

The diachrony of “voice reversal” in Hittite

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Two voice alternations in Old Hittite

(1) “Voice reversal” with ACTIVUM TANTUM *pai-* ‘go’:

a. *kinun=a natta kuwāpikki pāun*

now=TOP NEG anywhere go:1SG.PST.ACT

‘But recently I haven’t gone anywhere.’

(KBo 17.1 iv 13)

- ▶ ACTIVA TANTUM (in sense of Grestenberger 2018), i.e., syntactically unaccusative verbs that exhibit **active** inflectional endings in basic stem forms like (1a)...

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b. *karū=ma [ŠÀ?] É DUMU.MEŠ-an paišga^hat*

formerly=TOP inside house children:GEN.PL go:IPFV:1SG.PST.MID

‘I used to go to the children’s quarters.’

(KBo 17.1 iv 12–13)

- ... consistently undergo a “voice reversal” in marked imperfective forms (characterized by *-ške/a-*), instead taking **middle** inflectional endings as in (1b) (Melchert 2017b; Yates and Gluckman 2020).²

¹Unaccusative already in OH (see Yates 2022).

²Building on Watkins 1969:72, Neu 1968:86–9.

Two voice alternations in Old Hittite

(2) “Voice reversal” with DEPONENT *huett(i)*– ‘pull, drag’:

- a. *kinun=a* 1 UDU LU-*naš* *kāššaš=(š)aš* *huittiyanta*
now=TOP 1 sheep man:GEN.SG in.place.of=his draw:3PL.NPST. **MID**
‘But now in place of the man they shall drag in one sheep.’ (KBo 6.26 i 41)

- DEPONENTS (in sense of Grestenberger 2014, 2016, 2018), i.e., syntactically transitive verbs that exhibit **middle** inflectional endings in basic stem forms like (2) ...

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‘But now in place of the man they shall drag in one sheep.’ (KBo 6.26 i 41)

b. *kētt=a* *kētt=a* GI-*an* *huttiyannaī*
this.side=CONJ this.side=CONJ arrow:ACC.SG.C draw:IPFV:3SG.NPST.ACT
tarnai=m=an *natta*
release:3SG.NPST.ACT=TOP=3SG.ACC.C NEG
‘He keeps drawing his arrow toward this side and that, but he does not let it go.’ (KBo 17.43 i 10–11)

- ▶ ... consistently undergo a “voice reversal” in marked imperfective forms (characterized by *-anna/i-*), instead taking active inflectional endings as in (2b) (Yates and Gluckman 2020).

When and why?

(3) Voice reversal in Old Hittite:

	BASIC STEM		IMPERFECTIVE
ACTIVA TANTUM	ACT	→	MID
DEPONENT	MID	→	ACT

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- **When did voice reversal develop historically?**
- **Why did voice reversal develop?**

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- **When did voice reversal develop historically?**
- **Why did voice reversal develop?**

- ▶ On the demise of voice reversal after Old Hittite see Appendix I.

§1 Introduction

§2 Old Hittite voice reversal as inheritance?

- ▶ Voice reversal in Tocharian?
- ▶ Absence of voice reversal in Hittite lexicalized imperfectives

§3 Emergence of Old Hittite voice reversal

§4 Voice reversal as an Anatolian phenomenon

Voice reversal as inheritance?

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	BASIC STEM		IMPERFECTIVE
ACTIVA TANTUM	ACT	→	MID
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- ▶ Melchert (2017b:482–4) tentatively proposes that ACTIVA TANTUM suffixed with $*-s\hat{k}e/o-$ underwent voice reversal (ACT → MID) already in Proto-Indo-European (PIE).
 - ⇒ Voice reversal in Old Hittite ACTIVA TANTUM is **inherited**.

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ACTIVA TANTUM	ACT	→	MID	< PIE
DEPONENT	MID	→	ACT	

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 - ⇒ Voice reversal in Old Hittite ACTIVA TANTUM is **inherited**.
- ▶ Melchert adduces comparative support in Tocharian.

Voice reversal as inheritance?

(4)	a.	TB	<i>skente</i>	‘they are’	< $*h_1s-(s)\hat{k}^e\text{-}$
	b.	TA/B	<i>mäsk-</i>	‘be(come)’ (Prs III)	< $*m\hat{n}_o-s\hat{k}^e\text{-}$
	c.	TA/B	<i>musk-</i>	‘disappear’ (Prs III)	< $*m(y)uh_x-s\hat{k}^e\text{-}$
	d.	TA/B	<i>wāsk-</i>	‘move’ (Prs XII)	< $*ug^h-s\hat{k}^e\text{-}$
	e.	TA	<i>yutk-</i>	‘become agitated’ (Prs III)	< $*h_xyud^h-s\hat{k}^e\text{-}$
	f.	TA/B	<i>sātk-</i>	‘spread (intr.)’ (Prs III)	< $*(h_2)sut-s\hat{k}^e\text{-}$
	g.	TA	<i>kātk-</i>	‘arise’ (Prs VII)	< $*g^had-s\hat{k}^e\text{-}$
	h.	TB	<i>rātk-</i>	‘(a)rise’ (Prs VII)	< $*h_3rih_x-T-s\hat{k}^e\text{-}$

- In (4) are Tocharian verbs that (i) have unaccusative semantics and (ii) are derived with $*-s\hat{k}^e\text{-}$ from PIE roots with primarily ACT forms.¹

✓ (4a–f) exhibit only MID inflection.

¹TA/B verbal classes in (4) after Malzahn 2010.

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- In (4) are Tocharian verbs that (i) have unaccusative semantics and (ii) are derived with $*-s\hat{k}^e\%$ – from PIE roots with primarily ACT forms.¹

- ✓ (4a–f) exhibit only MID inflection.
- ✗ (4g–h) exhibit only ACT inflection.

¹TA/B verbal classes in (4) after Malzahn 2010.

Voice reversal as inheritance?

- ▶ Thus two weaknesses of Melchert's (2017b) hypothesis:
 - i. Tocharian support for reconstructing voice reversal in *ACTIVA TANTUM* is limited and mixed (“less than compelling” per Melchert 2017b:484).
 - ii. Does not account for similar pattern of voice reversal in Hittite deponents.

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- ▶ A third issue (↓):
 - iii. Does not account for active inflection in lexicalized imperfectives of Hittite ACTIVA TANTUM.

Probing the diachrony of voice reversal in Hittite

- (5) a. *iyannali-* ‘set out (for); go’ (\langle PIE $*h_1ei-$ ‘go’ + $-anna/i-$)
b. *ēške/a-* ‘be/exist’ (\langle PIE $*h_1es-$ ‘be’ + $-ške-$)

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- ▶ Two exceptional verbs in (5) may offer insight into the diachronic development of voice reversal in Hittite.
- ▶ Crucial shared properties of these verbs:
 - ▶ Are **lexicalized** derivatives of ACTIVA TANTUM roots, historically formed with imperfective suffixes.
 - ▶ Show only **active** inflection (viz., no voice reversal).

- (6) LUGAL-*š=a* *IŠME š=aš* ***iyanniš***
king:NOM.SG=TOP heard CONN=3SG.NOM.C go:3SG.NPST.ACT
'The king heard (about it), then he set out.' (KBo 22.2 rev. 7)

- *iyannali-* 'set out (for); go' is attested already in Old Script with consistent **active** inflection — e.g., (6).

Hitt. *iyannali-* as active lexicalized imperfective

- (7) *n=aš=za* EGIR-*pa parna=šša* ***iyanniš***
CONN=3SG.NOM=REFL back house:ALL=his:ALL go:3SG.NPST.ACT
'He then went back to his house.' (KUB 24.8 ii 10–11; OH/NS)

- ▶ Semantic bleaching — frequently 'go' as in (7) beside inceptive 'set out' in (6) — is indicative of lexicalization.¹
- ▶ Consistent with standard analysis as:
 - ✓ Historical imperfective of **h₁ei-* 'go' (cf. IMP Hitt. *it/litten* 'go/y'all go!')²
 - ✗ Synchronic imperfective of unaccusative *media tantum iya-* 'walk'

¹"Lexicalized as a separate verb 'to go'" per Hoffner and Melchert (2008:322).

²cf. *HED* 2: 326–8, *HW*² I: 1–4; Kloekhorst 2008:375–6

Hitt. *ēške/a-* as active lexicalized imperfective

- (8) ^{MUNUS} *NAP̄TIR(TI=KA)=ma=tta āra ēškeanzi* (dupl. *ē[šd]u*)
secondary.wife=your=TOP=2SG.DAT rightfully be-3PL.NPST.ACT
'Rightfully they shall be yours as secondary wife.' (KBo 5.3 iii 63–65 rev. 48–49; MH/NS)

- ▶ *ēške/a-* is hapax in (8), first identified by Melchert (1984:31 n. 12) as:
 - ▶ *-ške/a-* suffixed form of copula Hitt. *eš/aš-* 'be' (< PIE **h₁es-*).
 - ▶ Substantive (viz., existential) verb in a possessive construction.
- ▶ Identification confirmed by duplicate (KBo 22.40+19.44 rev. 48–49).¹
- ▶ Exhibits active inflection.

¹Thus Beckman 1999:32, Cohen 2002:19, Klinger 2005:111; see further Melchert 2017c.

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‘Rightfully they shall be yours as secondary wife.’

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- ▶ Despite **late(r)** attestation *ēškanzi* has hallmarks of an archaism:
 - ▶ Combination of copula and *-ške/a-* may be synchronically restricted, given that high frequency verb and massively productive suffix do not otherwise cooccur.
 - ▶ Exhibits irregular root stress/strong allomorphy: *ēške/a-* ([é:sk:e/a-]) for expected ^x*ašké/a-* ([as-k:é:/á-]) (see Appendix II).

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 - ▶ Formally and functionally matches cognate formations in early stages of other ancient IE languages.

Hitt. *ēške/a-* in comparative perspective

- (10) *cui* *suus* *heres* *nec escit*
3SG.DAT own:NOM.SG.M heir:NOM.SG.M NEG be:3SG.PRS.ACT
'He who has no heir of his own' (Twelve Tables, V.4; Crawford 1996:580)

- ▶ Cognate of Hitt. *ēške/a-* is attested in (Very) Old Latin — e.g., (10).¹
 - ▶ Nearly identical usage, substantive verb in a possessive construction.
 - ▶ Reflects same irregular strong root allomorphy (< PIE **h₁és-(s)k̑̑-*).
 - ▶ Exhibits same active inflection.

¹See Fraenkel 1925, Keller 1992:79–84, Haverling 2000:143–4, 395, Pezzini 2015:242–3, Weiss 2020:432.

Reconstructing Hitt. *ēške/a-*

- (11) a. PIE **h₁és-(s)kē-t(i)* > OLat. *escit*, Gk. *éske*
b. PIE **h₁és-(s)kō-nti* > Hitt. *ēškanzi* ([é:skantsi]), Lat. *escunt*

- ▶ These archaic IE word equations suggest that Hitt. *ēškanzi* was inherited from PIE as in (11):¹
 - ▶ In substantive usage.
 - ▶ With irregular **root stress/strong allomorphy**.
 - ▶ With **active** inflection.

¹For root full-grade cf. Weiss 2020:432 (but Hittite supports root stress, others non-probative),
pace Hackstein 1995:299, *LIV*²: 241–2.

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 - ▶ With **active** inflection.
- ▶ Reconstruction of (11) would be direct counter-evidence to Melchert's (2017b) hypothesis of inherited voice reversal in **-sk̑-*-suffixed ACTIVA.
 - ▶ More on TB *skente* — middle with root zero-grade — in §3 below.
 - ▶ On Pal. *iška* see Appendix III.

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Active inflection in lexicalized imperfectives as archaism

- (5) a. *iyannali-* ‘set out (for); go’ (< PIE **h₁ei-* ‘go’ + *-annali-*)
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- ▶ Active inflection of (11) — vs. middle in imperfectives of all other Old Hittite ACTIVA TANTUM — in any case awaits a satisfactory explanation.

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- ★ **Proposal:** Old Hittite voice reversal is an **innovation** vis-à-vis PIE.
 - ▶ (11) were lexicalized prior to development of voice reversal, thus retain active inflection as an **archaism**.
 - ▶ But applies systematically in **newly** created or renewed forms, thus to productively derived imperfectives of ACTIVA TANTUM (and deponents).

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- ▶ More on the precise chronology of Hittite voice reversal in §4 below.

§1 Introduction

§2 Old Hittite voice reversal as inheritance?

§3 Emergence of Old Hittite voice reversal

- ▶ Morphosyntax of voice in Hittite and IE
- ▶ Motivating voice reversal
- ▶ Emergence of (limited) voice reversal in IE

§4 Voice reversal as an Anatolian phenomenon

Morphosyntax of voice in Hittite and IE

(12)

	SYNTAX	CLASS	BASIC STEM	
a.	<i>TRANS</i>	NON-DEPONENT	<i>appanzi</i>	'take'
c.	<i>UNACC</i>	MEDIA TANTUM	<i>eša</i>	'sit'

- ▶ In Old Hittite — like in older IE languages and cross-linguistically — voice morphology and syntactic function generally align (“match”):¹
 - ▶ Transitive, agentive verbs regularly exhibit **active** inflection in active syntactic contexts.
 - ▶ Unaccusative verbs regularly exhibit middle inflection (*media tantum*).

¹See especially Grestenberger 2014:19–62, 102–5, 2018:489–91 with references.

²On DEPONENTS see Grestenberger 2014, 2016, 2018, 2019; on ACTIVA TANTUM Yates and Gluckman 2020 (cf. Weisser 2014; Rothstein-Dowden 2022 on “active deponency” in PIE).

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d.		ACTIVA TANTUM	<i>pāun</i>	'go'

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 - ▶ Unaccusative verbs regularly exhibit middle inflection (*media tantum*).
- ▶ DEPONENTS and ACTIVA TANTUM are **mismatch** verbs.²
 - ▶ DEPONENTS are transitive but exhibit **middle** inflection.
 - ▶ ACTIVA TANTUM are unaccusative but exhibit **active** inflection.

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Motivating voice reversal

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a.	<i>TRANS</i>	NON-DEPONENT	<i>appanzi</i>	=	<i>appiskanzi</i>	'take'
b.		DEPONENT	<i>huttiyanta</i>	≠	<i>huttiyannai</i>	'drag'
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d.		ACTIVA TANTUM	<i>pāun</i>	≠	<i>paišgaḥat</i>	'go'

- ▶ Two key observations (Yates and Gluckman 2020):
 - ▶ Only **mismatch** verbs undergo voice reversal in imperfective forms.
 - ▶ In such forms voice morphology and syntax are realigned (i.e., no mismatch).

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- ▶ **No mismatches** in imperfectives!

◦ Why did voice reversal develop (in Old Hittite)?

- ★ **General:** Voice reversal is motivated by a (soft) cognitive bias against mismatches between voice morphology and syntax(/semantics) — and thus **emerges** diachronically.¹
 - ▶ Mismatch (voice) morphology can be acquired (and thus be stable diachronically), especially in highly frequent words.²
 - ▶ But learners are disposed to produce forms in which voice morphology and syntax are aligned, especially in words that are productively derived (and thus novel).

¹See, e.g., Sheehan et al. 2018 for a bias against case/agreement mismatches.

²Learned as diacritic marking on (Hittite) verbal roots/stems per Yates and Gluckman (2020) 

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 - ▶ But learners are disposed to produce forms in which voice morphology and syntax are aligned, especially in words that are productively derived (and thus novel).
- ★ **Specific:** Development of voice reversal in productively derived OH imperfectives is the grammaticalization of this emergent tendency.

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Emergent voice reversal in IE — Tocharian

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	e.	TA	<i>yutk-</i>	‘become agitated’ (Prs III)	< $*h_xyud^h-s\hat{k}^e\%$ –
	f.	TA/B	<i>sätk-</i>	‘spread (intr.)’ (Prs III)	< $*(h_2)sut-s\hat{k}^e\%$ –

- ▶ Expected on this analysis is that voice reversal will **recur**, emerging independently in IE languages that preserve inherited voice system.
- ▶ Limited historical voice reversal would explain Tocharian verbs in (4):
 - ▶ (4b–f) lack IE cognates,¹ thus likely inner-Tocharian formations.
 - ▶ Middle inflection **emerges** in novel derivatives of inherited ACTIVA TANTUM with productive $-*s\hat{k}^e\%$ –, aligning voice and syntax.²

¹Thus *LIV*², s.vv.

²On productive $-*s\hat{k}^e\%$ – in prehistory of Tocharian see Malzahn 2010:460–1 with references. □ ◀ ▶ ↺ ↻ 🔍

Emergent voice reversal in IE — Tocharian

(4)	a.	TB	<i>skente</i>	‘they are’	< $*h_1s-(s)\hat{k}^e\%$ –
	b.	TA/B	<i>mäsk-</i>	‘be(come)’ (Prs III)	< $*m\hat{n}_\circ-s\hat{k}^e\%$ –
	c.	TA/B	<i>musk-</i>	‘disappear’ (Prs III)	< $*m(y)uh_x-s\hat{k}^e\%$ –
	d.	TA/B	<i>wāsk-</i>	‘move’ (Prs XII)	< $*ug^h-s\hat{k}^e\%$ –
	e.	TA	<i>yutk-</i>	‘become agitated’ (Prs III)	< $*h_xyud^h-s\hat{k}^e\%$ –
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- ▶ Expected on this analysis is that voice reversal will **recur**, emerging independently in IE languages that preserve inherited voice system.
- ▶ Limited historical voice reversal would explain Tocharian verbs in (4):
 - ▶ (4a) is inner-Tocharian renewal of inherited ACT $*h_1és-(s)\hat{k}e-(ti)$ in (11), continued in early Latin, Greek, and Hitt. *ēškanzi*.
 - ▶ Both irregular root stress/full-grade and voice mismatch are eliminated in innovative formation.

Emergent voice reversal in IE — Ancient Greek

(13)

		PRS.ACT	FUT.MID	
a.	AGk.	<i>baínō</i>	<i>bésomai</i>	‘walk; go’
b.	AGk.	<i>t^héō</i>	<i>t^heúsomai</i>	‘run’
c.	AGk.	<i>p^heúgō</i>	<i>p^heúksomai</i>	‘flee’
d.	AGk.	<i>eimī</i>	<i>és(s)omai</i>	‘be’
e.	AGk.	<i>bióō</i>	<i>biósomai</i>	‘live’
f.	AGk.	<i>pásk^hō</i>	<i>peísomai</i>	‘suffer’

- ▶ Greek verbs with prototypical unaccusative semantics often show “semi-deponent” pattern in (13):¹
- ▶ Active inflection in present stem.
 - ▶ Middle inflection in future with suffix $-s^e-$.

¹See Rijksbaron 2007:156–7 for a list and alternative historical account (cf. Grestenberger 2019), but Fortson 2016 for a critique thereof (cf. Weiss 2020:446 n. 12).

Emergent voice reversal in IE — Ancient Greek

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- ▶ Greek verbs with prototypical unaccusative semantics often show “semi-deponent” pattern in (13):¹
 - ▶ Active inflection in present stem.
 - ▶ Middle inflection in future with suffix $-s\%-$.
- ▶ Pattern in (13) attributable to limited historical voice reversal:
 - ▶ Middle inflection emerges in innovative forms derived with productive future suffix $-s\%-$ (< desiderative PIE $*-h_1s\%-$).

¹ See Rijksbaron 2007:156–7 for a list and alternative historical account (cf. Grestenberger 2019), but Fortson 2016 for a critique thereof (cf. Weiss 2020:446 n. 12).

Emergent voice reversal in IE deponents

(14) “Activization” of DEPONENTS in IE:

a.	OH/OS	<i>huettianta</i>	>>	OH/MS	<i>huettianzi</i>	‘they drag’
b.	OH/OS	<i>tuhša</i>	>>	OH/MS	<i>tuhhušzi</i>	‘cuts off’
c.	OH/OS	<i>parašha</i>	>>	MH/NS	<i>paršiyami</i>	‘I break’
d.	OLat.	<i>interpretari</i>	>>	LLat.	<i>interpretāre</i>	‘to explain’
e.	OIr.	<i>·cuirethar</i>	>>	Mr.	<i>cuirid</i>	‘places’

- ▶ Well-established tendency across IE for **middle** inflection of DEPONENTS to be renewed by **active** inflection diachronically.¹
 - ▶ Within Hittite — e.g., (14a–c).
 - ▶ Within Latin — e.g., (14d).
 - ▶ Within Irish — e.g., (14e).

¹On the tendency see Inglese 2020:216–8 with references; it is not a rule (see Grestenberger 2014:119–20 with references).

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- ▶ Within Hittite — e.g., (14a–c).
- ▶ Within Latin — e.g., (14d).
- ▶ Within Irish — e.g., (14e).

⇒ Historical voice reversal, eliminating mismatch between voice morphology and syntax.

¹On the tendency see Inglese 2020:216–8 with references; it is not a rule (see Grestenberger 2014:119–20 with references).

§1 Introduction

§2 Old Hittite voice reversal as inheritance?

§3 Emergence of Old Hittite voice reversal

§4 Voice reversal as an Anatolian phenomenon

- ▶ Voice reversal in Luwian and its chronological implications
- ▶ Diachrony of voice reversal in Anatolian

- **When exactly did Old Hittite voice reversal develop?**

★ Voice reversal is an innovation vis-à-vis PIE (§3).

- **When exactly did Old Hittite voice reversal develop?**

- ★ Voice reversal is an innovation vis-à-vis PIE (§3).
- ▶ Luwian evidence could allow for refining this chronology (↓).

(15) “Voice reversal” with ACTIVUM TANTUM HLuw. *hwiya-* ‘move’:

a. **a=wa/i=m=a-tà* PRAE-*na* (PES₂) *HWI/A-ya-ta*
CONN=QUOT=1 SG.ACC=3 PL.NOM.C before move:3 PL.PST.ACT
‘They (= Tarhunza, Karhuha, and Kubaba) proceeded before me.’
(KARKAMIŠ A11b+c §11)

b. | PRAE-*pa=wa/i*||=*mu* | *za-a-sa* | EXERCITUS-*la/i/u-na-si-is*
before=TOP=QUOT=1 SG.DAT this:NOM.SG.C of.army:NOM.SG.C
(DEUS)TONITRUS-*sa* | *hu-ha-sà-ta-si*
StG:NOM.SG.C RED:move:IPFV:3 SG.PST.MID
‘This Tarhunza of the Army proceeded before me.’ (TELL AHMAR 6 §7)

- ... but in (reduplicated) marked imperfective forms (characterized by *-sa-*) it consistently switches to **middle** inflection, e.g., (15b).¹

¹Likewise in TELL AHMAR 6 §19, KARKAMIŠ 11b+c §8, and KARKAMIŠ A12 §2.

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- ▶ Luvian evidence for voice reversal is thus slender, but no (?) apparent counter-evidence.

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- ▶ Luwian evidence for voice reversal is thus slender, but no (?) apparent counter-evidence.
- ▶ Two possibilities:
 - ▶ Voice reversal developed (as an optional process) in Proto-Anatolian (PA), then grammaticalized as obligatory in prehistory of Hittite.
 - ▶ (Limited) voice reversal is an independent innovation in Luwian.

Diachrony of voice reversal

- ▶ Voice reversal was not a PIE feature, but developed independently in Anatolian and to a more limited extent in other IE branches.
 - ▶ Recurrence is motivated by learners' dispreference for mismatches between voice and syntax.

¹cf. Melchert 2017a on the allative case.

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 - ▶ Grammaticalized as an obligatory process in Old Hittite.

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- ▶ Voice reversal developed in PA or in prehistories of Hittite and Luwian.
 - ▶ Grammaticalized as an obligatory process in Old Hittite.
- ▶ Voice reversal in Hittite was ultimately a failed innovation.¹
 - ▶ Breaks down in post-Old Hittite, likely due to broader changes in the function of the middle morphology (see Appendix I).

¹cf. Melchert 2017a on the allative case.

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The demise of voice reversal

(A1) Voice reversal in post-Old Hittite:

	BASIC STEM		IMPERFECTIVE
ACTIVA TANTUM	ACT	→	
DEPONENT	(MID) ACT	→	ACT

- ▶ Voice reversal in DEPONENTS disappears as a side effect of their diachronic renewal with ACT morphology in basic stem forms (cf. §3).

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- ▶ Demise of voice reversal in ACTIVA TANTUM — whence new imperfectives with **ACT** inflection — requires an explanation.

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- ▶ Voice reversal in DEPONENTS disappears as a side effect of their diachronic renewal with ACT morphology in basic stem forms (cf. §3).
- ▶ Demise of voice reversal in ACTIVA TANTUM — whence new imperfectives with ACT inflection — requires an explanation.
- ▶ Core of the solution (Melchert 2017b:482):

“This peculiar pattern broke down in later Hittite as part of the **general elimination of mediopassive inflection for any function other than the passive.**”

The demise of voice reversal

(A1) Voice reversal in post-Old Hittite:

	BASIC STEM		IMPERFECTIVE
ACTIVA TANTUM	ACT	→	(MID) ACT
DEPONENT	(MID) ACT	→	ACT

- ★ **Proposal:** Post-OH systemic change in voice morphosyntax, such that:
 - ▶ Unaccusative syntax is no longer realized by middle but active.
 - ▶ Only passive is realized by middle inflection.
- ▶ Consequences of the change:
 - ▶ New imperfectives to historical ACTIVA TANTUM receive regular **ACTIVE** inflection.
 - ▶ Unaccusative historical *media tantum* retain middle inflection but as an exceptional lexical property.

Prosody of Hittite imperfectives

- (A2)
- a. PIE **pr̥k̑-ské-ti* > Ved. *pr̥cháti* ‘asks’, Lat. *poscit* ‘demands’
 - b. PIE **gʷm̑-ské* > Ved. *gácha* ‘go!’, Gk. *báske* ‘come!’
 - c. PIE **kʷȓ-ské-ti* > Hitt. *kuwarškezzi* ([kʷar-sk:é:-t̥si]) ‘cuts’
 - d. Hitt. /ekʷ-sk:é-si/ → *akkuškēši* ([akʷ:-usk:é:-si]) ‘you drink’
 - e. Hitt. /et-sk:é-∅/ → *azzikkī* ([at̥-sik:í:] ‘eat!’
 - f. Hitt. /ep̑:-sk:é-ánt̥si/ → *appiškanzi* ([ap̑:-isk:á-nt̥si]) ‘they take’
-
- ▶ PIE **-ské/o*-stems regularly had **zero-grade of the root** and **suffixal stress** (cf. *LIV*²: 209–10, 490–1) — e.g., (A2a–c).
 - ▶ This pattern stably continued in Hittite, where productive imperfectives (with *-ške/a-*) of *e/a*-ablauting verbs regularly exhibit **weak root allomorphy** and **suffixal stress** — e.g., (A2d–f).

Prosody of Hittite imperatives

- (A2)
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 - b. PIE **gʷm̑-ské* > Ved. *gácha* ‘go!’, Gk. *báske* ‘come!’
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 - f. Hitt. /ep̑:-sk̑:é-ántsi/ → *appiškanzi* ([ap̑:-isk̑:á-ntsi]) ‘they take’

- ▶ Hitt. *ēške/a-* with root stress/strong allomorphy is thus exceptional from synchronic and diachronic perspectives.
 - ▶ Inner-Hittite *Neubildung* would be ^x*aškē/a-* ([as-k̑:é:/á-]), like (A2d-f).¹
 - ▶ Historically irregular full-grade is the *lectio difficilior* — **and** matched by early Latin and Greek cognates.

⇒ Clear case for reconstructing PIE **h₁és-(s)k̑%-*.

¹Contra LIV²: 242 n. 10.

(A3) KUB 35.165 obv. 21–22 + KUB 32.17 7'–8':

21 [(*nu-ku*)] *pa-aš-ḫu-ul-la-ša-aš ti-[ya-]az ta-ba-ar-ni LUGAL-i*
pa-a-pa-az-ku-ar ti-i

22 [(*a-an-na-*)]*az-ku-ar ti-i iška*[*n*]*u-uš-ši-am-pí ti-i a-ri*
nu-uš-ši-ya-am-pí ti-i

- a. 'And now, o Sun-god *p*, may the *tabarna* have you as his very father, you as his very mother.'
- b. 'Anoint him, and exalt him now!'

► Interpretation of Pal. *iška* in (A3) is disputed.

- Melchert (1984:30–1) takes as a form of verb 'be' in substantive usage, reads with preceding text as in (A3a) (followed by Watkins 1993:477–8).
- Yakubovich (2006:121) takes as form of verb 'anoint', reads with following text as in (A3b).
- Yakubovich (2018, p.c.) supports meaning in (A3b), but proposes a different morphological analysis such that "*iška*" does not exist.

(A3) KUB 35.165 obv. 21–22 + KUB 32.17 7'–8':

21 [(*nu-ku*)] *pa-aš-ḥu-ul-la-ša-aš ti-[ya-]az ta-ba-ar-ni LUGAL-i*
pa-a-pa-az-ku-ar ti-i

22 [(*a-an-na-*)]*az-ku-ar ti-i iška*[*n*]*u-uš-ši-am-pí ti-i a-ri*
nu-uš-ši-ya-am-pí ti-i

- a. 'And now, o Sun-god *p*, may the *tabarna* have you as his very father, you as his very mother.'
- b. 'Anoint him, and exalt him now!'

► If Pal. *iška* in (A3) (i) exists and (ii) is a form of the verb 'be', its pre-form is controversial:

- Per Melchert (1984:30) from **h₁és-(s)kē* with active inflection (IMP **-∅*).¹
- Per Watkins (1993:30) from **h₁s-(s)k-ó* with middle inflection (IMP **-o*).

¹Possibly salvageable (pace Watkins 1993:477), if ⟨*iš*⟩ and ⟨*eš*⟩ are really interchangeable in Palaic texts (cf. *eDiAna* #634).

(A3) KUB 35.165 obv. 21–22 + KUB 32.17 7'–8':

21 [(*nu-ku*)] *pa-aš-ḥu-ul-la-ša-aš ti-[ya-]az ta-ba-ar-ni LUGAL-i*
pa-a-pa-az-ku-ar ti-i

22 [(*a-an-na-*)] *az-ku-ar ti-i iška* [*n*] *u-uš-ši-am-pí ti-i a-ri*
nu-uš-ši-ya-am-pí ti-i

- a. 'And now, o Sun-god *p*, may the *tabarna* have you as his very father, you as his very mother.'
- b. 'Anoint him, and exalt him now!'

▶ Overall assessment Pal. *iška* in (A3):

- ▶ Highly uncertain that it (i) exists; (ii) is a form of the verb 'be'; and (iii) exhibits middle inflection.
- ▶ But if (i–iii) are correct, the emergence of middle inflection could be a post-PA development as in Luwian.

Voice (non-)reversal in HLuw. *hwiya-*

(A4) (a=)w=a/i-sá | za-ti LOCUS-la/i-ti-i
CONN=QUOT=3SG.NOM this:LOC.SG place:LOC.SG
| (“PES₂”)HWI/A-HWI/A-ta
RED:move:3SG.PST.ACT
‘He used to go to this place.’

(KARKAMIŠ A6 §9)

- ▶ HLuw. *hwihwiya-* — the reduplicated stem of *hwiya-* ‘move’ — exhibits **active** inflection.
 - ⇒ Reduplication on its own (viz., in absence of imperfective *-sa-*) does not trigger voice reversal.

Voice (non-)reversal in HLuw. *hwiya-*

(A4) (a=)w=a/i-sá | za-ti LOCUS-la/i-ti-i
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‘He used to go to this place.’

(KARKAMIŠ A6 §9)

- ▶ HLuw. *hwihwiya-* — the reduplicated stem of *hwiya-* ‘move’ — exhibits **active** inflection.
 - ⇒ Reduplication on its own (viz., in absence of imperfective *-sa-*) does not trigger voice reversal.
- ▶ Absence of voice reversal consistent with Yates and Gluckman’s (2020) analysis of ACTIVA TANTUM: lexically marked for [+ACT] on root, revert to MID inflection when root and voice are non-local.