPl strike.Pr3P1 w.NPl
'Whoever puts someone else inside, his own or another's, or whoever makes an interment, the
w. gods shall strike him!'*



Postposed restrictive RCs

na-at-ta a-pu-u-un GEŠTIN-an pi-i-e-er LUGAL-uš ku-in a-uš-ta
NEG DEM.ACC wine:ACC give:PST.3PL king:NOM REL.ACC see:PST.2SG

“They did not give (me) that wine that you, the King, saw.”

(KBo 3.34 ii 5-6 [*Chronicle A*])



Postposed restrictive RCs

Hieroglyphic Luvian (ANCOZ 7, §§5–6)

ni-pa-ta? REL+ra/i *hu+ra/i-x-x* INFRA ... || FINES-*hi-zi* .REL-*sa*
or=PTC somehow ... below boundaries.AP1 REL-NSg
|za-la-na PONERE-wa/i-i *mu-wa/i* PURUS.FONS.MI REL-*zi* |*pi-ya-ha*
z. (adv.) put.Pr3Sg 1NSg=QUOT Suppiluluma REL-AP1 give.Pret1Sg
'Or who in any way...puts z. the boundaries that I, Suppiluluma, made...'

Lycian (TL 80, 2)

se=i=ni *ñtepi tātu* .*tike* *ne=de* *xuwati=ti*
and=PTC=PROHIB in put.Imv3P1 INDEF-ASg NEG=PTC stand-near.Pr3Sg=REL-NSg
'And let them not put anyone inside who is not closely related.'

Embedded RCs?

Hittite (KBo 6.2 ii 61–62; OH/OS)

nu apē[l É=SÚ] kuel=a ^{GIŠ}*eyan* *āški=šši* *šakuwān a[peniššan]*
CONJ 3GSg house REL-GSg=PTC yew.N-ASg gate=his.D-LSg s.N-ASg likewise
'The house of him at whose gate a yew tree is *s*-ed is (treated) likewise.'¹⁴

Lycian (N320, 22–25)

se=wa(j)=aitē: *kumaha:* *ēti sttali:* *ppuweti:* *k̄mmē:*
and=PTC=make.Pret3Pl sacred.N-API on stele.D-LSg write.Pr3Pl as-much.N-ASg
ebehi: *xñtawataha:* *xbidēñnaha:* *se=rKKazumaha*
this.D-LSg of-king.N-API of-Kaunos.N-API and=of-*A*.N-API
'And they have made sacred as belonging to the King of Kaunos and Arkesima as much as
they write on this stele.'



UNIVERSITÀ
DI TORINO

Verbal aspect



Aspect in Hittite

“Any basic verbal stem in Hittite may be read as perfective or imperfective, provided that its inherent meaning and the context are appropriate” (Hoffner & Melchert 2008: 317)

PERFECTIVE

namma=aš
then=3SG.NOM

INA
to

^{HURSAG}*Zukkuki*
mountain.Z.

EGIR-pa
back

uet
come:PST.3SG

‘Then he came back to Mt. Zukkuki’

[KBo 5.6 i 1]

IMPERFECTIVE

nu
CONN

uet

come:PST.3SG

^{m.GIŠ}*GIDRU-LÚ-iš*
*H.:*NOM

IŠTU
from

KUR
land

^{URU}*Mizri*
Egypt

EGIR-pa
back

‘While Hattusaziti was coming back from the land of Egypt’

[KBo 5.6 iii 26]

Analytic telicity marking

kuenzi=uš LUGAL-*uš* [...] *n=an=kan* *kunanzi*
kill.PRS.3SG=3PL.ACC king.NOM CONN=3SG.ACC=PTC kill.PRS.3PL

‘The king may have them executed (or he may spare them) [...] (They shall substitute one sheep in the place of the man) and kill it.’ (KBo 6.26 iv 17-21)

UL=aš *dapianza arha* BIL-*ni*
NEG=3SG.NOM entire.NOM away burn.PRS.MID.3SG

‘(If the city of A. survives) and it does not entirely burn to the ground.’ (KUB 15.12 iii 5)

Telic function of **preverbs** in other ancient IE languages, e.g. Lat. *edo* ‘eat’ > *com-edo* ‘eat up’, *dormio* ‘sleep’ > *ob-dormisco* ‘fall asleep’



“Aspectual” suffixes

Derivational suffixes: *-ške/a-, -šša-, -anna/i-* “synchronously [...] function effectively as suppletive allomorphs of a single morpheme” (Melchert 1998: 414)

Distribution of *-ške/a-*:

- optional: base forms = *-ške/a-* → derivation!
- **BUT** “The use of the marked imperfective stem is virtually obligatory with distributive expressions such as UD-*at* UD-*at* ‘day after day’, ITU-*mi* ITU-*mi* ‘month after month’ ...” (Hoffner & Melchert 2008: 320)
- incompatible with states and adverbs ‘X times’



The Hitt. suffix -ške/a-

- **Actional hypothesis:** -ške/a- changes the *Aktionsart* of the verb 'iterative-durative' (Sommer & Ehelolf 1924: 21-22, Gusmani 1965: 79), 'iterative' (Pedersen 1938: 132) 'distributive' (Neumann 1967: 24), 'iterative-durative-distributive' (Friedrich 1960, Rosenkranz 1966), 'durative-distributive' (Kammenhuber 1969: 217), 'iterative-durative-intensive' (Kronasser 1966)
- **Aspectual hypothesis:** -ške/a- = imperfective vs. neutral base forms
- **Pluractional hypothesis:** -ške/a- is a pluractional marker (Dressler 1968, Inglese & Mattiola 2020)



Functions of -ške/a-

CONTINUATIVE

<i>takku</i>	LÚ-aš	GU ₄ =ŠU	ÍD-an	zī-nu-ški-zzi
if	man:NOM	ox=3SG.POSS	river:ACC	CROSS-CAUS-IPFV-PRS.3SG
<i>tamaiš=an</i>		šu[wezzi]		
other:NOM=3SG.ACC		push:PRS.3SG		

‘If a man is making his ox cross a river, and another man pushes him off (the ox’s tail)’ [KBo 6.2 ii 30, OH]

FREQUENTATIVE

<i>namma</i>	ÉRIN.MEŠ-an	MU-ti	MU-ti	pi-ška-nzi
then	troop:ACC	year:DAT	year:DAT	give-IPFV-PRS.3SG
‘And they will keep providing troops year after year’				[KUB 23.72+ obv. 18, MH]



Functions of -ške/a-

ITERATIVE

nu ^{LÚ}A.ZU **hukki-ški-zzi**

CONN physician invoke-IPFV-PRS.3SG

‘(Then gold-spear-man holds a plated spear, and a physician holds a sistrum. They march together), and the ‘physician’ repeats the invocations’

[IBoT 1.36 ii 46, MH]

HABITUAL

karū 1 MA.NA KÙ.BABBAR **pi-šk-er** *kinuna*

formerly 1 mine silver give-IPFV-PST.3PL now

20 GÍN KÙ.BABBAR *pāi*

20 shekel silver give:PRS.3SG

‘Before they used to give 1 mine of silver, now he gives 20 shekels of silver’

[KBo 6.2 i 10, OH]

Functions of -ške/a-

PLURALITY OF PARTICIPANTS

a. Plurality of objects

nu DUMU.MEŠ=ŠU andan zikiet
CONN son(PL)=3SG.POSS inside put-IPFV-3SG.PST
'(She coated baskets with oil) and she placed her sons (one after the
other) therein' [KBo 22.2 obv. 3, OH]

b. Plurality of S subjects (Agent)

mān LUGAL-waš peran šie-ška-nzi
when king:GEN in.front.of shoot-IPFV-PRS.3PL
'And when they shoot with their bows at the presence of the king
(whoever wins, they give him wine to drink)' [KBo 3.34 ii 33, OH/NS]

c. Plurality of S subjects (Patient)

nu=wa kinun=ma ammuk peran akki-ški-ttari
CONN=QUOT now=PTC 1SG.DAT in.front.of die-IPFV-PRS.3SG.MID
'But now under my kingdom (lit. in front of me) people die (lit. it dies)'
[KUB 14.10+ i 12, NH]

Functions of -ške/a-

INTENSIVE?

š=an **ē-šši-(š)k-er**

CONN=3SG.ACC do-IPFV-IPFV-PST.3PL

‘(And then they took him away), they took ‘good care’ of him (so that he died)’

[KBo 3.34 ii 7, OH/NS]

SPATIAL DISTRIBUTIVE

nu wātar [IŠTU GIŠPA] duwan duwann=a **pappara-ški-zzi**
CONN water:ACC with staff here here=CONJ sprinkle-IPFV-PRS.3SG
‘And he sprinkles water here and there with the staff’ [KBo 12.40 ii 8, NS]

GENERIC IMPERFECTIVITY

halkiš=wa	maħħan	NAM.LÚ.U ₁₉ .LU	GUD	UDU
grain:NOM=QUOT	as	human	cattle	sheep
huitarr=a	ħūman	ħuiš-nuški-zzi		
game(N):ACC=CONJ	all:ACC.N	live-CAUS-IPFV-PRS.3SG		
‘Just as grain keeps all humans, cattle, sheep and wild game alive’				
[KBo 4.2 i 58-59, NS]				



Functions of -ške/a-

INCEPTIVE

šeš-(š)ki-ška-nzi=ya=at=za

sleep-IPFV-IPFV-PRS.3PL=CONJ=3PL.NOM=REFL

‘(The horses eat all night long) and they go to sleep’ [KUB 29.54 i 10, MH]



Scarcely attested with **finite forms** but frequent in the analytic ‘supine’ construction [*dai/tiya-* ‘put’ + supine] ‘begin to...’:

nu=mu

CONN=1SG.DAT

‘They began to give me troops’

ÉRIN^{MEŠ}

troop(PL)

pe-ške-wan

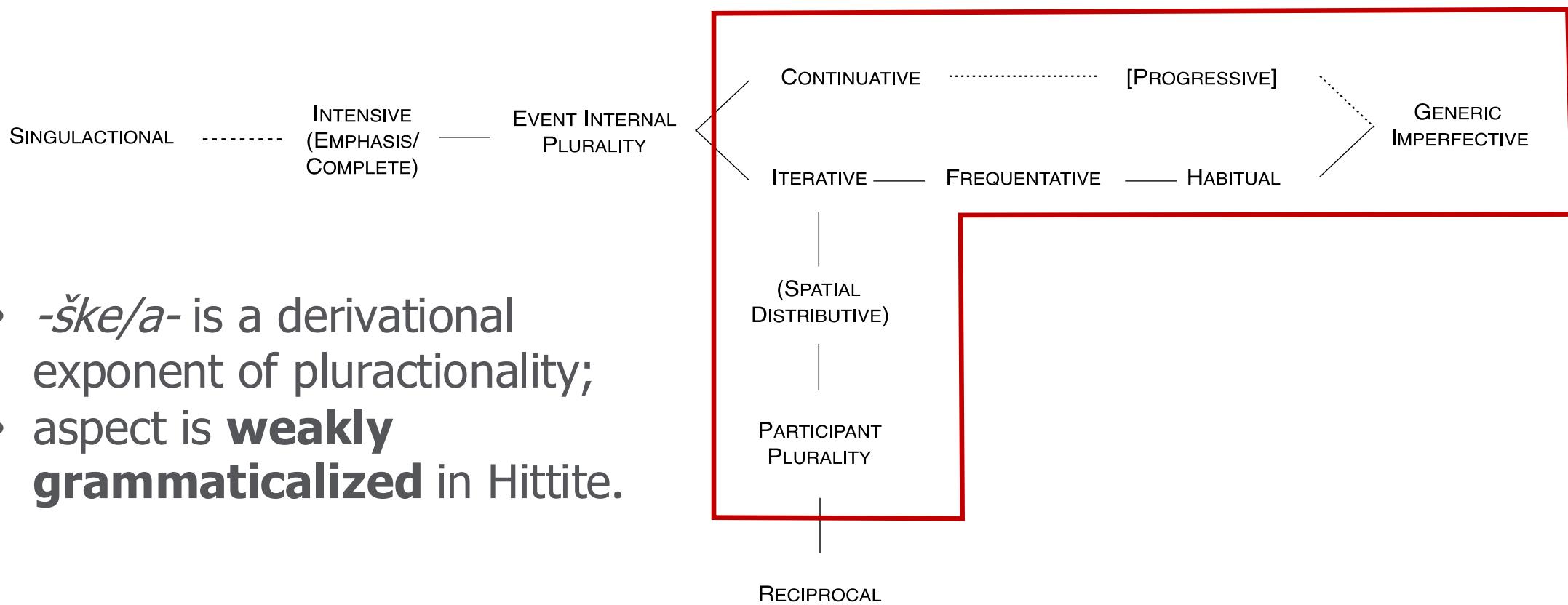
give-IPFV-SUP

[KBo 3.34 iii 34, NH]

dāir

put:PST.3PL

The semantic map of *-ške/a-*



- *-ške/a-* is a derivational exponent of pluractionality;
- aspect is **weakly grammaticalized** in Hittite.



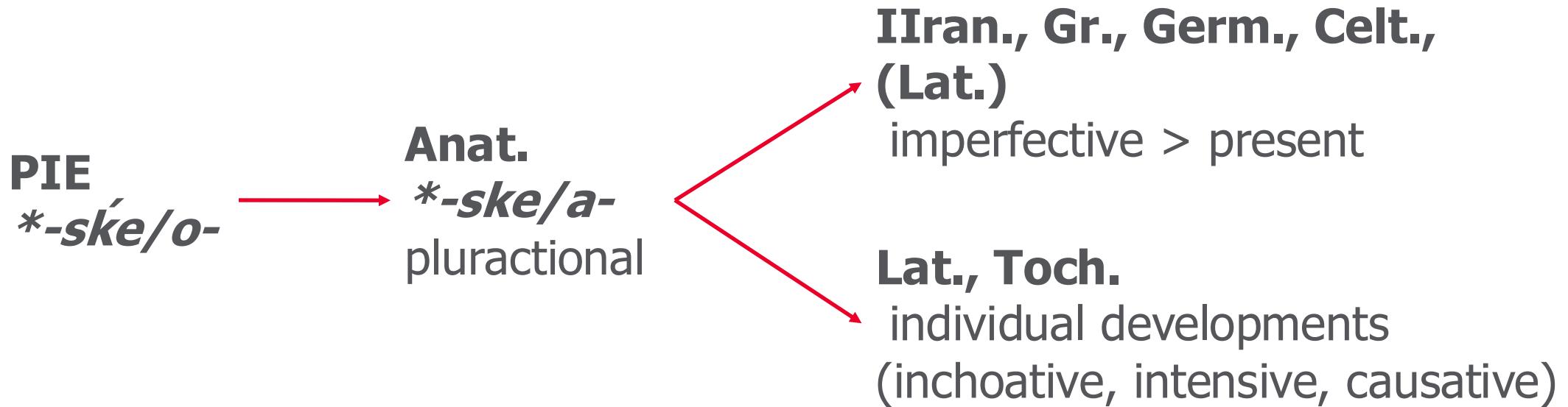
Origin of -ške/a-

- Attested in other **Anatolian languages** (vd. Sasseville 2020: Cap. 13):
 - Cluw. -zza-, Hluw. -za-: similar to -ške/a-
 - Lycian -s-: no clear synchronic function
- -ške/a- < PIE ***-ske/o-** (< *-s-ke/o-? cf. Willi 2018: 480)
- **Presents** with zero grade root and accented suffix
**gʷem-*'go' > **gʷm̥-ské/ó* > Ved. *gáçchati*, Gr. *báske*

Outcomes of PIE *-ské/o-

- **Indo-Iranian:** Scr. -*ccha*-, Av. -*sa*-
present stem formant, Ved. *gácchati* 'goes'
- **Greek** -*ske/o*-
present stem formant, Gr. *báske*, *gignoškō* know'
- **Irish** -*c*-, **Germanic** -*sc*-: relic in present stem formation
- **Latin** -*sce/o*-
 - inherited presents (*noscō* = *gignoškō* know')
 - habitual traces? *esse* 'be' > *escit/escunt* 'will (habitually) be'
 - **inchoative forms** *caleō* 'be hot' > *calescō* 'become hot'
- **Tocharian B** -*ʂʂə*-/-*ske*: causative and intensive functions
(vd. *-éye/o- iterative/causative, cf. Bozzone 2020)

The diachrony of PIE **-s̍ke/o-*



"there seems no doubt, however, that Hittite preserves the original meaning and that meanings other than imperfectivity [i.e., pluractionality] are innovations." (Adams 2014: 24–25)

Periphrastic and serial verb constructions



UNIVERSITÀ
DI TORINO

Hittite auxiliary verb constructions

bark- 'hold, keep' + PTCP → default **NOM/ACC neuter**

nu=wa *karuššyan* *harak*
CONN=QUOT be.silent.PTCP.NOM/ACC have.IMP.2SG
“Keep (being) silent!” (KUB 14.4 iv 11, NH/NS)

eš- 'be' + PTCP → **subject agreement**

n=at arha harranteš ešer
CONN=3PL.NOM away damage.PTCP.NOM.PL be.PST.3PL
“They (sc. the birds that you sent to me) were spoiled.” (AT 125.12, NH/NS)

Hittite auxiliary verb constructions

memiyann=a=kan EGIR-*anda arha UL ištamaššan*
thing.ACC=CONN=PTCL afterwards away NEG hear.PTCP.NOM/ACC
harmi
have.PRS.1SG

“And I have not heard afterwards about the matter.”

(KUB 31.121 iii 16–17, NH/NS)



Aux + vb sequence
not interrupted!

[...] *UL arān* *ēsta*
NEG rise.PTCP.NOM.N be.PST.3SG
“[...] had not risen.”

(KUB 14.16 i 21, NH/NS)

n=at *anzel iwar EGIR-pa UL kuiški*
CONN=3PL.ACC.N 1PL.GEN like back NEG INDEF.NOM
newahha[n *hart]a*
renew.PTCP.NOM/ACC have.PST.3SG
“And no one has renewed them like us.”

(KUB 17.21 + i 17, MH/MS)

Stative constructions

- with telic/atelic verbs
- only available interpretation with **imperative** verbs!

GAM-an *kaninanza* *ēšdu*
under crouch.PTCP.NOM be.IMP.3SG
“Let him be crouched down.”

(VBoT 120 ii 17–18, MH/NS)

nu=mu DINGIR^{LUM} *ištamanan* *lagan*
CONN=1SG.DAT god ear.ACC bend.PTCP.NOM/ACC
ḥark
have.IMP.2SG
“O god, keep your ear inclined to me.”

(KUB 24.1 i 16–17, NH/NS)

nu=wa *karuššiyan* *ḥarak*
CONN=QUOT be.silent.PTCP.NOM/ACC have.IMP.2SG
“Keep (being) silent!”

(KUB 14.4 iv 11, NH/NS)

Periphrastic perfect = anterior

nu=wa=za

karū 30 É^{TUM}

ašešan

CONN=QUOT=REFL already 30 house(ACC) settle.PTCP.NOM/ACC

harzi

have.PRS.3SG

“[Pihinakki is occupying the town of Lipisira] and he has already settled 30 houses.” (HMK 10 rev. 6, MH/MS)

n=aš

mān karū pānza

CONN=3SG.NOM if already go.PTCP.NOM

“And if he has already/formerly gone.”

(HKM 75, 23–24, MH/MS)

Periphrastic perfects are AVCs

Clitics governed
by *hark-/eš-*

nu=war=aš=za

CONN=QUOT=3SG.NOM=REFL be.fearful.PTCP.NOM/ACC have.IMP.3SG

“He shall behave respectfully [lit. keep being respectful].”

nahħān

hardu

(KUB 36.118 8, MH/MS)

GAM-*an kaninanza*

under crouch.PTCP.NOM be.IMP.3SG

“Let him be crouched down.”

ešdu

(VBoT 120 ii 17–18, MH/NS)

n=aš mān karū pānza

CONN=3SG.NOM if already go.PTCP.NOM

“And if he has already/formerly gone.”

(HKM 75, 23–24, MH/MS)



ḥark- and *eš-* as auxiliaries

išhēniu(š)=šmaš=kan UMB[IN^{MEŠ=y}]a *dān*
hair(N).NOM=3PL.DAT=PTCL nail(PL)=CONJ take.PTCP.NOM.N
ešdu *parkuwa=ya* TÚG^{HI.A} *waššan*
be.IMP.3SG clean.ACC.PL.N=CONJ cloth(N.PL) wear.PTCP.NOM/ACC
ḥarkandu
have.IMP.3PL

“Let their hair and nails have been cut, and let (them) have put on clean clothes.”
(translation by Garrett 1996: 104. KUB 13.4 i 16 MH/NS)

Auxiliary selection: *ḥark-* with transitive/unergative vbs. and *eš-* with unaccusative



Origin of *hark-* constructions?

- **Possessive** origin (like Romance *have*-perfects):

Multa bona bene parta habemus (Plautus, *Trin.* 347)
Many goods well obtained we-have
'We possess many well obtained goods.'

BUT: not compatible
with lack of agreement

- **Adverbial** origin:

menahhanda hark- "to keep in front, to consider"
arahzanda hark- "to keep surrounded, to protect"
arha hark- "to keep away"

BUT: no evidence of n/a.n
participles in adverbial
function elsewhere!

The Hittite 'serial' constructions

+ biclausal

+ motion

- biclausal

± motion

- biclausal

- motion

- (1) DUMU^{MEŠ}.É.GAL *appa panzi* *ta=z* AŠAR-ŠUNU *appanzi*
palace_servants back go.PRS.3PL conn=refl place=their take.PRS.3PL
'The palace servants go back and take their places.' (KBo 20.8 i 20')

- (2) *nu=za* *panzi* AŠAR-ŠUNU *appanzi*
CONN PTC go.PRS.3PL place=their take.PRS.3PL
'They (go) take their places.' (KBo 4.9 v 45)

- (3) GIM-*an=ma=za* *uit* ŠEŠ-YA ^m*Arnuwandaš* DINGIR^{LIM}
when=CONN=REFL come.PST.3SG brother=m A.nom god
kišat
become.PST.3SG.MID
'When my brother Arnuwanda (came) became god (=died).'



SVCs in IE languages and PIE?

age abduce hasce intro quas mecum adduxi, Stiche.

Go take these (women) I've brought with me indoors, Stichus. (Pl. St. 418)

īt=war ašta pargamuš ḪUR.SAG.DIDL.I.HI.A-ašaš šāḥ

Go search the high mountains. (KUB 17.10 i 24–5)

uwatten^{URU} Nēša paiwani

Come, let us go to the city of Nesa. (KBo 22 Ro 15)



Formal aspects: clitics

clitics are governed by the final verb and not by *pai-/uwa-*

paiweni=war=an=kan

go.PRS.1PL=QUOT=3SG.ACC=PTC kill.PRS.1PL

'We shall (go) kill him.' (KBo 6.29 ii 24-26)

kuennumeni

nu=za

CONN PTC

panzi

go.PRS.3PL place=their

'They (go) take their places.' (KBo 4.9 v 45)

AŠAR-ŠUNU

appanzi

take.PRS.3PL

Semantics of SCVs

"The construction indicates an event which is sequentially ordered following the event in the preceding clause." → **new event marker**

paiweni=war=an=kan

go.PRS.1PL=QUOT=3SG.ACC=PTC kill.PRS.1PL

'We shall (go) kill him.' (KBo 6.29 ii 24-26)

kuennumeni

pai-

- controlled events
- + imperative/present
- 'and then'

GIM-*an=ma=za*

when=CONN=REFL

^m*ArnuwandašDINGIR*^{LIM}

A.NOM

uit

god

come.PST.3SG

ŠEŠ- *YA*

brother=1SG.POSS

kišat

become.PST.3SG.MID

'When my brother Arnuwanda (came) became god (=died).'

uwa-

- ± controlled events
- + past
- 'it happened that'



The origin of *pai-*/ *uwa-* constructions

n=aš *URU Almina* *andan pait*

CONN=3SG. NOM A. into go.PST.3SG

'He went into (the town of) Almina.' (KBo 5.6 i 6)

nu ^DPUTU-ŠI *paun* *nu=za* ^HUR.SAG *Tarikarimun* *kuiš* URU *Gašgan*

CONN his_majesty go.PST.3SG CONN=REFL *t.-mountain* REL.NOM city *k.ACC*

ešan *harta* *n=an* *GUL-un*

occupy.PTCP have.PRT.3SG CONN=3SG.ACC conquer.PST.1SG

'Then I, His Majesty, went; (h) and I attacked those (g) Kaskaean who had occupied the mountains of Tarikarimu.' (KBo 3.4 iii 57-66)

Original contexts: usage without PPs



UNIVERSITÀ
DI TORINO

Voice domain

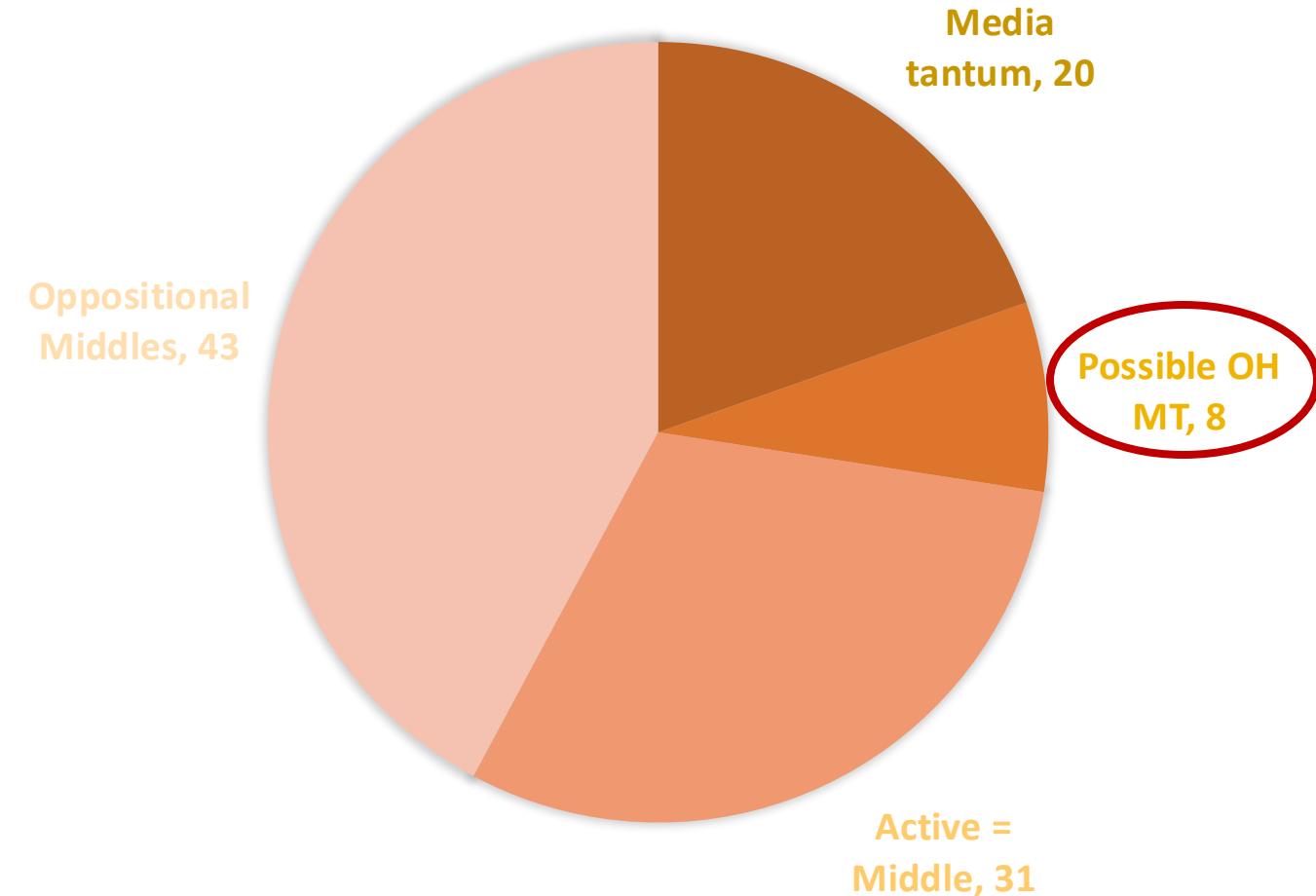
Inglese 2017, Inglese 2020

The classification of Hittite middles



- 1. Non-oppositional**, or *media tantum*: verbs that only occur in the middle voice.
- 2. Oppositional**: verbs that inflect in the middle voice to indicate a functional opposition with active transitive counterparts.
- 3. Optional**: verbs that occur both in the active and in the middle voice without any synchronically distinguishable functional motivation.
- 4. Lexicalized**: active and middle forms show different meanings.

Hittite middles in originals



Problems in identifying MT:

Limitations of the OS corpus: some verbs show active inflection in post-OH only!

OH *paršia* 'break' → NH *paršiyami*
OH *zaḥḥanda* 'hit each other' →
MH *zaḥ-i* 'hit'

1. Non-oppositional middles

BASE

ar-tta(ri) ‘stand’

eš-a(ri) ‘sit down’

hišwai-tta(ri)? ‘(be) open’

ye/a-tta(ri) ‘go, march’

ištu-ā(ri) ‘get out, become known’

ki-tta(ri) ‘lie, be laid’

kīš-a(ri), kikkiš-tta(ri) ‘become, happen’

kišt-ā(ri) ‘perish’

tarra-tta(ri) ‘be able, can (+ inf.)’

tukk-āri ‘be visible, be important’

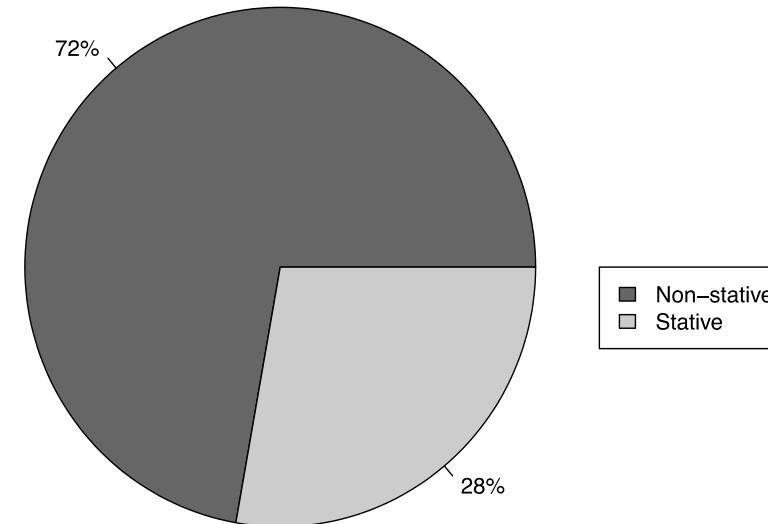
ur-āri, war-āri ‘burn’

wakk-āri ‘be lacking’^a

wešš-tta ‘wear’

zē-a(ri) ‘cook (intr.)’

- Neu (1968b: 117-119): are ‘original’ MT connected with **stativity**?



- ‘Original’ MT connected with **intransitivity**?
→ OH MT include transitive (deponents) verbs: *parš(i)-* ‘break’



2. Oppositional middles

Oppositional middle forms can have different functions when they enter a pattern of **voice alternation** (Hoffner & Melchert 2008, Luraghi 2012, Melchert forthc.):

Function	Active	Middle
ANTICAUSATIVE	<i>zinni-zi</i> 'bring to an end'	<i>zinna-tta(ri)</i> 'come to an end'
PASSIVE	<i>tamāšš-zi</i> 'oppress'	<i>tamāšš-ta(ri)</i> 'be oppressed'
RECIPROCAL	<i>zaħħ-i</i> 'hit'	<i>zaħħanda</i> 'they hit each other'
REFLEXIVE	<i>šuppiyahħ-i</i> 'purify'	(=za) <i>šuppiyahħ-(tt)a(ri)</i> 'purify oneself'



Anticausative middles

- (1) ACTIVE TRANSITIVE VERB = INDUCED EVENT

maniyahinn=a *tuk* ***zinnit***

administration.ACC=CONJ 2SG.DAT finish.PST.3SG

“He brought the administration to completion for you.” (KBo 3²¹ ii 1, OH/NS)

- (2) MIDDLE INTRANSITIVE VERB = PLAIN EVENT

[kui]tman=ma *gimmanza* *nāwi* ***zinnat[tat]***

until=PTC winter.NOM not.yet finish.PRS.3SG.MID

“And before winter is over.” (KBo 2.5 iv 11, NH/NS)

Decausative vs. autocausative

Distinction proposed by Geniušienė (1987: 86–89) and Haspelmath (1987: 27)

Autocausative: Hittite (Indo-European; Inglese 2020:511,509)

- | | | | | |
|----|--------------------------------|-----------------------|-----------------|----------------|
| a. | <i>n=ašta</i> | GIŠ <i>hulugannin</i> | EGIR- <i>pa</i> | <i>neyanzi</i> |
| | CONN=PTC | cart.ACC | back | turn.PRS.3PL |
| | 'And they turn the cart back.' | | | |
| b. | LÚ.MEŠ <i>ḪÚB.BÍ</i> | <i>nēanda</i> | | ± control |
| | dancer(PL) | turn.PRS.3PL.MID | | |
| | 'The dancers turn around.' | | | |



Passive middles

(1) ACTIVE = TRANSITIVE

man KUR-i LÚKÚR ŪL dammišhaizzi

IRR land.ACC enemy NEG damage.PRS.3SG

“The enemy would not damage the land.” (HKM 46.15-17, MH/MS)

(2) MIDDLE = PASSIVE

n=at lē dammišhaittari

CONN=3SG.NOM.N NEG damage.PRS.3SG.MI

“It should not be damaged.” (HKM 31 v 11-12, MH/MS)



The Agent in the passive voice

<i>nu-wa</i>	KUR	URU <i>Hatti</i>	<i>hinganaz</i>	<i>arumma</i>
CONN=QUOT	land	H.	plague.ABL	very
<i>mek[ki]</i>	<i>tamaštat</i>			
much	oppress.PST.3SG.MID			

“And the land of Hatti was severely oppressed by the plague.” (KUB 14.10 i 7, NH/NS)

- Agents are only compatible with passives, never with anticausatives
- Expressed via the instrumental or ablative case, the Akk. prep. *IŠTU*, or the Sum. TA

TABLE 18 Agent expressions with passive middles

	OH	MH	NH	Total
Oblique Agent	—	Inanimate: —	Inanimate: 16	25
	—	Animate: 1	Animate: 8	
Agent omitted	6	18	173	197

Passive/anticausative polysemy

- (1) *n=an* *huišwandan* **šarranzi**
 CONN=3SG.ACC live.PTCP.ACC split.PRS.3PL
 "They split them up (into groups) alive." (KUB 9.3 iv 8-9)

- (2) *namma=aš* *arha* **šarrattari**
 again=3SG.NOM away split.PRS.3SG.MID
 "(The enemy arrives at night) and then splits up." (KBo 5.6 i 22-23)

- (3) *TU₇^{HI.A}* *takšan* **šarrattari**
 stew(PL) in.half split.PRS.3SG.MID
 "The stews are split in half." (KUB 20.76 i 15)



Reflexive middles

(1) ACTIVE = TRANSITIVE

nu LUGAL-un šuppiyahhi

CONN king.ACC purify.PRS.1SG

‘And he purifies the king.’ (KBo 17.11+ i 40)

(2) MIDDLE (WITH =ZA) = REFLEXIVE

a. LUGAL-uš=za *šuppiyahhati*

king.NOM=REFL purify.PST.3SG.MID

‘The king has purified himself.’

(KBo 25.112 ii 14)

b. *it* *šuppiyahhatut*

go.2SG.IMP purify.2SG.IMP.MID

‘Go, purify yourself!’

(KBo 3.16 iii 8)



The self-benefactive middle

- 1) *autoû nautillo ménōisi édōke khórouς enidrúsasthai bōmoùs kai teména theoîsi*
'To the sailors who arrived there [the king] granted spaces space to build temples and sanctuaries for their own gods.' (Hdt. 2.178.1) cf. *enidrúō* 'build'
- 2) *yó yájāti yájāte ít* (RV 8.31.1)
'Whoever sacrifices to the god on his own or someone else's behalf.'

«The self-beneficent meaning was one of the **main functions** of the Vedic, and, in general, ancient Indo-European middle (presumably going back to the proto-language).»
(Kulikov 2008: 172)



unattested in Hittite!

Reciprocal middles

(1) ACTIVE = TRANSITIVE

[...]	URU <i>Tuhašunan</i>	<i>zahher</i>
	T.ACC	hit.PST.3PL

“[...] they hit the town of Tuhasuna.” (KUB 17.21 iv 2, MH/MS)

(2) MIDDLE = RECIPROCAL

<i>takku</i>	LÚ ^{MEŠ}	<i>zahhanda</i>
if	man(PL)	hit.PRS.3PL.MID

“If (two) men strike each other (and one of them dies).” (KBo 6.26 ii 16,
OH/OS)

Table 2: Spatial reciprocals and middle voice

Middle voice and reciprocity

Voice alternation and **grammatical reciprocals**

Verb	Active	Middle
<i>ep-</i>	'take'	'take each other'
<i>=za šai-</i>	'become angry'	'quarrel'
<i>zah-</i>	'hit'	'hit each other'

- Reciprocal *media tantum*: *zahhiye/a-* 'fight', *parh-* 'chase' (?)
- Voice alternation with **spatial lexical reciprocals** → reciprocal anticausatives!

Verb	Active	Middle
<i>hamenk-</i>	'bind'	'be bound'
<i>hantae-</i>	'align (tr.)'	'align (intr.)'
<i>happ-</i>	'attach'?	'be attached to someone'
<i>hapuwai-</i>	'bind'	'be bound'
<i>harp-</i>	'join (tr.), to pile up'	'join (intr.)'
<i>anda imiya-</i>	'mix (tr.)'	'mix, mingle (intr.)'
<i>išhia-</i>	'bind'	'be bound'
<i>lamm-</i>	-	'mingle (intr.)'
<i>lisša-</i>	'gather (tr.)'	'gather (intr.)'
<i>šārr-</i>	'split (tr.)'	'split (intr.)'
<i>šišša-</i>	*'throw'	'collide'
<i>takš-</i>	'mix (tr.)'	'mix (intr.)'
<i>tamenk-</i>	'join (tr.)'	'join (intr.)'
<i>tarupp-</i>	'gather (tr.)'	'gather (intr.)'
<i>ullai-</i>	-	'mix (intr.)'

Voice alternation as intransitivization



UNIVERSITÀ
DI TORINO

ANTICAUSATIVE

ped[e]=šši=ya=at=kan *lē*
place.DAT=3SG.POSS.DAT=CONJ=3SG.NOM.N=PTC NEG

niniktar[i]
raise.PRS.3SG.MID

“(Behold, I have fixed in place the king’s oath, curse, blood and tears [...] let it not come loose in its place.” (KBo 24.4+ rev. 7–10, NS)

REFLEXIVE

<i>n=aš=za munnaitat</i>	CONN=3SG.NOM=REFL	hide.PST.3SG.MID
--------------------------	-------------------	------------------

“(When Anu finished talking, he went up to the sky,) and hid himself.”
(KUB 33.120 i 38, MH/NS)

Voice alternation as intransitivization

PASSIVE

n=at *wemiya[t]taru*
CONN=3SG.ACC.N find.IMP.3SG.MID

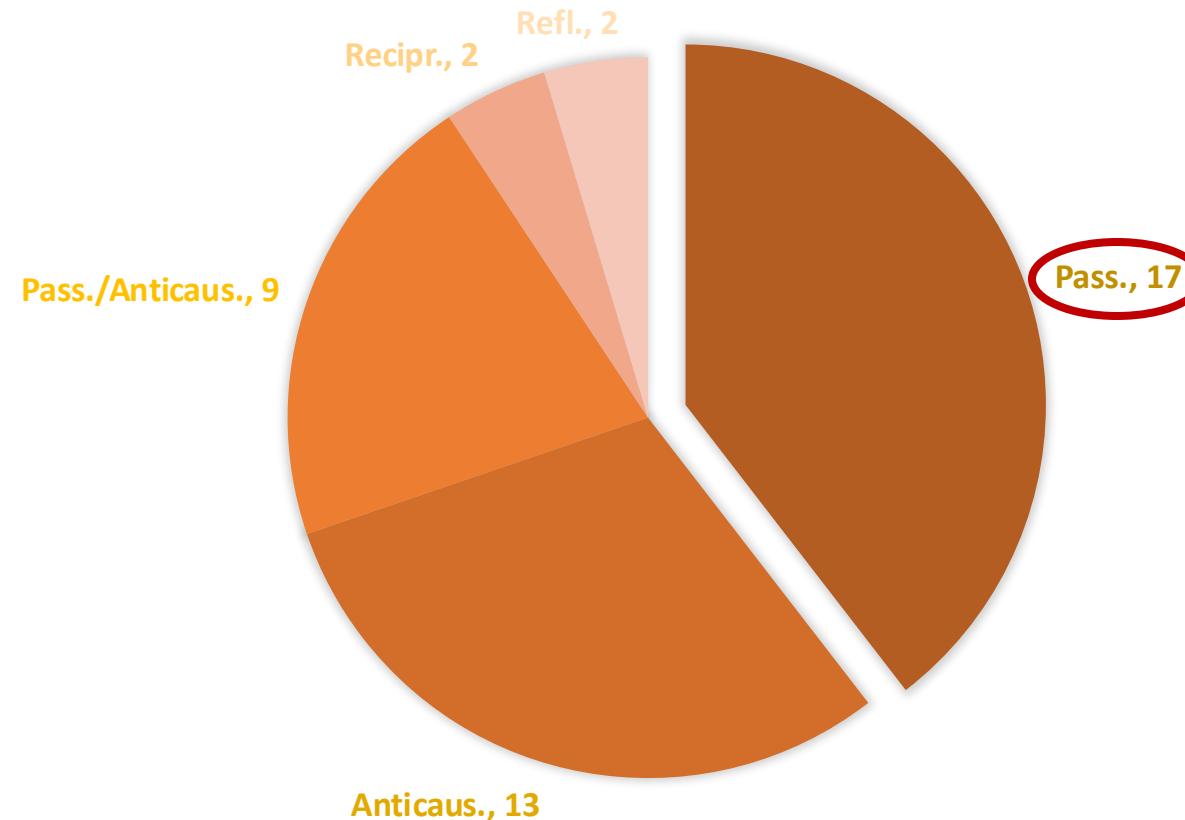
“(And the reason for which people die,) it should be found out!” (KUB
14.10 iv 19, NH /NS)

RECIPROCAL

nu=war=at=za=kan *śāntati*
CONN=QUOT=3PL.NOM=REFL=PTC become.angry.PST.3PL.MID
“They became angry at each other.” (KUB 12.26 ii 1–3, NS)

Oppositional middle in the corpus

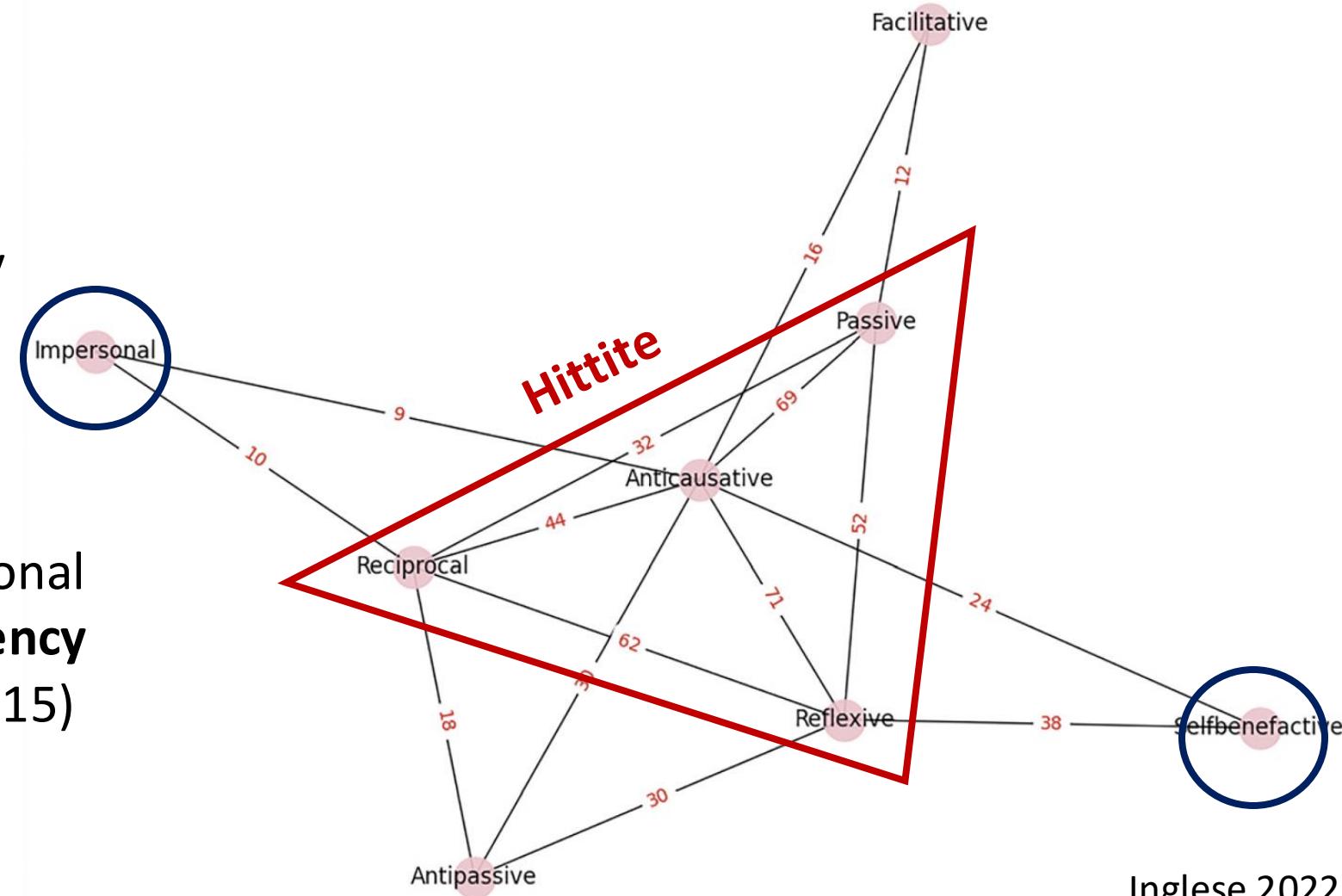
FUNCTIONS OF THE MIDDLE (TYPE FR.)



Voice syncretism

«Voice syncretism refers to formal verbal marking shared by two or more voice operations»
(Bahrt 2021)

The middle voice (in its oppositional function) is a **verb-sensitive valency changing marker** (Malchukov 2015)



Inglese 2022

The classification of Hittite middles



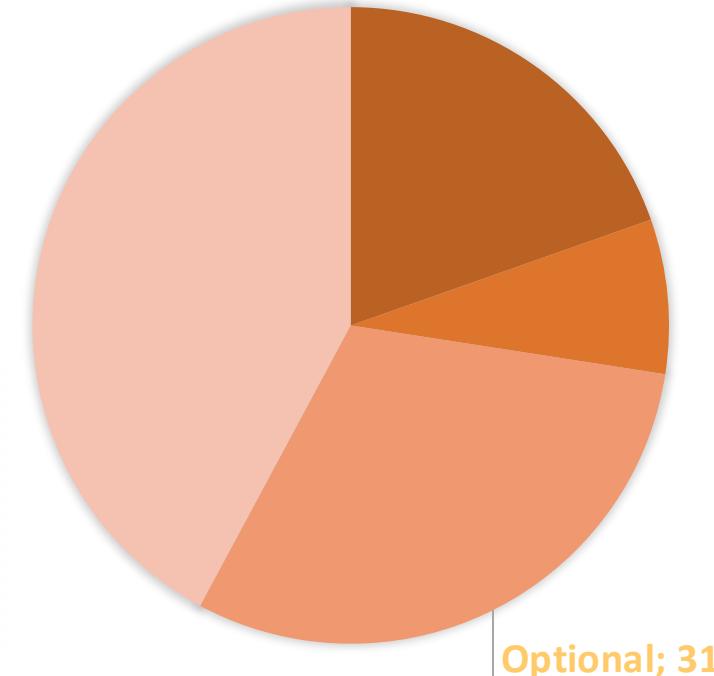
1. Non-oppositional, or *media tantum*: verbs that only occur in the middle voice.
2. Oppositional: verbs that inflect in the middle voice to indicate a functional opposition with active transitive counterparts.
3. **Optional**: verbs that occur both in the active and in the middle voice without any synchronically distinguishable functional motivation!
4. **Lexicalized**: active and middle forms show different meanings

3. Optional middles

Both active and middle forms of the verb occur in the corpus with **no difference** in syntax and semantics

[*kuitman*]n *nekuzzi*
until become.evening.PRS.3SG
“While the evening is coming on (but the Sun is still up).” (KBo 15.22
8, NS)

mahhan=ma *nekuttat*
when=PTC become.evening.PST.3SG.MID
“When the evening came (I turned around and went against ..., and
I marched all night).” (KBo 5.8 iii 19–21, NH/NS)



4. Lexicalized middles



Active	Middle
<i>hai(n)k-</i>	'offer'
<i>weriye/a-</i>	'call'
<i>usneske/a-</i>	'pledge, balance'
	'put up for sale'

The middle voice in Old Hittite

Crucial stage: OH is the baseline for the comparative study of the middle voice in PIE as well as for the perspective history of the middle down to NH.

	Media tantum	Oppositional middles	Optional
OH	27 (73%)	7 (19%)	3 (8%)

- What is the rationale behind the **distribution** of MT?
- What are the **functions** performed by **oppositional** middles?



OH *media tantum*

- No straightforward **functional motivation**: most MT are unaccusative change-of-state events, but this type of predicate can also occur in the active voice

kišt^{-a(r)i} 'perish' vs. *ak⁻ⁱ* 'die'

- **Etymology**: is the middle voice of MT simply inherited from PIE?
 - **Inherited** formations: e.g. *ki-tta(r)i* 'lie' (Gr. *keîmai* 'lie')
 - **Unclear** cases: lack of PIE etymology, e.g. *thus^{-a(r)i}* 'cut', or non-middle cognates, e.g. *ur-āri* 'burn' vs. OCS *vireti* 'cook'
 - **New** Hittite formations: *irmaliye/a-tta(r)i* 'be(come) ill' < *erman-* 'illness'

In OH, the distribution of voice is **not** entirely driven by **semantic/syntactic** considerations, but the middle must have been a **productive** pattern, as it is able to attract **new verbs**.



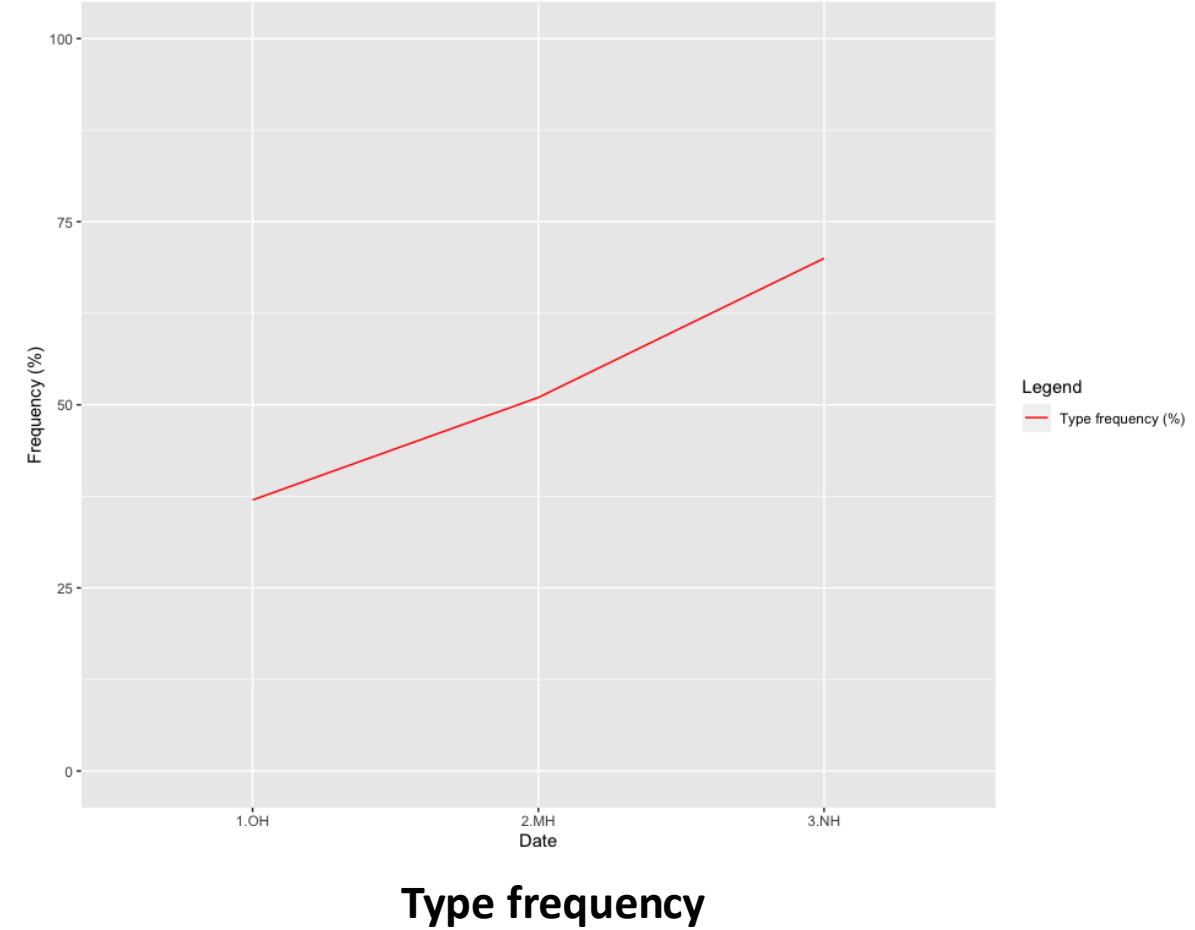
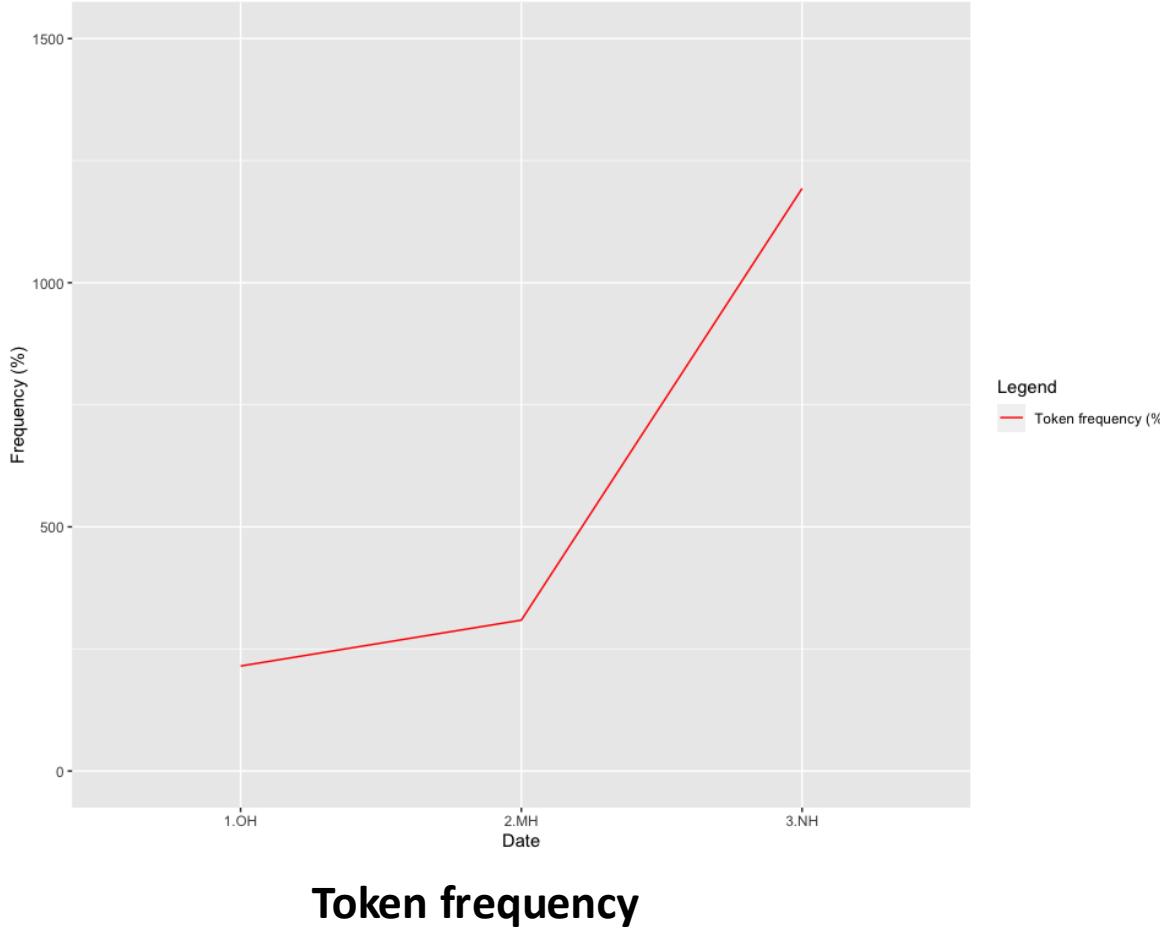
Oppositional middles in OH

- **Anticausative:** *hantae^{-zi}* 'align (tr.)' vs. *handai^{-tta(ri)}* 'align (intr.)'
- **Passive:** *markiye/a^{-zi}* 'refuse' vs. *markiye/a^{-tta(ri)}* 'be refused (mid.)'
- **Reflexive:** *suppiyahh⁻ⁱ* 'purify' vs. (=za) *suppiyahh^{-ta(ri)}* 'purify oneself'
- **Reciprocal:** *zahh⁻ⁱ* 'hit' (post-OS) vs. *zahh^{-ta(ri)}* 'hit each other'

From OH to NH: some numbers

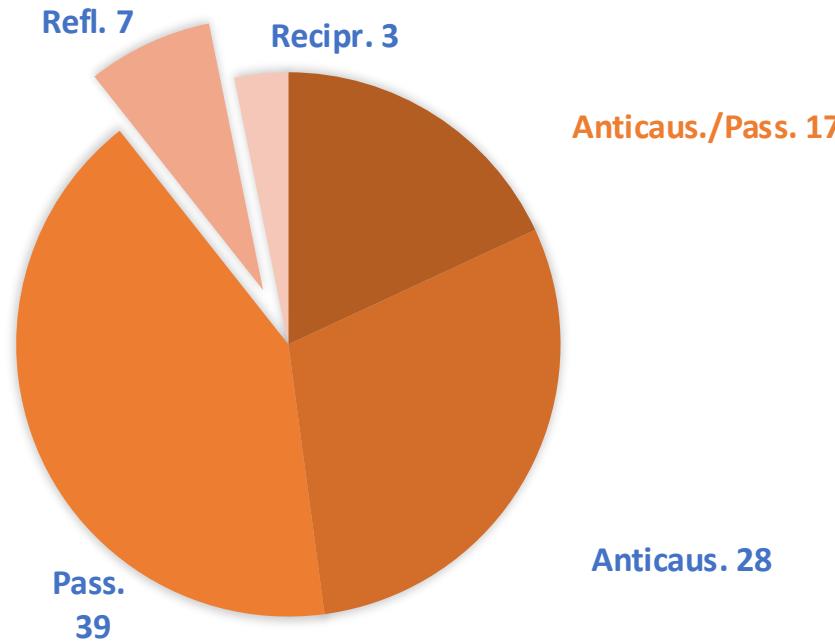


UNIVERSITÀ
DI TORINO



A reflexive origin of the Hittite middle?

1) Few reflexive middles



2) Competition with the 'reflexive' particle =za

- a. *nu=za* 6-ŠU *walhanzi*
CONN=REFL six.times hit.PRS.3PL
‘They beat themselves six times.’ (KUB 1.14 ii 8)
- b. LUGAL-*uš=za* ū̃*suppiyahhati*
king.NOM=REFL purify.PST.3SG.MID
‘The king has purified himself.’ (KBo 25.112 ii 14)

Oppositional vs. non-oppositional middles



	<i>Media tantum</i>	Oppositional	Optional
OH	27 (73%)	7 (19%)	3 (8%)
MH	16 (30%)	19 (37%)	17 (33%)
NH	13 (18%)	32 (45%)	26 (37%)

The demise of *media tantum*

- The class of *media tantum* is not **productive!** Even in NH, most ‘new’ MT do have a good PIE etymology, so they are likely to be inherited.
- Two factors alter the **distribution** of MT:
 - Deponents (e.g. *tuhs-a(ri)* ‘cut’) and -*ske/a-* intransitives (e.g. *paiske/a-tta(ri)* ‘go’) are **analogically transferred** to the active inflection (thus enlarging the A=M class).
 - Old *media tantum* develop **active oppositional** counterparts, e.g. *lazziye/a-tta(ri)* ‘be(come) good’ (OH) > *lazziye/a-zı* ‘set straight’ (NH).

The rise of optional marking

- The **chronology** of active and middle forms shows that either voice is older/original → voice fluctuations are **secondary!**
- The rise of voice fluctuation is the result of **analogy**:
 - **Systematic transfer:** deponents (e.g. *tuhs-a(ri)* ‘cut’) and -*ske/a*-intransitives (e.g. *piske/a-tta(ri)* ‘go’) → active inflection;
 - **Sporadic transfer:** unaccusative intransitive active verbs → middle inflection; on analogy to semantically close MT, e.g. active *huwai-* ‘run’ sporadically middle analogically to *iye/a-tta(ri)* ‘march’.

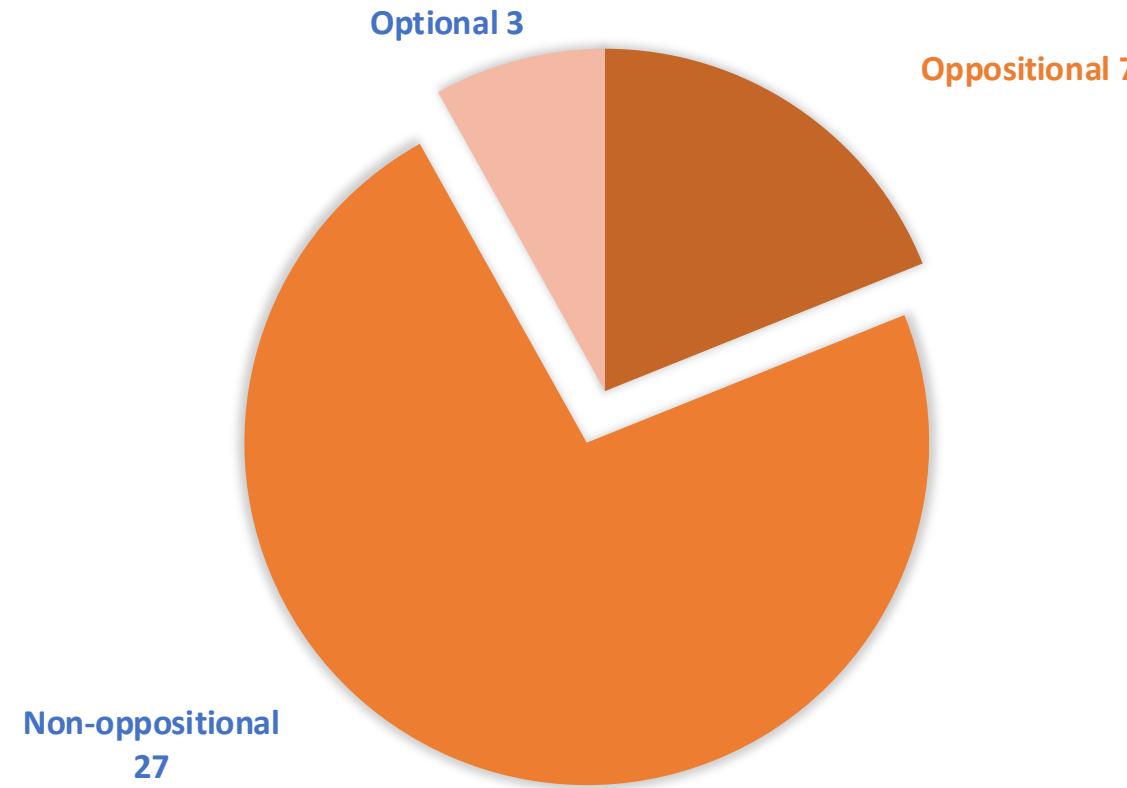


Chronology of oppositional middles

	ANTICAUSATIVE	PASSIVE	ANTIC./PASS	RECIPROCAL	REFLEXIVE
OH	3	2	0	1	1
MH	6	7	6	0	1
NH	9	13	8	1	0

Alternative scenario: stage I

Stage I: verbal voice was lexically determined (active alignment system?)



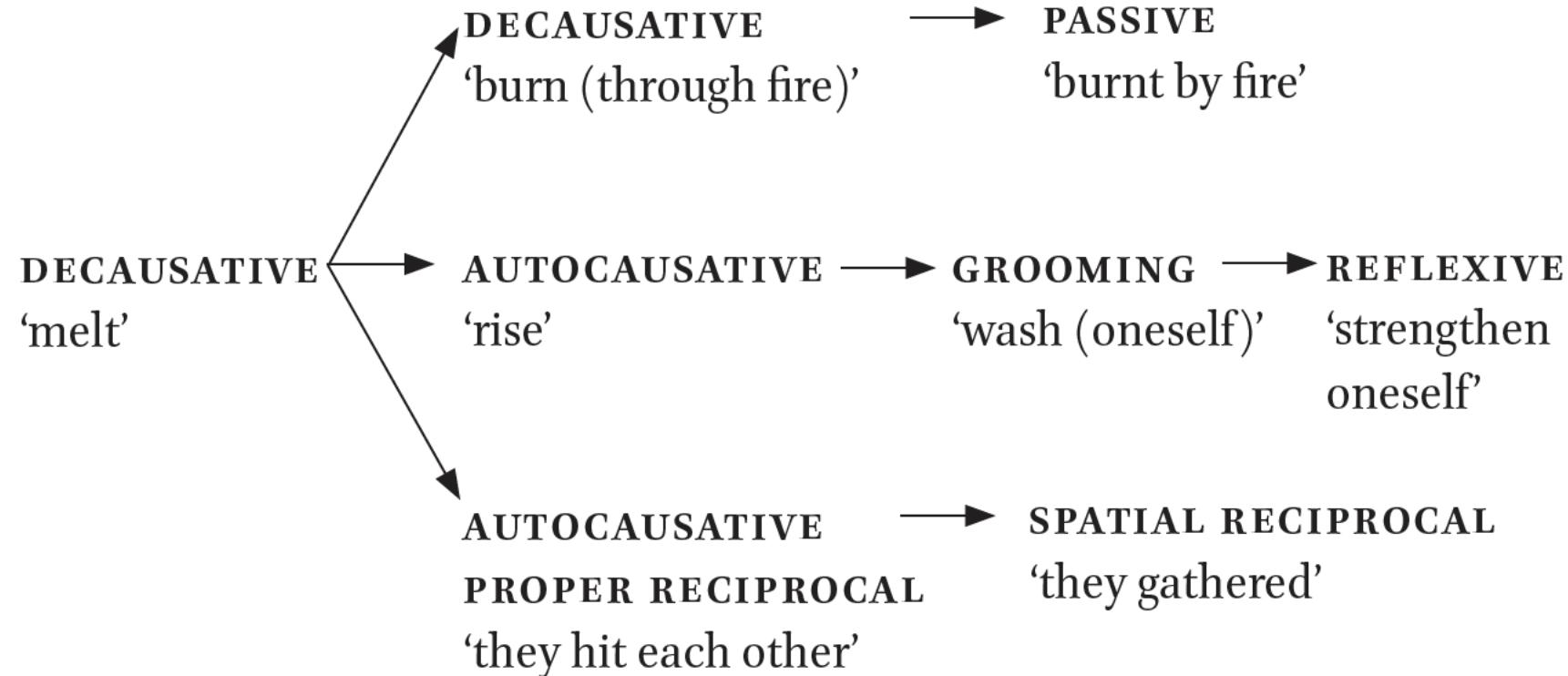
Stage II: the anticausative alternation

Among *media tantum*, the largest group includes uncontrolled states and **change-of-state events** (Luraghi 2012: 14-16): *kīš-a(ri)*, ‘become, happen’, *kišt-ā(ri)* ‘perish’, *lukk-tta* ‘get light, dawn’, *marriye/a-tta(ri)*, *marra-tta(ri)* ‘melt, stew (intr.)’

Class	Verbs
Change in body posture	1
Positional verbs	2
Translational motion	3
Spontaneous events	10
Natural reciprocals	1
Transitive deponents	2
Other	1

- Emergence of **voice alternation** to express the **anticausative alternation**
- **Voice polarization:**
 - Active voice with typically transitive verbs;
 - Active voice with causatives of *media tantum* (*kist-ari* vs. *kista-nu-zi*);
 - Lexical pairs: *kīš-ari* ‘happen’ vs. *ye/a-zi* ‘cause to happen’.

Stage III: new oppositional functions



“[...] middle markers from **non-reflexive sources** will not develop into markers of reflexive semantics” (Kemmer 1993: 229)

Anticausative > reflexive

- a. [karitt]eš *nininkanta*
flood.NOM.PL raise.PRS.3PL.MID

'Floods will get moving.' (KUB 8.1 iii 21, NS)

Other **motion verbs**: *park(iye/a)-tta(ri)* 'raise (intr.)', *nē-a(ri)* 'turn (intr.)', and *weh-ta(ri)* 'turn'!

- b. *nu* *mān* LÚKÚR *kuiški* *niniktari*
CONN if enemy INDF.NOM raise.PRS.3SG.MID

'If some **enemy** mobilizes (and goes to attack these borders).' (FHL 57+ iii 46-47)

The possibility of **animate subjects** to occur with otherwise **decausative** verbs led to the expansion of the **autocausative** use, hence providing the natural bridging context to **reflexive** situations proper

Anticausative > reciprocal anticausative > reciprocal

[*kui*]tman=ma *gimmanza* *nāwi* *zinnat[tari]*
until=PTC winter.NOM not.yet finish.PRS.3SG.MID

Decausative

“And before winter is over.” (KBo 2.5 iv 11, NH/NS)

DINGIR^{MEŠ}=ya *hūmanteš* *taruppantat*
god(PL)=CONJ all.NOM.PL gather.PST.3PL.MID

Reciprocal
anticausative

“The gods gathered all together.” (KUB 36.97 obv. 6, NS)

takku LÚ^{MEŠ} *zahħanda*
if man(PL) hit.PRS.3PL.MID

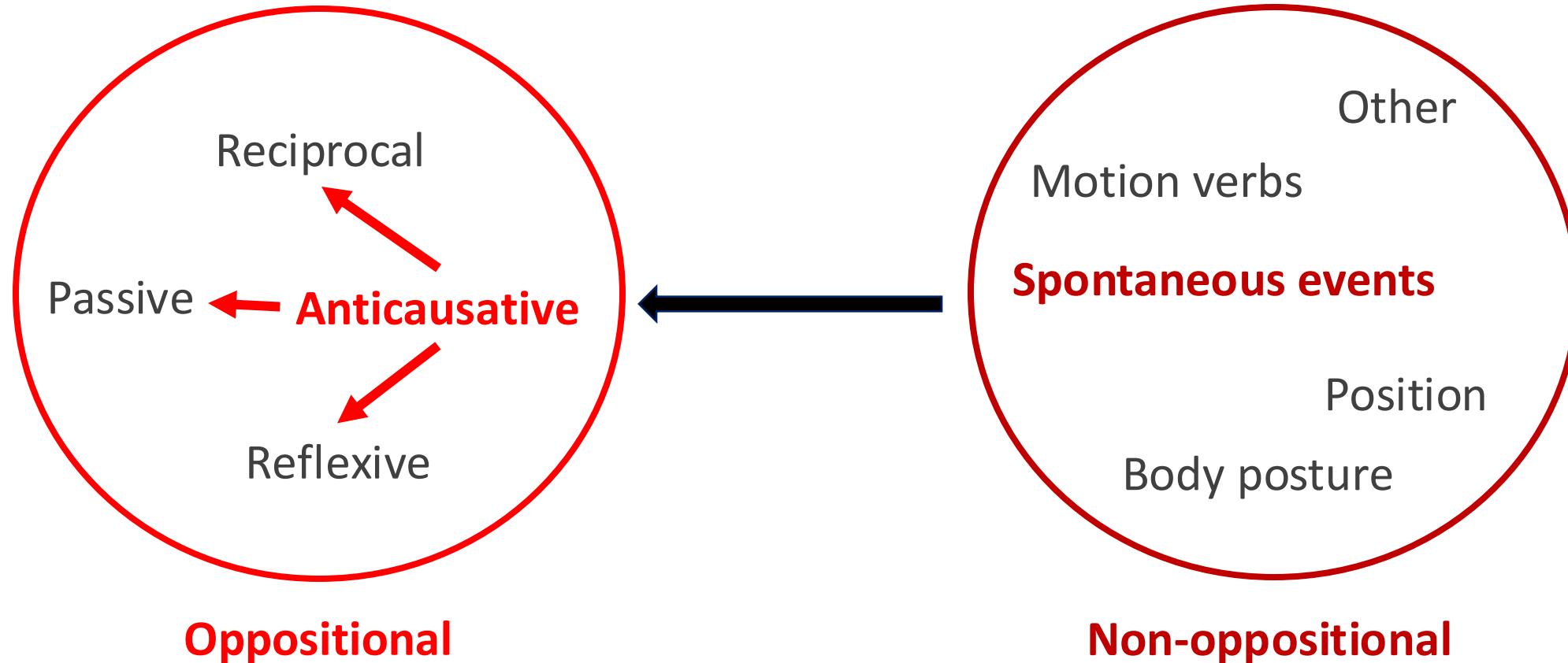
“If (two) men strike each other (and one of them dies).” (KBo 6.26 ii 16,
OH/NS)¹⁴

Reciprocal

The diachrony of the Hittite middle



UNIVERSITÀ
DI TORINO



The paradigmaticization of voice

LEXICAL DISTRIBUTION	GRAMMATICAL DISTRIBUTION
verbs only occur in the active or in the middle voice	(transitive) verbs freely occur in both voices to indicate valency reducing operations

- **Paradigmaticization:** verbal voice becomes integrated as full-fledged inflectional category within verbal paradigms, as e.g. number, tense, mood. The same development took place in e.g. Indo-Aryan (cf. Lazzeroni 1990, 2004) and Ancient Greek (cf. Sausa 2016);
- **Paradigm regularization:** in NH the middle paradigm becomes increasingly regularized, e.g. expansion of *-ri* and *-ta* endings.

The causal-noncausal alternation



Grammatical alternation whereby languages encode events that are conceived as brought about by an external volitional entity as opposed to ones that are portrayed as coming about spontaneously.

Language	Verb pair		Operation
	Spontaneous	Externally caused	
Hittite	<i>ze-</i> 'cook (intr.)'	<i>za-nu-</i> 'cook (tr.)'	CAUSATIVIZATION
Hittite	<i>zinna-tta</i> 'finish (intr.)'	<i>zinna-i</i> 'finish (tr.)'	INDETERMINATE
Russian	<i>serdit'-sja</i> 'get angry'	<i>serdit'</i> 'make angry'	ANTICAUSATIVIZATION

Transitivizing morphology

-*nu*- and -*aḥh*- originally in complementary distribution as to the type of adjective stems (Oettinger 1979: 238-255)

- ‘causative’ -*nu*- (Luraghi 1992):
 - intr. verb: *ar*- ‘arrive’ > *ar-nu-* ‘cause to arrive’ < PIE *-*nu*-/-*neu*-
 - tr. verb: *zai*- ‘cross’ > *zinu-* ‘let cross’
ar*n*u- = Skr. *r*̥-nó-ti ‘move’
 - adj.: *daššu*- ‘strong’ > *daš(ša)-nu-* ‘make strong’
 - noun: ‘*ešhar*- ‘blood’ > *ešhar**n*u- ‘make bloody’
- ‘factitive’ -*aḥh*-:
 - *šuppi*- ‘pure’ > *šuppi**aḥh*- ‘purify’ < PIE *-*eh*₂-
 - *išhiul*- (n.) ‘treaty’ > *išhiuaḥh*- ‘bind by treaty’
newaḥh- = Lat. *novāre* ‘make new’
- nasal infixation:
 - *ištark*- ‘get sick’ > *ištarnink*- ‘make sick, afflict’
 - *nini(n)k*- ‘raise, set in motion’

Transitivizing morphology

arhaya=an=ma=kan

kanga-nu-mi

besides=3SG.ACC=CONN=PTC

weigh-CAUS-PRS.1SG

‘(I will build statue of Hattusili in silver) and I will also have it weighed.’ (KUB 21.27 iii 42)

takku LÚ-aš GU₄-ŠU ÍD-an zī-nu-škizzi

if man.NOM ox-his river.ACC cross-CAUS-PLUR.PRS.3SG

‘If a man is making his ox cross a river.’ (KBo 6.2 ii 30)

For adjectival bases: **equipollent** causal/noncausal alternation

idalu- ‘bad’ > *idaluw-ešš-* ‘become bad’ vs. *idal-ahh-* ‘make bad’

Causal/noncausal alternation

Lexical restrictions (van Lier & Messerschmidt 2022):

- **AGENT-ORIENTED MEANING COMPONENTS:** anticausativization is banned for verbs that lexicalize a specific causer/manner (Koontz-Garboden 2009)

	Voice alternation	Causative suffixation
Telicity	telic verbs	±telic verbs
Animacy	inanimate verbs	±inanimate verbs

based on Luraghi 2012

Periphrastic passive

GIŠTUKUL^{HI.A}-*iš=wa=tta* *šiunit piyanteš*
weapon.NOM.PL=QUOT=2SG.DAT god.INS give.PTCP.NOM.PL
“The weapons are given to you by the Gods.” (KBo 22.6+ i 25 OH[?]/NS)

ANA LUGAL KUR^{URU.d}*U-tašša=at piyan*
to king land T.=3SG.NOM.N give.PTCP.NOM.N
“It is assigned to the king of Tarhuntassa.” (Bronzetafel ii 7, NH/NS)

Copula + P-resultative participle > passive (vd. Lat. *amatus est*)

«The resultative is often similar to the passive in that it usually makes the patient the subject of the clause.» (Bybee et al. 1994: 54)

The 'reflexive' particle =za

Host	1	2	3	4	5	6
<ul style="list-style-type: none"> • Accented word (+ =(y)a/(m)a/man) • Connectives: <i>nu, šu, ta</i> 	= <i>war</i>	= <i>naš</i> = <i>šmaš</i>	= <i>a-</i>	= <i>mu</i> = <i>ta/du</i> = <i>še/i</i>	= <i>z(a)</i>	= <i>an, apa</i> = <i>ašta, kan</i> = <i>šan</i>

- a. *n=an* *unuzzi*
 CONN=ACC.SG adorn:3SG.PRES.ACT
 ‘He_i adorns him_{ii}.’ (KBo 38.265 obv. 11’) **NB:** =za < *=*toi* ‘to thee’ via Luwian (Yakubovic 2010)?
- b. *unut=wa=z*
 adorn:3SG.PRET.ACT=QUOT=REFL
 ‘He adorns himself.’ (KUB 31.143 obv. ii 23)

Other valency related functions

- Indirect reflexive/self-benefactive

NINDA-*an=za* *wemiyānun*

bread.ACC=REFL find.PST.1SG

‘I found bread for myself.’ (KUB 30.10 obv. 16, OH/MS)

- Possessive (coreference possessor = subject)

nu=zza DUMU.MUNUS.MEŠ=ŠA ANA DUMU.NITA.MEŠ=ŠA
CONN=REFL daughters=POSS DAT sons=POSS

paiš
give:3SG.PRET.ACT

‘She gave her daughters to her sons (in marriage).’ (KBo 22.2 obv. 17)

Other valency related functions

- Autocausative

nu=z ANA PANI EN-YA kuit šara ɬuittiyan ɬarkun
CONN=REFL to presence lord=1SG.POSS because up pull.PTCP.N/A. have.PST.1SG
'Given the fact that I had pulled up myself before my lord.' (KUB 19.23 obv. 9)

- Antipassive?

<i>nu=za</i>	<i>eter</i>	<i>ekue[r]</i>
CONN=REFL	eat:3PL.PRET.ACT	drink:3PL.PRET.ACT
<i>n=ašta</i>	<i>DUGpalhan</i>	<i>humandan</i>
CONN=PART	<i>p:ACC.SG.COM</i>	<i>all:ACC.SG.COM</i>
		drink:3PL.PRET.ACT

'They ate and drank (with *=za*); they drank off a whole p.-vessel (without *=za*), and they were/became sated' (KUB 17.5 i 10–12, NH)

Reciprocal =za

man=e=za *idalaweššanzi*
if=3PL.NOM=REFL become.evil.PRS.3PL

“If they have a falling out (lit. become evil at each other).”

(KBo 6.2 iii 8–11)

direct reciprocal

nu=za É-er *takšan* *šarranzi*
CONN=REFL house.ACC together split.PRS.3PL
“They shall split up the household equally among each other.”

(KBo 6.3 ii 19)

indirect reciprocal

weš=a=wa=za *šarraweni*
1PL.NOM=PTC=QUOT=REFL split.PRS.1PL
“We split up.”

(KUB 24.8 iv 5)

**autocausative
reciprocal**

Reciprocal =za

Table 4. Reciprocal constructions with the particle =za

Verb	Without =za	With =za
<i>idalawess-zi</i>	'become evil'	'quarrel'
<i>hurt-zi</i>	'curse'	'curse at each other'
<i>šārr-zi</i>	'split (tr.)'	'split (tr. indirect recip.)'
<i>hanna-ta(ri)</i>	'contest, judge'	'quarrel'
<i>šarra-ta(ri)</i>	'split (intr.)'	'split (intr.)'

=za in copular sentences

- Non-third person subject in nominal clauses:

nu=war=aš LÚ-*iš* *ešta*

CONN=QUOT=3SG.NOM man.NOM be.PST.3SG

uga=wa=z *UL imma* LÚ-*aš*

1SG.NOM=QUOT=REFL NEG besides man.NOM

'He was a man, am I not a man, too?' (KUB 23.72+ obv 42)

NB: from MH onwards, calque from **Luwian** (Yakubovic 2010)?



=za as a telic marker

<i>nu=za</i>	MUNUS.LUGAL	<i>katta</i>	<i>ešhaḥat</i>
CONN=REFL	queen	down	sit.PST.3SG.MID
“And I, the queen, sat down.” (KUB 31.71 ii 2 NH/NS)			

<i>nu-wa=ši</i>	<i>kāš</i>	LÚ KARTAPPU
CONN=QUOT=3SG.DAT	DEM.NOM	charioteer
<i>pedi=ši</i>	<i>ešaru</i>	
place.DAT=3SG.POSS.DAT	sit.IMP.3SG.MID	
“Let this charioteer remain seated in his place.” (KUB 14.3 ii 72, NH/NS)		

Other usages

'Transitivity toggle'

- (33) a. *nu=kan* ^dUTU-uš *nepiša*[z katta šakuw)]ait
CONN=PTC Sungod.NOM sky.ABL down look.PST.3SG
'The Sungod looked down from heaven...'
- b. *nu=za* [(^d*Ullikummin*)] šakuiškizzi
CONN=REFL Ullikummi.ACC see.PST.3SG
'...and saw Ullikummi.' (KUB 33.92 + rev. iii 18'-19', NS)

Lexicalized usages:

- =za *iya*- 'celebrate a festival' vs. *iya*- 'do'
- =za *kiš*- 'become' vs. *kiš*- 'occur'

=za and unaccusativity

n=aš=za munnaittat

CONN=3SG.NOM=REFL hide.PST.3SG.MID

‘(When Anu finished talking, he went up to the sky,) and hid himself.’ (KUB 33.120 i 38, MH/NS)

unut=wa=z

adorn:3SG.PRET.ACT=QUOT=REFL

=za creates **unergative** verbs?

‘He adorns himself.’ (KUB 31.143 obv. ii 23)

nu=za 6-ŠU

CONN=REFL six_times hit.PRS.3PL

‘(Afterwards the two priests of the God Zilipuri come) they beat themselves six times.’ (KUB 1.14 ii 8)

=za vs. the middle voice

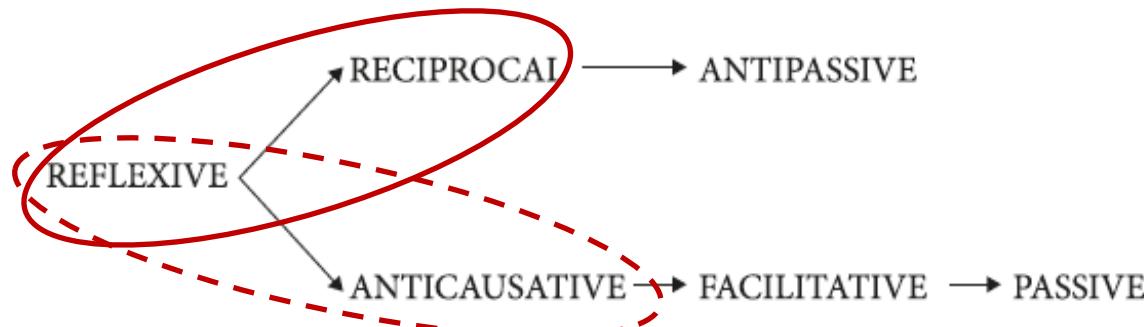


Original distribution

Hittite

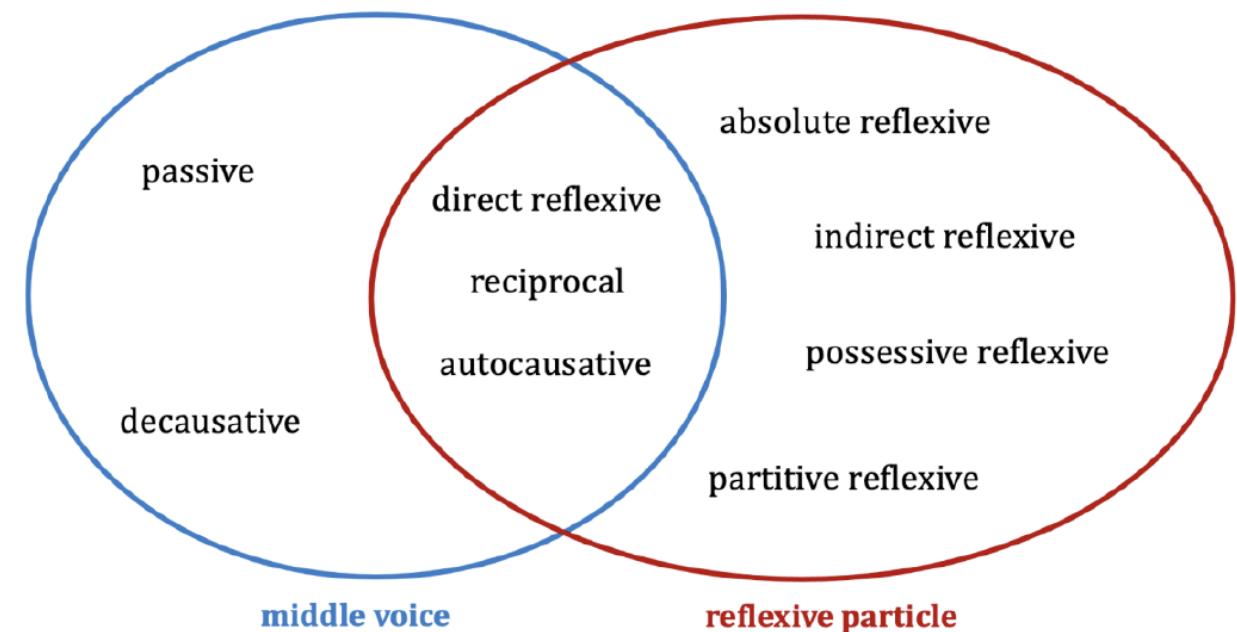
- spontaneous events [-control] = middle, active non-causative
- subject involvement [\pm control] = reflexive particle =za (or pron. clitic) with middle or active morphology

The functional development of =za follows known **grammaticalization** pathways of reflexives (Inglese 2023)



The overlap starts by MH!

Polarization and partial convergence



see Sansò 2010

Reciprocal polyptotic constructions

“Reciprocal markers made up of the repetition of very same lexical item in different case forms.” (Kulikov 2014)

- *šia-...šia-* lit. ‘one...one’, *ka-...ka-* lit. ‘this...this’, *ara-...ara-* lit. ‘friend...friend’
 - a. *kuiš=at* *UL=ma* *pahšari*
REL.NOM=3SG.ACC.N NEG=PTC protect.PRS.3SG.MID
“Who does not protect it [...].” (KBo 16.25 i 60)
 - b. **1-*aš=wa*** **1-*an*** *pahšaru*
one.NOM=QUOT one.ACC protect.IMPV.3SG.MID
“Let them protect each other.” (Bronzetafel ii 34)

Polyptotic constructions

- a. [1-]***aš*** **1-*an*** *kuwaškit*
one.NOM one.ACC kill.IMPF-PST.3SG

“They killed each other continuously.” (KBo 2.5 iv 18)

MULTIPLE EVENT SITUATION

- b. *nu* **1-*aš*** **1-*edani*** ŠEŠ-*tar* *hatreškizzi*
CONN one.NOM one.DAT brotherhood(N).ACC write.IMPF-PRS.3SG
“They write ‘brotherhood’ to each other.” (KUB 23.102 i 12)

INDIRECT RECIPROCAL, NON-SIMULTANEOUS

- d. NINDA-*an=man* **1-*aš*** **1-*el*** *e[zzatta]*
bread.ACC=IRR one.NOM one.GEN eat.PST.3SG
“They would have eaten each other’s bread.” (KUB 23.103 rev. 5)

POSSESSIVE

- e. [*nu=šša*]*n* **1-*EN*** **1-*edan[i]*** *šer* *tiyanzi*
CONN=PTC one one.DAT above put.PRS.3PL
“And they place one on top of the other.” (KBo 29.94 iv 10)

CHAINING EVENT,
ADVERBIAL

Polyptotic constructions



Bipartite quantifier NP strategy (Evans 2008: 46)

- They are markers of **grammatical reciprocals** (Nedjalkov 2007a: 10)
- Several **syntactic environments**: subject-oriented reciprocals, both direct and indirect , possessive (2c), and adverbial.
- **Binary reciprocals** (Maslova 2008: 230): they leave the valency of the base verb unaltered (as shown by e.g. number agreement with only the subject one).
- Different reciprocal **situations**: canonical, multi-participants, sequential, and chaining reciprocals.

The diachrony of polyptotic constructions



Conceptual schema underlying the development of polyptotic constructions (Heine & Miyashita 2008):

- REPETITION schema: the iteration of two identical NPs encodes reciprocity, es. Lat. *homo homini lupus* 'man is wolf to man'
- šia-...šia- 'one...one' and ka-...ka- 'this...this' = ONE-ANOTHER reciprocal schema
- *ara-...ara-* 'friend' = COMRADE schema

Stages of the **development** of polyptotic constructions:

(distributive >) underspecified anaphors > reciprocal interpretation under negation > reciprocal interpretation in all contexts (cf. Bar-Asher Siegal 2014)

Distributive šia- 'one'

- a. *nu=ššan 1-ez KÙ.BABBAR KÙ.GI NA₄^{HI.A}=ya*
CONN=PTC one.ABL silver gold stone(PL)=CONJ
hūmanduš dāi 1-edaz =ma=ššan šalwinan dāi
all.ACC.PL put.PRS.3SG one.ABL=PTC=PTC dirt.ACC put.PRS.3SG
“(The Old Woman takes a pair of scales). On one side she puts all silver,
gold, and (precious) stones and she puts dirt on the other (side).”
(KUB 30.15 + obv. 27–28)
- b. *ta EN ERÍN^{MEŠ} 1-an 1-an anda tarneškizzi*
CONN lord troop(PL) one.ACC one.ACC in let.IMPF-PRS.3SG
“He admits the military commanders one by one.” (VAT 13 016 iv 10)

From repetition to contrast

Two symmetric events elicited as simultaneously co-occurring are easily understood as in **opposite contrast** to each other (cf. Hopper & Traugott 1993: 84–86; Mauri 2008: 122)

<i>kāšš=a</i>	GIŠŠUKUR	ZAB[AR	<i>harzi</i>	<i>kāšš=a</i>
DEM.NOM=CONJ	spear	bronze	hold.PRS.3SG	DEM.NOM=CONJ
GIŠŠUKUR ZABAR [(<i>harzi</i>)]				
spear	bronze	hold.PRS.3SG		

“(The two palace attendants are standing.) Both the one and the other hold a bronze spear.” (KBo 17.1 ii 21–22; transl. by Goedegebuure 2014: 331)



Underspecified anaphor

nu araš ari tezzi
CONN fellow.NOM fellow.DAT talk.PRS.3SG

“Then a colleague tells to a colleague.” (IBoT 1.36 i 43)

LÚ *araš=ma=za aran kattan peškit*
fellow.NOM=PTC=REFL fellow.ACC down give.IMPF-PST.3SG

“And friend betrays his own fellow.” (KBo 2.5+ iv 16)

kāš=man kūn epzi [k]āš=a=man
DEM.NOM=IRR DEM.ACC take.PRS.3SG DEM.NOM=PTC=IRR

kūn epzi
DEM.ACC take.PRS.3SG

“If one would arrest the other and one the other.” (KBo 6.2 ii 56–57)



Negated underspecified anaphors

nu 1-aš 1-edani lē idalawēšzi
CONN one.NOM one.DAT NEG become.evil.PRS.3SG
“One shall not think of evil against the other.” (KBo 5.4 rev. 3)

nu LÚar [aš] LÚaran lē aušzi kāšš=a lē
CONN fellow.NOM fellow.ACC NEG see.PRS.3SG DEM.NOM=CONJ NEG
[kūn] *išdammašzi*
DEM.ACC hear.PRS.3SG
“One shall not see the other, and they shall not hear each other.”

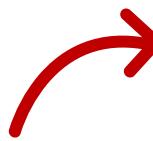
(KBo 6.2 ii 56–57)

The grammaticalization of *ara-*

- **Semantic bleaching:** *ara-* 'friend' > 'each other'

nu araš aran a[r̥ha UL] tarnai
 CONN fellow.NOM fellow.ACC away NEG leave.PRS.3SG

“(As this onion is wrapped by its peel), and one (layer) does not release
 the other.”
 (KBo 21.41+ rev. 38)



Akkadian model?
aḥ...aḥ- ‘one...the
 other’ < *aḥum* ‘brother’,
 (Bar-Asher Siegal 2014)

- **Univerbation** (e.g. Gr. ἀλλήλων)?

b. 2 LÚ.MEŠSÁNGA GAL LÚ*araš* LÚ*aran* ZAG-*a[n ŠU-an]*
 2 priest(PL) big fellow.NOM fellow.ACC right.ACC hand.ACC
 KAxi=ŠUNU=ya *kuwaššanzi*
 mouth=3PL.POSS=CONJ kiss.PRS.3PL

“Two high priests kiss each other on the right hand and their mouth.”
 (KUB 20.88 i 1)



Summary: Hittite reciprocal constructions

Table 5. Hittite reciprocal constructions

	Type of marker	Polysemy	Type of reciprocal predicate	Type of event	Diathesis	Valency of the base verb
<i>Middle voice</i>	morphological	anticausative/ reciprocal	Lexical/ Grammatical	single	subject-oriented direct	decreased
<i>Particle =za</i>	clitic	reflexive/ reciprocal	Grammatical	single	subject-oriented direct/indirect	decreased
<i>Polyptotic constructions</i>	bipartite NP	distributive/ reciprocal	Grammatical	single/ multiple	subject-oriented direct/indirect, possessive, adverbial	unaltered

Table 13: Parameters of distribution of RCs in Homer.

Middle voice/Preverbs	<i>allélōn</i>
subject-/object-oriented lexical reciprocals spatial reciprocal, single-event situations	subject- (dir./indir.), object-, adverbial, possessive grammatical and lexical reciprocals proper and spatial reciprocals, all situation types



Summary: valency change

Table 16: Valency changing constructions

	Voice alternation	Reflexive particle <i>=za</i>	Periphrastic passive	Transitivizing suffixes	Polyptotic construction
(Anti)causative	+	+	-	+	-
Passive	+	-	+	-	-
Reflexive	+	+	-	-	-
Self-beneficiary	-	+	-	-	-
Reciprocal	+	+	-	-	+
PIE inheritance	+	-	(+)	+	-

Productivity

	Type frequency	Generality	Regularity
ANTICAUSATIVE			
Middle voice	-	-	-
Transitivizing suffixes	+	+	+
REFLEXIVE			
Middle voice	-	-	-
Particle =za	+	+	-
RECIPROCAL			
Middle voice	-	-	-
Particle =za	-	+	-
Polyptotic forms	+	+	+
PASSIVE			
Middle voice	-	-	-
Periphrastic passive	-	-	-

(based on Barðdal 2008)

Thank you for your attention



UNIVERSITÀ
DI TORINO