

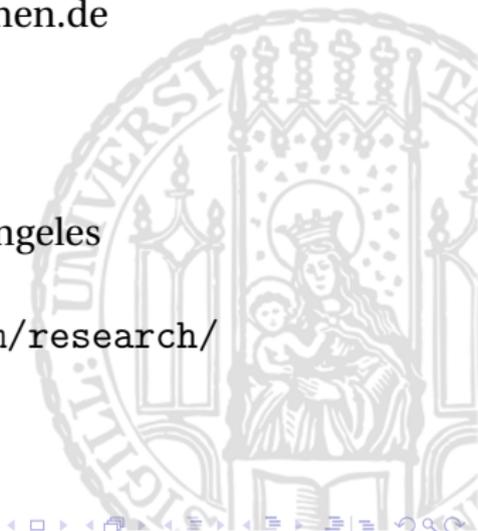
# Motion verbs in Anatolian and Indo-European



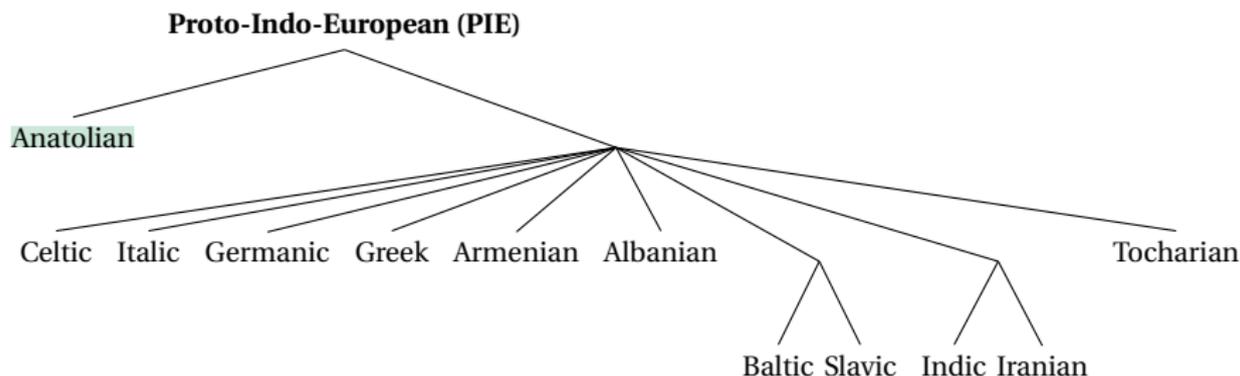
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February 22, 2022  
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Slides available at: [www.adyates.com/research/](http://www.adyates.com/research/)



# What is Hittite?



- ▶ Hittite — deciphered by Hrozný (1917) just over a century ago — is the major representative of the (now extinct) **Anatolian** branch of the Indo-European language family.

# What is Hittite?



- ▶ Hittite was the official language of the kingdom of Hatti, centered at Hattusa near modern Boğazkale in central Turkey.
- ▶ Other Anatolian languages (by approximate size of corpus):
  - ▶ Luwian, Lycian, Lydian, Carian, Palaic, Sidetic, Pisidian

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# What is Hittite?



<http://www.hittitemonuments.com/bogazkoy>

- ▶ Hittite is attested from 16th–13th centuries BCE in multi-genre administrative texts.
- ▶ Vast majority of texts are preserved on clay tablets excavated from the royal archives at Hattuşa.

# What is Hittite?

- ▶ Hittite corpus consists of:
  - ▶ “Upwards of 30,000” clay tablets and fragments.
  - ▶ ~300,000 words
- ▶ Written in a cuneiform mixed syllabic-logographic script.
- ▶ Three linguistic stages are conventionally distinguished:
  - ▶ Old Hittite (OH)
  - ▶ Middle Hittite (MH)
  - ▶ New Hittite (NH)



(KUB 6.2 obv. col. 1, OH/OS; CTH 291-2: Laws)

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(KUB 6.2 obv. col. I, OH/OS; CTH 291-2: Laws)

# Roadmap I

§1 Introduction

§2 Perfect periphrastic construction and “split intransitivity” in Hittite

- ▶ Two types of intransitive verbs in Hittite
- ▶ Motion verbs — which type and why it matters

§3 Splitting “split intransitivity” in Hittite

§4 Motion verbs in Hittite

§5 Motion verbs are unaccusative in Old Hittite and Anatolian

§6 Implications & questions for future research

# Perfect periphrastic construction in Hittite

## (1) Perfect periphrastic in Hittite (transitive verb):

*n=at=za=kan*      *kāša*      A-NA<sup>dU</sup> URU *Ha[(tt)]i* EN=YA    *Û*  
CONN=N.ACC.S=PTC just.now to.StG.of.Hatti      lord=my and  
A-[N]A DINGIR.MEŠ *BE-LU*<sup>MEŠ</sup>=YA *peran* *tarnan*      *ħarmi*  
to.gods      lords=my      before release:PTCP have:1SG.NPST.ACT

'I have just now confessed it to the Storm-god of Hatti, my lord, and to the gods, my lords. (It is so. We did it.)' (KUB 14.8 i rev. 14–15; NH)

- ▶ Hittite has a periphrastic perfect construction (Hoffner and Melchert 2008:310–12), which consists of:
  - ▶ A lexical verb, realized as a participle (*-ant-*).
  - ▶ An inflected auxiliary verb — when lexical verb is transitive as in (1), a form of *ħar(k)*– 'have'.

# Two types of intransitive verbs in Hittite

(2) “Split intransitivity” in Hittite (Garrett 1996; Dardano 2005, i.a.):

- a. *mān* UN-*aš*                      U[(N-*šī*)    *men*] *aḫhan*⟨*da*⟩ *lingan*                      *ḫarzi*  
if    man:C.NOM.SG man:DAT.SG toward                      swear:PTCP have:3SG.NPST  
‘If a man has sworn (falsely) to another man’

(KUB 30.51 i 17–18 + KUB 30.34 i! 10, NH; Dardano 2006:128)

- ▶ But Hittite intransitive verbs exhibit a contrast in auxiliary selection:
  - ▶ Some intransitive verbs — e.g., *link-* ‘swear’ in (2a) — use *ḫark-* ‘have’.
  - ▶ Other intransitive verbs — e.g., *ḫark-* ‘perish’ in (2b) — use *eš/aš-* ‘be’.

## Two types of intransitive verbs in Hittite

(2) “Split intransitivity” in Hittite (Garrett 1996; Dardano 2005, i.a.):

b. KUR<sup>URU</sup> *Nerik ḫūdak=pat karūliyaš ANA LUGAL<sup>MEŠ</sup> karū*  
land of.Nerik suddenly=FOC former:LOC.PL in.the.kings already  
*harkanza ešta*

perish:PTCP:C.NOM.SG be:3SG.PST

‘Already in the time of the earlier kings the land of Nerik suddenly had perished.’ (KUB 21.19+ iii 11; NH)

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  - ▶ Other intransitive verbs — e.g., *hark-* ‘perish’ in (2b) — use *eš/laš-* ‘be’.

## Two types of intransitive verbs in Romance

(3) “Split intransitivity” in Italian (Perlmutter 1989; Sorace 2000, i.a.):

- a. *I delegati hanno parlato tutto il giorno.* (INTRANSITIVE ⇒ HAVE)  
the delegates have talk.PTCP whole the day  
‘The delegates talked all day.’
- b. *Un gatto è morto nel villaggio.* (INTRANSITIVE ⇒ BE)  
a cat is die.PTCP in the village  
‘A cat died in the village.’

- Romance languages have similar perfective constructions in which intransitive verbs show same type of split in auxiliary selection.
- Some intransitive verbs — e.g., *parlare* ‘talk’ in (3a) — use HAVE.
  - Other intransitive verbs — e.g., *morire* ‘die’ in (3b) — use BE.

## Two types of intransitive verbs in Romance

(3) “Split intransitivity” in Italian (Perlmutter 1989; Sorace 2000, i.a.):

- a. *I delegati hanno parlato tutto il giorno.* (UNERGATIVE ⇒ HAVE)  
the delegates have talk.PTCP whole the day  
'The delegates talked all day.'
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a cat is die.PTCP in the village  
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- ▶ Romance languages have similar perfective constructions in which intransitive verbs show same type of split in auxiliary selection.
- ▶ Standard analysis — split reflects two syntactic types of intransitive:
  - ▶ UNERGATIVE verbs — e.g., *parlare* ‘talk’ in (3a) — use HAVE.
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# Two types of intransitive verbs in Germanic

## (4) “Split intransitivity” in German (Keller and Sorace 2003, i.a.):

- a. *Die Lehrerin hat dauernd geredet.* (UNERGATIVE ⇒ HAVE)  
the teacher has continuously talk:PTCP  
‘The teacher talked continuously.’
- b. *Der Großvater ist unerwartet verstorben.* (UNACCUSATIVE ⇒ BE)  
the grandpa is unexpectedly die:PTCP  
‘The grandpa died unexpectedly.’

- ▶ Germanic languages have similar perfective constructions in which intransitive verbs show same type of split in auxiliary selection.
- ▶ Standard analysis — split reflects two syntactic types of intransitive:
  - ▶ UNERGATIVE verbs — e.g., *reden* ‘talk’ in (4a) — use HAVE.
  - ▶ UNACCUSATIVE verbs — e.g., *versterben* ‘die’ in (4b) — use BE.

# Two types of intransitive verbs in Hittite

(5)	a.	UNACCUSATIVE	b.	UNERGATIVE
		<hr/>		<hr/>
		<i>ḫark-</i> 'perish'		<i>link-</i> 'swear'
		<i>ak(k)-</i> 'die'		<i>išḫam(a)i-</i> 'sing'
		<i>kiš-</i> 'happen'		<i>palwai-</i> 'shout'
		<i>park-ešš-</i> 'become tall'		<i>te-/tar-</i> 'speak'

- ▶ Based on auxiliary selection and other diagnostics (§3), it is now widely accepted that Hittite likewise distinguished between UNACCUSATIVE verbs like (5a) and UNERGATIVE like (5b).

# Two types of intransitive verbs in Hittite

(5) a.	UNACCUSATIVE	b.	UNERGATIVE
	<i>ḫark-</i> 'perish'		<i>link-</i> 'swear'
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- ▶ Based on auxiliary selection and other diagnostics (§3), it is now widely accepted that Hittite likewise distinguished between UNACCUSATIVE verbs like (5a) and UNERGATIVE like (5b).
- ▶ Specific question for today:

- Are **verbs of motion** unaccusative or unergative in Hittite?

# Verbs of motion in Old Hittite

(6) (a) <i>ar-</i>	'arrive'	<i>šalik-</i>	'approach'	(b) <i>arai-</i>	'rise'
<i>ḫuw(a)i-</i>	'move, run'	<i>samen-</i>	'withdraw'	<i>eš/aš-</i>	'sit down'
<i>yannali-</i>	'set out'	<i>tiye/a-</i>	'step'	<i>ḫaliye/a-</i>	'kneel'
<i>pai-</i>	'go'	<i>uwe/a-</i>	'come'	<i>ḫink-</i>	'bow'
<i>pidd(a)i-</i>	'flee'			<i>weḫ/waḫ-</i>	'turn'

- ▶ Luraghi (2010:139–42) argues *pai-* 'go', *eš/aš-* 'sit down', and the other verbs of motion in (6) were unaccusative in later Hittite, but in transition in Old Hittite (building on Goedegebuure 1999):

“In Old Hittite most verbs of motion were still partly treated as unergative: at the time when special syntax for unaccusative verbs was being established, they were the last to acquire it” (142).

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- ▶ This proposal is adopted (and extended) by Inglese (2020:81 *et passim*).

# Verbs of motion in Old Hittite

## (7) Diachronic syntax of motion verbs in Hittite:

	PRE-HITTITE		OLD HITTITE		POST-OLD HITTITE
a.	unergative	>	unergative/unaccusative	>	unaccusative

- ▶ Thus per Luraghi (2010) and Inglese (2020) motion verbs underwent diachronic change in (7a).

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b.	unaccusative	>	unaccusative	>	unaccusative	✓

- ▶ Thus per Luraghi (2010) and Inglese (2020) motion verbs underwent diachronic change in (7a).
- ▶ Narrow claim for today — **correct trajectory is (7b)**.
  - ▶ Motion verbs were unaccusative already in Old Hittite.
  - ▶ Anatolian-internal evidence from Luwian suggests motion verbs were unaccusative already in prehistory of Hittite.

# Verbs of motion in Old Hittite

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- ▶ Broader claim — reassessment of motion verbs in Hittite and Anatolian has implications for more general questions:

- What factors determine the (non-)use of subject-marking enclitic pronouns in Hittite?

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- ▶ Broader claim — reassessment of motion verbs in Hittite and Anatolian has implications for more general questions:

- What factors determine the (non-)use of subject-marking enclitic pronouns in Hittite?
  - ▶ Important for interpreting Hittite texts!

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- Are unaccusative motion verbs an innovation or an inherited feature in Anatolian?

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- ▶ Broader claim — reassessment of motion verbs in Hittite and Anatolian has implications for more general questions:

- Are unaccusative motion verbs an innovation or an inherited feature in Anatolian?
  - ▶ May offer insight into behavior of unaccusative (motion) verbs in other ancient IE languages.

## §1 Introduction

## §2 Perfect periphrastic construction and “split intransitivity” in Hittite

## §3 Splitting “split intransitivity” in Hittite

- ▶ Diagnostics of unaccusativity in Hittite
- ▶ Distribution of subject-marking enclitic pronouns
- ▶ Subject clitics and interpreting Hittite texts

## §4 Motion verbs in Hittite

## §5 Motion verbs are unaccusative in Old Hittite and Anatolian

## §6 Implications & questions for future research

# Unaccusativity in Hittite

- (8) Diagnostics of unaccusativity in Hittite:
  - a. Use auxiliary BE in perfect periphrastic construction (MH, NH)
  - b. Switch from active to middle inflection in imperfective (OH, MH)
  - c. Co-occur with subject-marking enclitic pronouns
  
- ▶ In Hittite only unaccusative verbs — i.e., not unergatives — are characterized by properties in (8) (Garrett 1990, 1996; Melchert 2017; Yates and Gluckman 2020).

# Unaccusativity in Hittite — switch to middle inflection

- (9) a. *takku LÚ-aš DAM=SÚ aki*  
if man:GEN.SG wife=his die:3SG.NPST.ACT  
'If a man's wife dies' (KUB 29.32 iv 17; OH/OS)
- b. *nu kuēzza uddānaz akkišketari*  
CONN what:ABL reason:ABL die:IPFV:3SG.NPST.MID  
'For what reason people keep dying' (KUB 14.10 iv 17–18; NH)

- ▶ Hittite has a contrast between active and middle voice, marked by inflectional endings on verb, and an imperfective suffix *-ške-*.
- ▶ Some unaccusative verbs show only active inflection in their basic stem forms — e.g., *ak(k)-* 'die' in (9a).
- ▶ These verbs switch (consistently in OH, MH) to middle inflection in their imperfective (*-ške-*) forms — e.g., in (9b).

# Unaccusativity in Hittite — switch to middle inflection

- (10) a. *namma linkanzi*  
CONN swear:3PL.NPST.ACT  
'Then they will swear (an oath)' (KUB 12.21 iv 15–19; MH/MS)
- b. *nu ŠA KUR<sup>URU</sup> Pītašša ku[...] karū linkišket*  
CONN of.land of.Pitassa already swear:IPFV:3SG.PST.ACT  
'Concerning the land of Pitassa he had already sworn (an oath).'
- (KUB 14.1 rev. 50–1; MH/MS)

- ▶ In contrast, unergative verbs show only active inflection.
  - ▶ Active inflection in basic stem form — e.g., *link-* 'swear' in (10a).
  - ▶ Active inflection in imperfective (*-ške-*) — cf. (10b).

# Unaccusativity in Hittite — subject clitics

(11) Hittite subject-marking enclitic pronouns:

	SG	PL
C.NOM	= <i>aš</i>	= <i>e</i> , = <i>at</i>
N.NOM	= <i>at</i>	= <i>at</i>

- ▶ A unique feature of Anatolian among ancient IE languages is its set of 3rd person subject-marking enclitic pronouns.
- ▶ Hittite subject clitics are given in (11).

# Unaccusativity in Hittite — subject clitics

## (12) Unaccusative vs. unergative in the OH *Laws*:

- a. *n=aš*                      *aki*  
CONN=3SG.C.NOM die:3SG.NPST.ACT  
'Then it dies' (KBo 6.2 iv 1; OH/OS)
- b. *nu*    *likzi*  
CONN swear:3SG.NPST.ACT  
'Then he shall swear (an oath)' (KBo 6.2 iv 3; OH/OS)

- ▶ Subject clitics only co-occur with unaccusative verbs — compare:
  - ▶ Unaccusative *ak(k)*– 'die' in (12a) ⇒ subject clitic.
  - ▶ Unergative *link*– 'swear' in (12b) ⇒ no subject clitic.

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CONN swear:3SG.NPST.ACT  
'Then he shall swear (an oath)' (KBo 6.2 iv 3; OH/OS)
- c. <sup>x</sup> *n=aš*                      *likzi*  
CONN:3SG.C.NOM swear:3SG.NPST.ACT  
'Then he shall swear (an oath)'

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- Unaccusative *ak(k)*– 'die' in (12a) ⇒ subject clitic.
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# Distribution of subject clitics in Hittite

(13) Unaccusative verbs require subjects (in the OH *Laws*):

a. *takku* LÚ-*aš*                      DAM=*SÚ* *aki*  
if        man:GEN.SG wife=his   die:3SG.NPST.ACT  
'If a man's wife dies'

(KUB 29.32 iv 17; OH/OS)

b. *n=aš*                                      *aki*  
CONN=3SG.C.NOM die:3SG.NPST.ACT  
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- ▶ Basic generalization — unaccusative verbs require an overt subject:
  - ▶ A **noun (phrase)**, as in (13a).
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- ▶ Basic generalization — unaccusative verbs require an overt subject:
  - ▶ A **noun (phrase)**, as in (13a).
  - ▶ Or else a **subject-marking enclitic pronoun**, as in (13b).
  - ▶ Absence of clitic in (13c) is ungrammatical (in principle; cf. §6 below).

# Distribution of subject clitics in Hittite

## (14) Unaccusative verbs with non-referential subject:

a. *nu kuēzza uddānaz akkiškettari*

CONN what:ABL reason:ABL die:IPFV:3SG.NPST.MID

‘For what reason people keep dying’

(KUB 14.10 iv 17–18; NH)

b. *mān apez ŪL SIG<sub>5</sub>-ri*

if that:ABL NEG get.better:3SG.NPST.MID

‘If there is no improvement from that’

(KUB 44.61 i 17; NH)

- ▶ One principled exception to this generalization — no subject clitic appears when the subject of unaccusative is non-referential, e.g.:
  - ▶ Generic subject in (14a).
  - ▶ Impersonal construction in (14b).

# Using subject clitics to interpret Hittite texts

(15) *nu* LÚ<sup>URU</sup> Puruṣhanda *katti=mi* [(*pēhutenun*)] *mān*  
CONN man of.P with=my bring:1SG.PST.ACT when  
*tunnakišna=ma* *paizzi* *ap*[(*āš=a*)] *pēram=mit*  
inner.chamber:ALL=TOP go:3SG.NPST.ACT that:C.NOM.SG=TOP before=my  
*kunnaz* *ešari*  
right:ABL sit:3SG.NPST.MID

- a. '(When I came back to Nesa), I brought the man of Purushanda<sub>i</sub> with me. As soon as he<sub>i</sub> goes into the inner chamber, that one<sub>i</sub> sits down in front of me on (my) right side.'

(KBo 3.22+ obv. i 77-9; OH/OS)

- Passage in (15) from famous *Anitta-text* (CTH 1) has long been interpreted as in (15a) (e.g., Neu 1974:14)

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- (KBo 3.22+ obv. i 77-9; OH/OS)
- ▶ Passage in (15) from famous *Anitta-text* (CTH 1) has long been interpreted as in (15a) (e.g., Neu 1974:14) — but problems arise:
- ▶ Strong tonic pronoun + topic marker (*apāš=a*) is surprising if the subject is same as preceding clause.

# Using subject clitics to interpret Hittite texts

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CONN man of.P with=my bring:1SG.PST.ACT when  
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right:ABL sit:3SG.NPST.MID

- a. ‘(When I came back to Nesa), I brought the man of Purushanda<sub>i</sub> with me. As soon as he<sub>i</sub> goes into the inner chamber, that one<sub>i</sub> sits down in front of me on (my) right side.’ (KBo 3.22+ obv. i 77–9; OH/OS)

- ▶ Passage in (15) from famous *Anitta-text* (CTH 1) has long been interpreted as in (15a) (e.g., Neu 1974:14) — but problems arise:
- ▶ Strong tonic pronoun + topic marker (*apāš=a*) is surprising if the subject is same as preceding clause.
  - ▶ Absence of subject clitic =*aš* (i.e., *mān=aš*) is unexpected with *pai-* ‘go’

# Using subject clitics to interpret Hittite texts

(15) *nu* LÚ<sup>URU</sup> Purušhanda *katti=mi* [(*pēhutenun*)] *mān*  
CONN man of.P with=my bring:1SG.PST.ACT when  
*tunnakišna=ma* *paizzi* *ap[(āš=a)]* *pēram=mit*  
inner.chamber:ALL=TOP go:3SG.NPST.ACT that:C.NOM.SG=TOP before=my  
*kunnaz* *ešari*  
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⇒ Correct interpretation of passage in (15) depends on:

- ▶ Conditions under which subject clitics are used in Hittite.
- ▶ Whether *pai-* ‘go’ is unaccusative or “partially unergative” in Old Hittite.

## §1 Introduction

## §2 Perfect periphrastic construction and “split intransitivity” in Hittite

## §3 Splitting “split intransitivity” in Hittite

## §4 Motion verbs in Hittite

- ▶ Unaccusative motion verbs in post-Old Hittite
- ▶ Unergative motion verbs in Old Hittite?

## §5 Motion verbs are unaccusative in Old Hittite and Anatolian

- ▶ Active motion verbs switch to middle inflection in OH
- ▶ Unaccusative motion verbs in Luwian
- ▶ Subject clitics with motion verbs in OH reassessed

## §6 Implications & questions for future research

# Unaccusativity in Hittite — subject clitics

## (16) Unaccusative motion verbs in post-Old Hittite:

a. *nu=kan antuḥšātar kuit INA URU.DIDLI.ḪI.A=ŠUNU*  
CONN=PTC population:N.NOM.SG because into.cities=their  
*EGIR-pa pān ēšta*  
back go:PTCP:N.NOM.SG be:3SG.PST.ACT  
'Because the population had gone back into their cities' (KBo 5.6 i 19–20; NH)

b. *n=at=kan lušdaniyaz katta paiš[kand]a*  
CONN=C.NOM.PL=PTC postern.gate:ABL down go:IPFV:3PL.NPST.MID  
'They regularly go down out of the postern gate.' (IBoT 1.36 i 61; MH/MS)

### ► Uncontroversial that motion verbs are unaccusative in post-OH.

- e.g., *pai-* 'go' employs auxiliary **BE** in periphrastic perfect in (16a).
- Switches from active to **middle inflection** in imperfective in (16b).
- Regularly co-occurs with **subject clitics**, as in (16b).

# Unergative motion verbs in Hittite?

## (7) Diachronic syntax of motion verbs in Hittite:

PRE-HITTITE		OLD HITTITE		POST-OLD HITTITE	
a.	unergative	>	unergative/unaccusative	>	unaccusative

- ▶ Recall — Luraghi (2010) and Inglese (2020) claim motion verbs were “partially unergative” in OH, an intermediate step in diachronic change in (7a).

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- ▶ Basis for their claim (cf. Goedegebuure 1999, 2014:4):

- ▶ Motion verbs co-occur with subject clitics less regularly than other unaccusatives in OH

# Unergative motion verbs in Hittite?

(17) *mān* ∅<sup>URU</sup> *Tama[rmara]* *arēr*

when city.of.T arrive:3PL.PST.ACT

‘When they arrived at the city of Tamarmara’

(KBo 22.2 obv. 8; OH/OS)

- ▶ Recall — Luraghi (2010) and Inglese (2020) claim motion verbs were “partially unergative” in OH, an intermediate step in diachronic change in (7a).
- ▶ Basis for their claim (cf. Goedegebuure 1999, 2014:4):

- ▶ Motion verbs co-occur with subject clitics less regularly than other unaccusatives in OH — e.g., **no clitic** in (17).

# Unergative motion verbs in Hittite?

- (18) Unergative > unaccusative motion verbs in Hittite — predictions:
- a. Co-occur with subject clitics less regularly than other unaccusatives in OH.
  - b. Switch to middle inflection in imperfective less regularly than other unaccusatives in OH.
  - c. Exhibit unergative behavior in other Anatolian languages.
- ▶ Diachronic hypothesis of Luraghi (2010) and Inglese (2020) is associated with the broader set of predictions in (18).

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  - ▶ **Now** — none of the predictions in (18) are borne out.

## Switch to middle inflection in OH motion verbs

- (19) *karū=ma* [šĀʔ] É DUMU.MEŠ-*an paišgaḥat* *kinun=a*  
formerly=TOP inside house children:GEN.PL go:IPFV:1SG.PST.MID now=TOP  
*natta kuwāpikki pāun*  
NEG anywhere go:1SG.PST.ACT

‘I used to go to the children’s quarters, but recently I haven’t gone anywhere.’

(KBo 17.1 iv 11–13; OH/OS)

- ▶ Among active-inflecting motion verbs only *pai-* ‘go’ attests imperfectives (*-ške-*) in OH (5x).
- ▶ Switch from active to middle inflection is exceptionless in OH (Melchert 2017; Yates and Gluckman 2020) — e.g., (19).

# Motion verbs in Luwian

(20) Unaccusative *hwiya*– ‘move, run’:



\**a=wa=m=ada*

*appan hwiya(n)ta*

*a=wa*

CONN=QUOT=1 SG.ACC=3 PL.NOM.C before run:3 PL.PST.ACT CONN=QUOT

\**apaya*

*wattaniya*

*tanataha*

that:ACC.PL.N country:ACC.PL.N devastate:1 SG.PST.ACT

‘They ran before me and I laid waste to those countries.’ (KARKAMIŠ A11b+c §11)

- ▶ In Luwian **subject clitics** consistently co-occur with **motion verbs**, including those with direct Hittite cognates — e.g.:

- ▶ Luw. *hwiya*– ‘move, run’ in hieroglyphic (20) (cf. Hitt. *ḫuw(a)i*– ‘id.’).

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# Interim summary — unergative motion verbs in Hittite?

- (18) Unergative > unaccusative motion verbs in Hittite — predictions:
- a. Co-occur with subject clitics less regularly than other unaccusatives in OH.
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- ▶ Luraghi (2010) and Inglese's (2020) diachronic hypothesis predicts (18b) and (18c), neither of which is supported by the data.
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- ▶ **What about (18a)?**

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  - c. Exhibit unergative behavior in other Anatolian languages. ✗
- ▶ **Claim** — two problems with (18a):
- ▶ Over-counting of “missing” subject clitics with motion verbs.
  - ▶ Under-counting of “missing” subject clitics with other unaccusatives.

# Motion verbs w/o clitics — “phraseological” construction

(23) Clitics in “phraseological construction” determined by  $V_2$ :

- a. *ta=kkan paizzi* <sup>LÚ</sup>N[AR (dupl. <sup>LÚ</sup>*tarašijan*)] *šipanti*  
CONN=PTC go:3SG.NPST.ACT *t*-man:C.ACC.SG libate:3SG.NPST.ACT  
'(The GUDU-priest from Dauniya takes a silver libation vessel), then he  
proceeds to consecrate the *t*-man.' (KBo 17.43 i 8–9; OH/OS)

- ▶ Hittite “phraseological construction” consists of two identically inflected verbs that behave like they belong to the same clause (van den Hout 2003, 2010; Koller 2013; Yates 2014, i.a.).
- ▶  $V_1$  = clause-initial motion verb — *pai-* ‘go’ or *uwe/a-* ‘come’ — but is semantically bleached, never employs subject clitics.
  - ▶  $V_2$  determines meaning of construction and which clausal clitics appear — e.g., in (23a) *=kkan* + *šipant-* ‘libate’ = ‘consecrate’.

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⇒ Absence of clitic *=aš* with *pai-* in (23a) is predictable (<sup>x</sup>*t=aš=kan*).

# Motion verbs w/o clitics — “phraseological” construction

(23) Clitics in “phraseological construction” determined by  $V_2$ :

- b. [t]=aš                      paizzi              LU.MEŠ MEŠEDI pēran tiezzi  
CONN=3SG.C.NOM    go:3SG.ACT bodyguards              before step:3SG.ACT  
'He proceeds to take his place in front of the bodyguards.'              (KBo 20.12 i 2-3; OH/OS)

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    - ▶  $V_1$  = clause-initial motion verb — *pai-* ‘go’ or *uwe/a-* ‘come’ — but is semantically bleached, never employs subject clitics.
    - ▶  $V_2$  determines meaning of construction and which clausal clitics appear — e.g., in (23b) unaccusative *tiye/a-* ‘step’ requires subject clitic =aš ‘he’.
- ⇒ Neither *tiye/a-* nor *pai-* has a “missing” clitic in (23b).

## Motion verbs w/o clitics — case of *huw(a)i-*

- (24) *hāššan=kan*                      *huyanzi*  
hearth:C.ACC.SG=PTC run:3PL.NPST.ACT  
'They run around the hearth.'

(KBo 25.31 iii 8; OH/OS)

- ▶ Per Luraghi (2010:141) *huw(a)i-* 'move, run' "occurs nine times [in OH] with a null subject and never with a third person clitic."
- ▶ But all "missing" subject clitics are confined to the idiom in (24), where *huw(a)i-* takes an accusative-marked complement.

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- ▶ But all "missing" subject clitics are confined to the idiom in (24), where *huw(a)i-* takes an accusative-marked complement.
- ▶ (24) reflects a limited transitive usage (cf. Eng. *run the gauntlet*).  
⇒ No subject clitic is expected.

# Motion verbs w/o clitics — case of *h<sub>u</sub>w(a)i-*

(25) Unaccusative *h<sub>u</sub>w(a)i-* in OH:

*n=e* /                      *mān šēr*    *h<sub>u</sub>wanteš*  
CONN=3PL.C.NOM if    above move:PTCP:C.NOM.PL

‘If they are moving above.’

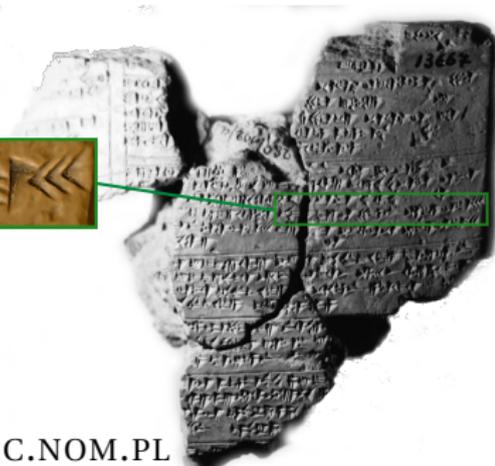
(KUB 32.117 obv. 4 + KBo 19.156 obv. 12, OH/OS; cf. Neu 1980:221)

- ▶ In regular intransitive usage, *h<sub>u</sub>w(a)i-* ‘move, run’ is in fact attested in OH with a **subject clitic** (contra Luraghi 2010:141) — securely in (25).



# Motion verbs w/o clitics — case of *huw(a)i-*

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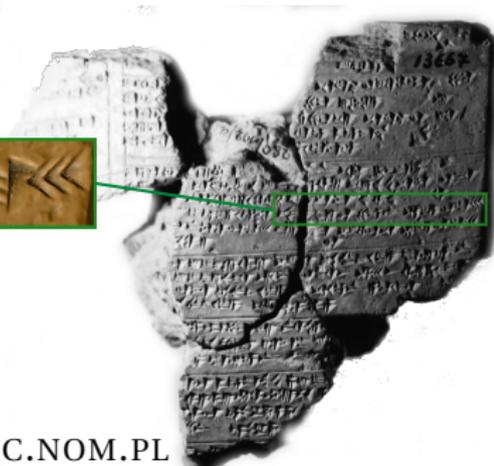
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# Motion verbs w/o clitics — case of *h<sub>uw</sub>(a)i-*

(25) Unaccusative *h<sub>uw</sub>(a)i-* in OH:



*n=e* |

*mān šēr*

*huyanteš*

CONN=3PL.C.NOM if

above move:PTCP:C.NOM.PL

‘If they are moving above.’

(KUB 32.117 obv. 4 + KBo 19.156 obv. 12, OH/OS; cf. Neu 1980:221)

- ▶ In regular intransitive usage, *h<sub>uw</sub>(a)i-* ‘move, run’ is in fact attested in OH with a **subject clitic** (contra Luraghi 2010:141) — securely in (25).

# Non-motion verbs w/o clitics

## (26) Unaccusative non-motion verbs in OH without subject clitic:

a. *su=wa*       $\emptyset_i$  *kuit natta aker*

CONN=QUOT    why NEG    die:3PL.PST.ACT

‘(But were the sons of Zalpa<sub>i</sub>, 100 troops, not there with me?) Why didn’t **they<sub>i</sub>** die?’ (KBo 22.2 rev. 6)

- ▶ More unaccusative non-motion verbs in OH with “**missing**” **subject clitics** than previously recognized — e.g.:
  - ▶ Change-of-state *akk-* ‘die’ in (26a).

# Non-motion verbs w/o clitics

(26) Unaccusative non-motion verbs in OH without subject clitic:

b. <sup>URU</sup> *Zalpan arahzanda wetet* MU.2.KAM  $\emptyset_i$  *kattan*  
city.of.Zalpa around build:3SG.PST.ACT 2.years beside

*ešta*

be:3SG.PST.ACT

‘(In the third year the king<sub>i</sub> set out.) He<sub>i</sub> besieged the city of Zalpa. He<sub>i</sub> remained there for two years.’

(KBo 22.2 rev. 10–11; OH/OS)

▶ More unaccusative non-motion verbs in OH with “missing” subject clitics than previously recognized — e.g.:

▶ Stative *eš/aš-* ‘be’ in (26b).

# Interim summary — subject clitics in OH

## (27) Distribution of subject clitics with unaccusative verbs in OH:

TYPE	SBJ CLITIC	CONTEXTS	%
MOTION	52	66	78.8%
NON-MOTION	21	28	75%

- ▶ Broad take-away — OH attests “missing” subject clitics with motion verbs, but in similar proportion to other unaccusative verbs (contra Goedegebuure 1999, 2014; Luraghi 2010; Inglese 2020).
  - ▶ Data for (27) available here: [.pdf](#) / [.tsv](#)

# Interim summary — subject clitics in OH

## (28) Distribution of subject clitics with unaccusative verbs in OH:

TYPE	SBJ CLITIC	CONTEXTS	%
MOTION	52	66	78.8%
STATIVE	4	8	50%
CHANGE-OF-STATE	17	20	85%

- ▶ Broad take-away — OH attests “missing” subject clitics with motion verbs, but in similar proportion to other unaccusative verbs (contra Goedegebuure 1999, 2014; Luraghi 2010; Inglese 2020).
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# Motion verbs are unaccusative in Anatolian

- (18) Unergative > unaccusative motion verbs in Hittite — predictions:
- a. Co-occur with subject clitics less regularly than other unaccusatives in OH. ✗
  - b. Switch to middle inflection in imperfective less regularly than other unaccusatives in OH. ✗
  - c. Exhibit unergative behavior in other Anatolian languages. ✗
- ▶ Luraghi (2010) and Inglese's (2020) diachronic account of motion verbs makes predictions in (18), none of which are supported by the data.
- ▶ Motion verbs co-occur with subject clitics as frequently as other unaccusatives in OH.
  - ▶ Motion verbs in OH consistently switch to middle inflection.
  - ▶ Motion verbs in Luwian — incl. exact cognates of Hittite — consistently employ subject clitics.

# Motion verbs are unaccusative in Anatolian

## (7) Diachronic syntax of motion verbs in Hittite:

	PRE-HITTITE		OLD HITTITE		POST-OLD HITTITE	
a.	unergative	>	unergative/unaccusative	>	unaccusative	
b.	unaccusative	>	unaccusative	>	unaccusative	✓

⇒ Anatolian evidence uniformly supports (7b):

- ▶ Motion verbs are unaccusative throughout Hittite period.
- ▶ Unaccusative motion verbs in Luwian suggest this feature was inherited into pre-Hittite from Proto-Anatolian.

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§6 Implications & questions for future research

- ▶ Unaccusativity in Anatolian motion verbs as inheritance
- ▶ Conditions for (non-)use of subject clitics in Hittite
- ▶ *Anitta* revisited

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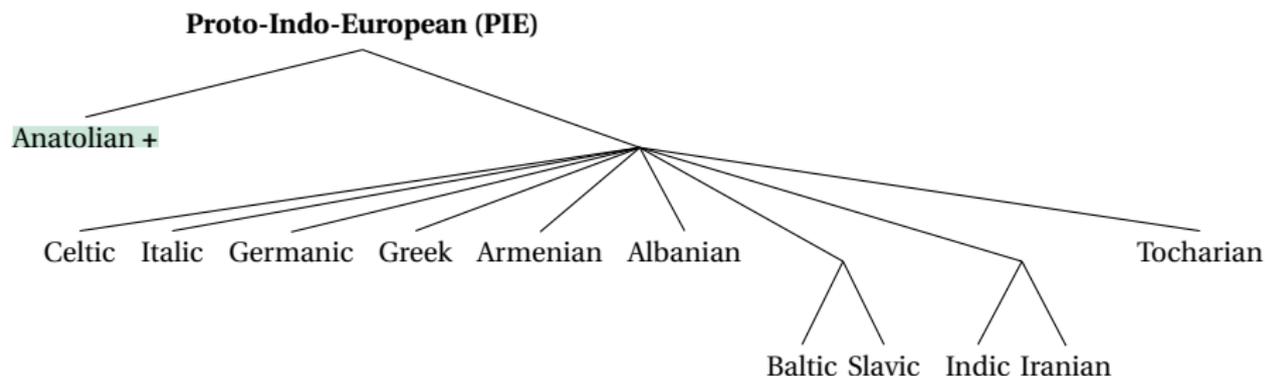
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- ▶ Motion verbs are unaccusative throughout Hittite period.
- ▶ Unaccusative motion verbs in Luwian suggest this feature was inherited into pre-Hittite from Proto-Anatolian.

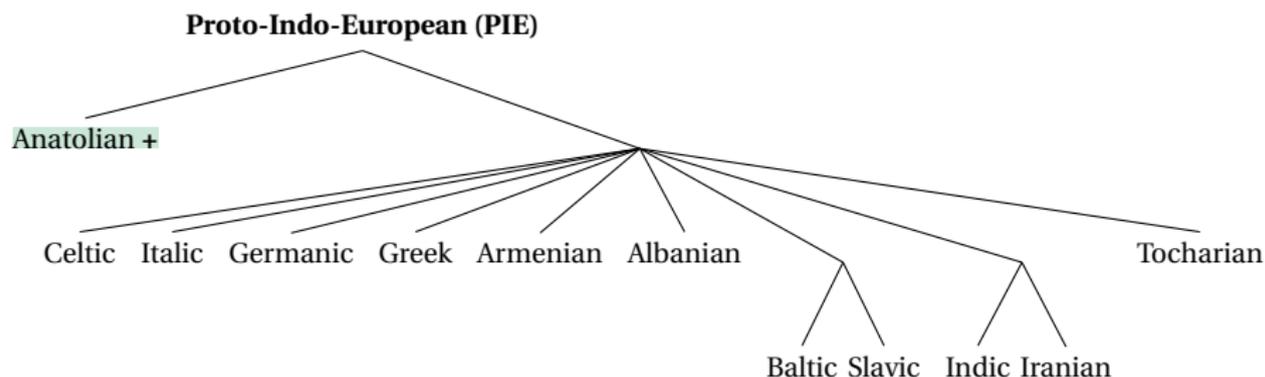
- Are unaccusative motion verbs a feature inherited into Proto-Anatolian from Proto-Indo-European?

# Unaccusative motion verbs — inheritance or innovation?



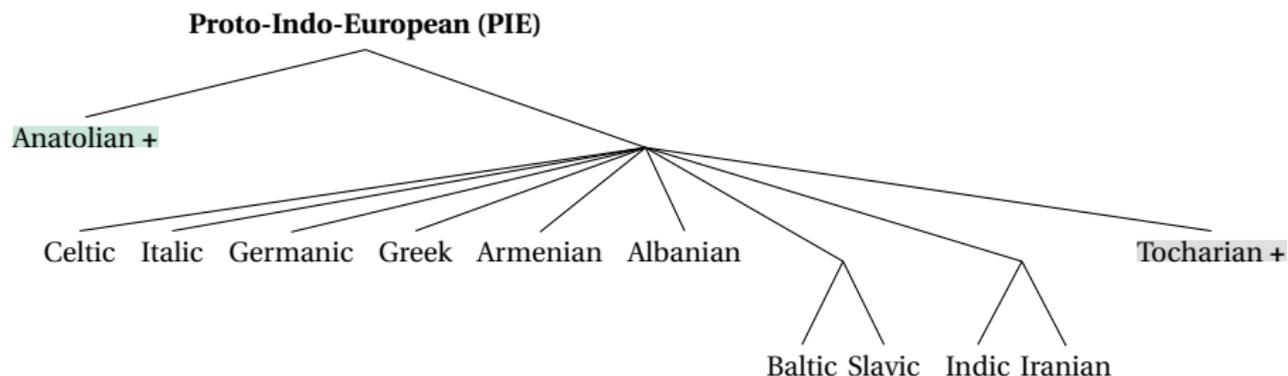
- ▶ **Anatolian** evidence is consistent with unaccusativity as an inherited feature of motion verbs.

# Unaccusative motion verbs — inheritance or innovation?



- ▶ **Anatolian** evidence is consistent with unaccusativity as an inherited feature of motion verbs.
- ▶ Language-specific diagnostics have not (yet) been established for most other ancient IE languages.

# Unaccusative motion verbs — inheritance or innovation?



- ▶ **Anatolian** evidence is consistent with unaccusativity as an inherited feature of motion verbs.
- ▶ Language-specific diagnostics have not (yet) been established for most other ancient IE languages.
- ▶ But new evidence has recently emerged from **Tocharian**.

# Unaccusative motion verbs in Tocharian

- (29) Subject of unaccusative ‘go’ with possessive pronominal clitic in TA:

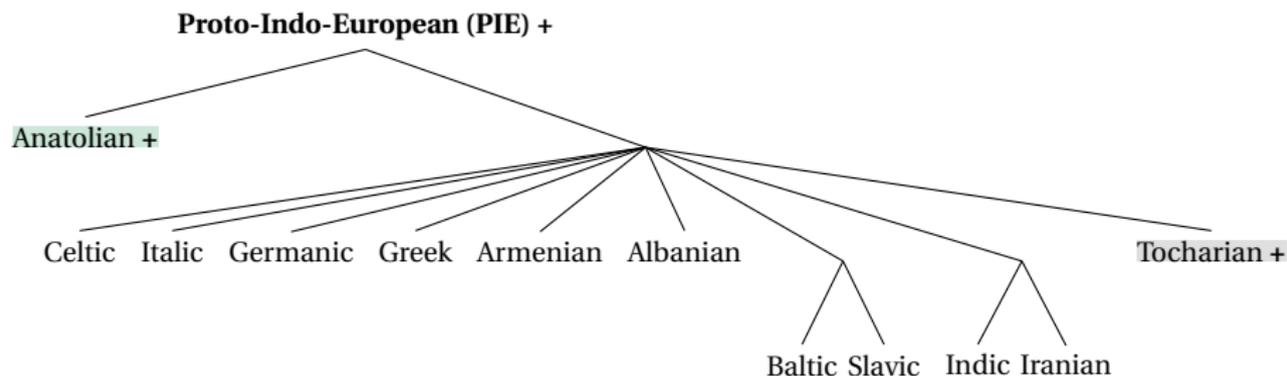
*weñam*                      *tāpärk ślokaśši*                      *wram kos*                      *ne*  
speak:SBJV.ACT.1SG now    strophe:GEN.PL thing how.much COMP  
*ime*      *kalkaṣ-ñi*  
thought go:SBJV.ACT.3SG-1SG

‘I will now tell (you) the sense of the strophes, as far as my memory goes.’

(A218a5)

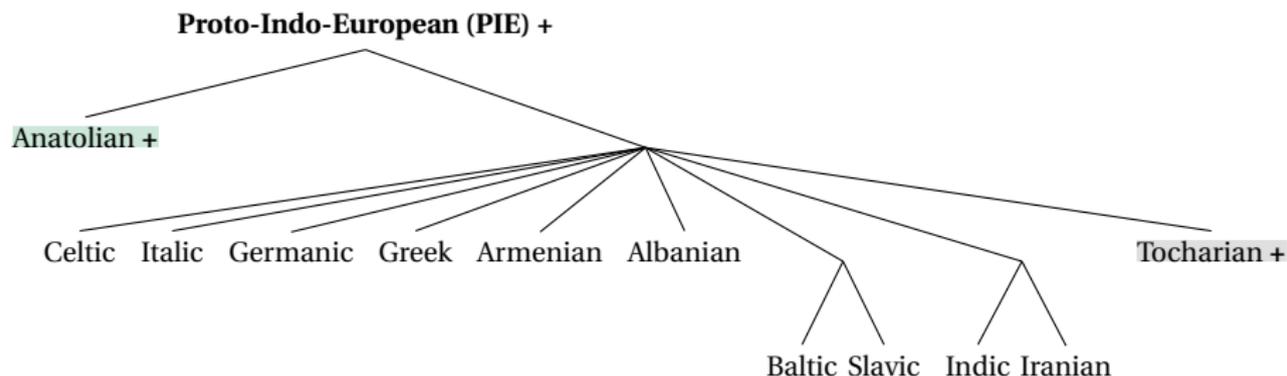
- ▶ In Tocharian A (TA) **pronominal clitics** can mark the possessor of the subject of verb only if the verb is unaccusative (i.e., not transitive or unergative; Onishi 2019, p.c.) — e.g., (33).
  - ▶ *kälkā-* ‘go’ is suppletive with *i-* (< PIE *\*h<sub>1</sub>ei-*; cf. Hitt. *pai-*, Luv. *i-*).

# Unaccusative motion verbs as IE inheritance



- ▶ **Proposal** — unaccusativity is an inherited feature of Anatolian motion verbs, reconstructible for PIE.
  - ▶ *\*h<sub>1</sub>ei-* ‘go’ formed an unaccusative root present in PIE, inherited into ancient IE languages (> Hitt. *pai-*, Toch. *i-*; Gk. εἶμι, Ved. *i-*, Lat. *īre*, etc.).
  - ▶ Unaccusativity likely also inherited in other Anatolian motion verbs (e.g., Hitt. *ar-* ‘arrive’; cf. Gk. ἔρχομαι ‘come’).

# Unaccusativity as IE inheritance — future research



► This proposal gives rise to new questions:

- Are there unnoticed correlates of unaccusative syntax in other ancient IE languages?
- Are there reconstructible correlates of unaccusativity in PIE?

# Explaining “missing” subject clitics

(29) Distribution of subject clitics with unaccusative verbs in OH:

TYPE	SBJ CLITIC	CONTEXTS	%
MOTION	52	66	<u>78.8%</u>
NON-MOTION	21	28	75%
<b>Total:</b>	<b>73</b>	<b>94</b>	77.7%

► Findings in (29) give rise to a more precise question — not:

- What accounts for the absence of subject clitics in OH with motion verbs?

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► Findings in (29) give rise to a more precise question:

- What accounts for the absence of subject clitics in OH with unaccusative verbs generally?

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- ▶ Garrett (1990:130–4) suggests omission of subject clitics is favored under certain discourse conditions:
  - Under the same conditions as object clitics? (cf. Inglese et al. 2019)
  - In certain genres — in particular, ritual and festival texts?

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  - Under the same conditions as object clitics? (cf. Inglese et al. 2019)
  - In certain genres — in particular, ritual and festival texts?
- ▶ “Missing” clitics exist in post-OH and can be investigated there too.  
(see Appendix II)

# Using subject clitics to interpret Hittite texts

(15) *nu* LÚ<sup>URU</sup> Puruṣhanda *katti=mi* [(*pēhutenun*)] *mān*  
CONN man of.P with=my bring:1SG.PST.ACT when  
*tunnakišna=ma* *paizzi* *ap[(āš=a)]* *pēram=mit*  
inner.chamber:ALL=TOP go:3SG.NPST.ACT that:C.NOM.SG=TOP before=my  
*kunnaz* *ešari*  
right:ABL sit:3SG.NPST.MID

- a. ‘(When I came back to Nesa), I brought the man of Purushanda<sub>i</sub> with me. As soon as he<sub>i</sub> goes into the inner chamber, that one<sub>i</sub> sits down in front of me on (my) right side.’ (KBo 3.22+ obv. i 77–9; OH/OS)

- Recall — passage in (15) from famous *Anitta-text* (CTH 1) has long been interpreted as in (15a) (e.g., Neu 1974:14), but problems arise:
- Strong tonic pronoun + topic marker (*apāš=a*) is surprising if the subject is same as preceding clause.
  - Absence of subject clitic =*aš* (i.e., *mān=aš*) is unexpected with *pai-* ‘go’ — **if the verb is unaccusative in OH.**

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inner.chamber:ALL=TOP go:3SG.NPST.ACT that:C.NOM.SG=TOP before=my  
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right:ABL sit:3SG.NPST.MID

- b. '(When I came back to Nesa), I brought the man of Purushanda<sub>i</sub> with me. **When someone goes** into the inner chamber, that one<sub>i</sub> shall sit down in front of me on (my) right side.'
- (KBo 3.22+ obv. i 77-9; OH/OS)

- **Proposal** — passage in (15) should be interpreted as in (15b):
- Absence of subject clitic =*aš* (i.e., <sup>x</sup>*mān=aš*) is expected when *pai-* 'go' has non-referential subject.
  - Strong tonic pronoun + topic marker (*apāš=a*) indicates switch of topic to its referent (i.e., 'man of P').

- ▶ Principal findings:
  - ▶ Motion verbs were stably unaccusative throughout the history of Anatolian and Hittite (contra Luraghi 2010; Inglese 2020).
  - ▶ New reading in *Anitta-text* (CTH 1).

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  - ▶ Distribution of subject clitics and how Hittite texts should be interpreted.
  - ▶ Diachronic development of (IE) motion verbs and morphosyntax generally.
- ▶ Answers to these questions lie in the ancient texts, awaiting philologically and linguistically informed investigation.

# Thank you!

- Special thanks to the members of the:
  - Indo-European & Modern Linguistic Theory research group
  - LMU Forschungskolloquium
- As well as to Craig Melchert, Olav Hackstein, Giulio Imberciadori, Ron Kim, Sergio Neri, Teigo Onishi, and Philomen Probert.
- And to the Alexander von Humboldt Foundation for supporting this research.

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Yates, Anthony D., and John Gluckman. 2020. Voice Reversals and Syntactic Structure: Evidence from Hittite. *Glossa* 5(120).120/1–39.

# Using subject clitics to interpret Hittite texts

(A1) *lenganut=wa=mu* *kuiš* *nu=wa*  
swear:CAUS:3SG.PST.ACT=QUOT=1SG.ACC who:C.NOM.SG CONN=QUOT  
*karū hāliya wehtat nu=war=at ŪL namma*  
already day:DAT.SG turn:3SG.PST.MID CONN=QUOT=3SG.N.NOM NEG still  
*kuitki*  
INDF:N.NOM.SG

- a. 'As for the one who<sub>i</sub> swore me in, he<sub>i</sub> has already passed away (lit. 'turned to the day'), and it doesn't matter anymore, (so in that case I will speak about those affairs at this time).' (KUB 26.1 iii 17-18; NH/NS)
- ▶ Passage in (A1) was standardly interpreted as in (A1a) (Neu 1968:196, Miller 2013:301, i.a.), but there are two problems:
- ▶ Absence of subject clitic =aš (i.e., *nu=war=aš*) with unaccusative *weh/wah-* (in NH) is unexpected if subject is same as preceding clause.
  - ▶ Idiomatic use of *weh/wah-* 'turn' + 'day' = 'die' is otherwise unattested.



# Using subject clitics to interpret Hittite texts

(A2) *n=aš*                      *aku*                      *lē(y)=aš=kan*  
CONN=3SG.C.NOM die:3SG.IMPACT NEG=3SG.C.NOM=PTC

*wēhtari*

turn:3SG.NPST.MID

‘(In whose watch the sin occurs), let him die! Don’t let him get away!’

- ▶ *wēh/wah*– in sense ‘pass; go away’ (w/ middle inflection) is exemplified in (A2).

# Using subject clitics to interpret Hittite texts

(A3) *nu kuitman apēl UD.KAM-za kuitman=aš aki*  
CONN until his day:C.NOM.SG until=3SG.C.NOM die:3SG.NPST.ACT  
'(But as for his Majesty and also the person and soul of his Majesty,) until the  
day he dies, (no one shall speak of it to anyone). (KUB 26.1 iii 21-22; NH/NS)

- ▶ Normal Hittite expression for 'die' is attested in (A3), which immediately follows (and is contrasted with) (A2) above.

# Subject clitics in post-Old Hittite

## (A4) Missing subject clitics in post-Old Hittite:

- a. *n=aš*                      *paizzi*                      *ta*     $\emptyset_i$  <sup>GIS</sup> *huluganni* *GÜB-laz*  
CONN=3SG.C.NOM go:3SG.NPST.ACT CONN    wheel:LOC.SG left:ABL  
*tiyazzi*  
step:3SG.NPST.ACT

‘He goes and he takes his place by the left wheel of the cart.’

(IBoT 1.36 ii 42–43; MH/MS)

- **Subject clitic** absent with unaccusative motion verb *tiye/a-* ‘step’ in (A4a).

# Subject clitics in post-Old Hittite

## (A4) Missing subject clitics in post-Old Hittite:

b. *nu=∅<sub>i</sub>=ššan GAL-az<sup>E</sup> kāškaštepaz šarā [uwa]nzi*

CONN=PTC big:ABL gate:ABL up come:3PL.NPST.ACT

‘They come up through the main gate (and then they throw the door-bolt).’

(IBoT 1.36 iv 26–27; MH/MS)

- ▶ **Subject clitic** absent with unaccusative motion verb *uwe/a-* ‘come’ in (A4b).

# Subject clitics in post-Old Hittite

## (A4) Missing subject clitics in post-Old Hittite:

- c. *mān*  $\emptyset_i$  *INA É.GAL-LI zakkītī artari*  
when in.palace door.bolt:LOC stand:3SG.NPST.MID  
'When he stands at the door-bolt in the palace' (KBo 5.11+ i 1; MH/MS)

- **Subject clitic** absent with unaccusative stative verb *ar-* 'stand' in (A4b).

# Motion verbs in Luwian

## (A5) Unaccusative *i-* ‘go’ in hieroglyphic Luwian:

*(a=)w=as*                      *ira*                      *apasati azzuwati tanimati*  
CONN=QUOT=3SG.NOM.C go:3SG.PST.ACT his:INS horse:INS all:INS  
*kwalanati=ha*  
army:ABL=CONJ

‘He went with all his horse and infantry.’

(TOPADA §8)

- ▶ In Luwian **subject clitics** consistently co-occur with motion verbs, including those with direct Hittite cognates — e.g.:
  - ▶ Luw. *i-* ‘go’ in (A5) (cf. Hitt. *pai-* ‘id.’).

# Motion verbs in Luwian

(A6) Unaccusative *as-* ‘sit’ in hieroglyphic Luwian:

\**a=wa=m=ada*

*huhurpali asata*

CONN=QUOT=1SG.DAT=3PL.NOM.C ?::LOC

sit.3PL.PST.ACT

‘(My lord celestial Tarhunt, Karhuha, and Kubaba loved me because of my justice). They sat on the *h-* for me.’

(KARKAMIŠ A11*b+c* §10)

- ▶ In Luwian **subject clitics** consistently co-occur with motion verbs, including those with direct Hittite cognates — e.g.:
  - ▶ Luw. *as-* ‘sit’ in (A6) (cf. Hitt. *eš-* ‘id.’).

# Generic subjects in Hittite

## (A7) Generic third-person subject in Hittite:

- a. III-*kiš=a=šmaš*      *šī[na]n*      [*pa*]rā *ēpzi*  
thrice=TOP=3PL.DAT figurine:C.ACC.SG forth take.3SG.NPST.ACT  
GUD-*n=a=šmas*      III-*iš* *parā* *ēpzi*  
cow:C.ACC.SG=TOP=3PL.DAT thrice forth take:3SG.NPST.ACT

‘(They run around the king and the queen.) **Someone** proffers a figurine to them three times. **Someone** proffers a cow to them three times.’

(KBo 17.1 obv. 3’-4’; OH/OS)

- **Generic third person subjects** are well-attested in Hittite, especially in ritual contexts — e.g., (A7a).

# Generic subjects in Hittite

## (A7) Generic third-person subject in Hittite:

- b. [nu m]ān<sup>d</sup>UTU<sup>URU</sup>Arinna[a mu]gānzi  
CONN when sun-goddess of.Arinna incite:3PL.NPST.ACT  
'Whenever **they** invoke the Sun-goddess of Arinna, (they recite [as follows]).'  
(KUB 36.80 iv 2–7, NH; *CHD*, L–N: 159–60)

- **Generic third person subject** (= 'people') is attested with *mān* in sense 'when(ever)' in (A7b).

# Explaining “missing” subject clitics

(A8) Distribution of subject clitics with unaccusative verbs in OH:

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► These findings give rise to a more precise question:

- What accounts for the absence of subject clitics in OH with unaccusative verbs generally?

# Explaining “missing” subject and object clitics

## (A9) Null object with transitive verb:

([GAL] LÚ.MEŠ<sup>GIŠ</sup> BANŠUR<sup>NINDA</sup> *harš*) *in*<sub>i</sub> GE<sub>6</sub> *paršiya* *ta*  $\emptyset$ <sub>i</sub>  
chief of.men of.table bread dark break:3SG.NPST.MID CONN  
*hāšši* *dāi*  
hearth:LOC.SG place:3SG.NPST.ACT

‘The head waiter breaks a loaf of dark bread<sub>i</sub> and places  $\emptyset$ <sub>i</sub> on the hearth.’

(KBo 17.11+ i 51–52; OH/OS)

- ▶ Garrett (1990:130–4) proposes that Hittite has a process of “discourse-conditioned null anaphora,” which accounts for both:
  - ▶ Absence of subject clitics with unaccusative verbs.
  - ▶ Absence of object clitics with transitive verbs — e.g., (A9).

# Explaining “missing” subject and object clitics

- (A10) LÚ<sub>i</sub> <sup>d</sup>IM ANA LUGAL<sub>j</sub> h[e]kta ta ∅<sub>j</sub> aniezzi  
man of.StG to.the.king bow:3SG.NPST.NACT CONN treat:3SG.NPST.ACT  
*mān zinnizz[i=m]a ANA LUGAL ∅<sub>i</sub> hekta*  
when finish:3SG.NPST.ACT=TOP to.the.king bow:3SG.PST.NACT  
*appa=ya ∅<sub>j</sub> hekta*  
back=CONJ bow:3SG.NPST.NACT  
‘The man<sub>i</sub> of the Storm-God bows to the king<sub>j</sub>, then he<sub>i</sub> treats him<sub>j</sub>. When he<sub>i</sub> finishes, he<sub>i</sub> bows to the king and he<sub>j</sub> bows back. (KBo 20.10 i 4–6; OH/OS)

- ▶ Advantages of Garrett’s proposal unifying subject and object clitics:
  - ▶ Syntactically motivated — objects of transitive verbs and subjects of unaccusatives occupy same structural position.
  - ▶ Clustering of “missing” object clitic and subject clitics in (A10).

# Explaining “missing” subject and object clitics

(A11) Effects on distribution of subject clitics with unaccusative verbs in OH:

FACTORS	SBJ CLITIC	CONTEXTS	%	cf. OVERALL %
CONN <i>ta</i>	23	27	85.2%	<b>77.7%</b>
CONN $\emptyset$	5	15	33.3%	
ritual/festival	49	61	80.3%	

- ▶ But conditions for “missing” subject and object clitics in OH partially differ (Inglese et al. 2019):
  - ▶ Null objects favored with connective *ta* (cf. Rieken 1999, i.a.), but **no effect** is observable for subject clitics.

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  - ▶ Null objects favored in ritual and festival texts, but no such genre effect is observable for subject clitics.

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- **Overall** — further research required to determine whether subject and object clitics are omitted under same conditions and what the precise conditions are.

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- ▶ Some major questions that bear on viability of a unified account:
  - Are subject clitics omitted with higher frequency in Hittite ritual/festival texts that survive only in post-OH manuscripts? How do they compare to object clitics in same texts?
  - Does the frequency of omission of subject and object clitics pattern together diachronically?

# Diachronic change with subject clitics?

## (A12) OH original and post-OH variant of *Laws* §175:

- a. *nāššu*  $\emptyset_i$  *INA* M[U.2.KAM *našma* *INA* MU.4.KAM *GÉME-i*] *ššarezzi*  
or after.2.years or after.4.years become.slave:3SG.ACT  
'(If a shepherd takes a free woman<sub>i</sub> in marriage), **she<sub>i</sub>** will become a slave  
after either two or four years.' (KBo 20.85 + KUB 29.29 iii 28–29, OH/OS; Hoffner 1997:139)
- b. *n=aš* *nāššu*  $\langle$ *INA* $\rangle$  MU.2.KAM *našma* *INA* MU.4.KAM  
CONN=3SG.C.NOM or after.2.years or after.4.years  
*GÉME-ēšzi*  
become.slave:3SG.ACT  
'(If a shepherd or administrator takes a free woman<sub>i</sub> in marriage), **she<sub>i</sub>** will  
become a slave after either two or four years.' (KBo 6.26 ii 17–18, OH/NS; Hoffner 1997:139)
- Change-of-state *GÉME-iššare(šš)*– ‘become a slave’ is “missing” its subject clitic in OH original in (A12a).
- But this clitic (=aš) is present in the later NS variant in (A12b).

# Null object pronouns in recipe English

(A13) Null **object pronouns** in a cake recipe (Massam and Roberge 1989:135):

*Take the cake mix, 1 cup of water, and 3 eggs. Mix ∅ well and beat ∅ for 5 minutes. Pour ∅ into a well-greased pan and bake ∅ for 20 minutes. Remove ∅ from oven and cool ∅.*

- ▶ Subject and object pronouns are in general obligatory in English, but are admissible in certain genres.
- ▶ Thus, e.g., null objects are admissible in “recipe contexts” like (A13) (cf. Garrett 1990:134)

# Null subject pronouns in diary English

(A14) Null 1SG pronoun in diary of Silvia Plath (Haegeman 2007):

- a. ∅ *Felt I'd been watching or participating in a Greek play.* (284)
- b. ∅ *Dreamt that I picked up a New Yorker.* (304)
- c. ∅ *Feel my first book of poems should be published, however limited.* (327)

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- ▶ Subject and object pronouns are in general obligatory in English, but are admissible in certain genres.
- ▶ Thus, e.g., null subjects are admissible in “diary English” like (A14).
- ▶ Likewise, null subjects are very common in text messaging, social media, and, e.g., greeting cards:



# Unaccusative verbs with transitive sense

(A15) Transitive usage of *weh/wah-* ‘turn’:

*n=ašta*      GUNNI *wehantari*

CONN=PTC hearth    turn:3PL.NPST.MID

‘They encircle the hearth’

(IBoT 1.29: 21; OH/MS)

- ▶ Unaccusative *weh/wah-* ‘turn’ also attests a limited transitive sense, e.g., in (A15) (cf. *huw(a)i-* ‘move, run’ in (24) above).
- ▶ For unaccusative status of *weh/wah-* see (A1–2) above.

# IE background of Muršili's oath

- (A16) *n=at=za=kan*      *kāša*      A-NA<sup>dU</sup> URU *Ha[(tt)]i EN=YA*      *Û*  
CONN=N.ACC.S=PTC just.now to.StG.of.Hatti      lord=my and  
A-[N]A DINGIR.MEŠ *BE-LU<sup>MEŠ</sup>=YA* *peran tarnan*      *ħarmi*  
to.gods      lords=my      before release:PTCP have:1SG.NPST.ACT  
*ēšzi(y)=at*      *i[y]awen=at*  
be:3SG.NPST.ACT=N.NOM.SG do:1PL.PST.ACT=N.ACC.SG  
'I have just now confessed it to the Storm-god of Hatti, my lord, and to the  
gods, my lords. It is so. We did it.' (KUB 14.8 i rev. 14–15; NH)

- ▶ Watkins (1995:167–8) suggests the concluding “confessional formula” in (A16) with reflex of verb *\*h<sub>1</sub>es-* ‘be’ is inherited, comparing:
  - ▶ Lat. *sōns* ‘guilty’ < ‘he who says “*sōns*”’ (delocutive)
  - ▶ Eng. *sin*, German *Sünde*

# Innovation of voice “reversal” in Hittite

(A17) Historical imperfectives to unaccusatives with active inflection:

- a. LUGAL-*š=a IŠME š=aš* *iyanniš*  
king=TOP heard CONN=3SG.ANIM.NOM set.out:3SG.NPST.ACT  
'The king heard (about it) and he set out.' (KBo 22.2 rev. 7; OH/OS)

▶ Hittite has two unaccusative verbs that — at least historically — contain the imperfective suffixes *-anna/i-* and *-ške-* but nevertheless show only **active** inflection:

- ▶ Hitt. *iyannali-* ‘set out (for); march’ in (A17a) (< *\*h<sub>1</sub>ei-* ‘go’)
- ▶ Hitt. *ēškanzi* ‘they are/exist’, late hapax in (A17b) (< *\*h<sub>1</sub>es-* ‘be’)

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- b. <sup>MUNUS</sup> *NAPṬIR*(*TI=KA*)=*ma=tta*      *āra*      *ēškanzi*      (dupl. *ē[šd]u*)  
secondary.wife=yours=TOP=2SG.DAT rightfully be:3PL.NPST.ACT  
‘Rightfully they shall be yours as secondary wife.’

(KBo 5.3 iii 63–65 w/ dupl. KBo 22.40+19.44 rev. 48–49)

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(A18) *cui*                      *suus*                      *heres*                      *nec escit*  
who:DAT.SG own:M.NOM.SG heir:M.NOM.SG NEG exist:3SG.PRS.ACT  
'He who has no heir of his own'                      (Twelve Tables, V.4; Crawford 1996:580)

- ▶ Despite its late attestation, (A18) is surely an archaism, as it aligns formally and functionally with other “substantive” uses of \*-*ske*-suffixed copula elsewhere in ancient IE (see esp. Watkins 1993).
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- ▶ Likewise, that *iyannali-* occurs only in the inceptive sense ‘set out’ is indicative of lexicalization (cf. Hoffner and Melchert 2008:322).
  - ▶ Verb best analyzed as the historical imperfective of *\*h<sub>1</sub>ei-* ‘go’ (cf. IMP *it/litten* ‘go/y’all go!’) rather than synchronic imperfective of *iya-* ‘walk’ (cf. *HW<sup>2</sup>* I: 1–4; Kloekhorst 2008:375–6)

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- ⇒ Both verbs are synchronically non-derived.

# Innovation of voice “reversal” in Hittite

- ▶ **Proposal** (Yates 2018):
  - ▶ Switch to middle inflection in Hittite unaccusative verbs is part of broader phenomenon of voice “reversal” (cf. deponents).
  - ▶ Voice “reversal” — which realigns voice morphology and syntax/semantics — is an innovation in Hittite.
  - ▶ Hittite voice “reversal” is an emergent phenomenon, applying only in synchronic derivation.
  - ▶ This innovation is driven by a dispreference for mismatches between (voice) morphology and syntax/semantics.

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  - ▶ This innovation is driven by a dispreference for mismatches between (voice) morphology and syntax/semantics.
- Are there other cases of emergent voice alignment in ancient IE languages, with unaccusative verbs or otherwise?

# Emergence of voice alignment in Greek?

(A19)

	PRS.ACT	FUT.MID	
a.	βαίνω	βήσομαι	'walk; go'
b.	εἶμι	ἔσσομαι / ἔσομαι	'be'
c.	πάσχω	πείσομαι	'suffer'
d.	πίπτω	πεσέομαι	'fall'
e.	φεύγω	φεύξομαι	'flee'

- ▶ Ancient Greek verbs with prototypical unaccusative semantics often show active present forms beside middle sigmatic futures — e.g., (A19).
- ▶ Differently on (A19) see Grestenberger (2019).

# Emergence of voice alignment in Tocharian?

(A20)	a.	TA/B	<i>māsk-</i>	‘be(come)’ (Prs III)	< * <i>mṇ-ŝko-</i>
	b.	TA/B	<i>musk-</i>	‘disappear’ (Prs III)	< * <i>m(y)uh<sub>x</sub>-ŝko-</i>
	c.	TA/B	<i>wāsk-</i>	‘move’ (Prs XII)	< * <i>ug<sup>h</sup>-ŝko-</i>
	d.	TA	<i>yutk-</i>	‘become agitated’ (Prs III)	< * <i>h<sub>x</sub>yud<sup>h</sup>-ŝko-</i>
	e.	TA/B	<i>sātk-</i>	‘spread (intr.)’ (Prs III)	< * <i>(h<sub>2</sub>)sut-ŝko-</i>

- ▶ Tocharian verbs with unaccusative semantics and \*-*ŝke*-suffix are often *media tantum* despite deriving historically from PIE verbal roots with primarily active forms (Melchert 2017:482–4) — e.g., (A20).
- ▶ At least one \*-*ŝke*-verb appears to develop middle inflection within Tocharian — compare:
  - ▶ ACT TA *lotk-* ‘turn, become’ (Prs VII)
  - ▶ MID TB *klautk-* ‘id.’ (Prs IV)

# Unaccusative motion verbs in modern IE languages

(A21) “Split intransitivity” in Italian (Perlmutter 1989; Sorace 2000, i.a.):

- a. *I delegati hanno parlato tutto il giorno.* (UNERGATIVE ⇒ HAVE)  
the delegates have talk.PTCP whole the day  
'The delegates talked all day.'
- b. *Un gatto è morto nel villaggio.* (UNACCUSATIVE ⇒ BE)  
a cat is die.PTCP in the village  
'A cat died in the village.'
- c. *Maria è venuta alla festa.* (UNACCUSATIVE ⇒ BE)  
Maria is come.PTCP to.the party  
'Maria came to the party.'

- Motion verbs are unaccusative in many modern IE languages — e.g., in Italian *venire* 'come' uses auxiliary BE in (A21c).

# Unaccusative motion verbs in modern IE languages

(A22) “Split intransitivity” in German (Keller and Sorace 2003, i.a.):

- a. *Die Lehrerin hat dauernd geredet.* (UNERGATIVE ⇒ HAVE)  
the teacher has continuously talk:PTCP  
‘The teacher talked continuously.’
- b. *Der Großvater ist unerwartet verstorben.* (UNACCUSATIVE ⇒ BE)  
the grandpa is unexpectedly die:PTCP  
‘The grandpa died unexpectedly.’
- c. *Der Zug ist spät angekommen.* (UNACCUSATIVE ⇒ BE)  
the train is late arrive:PTCP  
‘The train arrived late.’
- Motion verbs are unaccusative in many modern IE languages — e.g., in German *ankommen* ‘arrive’ uses auxiliary BE in (A22c).