# Reanalyzing Indo-Iranian "stems": A case study of Adıyaman Kurmanji\*

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### 1 Introduction

Indo-Iranian languages present several challenges to recent theoretical approaches to morphology and agreement/case splits:

- 1. Verbal systems that seem to crucially rely on morphomic "stems", traditionally labeled the "present stem" and "past stem":
  - "Present stem" (simple present... and past imperfective; Awroman)
  - "Past stem" (simple past... and immediate future; Kurmanji)
- 2. Agreement/case splits that are based around these "stems":
  - (1) Adıyaman Kurmanji "present stem": NOM/ACC
    - a. Ez te dı-wun-ım.
       I.NOM you.OBL IMPF-see."PRES"-1SG
       'I see you.'
    - b. Ez dı-her-ım
      I.NOM IMPF-go."PRES"-1SG
      'I go.'
  - (2) Adıyaman Kurmanji "past stem": ERG/ABS
    - a. Min tı di-yi.I.OBL you.NOM see. "PAST"-2SG'I saw you.'
    - Ez çü-m.
       I.NOM go. "PAST"-1SG
       'I went.'
  - Haig (2008:4): "[...] in Iranian it is not primarily some semantic notion
    of 'pastness' or 'perfectivity' that is crucial to triggering ergativity [...]"

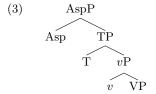
We investigate one Indo-Iranian language in detail, Adıyaman Kurmanji (AK), a dialect of Kurdish spoken in the town of Adıyaman in southeastern Turkey.

### In this talk, we propose:

- A morphological analysis of verb "stems" in AK, which oppose a ∅-marked form ("present stem") with an overtly-suffixed form ("past stem"). (§2)
- A semantic analysis of this morphology, with the -\( \Phi\) suffix as present tense T, and the overt suffix (typically -i) elsewhere (past T, nonfinite T). (\( \xi 3 \))

This compositional analysis, combined with a variety of morphosyntactic evidence involving aspect, will lead us to a surprising conclusion:

 $\Rightarrow$  T is syntactically below Asp in AK (and perhaps in Indo-Iranian more broadly), (3). (§4)



While highly unusual, the non-canonical structure in (3) can be leveraged to explain two typological oddities of AK (§5):

- 1. In AK, tense conditions split-ergativity.
  - \* cf. Salanova (2007) and Coon (2013), who suggest true tense-based splits are unattested (i.e., tense can't condition splits).
- 2. In AK, tense is a suffix while aspect is a prefix.
  - \* cf. Julien (2002), who argues that this morpheme configuration is unattested (and not derivable).
- If we are wrong, and T is (as is standard) above Asp in AK, then...
  - AK stands as a true exception to two typological generalizations.
  - A number of undesirable stipulations need to be made to account for the morphosyntactic patterns in AK.

### Organization of the talk:

- §2 The morphological breakdown of AK's "stems"
- §3 The semantics of the core verb forms in AK
- §4 Proposal: Tense is below aspect in AK
- §5 The exceptionality of AK

<sup>\*</sup>Thank you to Jonathan Bobaljik, Sabine Iatridou, Peter Klecha, Roumyana Pancheva, and Susi Wurmbrand for extremely helpful discussions about this work. A special thank you also to Ayşehan Orta $\varsigma$ , for sharing her language with us.

## 2 Morphological breakdown

Basic properties of Adıyaman Kurmanji (Atlamaz 2012):

- SOV
- predominantly head-initial
- pro drop
- verbal system revolves around two so-called "stems"

Goal of this section: Isolate the morpheme(s) that differentiates the "stems".

At first glance, there seems to be no consistent morphological relation between the "present stem" and the "past stem".

• Some common verbs come in suppletive pairs.

(4)		"present stem"	"past stem"
	ʻgoʻ	her	çü
	'say'	we	go
	'see'	wun	di
	'come'	e	$\operatorname{hot}$

• Some common verbs differ in (unpredictable) phonological material.

(5)		"present stem"	"past stem"
	'eat'	X	xor
	'catch'	g	gest
	'give'	d	do
	'do'	k	kır

• Some verbs undergo no change.

(6)		"present stem"	"past stem"
	'sew'	drü	drü
	'die'	mır	$\min$
	'chew'	cü	cü
	'cry'	gri	gri

Looking further than these common and irregular verbs, however, two more consistent patterns emerge:

• Many verbs form the "past stem" by adding -i to the "present stem".

(7)		"present stem"	"past stem"
	'boil'	kel	keli
	'rain'	bor	bori
	'steal'	$\mathrm{diz}$	dizi
	'buy'	kırr	kırri

• Many verbs form the "past stem" by adding -t to the "present stem".

(8)		"present stem"	"past stem"
	'milk'	do	dot
	'hear'	biz	bist
	'hold'	gr	girt
	'want'	xaz	xast

**Observations:** Whenever there is a clear (and non- $\emptyset$ ) phonological relation...

- The "past stem" always builds on the "present stem".
- The additional segments in the "past stem" follow the "present stem".
- The "present stem" has no overt morphology apart from the verb root.
- The two most regular and common strategies for deriving the "past stem" from the "present stem" are adding -i or -t.
- → Conclusion: There is a separable morpheme, a suffix, in the "past stem". This is opposed to a -∅ suffix in the "present stem".
- $\rightarrow$  n.b. the different suffixation patterns are arbitrarily distributed, i.e., they do not hold over semantic natural classes.
- (9) Some relevant vocabulary items (first pass)

"present" 
$$\rightarrow -\emptyset$$

"past"  $\rightarrow -t$  /  $|_{V_{\text{max}}}$ ; where  $V = \{_{\text{MILK, HEAR, WANT ...}}\}$ 
"past"  $\rightarrow -\emptyset$  /  $|_{V_{\text{max}}}$ ; where  $V = \{_{\text{SEW, DIE, CHEW ...}}\}$ 
"past"  $\rightarrow -\text{or}$  /  $|_{V_{\text{max}}}$ ; where  $V = \{_{\text{EAT}}\}$ 
"past"  $\rightarrow -\text{est}$  /  $|_{V_{\text{max}}}$ ; where  $V = \{_{\text{CATCH}}\}$ 
"past"  $\rightarrow -\text{i}$ 

BOIL  $\rightarrow \text{kel}$ 
MILK  $\rightarrow \text{do}$ 
SEW  $\rightarrow \text{dr\"{u}}$ 
EAT  $\rightarrow \text{x}$ 
CATCH  $\rightarrow \text{g}$ 

GO  $\rightarrow \text{her}$ 
GO,"PAST"  $\rightarrow -\text{g\'{u}}$ 

IMPF  $\rightarrow \text{di}$ 
SBJN  $\rightarrow \text{bi}$ 

<sup>&</sup>lt;sup>1</sup>We take the elsewhere allomorph to be -i, rather than -t, but nothing hinges on this.

<sup>&</sup>lt;sup>2</sup>We treat the suppletion cases as portmanteau forms, because the suppletive verbs never co-occur with regular "past" morphology. We analyze portmanteau as insertion at non-terminal nodes (Caha 2009, Radkevich 2010), but again, nothing hinges on this. It should also be noted that there is nothing about (4) that tells us whether the "past stem" or "present stem" is the elsewhere (non-portmanteau) form of the verb root.

### 3 Semantic breakdown

In this section, we examine the semantic range of the verb stems in AK.

#### Core observations:

- The verb stems do not encode aspect.
- The stems do encode tense, corresponding (almost) to the traditional labels.
- (10) a. "Present stem": V-pres (null suffix identified in §2) b. "Past stem": V-past/else (overt suffix identified in §2)

## 3.1 The "present stem"

The readings of the "present stem" are fixed and consistent, as present tense:

- (11) a. Present habitual: IMPF-V-PRES
  Ez çay-ê **dı-kırr-Ø-ım**.
  I.NOM tea-OBL IMPF-buy-PRES-1SG
  'I buy tea.'
  - b. Present progressive: IMPF-V-PRES-COP

    Ez çay-ê **dı-kırr-Ø-ım-e**.

    I.NOM tea-OBL IMPF-buy-PRES-1SG-COP

    'I am buying tea.'
  - c. Future: Aux + SBJN-V-PRES Ez dıkê çay-ê **bı-kırr-\emptyset-ım**. (dı-k-e = IMPF-do-COP) I.NOM AUX tea-OBL SBJN-buy-PRES-1SG 'I will buy tea.'
  - The "present stem" is ungrammatical in matrix contexts with past tense adverbials, e.g., "yesterday" dhini and "two hours ago" di saata ber ve.
  - The (non-future) "present stem", must bear an IMPF prefix because PFV aspect and present tense are incompatible (Giorgi and Pianesi 1997, i.a.).
  - The "present stem", when it lacks the IMPF prefix (i.e., in the future), is unspecified for aspect, (12)-(13); interpretation depends on the predicate.
- (12) Kı Ehmet ban k-ır-∅, e dıkê wi kitaw-i that Ehmet call do-PAST-3SG I.NOM AUX this book-OBL bı-xun-∅-ım.

  SBJN-read-PRES-1SG
  'When Ahmet calls, I will read this book.' (reading after calling)
- (13) K1 Ehmet ban k-ır-Ø, baran dıkê **bı-bor-**Ø-e. that Ehmet call do-PAST-3SG rain AUX SBJN-rain-PRES-3SG 'When Ahmet calls, it will/better be raining.' (raining during calling)

The present tense is relative:

- With a future auxiliary, (12)-(13), "present" is relative to that future time.
- Embedded under a past matrix verb, "present" is relative to that past time:
- (14) Mı k-ır-Ø kı çay-ê **bı-kırr-Ø-ım**.

  I.OBL do-PAST-3SG that tea-OBL SBJN-buy-PRES-1SG
  'I tried to buy tea.'

Conclusion: The "present stem" is (relative) present tense.

## 3.2 The "past stem" in finite clauses

The default, context-free interpretation of the "past stem" is past tense.

- Without the IMPF prefix, the interpretation seems past perfective (though see (20)–(21) re: (non-)perfectivity).<sup>3</sup>
- (15) Simple past: V-PAST
  - a. Mı çay kırr-i-∅. I.OBL tea.NOM buy-PAST-3SG 'I bought tea.'
  - b. Av **kel-i-**∅.
    water.NOM boil-PAST-3SG
    'The water boiled.'
  - With the IMPF prefix, the interpretation is past imperfective.
- (16) Past progressive/habitual: IMPF-V-PAST
  - a. M<sub>1</sub> çay dı-kırr-i-Ø.
     I.OBL tea.NOM IMPF-buy-PAST-3SG
     'I was buying tea.' / 'I used to buy tea.'
  - b. Av dı-kel-i-Ø.
     water.NOM IMPF-boil-PAST-3SG
     'The water was boiling.' / 'The water used to boil.'

Just like present tense, the past tense is relative:

- Embedded under a future time, "past" is relative to that future time, (17).
- (17) [K1 Ehmet hat-∅], e dikê her-im. that Ahmet come.PAST-3SG I.NOM AUX SBJN.go.PRES-1SG 'I will leave when Ahmet comes.' (coming before leaving)

 $<sup>^3</sup>$ The plain past stem can also have a reading that is something like "about to" when combined with the adverbial nha "now". This interpretation is restricted to predicates that can be construed to have a process and subsequent logical culmination. We take this to be a pragmatically-available interpretation, based on a culmination being so imminent that it can be said to already have happened. Thus, such sentences are only felicitous when the process is already underway. We thank Sabine Iatridou for helpful discussion of this point.

- Embedded under a past time, "past" is relative to that past time, (18).
- (18) [Kı Ehmet **hot-**∅], e çü-m. that Ahmet come.PAST-3SG I.NOM go.PAST-1SG 'I left when Ahmet came.' (coming before leaving)

Further confirmation that we're dealing with a past tense morpheme comes from the use of the "past stem" in counterfactual conditionals.

- In counterfactual conditionals, we expect (fake) past tense (or (fake) imperfective aspect) (Iatridou 2000, Bjorkman and Halpert 2012).
- In predictive/indicative conditionals in AK, (19a), the "present stem" is used, but in counterfactual conditionals, the "past stem" is used, (19b).
- (19) a. Ki ti siwe wer-Ø-i mal ti that you.nom tomorrow sbjn.come-pres-2sg home you.nom e di-yê xa bi-wun-i

  AUX mother-EZ self sbjn-see.pres-2sg
  'If you come home tomorrow, you will see your mother.'
  - b. K1 t1 nha li mal **ü-ya**, te di-yê that you.NOM now at home be.PAST.2SG-CF you.OBL mother-EZ xa **b1-di-ya** self SBJN-see.PAST-CF 'If you were home now, you would see your mother.'

## Is the "past stem" perfective? No.

- The (non-imperfective-marked) "past stem" is interpreted as perfective by default, but it doesn't have the expected entailments of a true perfective.
  - Altshuler (2015): The crucial test for perfectivity is whether a right (end) boundary of the event is entailed, (20c)/(21c).
- (20) a. Ehmet dhini xanı çê **k-ır**-∅.

  Ahmet yesterday house good do-PAST-3SG 'Ahmet built a house yesterday.'
  - b. ...hema, soğ ne-k-ır-∅.
    but finish NEG-do-PAST-3SG
    '...but (he) didn't finish (it).' (completedness not entailed)
  - c. ...hema, hin jı çê dı-k-Ø-ê.

    but still too good IMPF-do-PRES-COP.3SG

    '...but (he) is still building (it).' (boundedness not entailed)
- (21) a. Dhini baran **bor-i**-∅. yesterday rain rain-PAST-3SG 'It rained yesterday.'

- b. ...hema, ne-skın-i-∅.
  but NEG-stop-PAST-3SG
  '...but it didn't stop (raining).' (completedness not entailed)
- c. ...hema, hin jı dı-bor-Ø-ê.

  but still too impf-rain-pres-cop.3sg
  '...but it's still raining.' (boundedness not entailed)
- Since boundedness is not entailed by the plan "past stem", perfectivity must be an implicature, likely triggered by the absence of the imperfective prefix.

Conclusion: The "past stem" is (relative) past tense.

- Note an asymmetry between null tense and lack of aspectual morphology:
  - When a finite verb lacks overt tense, the interpretation is present tense.
    - $\rightarrow$  Overt past tense alternates with null present tense.
  - When a verb lacks overt aspect, the interpretation is **not** perfective.
    - → Overt imperfective aspect **does not** alternate with null perfective.

## 3.3 The "past stem" in non-finite clauses

All participles and nominalizations are formed on the "past stem".

- Semantically, participles and nominalizations lack both tense and aspect.
- The "past" morpheme is not semantically past in nonfinite environments.
- (22) Result and process readings of nominalizations:

firr-i-n-ê Mehemed-ê fly-PAST-NMLZ-EZ Mehemed-OBL 'Mehemed's flying' (process reading) ~ 'Mehemed's flight' (result reading)

- (23) Past and future readings of nominalizations:
  - a. Me **firr-i**-n-ê Mehemed-ê mezi k-ir we.obl fly-past-nmlz-ez Mehemed-obl watch do-past 'We watched Mehemed's flying/flight.'
  - b. Em dıkê fırr-i-n-ê Mehemed-ê mezi we.NOM AUX fly-PAST-NMLZ-EZ Mehemed-OBL watch bı-k-\$\Omega\$-in SBJN-do-PRES-PL 'We will watch Mehemed's flying/flight.'

Conclusion: "Past" morphology is not exclusively used for past tense; rather, what we've been calling "past" is the elsewhere morphological realization of T.

- Both T[PAST] and T[NONFIN] are realized with "past" morphology.
- (24) a.  $T[PRES] \rightarrow -\emptyset$ b.  $T \rightarrow -i$  (and other allomorphs)

## 3.4 Interim summary

(25) Core verb forms built on the "present stem"

a. present habitual IMPF-V-PRES

b. present progressive IMPF-V-PRES-COP

c. future Aux + SBJN-V-PRES

(26) Core verb forms built on the "past stem"

a. simple past V-PAST

b. past habitual/progressive IMPF-V-PAST

c. participles/nominalizations V-PAST-PART/NOMZN

The "present stem" and "past stem" are (almost) the right labels, except...

1. The morphology is fully compositional and predictable; no need for "stems".

2. Present tense T is consistently spelled out with a null exponent.

3. Past tense T and nonfinite T are consistently spelled out with an overt suffix, the elsewhere morphological exponent of T.

## 4 Locating T in Adıyaman Kurmanji

A variety of morphosyntactic evidence, A-C below, points us to a rather surprising conclusion about the syntactic position of T in AK, shown in (27).

(27) Asp > T > 
$$v + V^4$$

## A. Conditioning of allomorphy: V conditions T; T conditions V.

 $-\,$  It is impossible to pick the right phonological form of T without knowing the identity of V, (28).

(28)		V-T[pres]	V- $T(ELSE)$
	'eat'	x-Ø	x-or
	'catch'	g-Ø	g-eş $t$
	'do'	k-Ø	k-ır
	'die'	mır-∅	$\text{mir-}\emptyset$
	'steal'	dız-∅	dız-i
	'hear'	biz-∅	$\operatorname{bis-t}$

- For some verbs, it is also impossible to pick the right phonological form of V without knowing the identity of T, (29).

(29)		V.T[pres]	V.T(else)
	ʻgoʻ	her	çü
	'say'	we	go
	'see'	wun	di

- Under the fairly standard assumption that there are locality restrictions on allomorphy conditioning, T and V must be local to each other.
- But how local exactly are T and V?

### B. Allomorphy of V/T is not blocked by Asp

 Overt imperfective aspect does not block V from conditioning the form of T, (30), nor T from conditioning the form of V, (31).

(30)		IMPF-V-T[PRES]	IMPF-V-T(ELSE)
	'eat'	dı-x-∅	dı-x-or
	'catch'	dı-g-∅	di-g-eşt
	'do'	dı-k-∅	dı-k-ır
	'die'	dı-mır-∅	dı-mır-∅
	'steal'	dı-dız-∅	dı-dız-i
	'hear'	dı-biz-∅	dı-bis-t

(31)		IMPF-V.T[PRES]	IMPF-V.T(ELSE)
	ʻgoʻ	dı-her	dı-çü
	'say'	dı-we	dı-go
	'see'	dı-wun	dı-di

- Further, imperfective Asp never conditions the form of V, nor does V condition the form of  ${\rm Asp.}^5$
- If Asp were between T and V (as is standard), (32), then:

(32) 
$$T > Asp > v+V$$

- Accounts of allomorphy selection that rely on strict adjacency (e.g., Embick 2010, Bobaljik 2012) couldn't account for (28)–(29).
- Accounts that allow "pruning" (e.g., Embick 2010, Calabrese 2012) can account for (28)–(29), but not (30)–(31), since Asp is overt.
- Accounts that allow conditioning via "spans" (Merchant 2015) can't account for any of (28)–(31), since Asp is "otiose" and so cannot be included in a conditioning span.
- Only an account of allomorphy selection under linear adjacency will suffice, but it is not clear that we want to admit this additional power into the system (though cf. Ostrove (2015)).

 $<sup>^4</sup>$ We assume here that V and v are spelled out together in the normal case. When v is overt, v (as predicted) blocks V from conditioning the form of T; instead, T[PAST,NONFIN] always surfaces as -d in the context of overt v. Take, for example, the verb "boil" kel. The regular "past stem" is kel-i. When "boil" bears the causative v suffix -on/-in, the "past" morpheme is instead -d. as seen in kel-on--d.

<sup>&</sup>lt;sup>5</sup>The only apparent exception to this generalization involves vowel-initial verb roots which trigger surface allomorphy of di, e.g., "bring" di- $un \to tin$ ; "come" di- $e \to te$ . We take this to be a purely phonological process, and so do not consider it to be a counterexample.

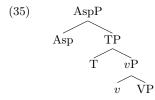
## C. Participles and nominalizations contain T, but not Asp.

- The amount of structure in participles and nominalization necessarily includes T, and necessarily lacks Asp.<sup>6</sup>
- (33) Participles/nominalizations not allowed to lack T
  - a. \*beq-ê **kuj**-i frog-EZ kill-PART Intended: 'the dead frog'
  - b. \*x-ın-ê Mehemed-ê eat-NMLZ-EZ Mehemed-OBL Intended: 'Mehemed's eating'
- (34) Participles/nominalizations not allowed to have Asp
  - a. beq-ê (\*dı-)kuşt-i frog-EZ IMPF-kill.PAST-PART 'the dead frog'
  - b. \*(\*dı-)x-or-ın-ê Mehemed-ê

    IMPF-eat-PAST-NMLZ-EZ Mehemed-OBL
    'Mehemed's eating'
  - For nominalizations to include T but not Asp, there must be a constituent in the clause that contains T and lacks Asp.

### Interim summary:

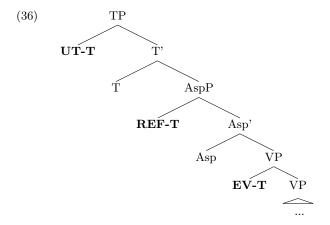
- 1. V conditions allomorphy on T and vice versa.
- 2. This conditioning is not blocked by overt Asp.
  - $\Rightarrow$  Asp must not intervene between T and V in AK.
- 3. Nominalizations include T but not Asp.
  - $\Rightarrow$  Asp must be above T in AK.



<sup>&</sup>lt;sup>6</sup>It is impossible to rule out the presence of an empty Asp in participles and nominalizations. However, participles and nominalizations in many languages preserve aspectual distinctions (Alexiadou 2001, Aikhenvald 2011, *i.a.*), so we might expect Asp to be able to be imperfective, and therefore overt, if the Asp projection were present here.

Why the hierarchy in (35) is so unusual:

- Traditional syntactically-compositional semantic analyses of tense and aspect rely on Asp mediating between T and the event (e.g., Klein 1994, Stowell 1995, Demirdache and Uribe-Etxebarria 2000, Iatridou et al. 2001).
- Demirdache and Uribe-Etxebarria's implementation, (36):
  - Asp: Relates runtime of the event (EV-T) to a reference time (REF-T)
  - T: Relates utterance time (UT-T) to this reference time



→ If Asp and T were switched in (36), T would be too low to do its job.

Reconciling AK with the syntax/semantics of tense and aspect:

#### 1. A morphological solution:

- Allomorphy selection is not a syntactically local process.
- Participles/nominalizations include Asp, but it is null (cf. fn. 6).
- $\Rightarrow$  We could then say that T is actually above Asp.

### 2. A syntactic solution:

- Tense morphology is not the location of tense interpretation.
- The "present" morpheme is a "present polarity item", licensed by a PRES operator in T (Stowell 2007).
- The "past" morpheme is the elsewhere form of this low polarity item.
- $\Rightarrow$  We could then say that T is actually above Asp.
- \* Problem: One of the main motivations for such accounts is sequence of tense effects, but AK lacks sequence of tense.
- n.b. Neither solution 1 nor 2 can account for the typological exceptionality of AK; see §5.

### 3. A semantic solution:

- Posit a rich semantic denotation for T that allows it to relate a nonlocal time, UT-T, to the REF-T.
- Likewise, posit a rich semantic denotation for Asp that allows it to relate the REF-T to a non-local time, EV-T.
- ⇒ We could then say that T is below Asp, while ending up with the usual semantics of tense and aspect.
- Only a semantic solution, which allows the syntax to have T below Asp, provides us with a way to understand AK's typological exceptionality.

## 5 Leveraging the low position of T

If we posit that T is below Asp in AK (e.g., by complicating the semantics), we are in a position to understand why AK is exceptional in other ways.

### 1. AK has tense-based split ergativity.

- Dixon (1994): split-ergativity may be based on tense, aspect, or mood.
- But, Coon (2013), following Salanova (2007), surveys the purported cases of tense-based and mood-based split-ergativity, and concludes that:
  - Mood-based splits are more properly related to clause-type (e.g., subordinate or matrix; nominal or verbal).
  - Tense-based splits are actually aspectual; "this category is best described as simply aspect-based split ergativity" (Coon 2013:176).
    - \* In other words, true tense-based split-ergativity does not exist.
- In AK, it is clearly tense, and not aspect, that is responsible for the split.
- Is AK a true exception? Not necessarily.
  - If aspect triggering a split is related to its clausal position, then...
  - We might expect that when Asp and T are reversed, (37), it is tense that is able to trigger split-ergativity, rather than aspect.

$$(37) \qquad Asp > T > v > V$$

- A sketch of an analysis of split-ergativity in AK:
  - Underlying alignment: ERG/ABS
  - Alignment disrupted in present tense, resulting in NOM/ACC
  - E.g., Baker and Atlamaz (2015): with the "present stem", there is a
    phase boundary between the subject and the object, disrupting canonical ERG/ABS case assignment.

## 2. AK has prefixal aspect and suffixal tense.

- Julien (2002) conducts a survey of tense-aspect morphology across languages, and notes the following morphological configurations:
  - (38) a. T-Asp-V (e.g., Mauritian Creole, Makaa, Jicaltepec Mixtec)
    - b. T-V-Asp (e.g., Berbice Dutch, Onondaga, Rukai)
    - c. V-Asp-T (e.g., Macushi, Yagua, Even)
    - d. \*Asp-V-T
- The impossibility of (38d) follows from Julien's (2002) account of affixal morphology:
  - Head-movement uniformly results in suffixation.
  - Prefixation results from linear adjacency.
- If T is above Asp (as is standard), this rules out (38d).
- But, if Asp is above T, then (38d)—precisely the morpheme order found in AK, (39)—is derivable.
  - (39) di- bor -i IMPF- rain -PAST
    - With Asp above T, Julien's (2002) system predicts this morpheme order to be possible, by V raising to T, and then taking Asp as a prefix via adjacency.

### 6 Conclusion

In this talk, we have argued for a temporal analysis of "stems" in the Indo-Iranian language Adıyaman Kurmanji, which enables us to do without "stems" and "morphomes". (§2-3)

Morphosyntactic evidence involving allomorph-selection and participles/nominalizations led us to posit that T is exceptionally below Asp in AK. (§4)

We leveraged the exceptionality of this hierarchy to account for two other ways that AK is crosslinguistically exceptional. (§5)

There are several open questions that remain to be explored:

- How is it that T can be semantically interpreted below Asp?
- If T is allowed (by UG) to be below Asp, then why don't we see it more commonly?
- Can our analysis extend to other Indo-Iranian languages?

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