A unified syntax and semantics of Kanien'kéha statives

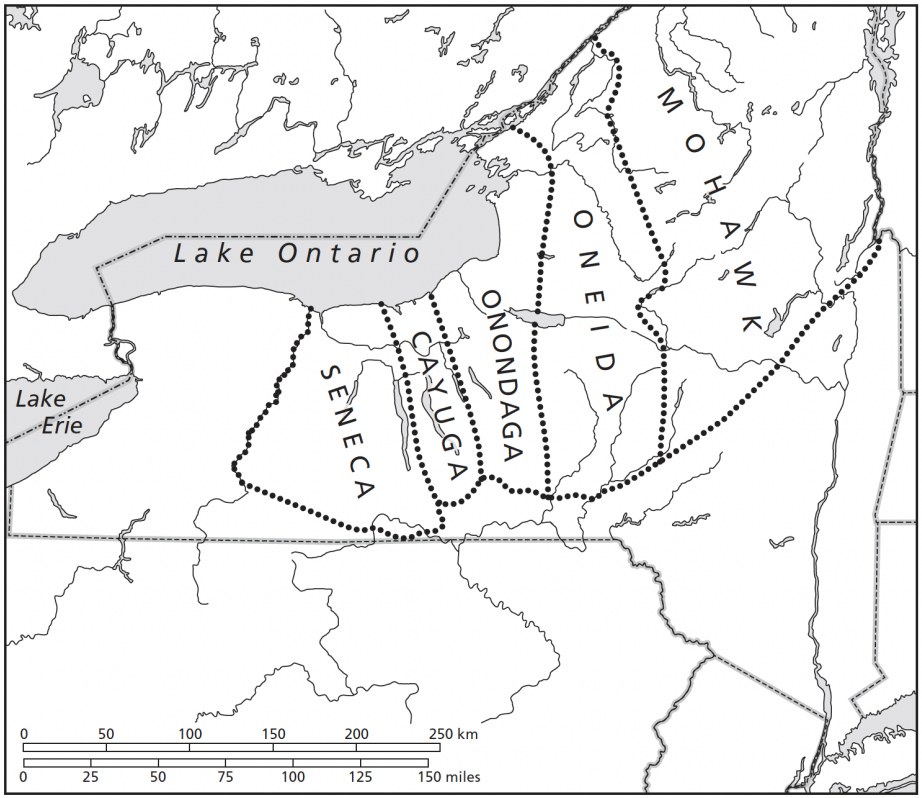
NELS 56 at New York University, 17 October 2025

Terrance Gatchalian, Jessica Coon, Lefteris Paparounas

University of Toronto, McGill University, Université du Québec à Montréal

Kanien'kéha

- Northern Iroquoian language, spoken in Ontario, Quebec, New York
- Roughly 500 L1 speakers in Canada, plus a large number of L2 speakers thanks to active revitalization efforts (DeCaire, 2023)



(Mithun, 2017)

Kanien'kéha

- All uncited examples come from elicitation with 4 speakers
- Verbs are morphologically complex, consisting minimally of:

(2) a. pronominal prefix – [verb stem] – aspect suffix

b. k-[atawen]-s
1SGA-swim-IPFV

'I swim'

- Forms in this presentation obscure some morphophonological processes and tone

Three sets of pronominal prefixes

- The prefix system indexes **animate** participants
- Verbs with two animate participants take **transitive prefixes**:

(3) **kon**-hrori-s
1SG>2SG-tell-IPFV
'I tell you' (not discussed here)

- Verbs with one animate participant take either **agent prefixes** or **patient prefixes**:

(4) **k**-atawen-s
1SGA-swim-IPFV
'I swim'

(5) **wak**-io'ten'-s
1SGP-work-IPFV
'I work'

➽ This split-S alignment system provides us with an important window into the **argument structure of statives**, our focus here

Aspectual paradigms of Kanien'kéha verbs

Two classes of verbal stems, depending on their aspectual paradigm.

(6) **Event stems**

a. wak-atori-**on**
1SGP-drive-**STAT**
'I have driven'

b. wa'-k-atori-**'**
FACT-1SGA-drive-**PFV**
'I drove'

c. k-atori-**e's**
1SGA-drive-**IPFV**
'I drive (habitually)'

(7) **State stems ("stative only")**

a. k-kowan-**en**
1SGA-be.big-**STAT**
'I am big'

b. * wa'-k-kowan-'
FACT-1SGA-be.big.PFV
Int.: 'I got big'

c. * k-kowan-s
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Aspectual paradigms of Kanien'kéha verbs

Our focus today: the **STATIVE** aspect forms

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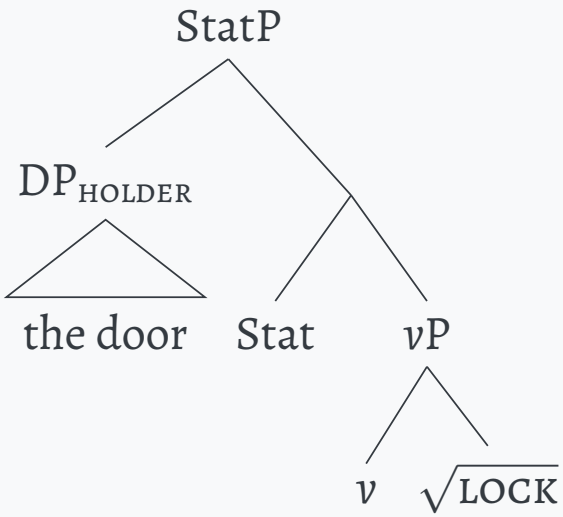
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Theoretical context: Argument structure of 'statives'

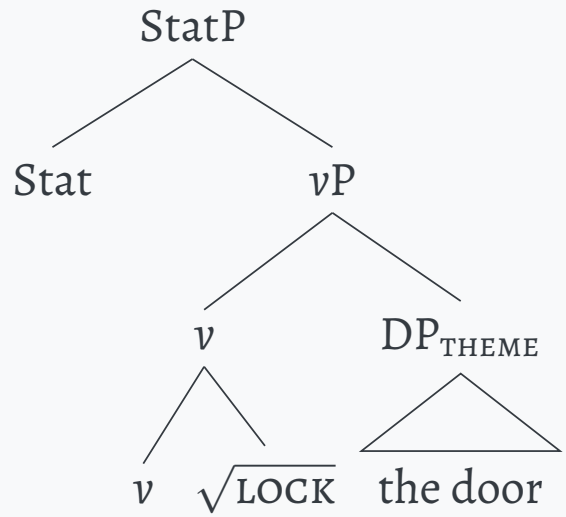
Work on *stative passives* like English ***The door is locked*** has debated two kinds of analyses of their argument structure:

(10) *External predication*



(e.g. Biggs & Embick, 2025; Embick, 2023; Levin & Rappaport, 1986; McIntyre, 2013; Meltzer-Asscher, 2011; Paparounas, 2023)

(11) *Low origin*



(e.g. Anagnostopoulou, 2003; Bešlin, 2022; Embick, 2004)

Theoretical context: Thematic structure of 'statives'

Each structure furnishes a different default expectation for the thematic interpretation of the arguments of statives:

- *External Predication:* the argument is linked directly to the state (HOLDER in the sense of Kratzer 1996)

  (see e.g. Biggs 2021; Fruehwald and Myler 2015)

- *Low Origin:* the argument is linked directly to the event (THEME)

Theoretical context: Event structure of 'statives'

- Stative passives are often found to have an event structure distinct from their eventive counterparts:
  - When event-entailing, the event is often not directly modifiable
    (Alexiadou et al., 2014; Gehrke, 2015; Maienborn et al., 2016; McIntyre, 2015; Rapp, 1996)
  - Some stative passives are not event-entailing in the first place, although morphologically deverbal
    (Anagnostopoulou, 2003; Anagnostopoulou & Samioti, 2013, 2014)

Insights from Kanien'kéha: The class of statives is non-homogeneous, and the split-S system provides a unique window into how statives are configured

Take-home messages

Syntax:

- Within Kanien'kéha, we argue that stative forms vary with respect to their argument structure:
  1. the subject is a THEME
  2. the subject is a STATE-HOLDER

➽ The pronominal prefix system is sensitive to this difference

Semantics:

- Within stative forms, we also find a difference between:
  1. ongoing state meanings ('I am big')
  2. present perfect meanings ('I have driven')

➽ We argue for a unified semantics for the Kanien'kéha stative, with differences in meaning derived from whether the stative head combines with eventive vP (=perfects) or not (=ongoing states)

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Roadmap

Puzzles in detail

Part I: Syntax of Statives

Part II: Semantics of Statives

Conclusions

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Part II: Semantics of Statives

Conclusions

Pronominal prefixes in state stems

State stems ("stative-only") vary lexically in their choice of pronominal prefix (Mithun, 1991, 2006)

- "transitory states" → P(atient) prefixes
- "inherent states" → A(gent) prefixes

(12) a. **wak**-ion
1SGP-rich.STAT
'I am rich'

b. **ro**-ht-on
MSGP-full-STAT
'he is full'

c. **io**-hskats
NP-pretty.STAT
'it is pretty'

(13) a. **ra**-hnenies
1SGA-tall.STAT
'I am tall'

b. **ra**-kowan-en
FACT-1SGA-big-STAT
'he is big'

c. **ka**-rak-en
NA-white-STAT
'it is white'

Prefix choice with Stative-aspect event stems

Event stems (i.e., stems which may appear in one of three grammatical aspects) show consistent **grammatically-driven** alternations in pronominal prefix choice in the stative aspect:

- P-prefix → perfect interpretation
- A-prefix → inherent state interpretation

Event stems with perfect interpretations

In Split-S Kanien'kéha, intransitive **event stems** appear with either P-prefixes or A-prefixes in imperfective and perfective aspects...

(14) a. **k**-atawen-s
1SGA-swim-IPFV
'I swim'

b. wa'-**k**-atawen-'
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(15) a. **ro**-ke'toht-ha'
MSGP-appear-IPFV
'he appears'

b. wa'-**ro**-ke'toht-e'
FACT-MSGP-appear-PFV
'he appeared'

Event stems with perfect interpretations

In Split-S Kanien'kéha, intransitive **event stems** appear with either P-prefixes or A-prefixes in imperfective and perfective aspects...

But this distinction is leveled in the **stative forms of event verbs**:

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c. **wak**-atawen
1SGP-swim.STAT
'I have swum'

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MSGP-appear-IPFV
'he appears'

b. wa'-**ro**-ke'toht-e'
FACT-MSGP-appear-PFV
'he appeared'

c. **ro**-ke'toht-on
MSGP-appear-STAT
'he has appeared'

Event stems with perfect interpretations

The same contrast can be seen in transitive verbs with only a single animate argument — inanimates are invisible to the pronominal prefix system (Coon, 2025; Koenig & Michelson, 2015)

(16) a. **k**-arahsentho-s
1SGA-kick-IPFV
'I kick it'

b. wa'-**k**-arahsentho-'
FACT-1SGA-kick-PFV
'I kicked it'

(17) a. **iako**-ia't-akehnha-s
FSGP-body-help-IPFV
'It helps her'

b. wa'-**iako**-ia't-akehnha-'
FACT-FSGP-body-help-PFV
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Event stems with inherent state interpretations

Event stems in the stative aspect may also appear with A-prefixes — here, instead of a perfect interpretation, we find an **inherent state** interpretation (Martin, 2023; Mithun, 2006)

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- Compare the **stative perfect** forms in (18)...

(18) a. **roti**-hnhot-on
MPLP-close-STAT
'they have closed it'

b. te-**wak**-hner-en
DUP-1SGP-tie-STAT
'I have tied it together'

Event stems with inherent state interpretations

Event stems in the stative aspect may also appear with A-prefixes — here, instead of a perfect interpretation, we find an **inherent state** interpretation (Martin, 2023; Mithun, 2006)

- Compare the **stative perfect** forms in (18)...
- With the minimal pair **inherent state** forms in (19)

(18) a. **roti**-hnhot-on
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(19) a. **rati**-hnhot-on
MPLA-closed-STAT
'they are locked up'

b. te-**k**-hner-en
DUP-MSGP-tie-STAT
'I am tied up'

Event stems with inherent state interpretations

- In the **stative perfect** forms in (20), the P-prefix indexes the agent
- The switch to A-prefixes corresponds to an **inherent state** reading

(20) a. **roti**-hnhot-on
MPLP-close-STAT
'they have closed it'

b. te-**wak**-hner-en
DUP-1SGP-tie-STAT
'I have tied it together'

(21) a. **rati**-hnhot-on
MPLA-closed-STAT
'they are locked up'

b. te-**k**-hner-en
DUP-MSGP-tie-STAT
'I am tied up'

"This use of [A-prefixes] echoes their use with Stative-only verbs seen earlier. [A-prefixes] tend to be used with inherent states, while [P-prefixes] are used with temporary states or those that are portrayed as the result of previous events or processes" (Mithun, 2006, p. 206)

Interim summary

	state stems ("stative-only")	**event stems**
P-prefixes	transitory states (22a)	perfects (23a)
A-prefixes	inherent states (22b)	inherent states (23b)

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1sgA-tall.stat
‘I am tall’

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DUP-1SGP-tie-STAT
‘I have tied it together’

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DUP-MSGP-tie-STAT
‘I am tied up’

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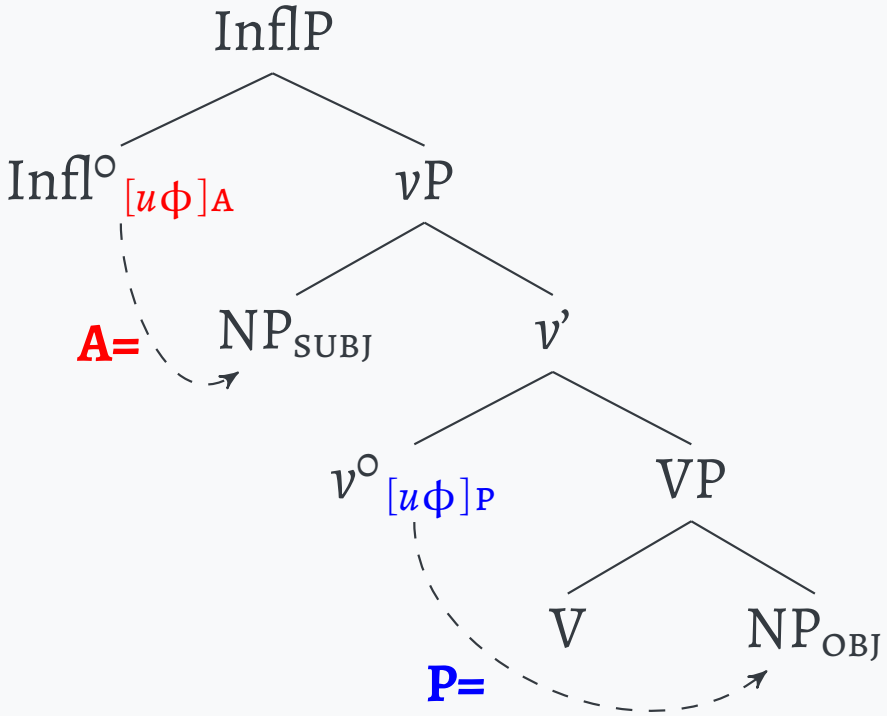
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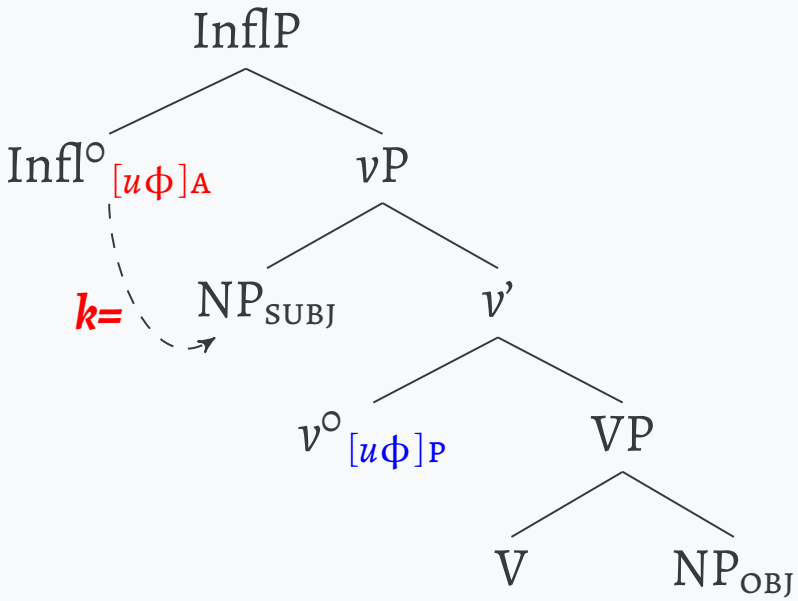
A-probes and P-probes (Baker, 1996; Coon, 2025)

- A-prefixes are the result of a probe located on a high head, Infl°
- P-prefixes are the result of a lower probe located on *v*°

(24)

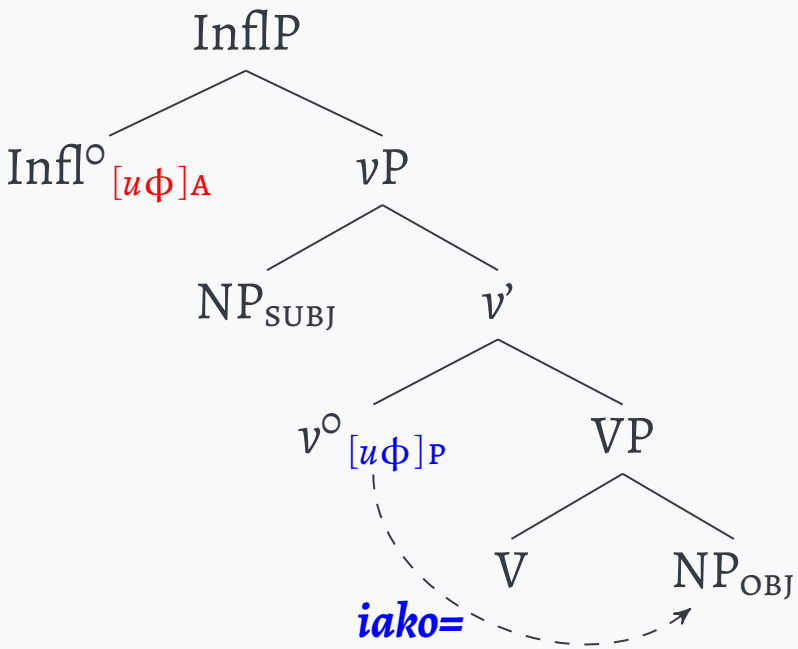


For *non-stative* transitive event verbs



(25) **k**-arahsentho-s
1SGA-kick-IPFV
'I kick it'

For *non-stative* transitive event verbs



(26) **iako**-ia't-akehnha-s
FsgP-body-help-IPFV
'It helps her'

Lexically specified P-probe

Transitive $v°$ always bears a P-probe

Following Baker (1996), intransitive $v°$ may or may not be *lexically specified* to bear a P-probe, resulting in the language's Split-S system

(27) **Two unaccusative verbs**

a. wa'-**ra**-totahsi-'
FACT-MSGA-appear-PFV
'he appeared (i.e., out of nowhere)' → no P-probe on $v°$

b. wa'-**ro**-ke'toht-e'
FACT-MSGP-appear-PFV
'he appeared (i.e., showed up)' → P-probe on $v°$

➽ This will be relevant for our analysis of the stative aspect...

The stative aspect is a $v°$ head

Recall the consistent switch to P-prefixes in event stems appearing in the stative perfect form:

(28) **k**-arahsentho-s
1SGA-kick-IPFV
'I kick it'

(29) **wak**-arahsenth-on
1SGP-kick-STAT
'I have kicked it'

Following Ormston (1993) and Baker and Travis (1998) we propose that the Stative "aspect" is actually a light verbal predicate, not a true grammatical aspect

- We represent this as a stativizing $\boldsymbol{v_{BE}}°$
- ➽ $v_{BE}°$ is **lexically specified** to bear a P-probe

Evidence for a stative v_{BE}°

As discussed in Baker and Travis 1998, while perfective and imperfective aspect markers may only appear stem-finally, the stative aspect has a different distribution when it appears *inside* larger stem forms:

(30) a. tsi iak-[**enhei-on-'t**]-aien-t-ahkw-ha'
where FsgA-[die-STAT-NMLZ]-lie-CAUS-INST-IPFV

'hospital' ('place where one lays out the **ones who have died**')

b. k-[**tsikhe'ta-hnir-on-'tser**]-ak-s
1sgA-[candy-hard-STAT-NMLZ]-eat-IPFV

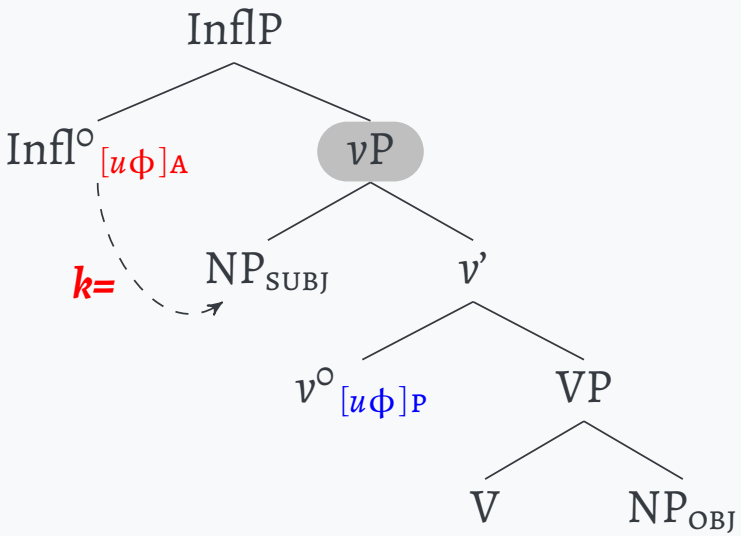
'I eat **hard candy**.'

Pronoun shift with stative event verbs

- For event stems in the stative aspect, the *v*P containing the core arguments is selected not by Infl°, but by stativizing v_{BE}°

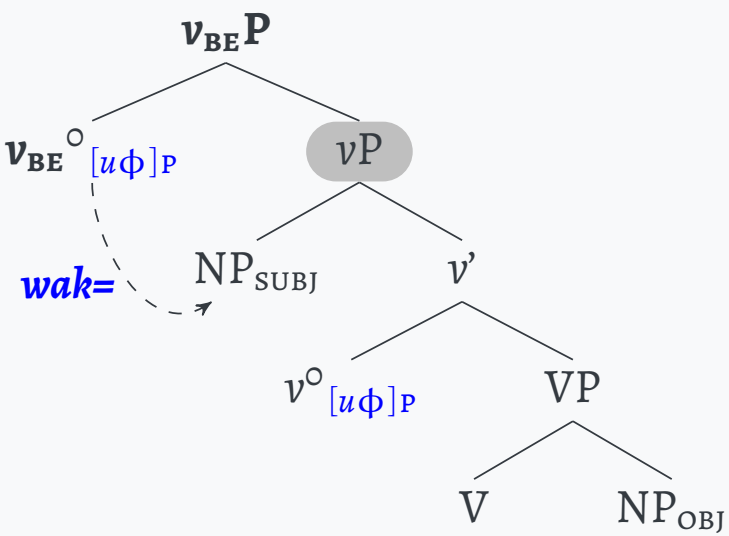
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b.



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Taking stock

- The consistent shift to P-prefixes in stative event stems is the result of a P-probe on stative v_{BE}°

	state stems ("stative-only")	**event stems**
P-prefixes	transitory states (33a)	perfects (34a)
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b. **k**-hnenies
1SGA-tall.STAT
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(34) a. te-**wak**-hner-en
DUP-1SGP-tie-STAT
'I have tied it together'

b. te-**k**-hner-en
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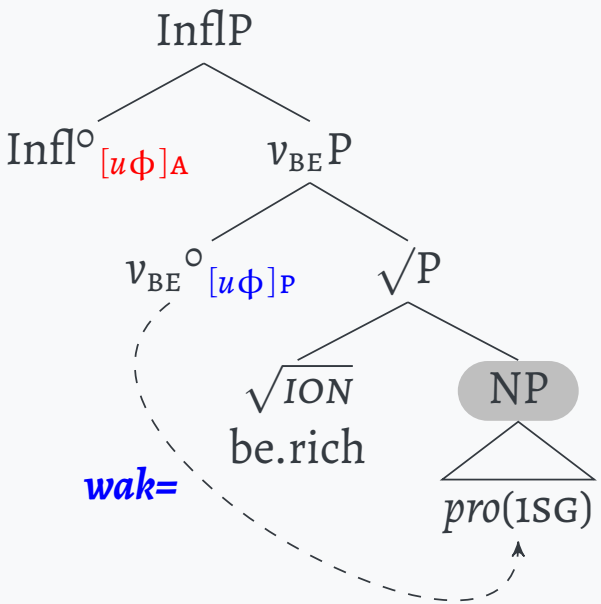
➽ The difference in prefix choice for transitory versus inherent states motivates **different syntactic positions** for stative subjects

Prefixes track argument height

- Subjects of **transitory states** are THEMES, selected by the root

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1SGP-be.rich.STAT
'I'm rich'

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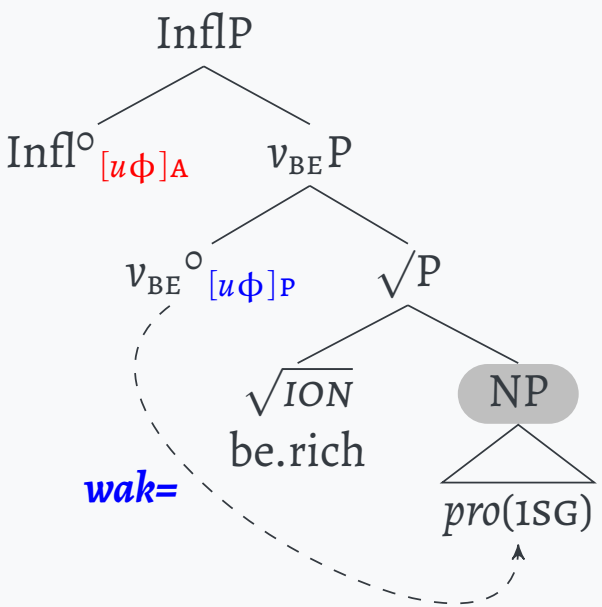


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- Subjects of **inherent states** are STATE-HOLDERS, selected by v_{BE}°

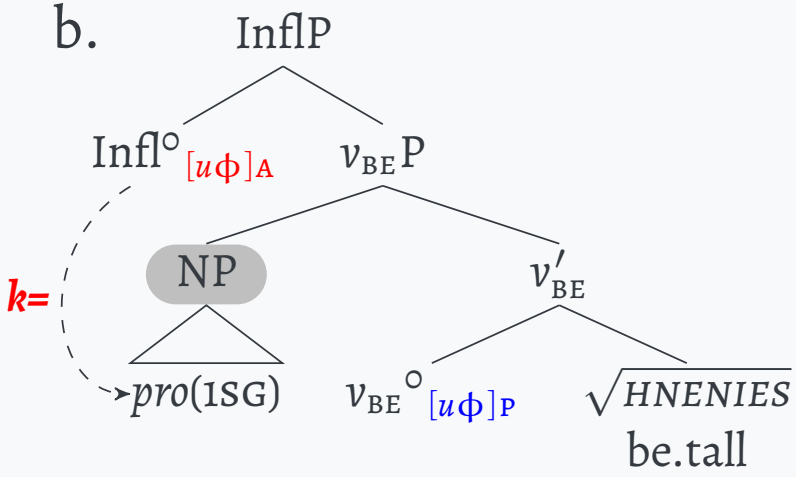
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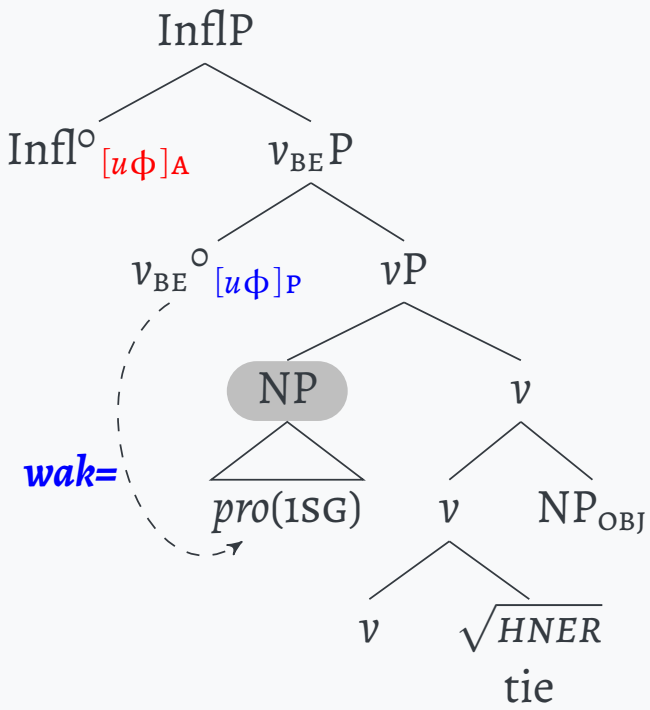


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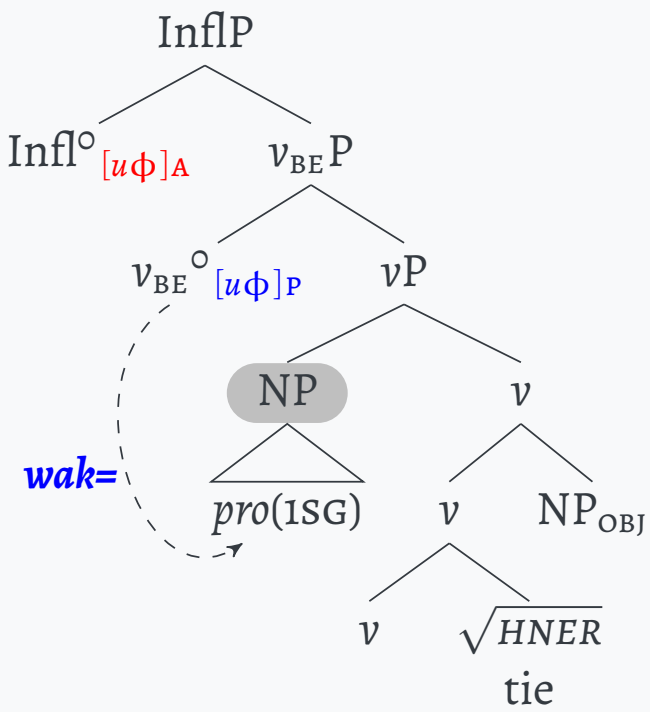


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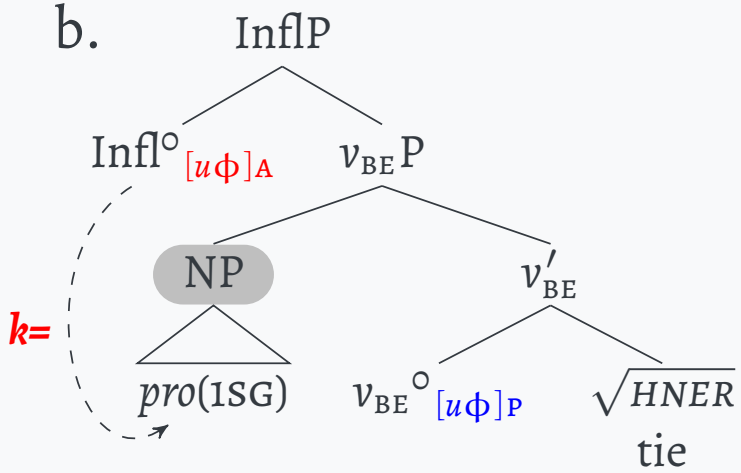
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DUP-MSGP-tie-STAT
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b.



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Proposal ingredients:

- The "stative aspect" in Kanien'kéha is not a true grammatical aspect, but rather a stativizing v_{BE} which always bears a P-probe
- Subjects of inherent states are not internal THEMES, but rather subjects of stative v_{BE}
- Inherent state subjects are **too high** for the P-probe, instead triggering A-prefixes via the higher A-probe on Infl

↠ But how do we derive the perfect interpretation?

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➽ But how do we derive the perfect interpretation?

Syntax summary

	state stems ("stative-only")	**event stems**
P-prefixes	transitory states (22a)	perfects (23a)
A-prefixes	inherent states (22b)	inherent states (23b)

Proposal ingredients:

- The "stative aspect" in Kanien'kéha is not a true grammatical aspect, but rather a stativizing v_{BE} which always bears a P-probe
- Subjects of inherent states are not internal THEMES, but rather subjects of stative v_{BE}
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➽ But how do we derive the perfect interpretation?

Roadmap

Puzzles in detail

Part I: Syntax of Statives

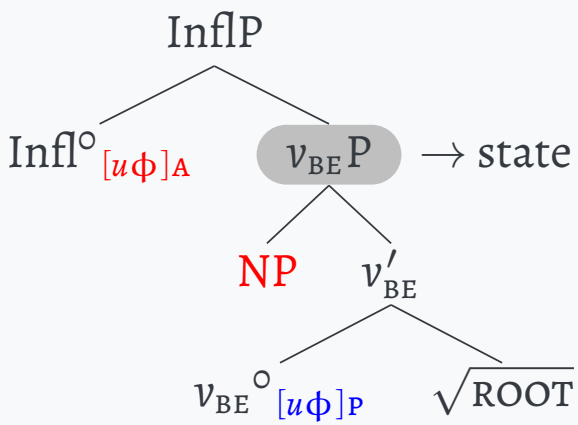
Part II: Semantics of Statives

Conclusions

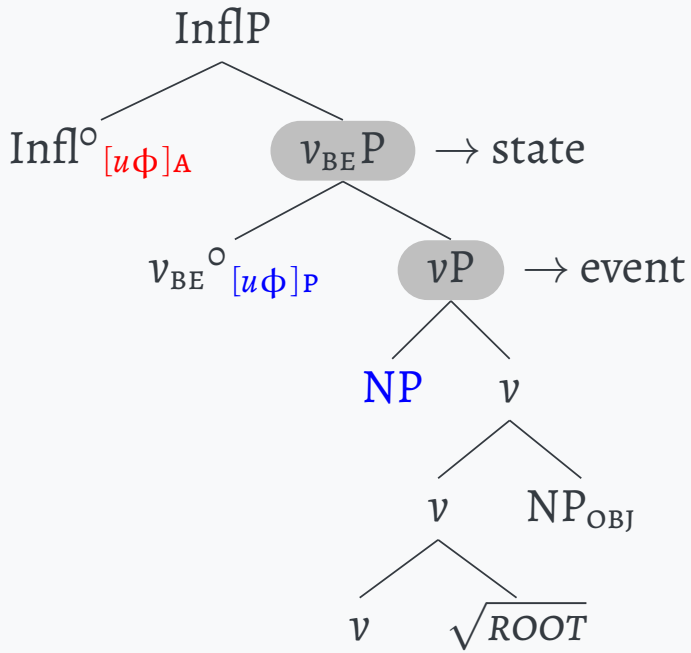
Event-entailment

So far, we have argued for a syntactic asymmetry between "states" (39) and "perfects" (40), both marked morphologically by the Stative aspect.

(39)



(40)

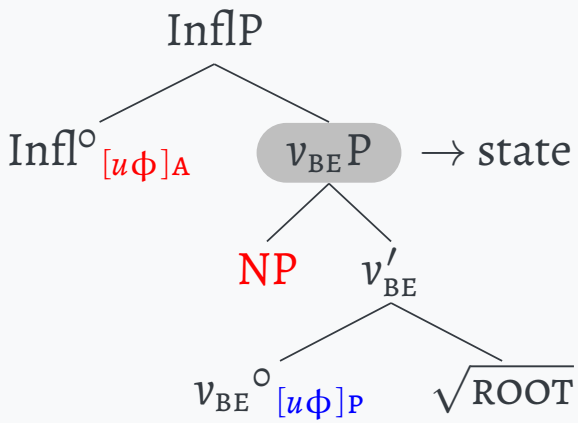


Interpretational upshot: we have an event-entailing syntax for perfects and an non-event-entailing syntax for states

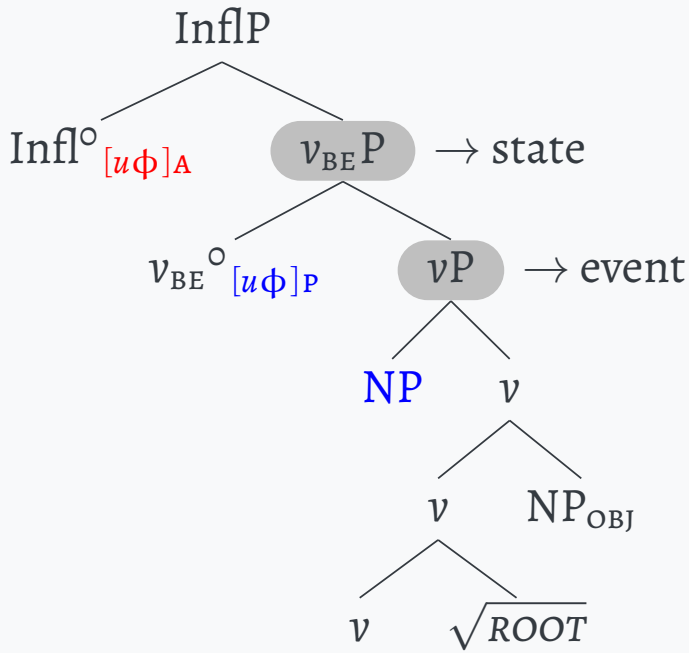
Event-entailment

So far, we have argued for a syntactic asymmetry between "states" (39) and "perfects" (40), both marked morphologically by the Stative aspect.

(39)



(40)



Crucial case: verbs that instantiate both structures: **event stems with the A-/P-prefix alternation**

Test 1: Event-denying continuation

(41) **Context:** Some people were born into captivity, so they've always been prisoners. They themselves have never been taken prisoner.

Rati-hnhot-on nek tsi iah nonwenton te-ronwati-hnhot-on.
MplA-close-stat but neg never neg-Fsg>Mpl-close-stat

'They *are* locked up, they were never locked up.'

(42) **Context:** A door for a doll-house was built closed, and it's always been locked.

#Roti-hnhot-on ne kahnhoha' nek tsi tiotkon ka-hnhot-on
MplP-close-stat ne door but always NsgA-close-stat
ne kahnhoha'.
ne door

'They *have closed* the door, but it's always been closed.'

Test 2: counterfactual *almost*

Together with the Optative verbal prefix, *sereka'* is counterfactual *almost* (never scalar)

(43) **Context:** I was just about to go planting corn, but the weather turned bad and in the end I didn't plant corn at all and stayed indoors instead.

a. #Sereka' a-ka-nenst-a-ienth-on.
already opt-NsgA-corn-jr-plant-stat

Intended: 'The corn is almost planted.'

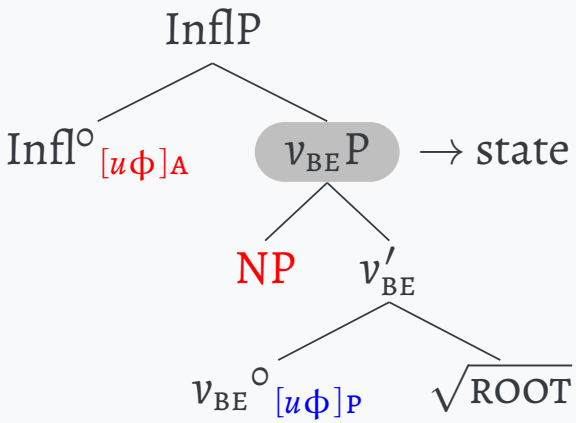
b. Sereka' a-wake-nenst-a-ienth-on.
almost opt-1sgP-corn-jr-plant-stat

'I have almost planted the corn.'

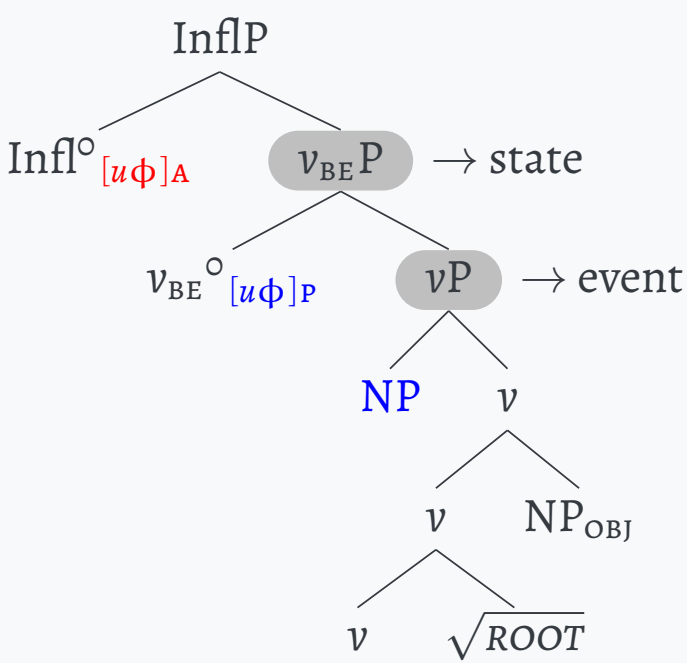
Interim summary

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(44)



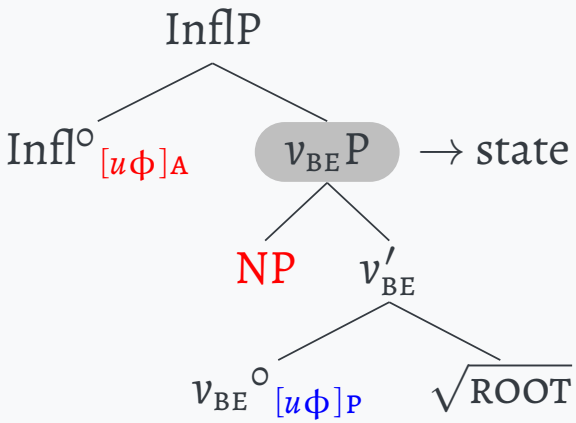
(45)



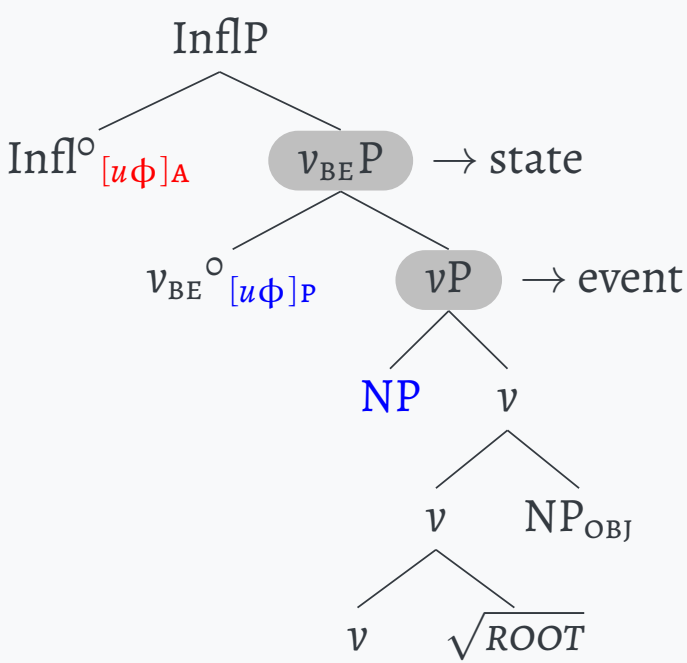
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	state stems ("stative-only")	**event stems**
P-prefixes	transitory states (22a)	perfects (23a)
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(44)



(45)



Temporal interpretations of the Stative aspect

Verbs in the Stative aspect receive one of the following interpretations:

- **Ongoing state** with state verbs, and A-prefix event verbs
- **Perfect** (past culminated event) with P-prefix event verbs
- Ongoing event reading with atelic event verbs (set aside here)

(46) **rati**-hnhot-on
MPLA-closed-STAT
'they are locked up'

(47) **roti**-hnhot-on
MPLP-close-STAT
'they have closed it'

A unified semantics for the Stative

Main idea: different aspectual/temporal interpretations of Stative verbs arise from **difference in complements** of v_{BE}°

Thus, we want a unified semantic analysis that delivers:

- an **ongoing** eventuality when v_{BE}°'s complement is a root
- a **perfect** (i.e., past culminated) event with v_{BE}°'s complement is an eventive *v*P

A unified semantics for the Stative

Result state analyses of the perfect (Nishiyama & Koenig, 2010) deliver exactly what we need.

A **perfect** takes a predicate *P* and:

1. locates a *subpart* of a *P*-event in the past (anteriority condition)
2. denotes an imperfective *state* (stativity condition)
3. pragmatically links the past *P*-event with the state (deriving the different readings of a "perfect")

Deriving the "perfect" from an event stem

(48) **roti**-hnhot-on
MPLP-close-STAT

'they have closed it'

(49) a. LF: $[v_{BE}{}^{\circ}$ $\boxed{[_{vP}\ \text{DP}\ [v\ \sqrt{\text{HNHOT}}\ \text{'close'}]]}$ $]$

b. Framed *v*P denotes event *e* consisting of a process of closing and a result state of being closed

c. A subpart $e' \sqsubset e$ that is a P-event **must include both process and result** (since P is heterogeneous)

Result: A past culminated P-event e', and an ongoing state (of relevance, result, etc) at reference time *t*

Deriving the "inherent state" from an event stem

(50) **rati**-hnhot-on
MPLA-closed-STAT

'they are locked up'

(51) a. LF: [DP [v_{BE}° $\sqrt{\text{HNHOT}}$ 'close']]

b. v_{BE}° takes a predicate of (result) states, and associates it with the existentially closed eventuality e. A subpart $e' \sqsubset e$ is temporally located prior to RT.

c. the ongoing state s is **identified with** the e', possible here because e is homogeneous and unbounded

Result: A past P-eventuality e' of being closed, and an ongoing state identified with this eventuality ($s = e'$)

Summary

example	prefix	syntax	event?	temporal int. of eventuality
"state" (**??**)	A	v_{BE}°-$\sqrt{}$	no	ongoing
"perfect" (**??**)	P	v_{BE}°-vP	yes	past & culminated

Main semantic points:

- The presence of two vP layers in perfects predicts event-entailingness
- The presence of eventive vP results in a difference in temporal interpretation, based entirely on the aspectual properties of the complement

Roadmap

Puzzles in detail

Part I: Syntax of Statives

Part II: Semantics of Statives

Conclusions

Conclusions

We have shown:

① Kanien'kéha Stative aspect verbs vary along two dimensions:
   (i) pronominal prefixes and
   (ii) temporal/aspectual meaning

② Subjects of "inherent states" (whether built form state verbs or event verbs) are externally predicated STATEHOLDERS. This is tracked by the A- and P-prefixes alternation

③ The Stative aspect uniformly derives a property of states, with the precise relation to the event of the verb stem (perfect vs. state) determined by the complement's aspectual properties

Niá:wen!
Thank You!

Thanks in particular to Mary Onwá:ri Tekahawáhkwen McDonald, Akwiratékha' Martin, Katerí Deer, and Konwaronhiá:wi Norton for sharing their language with us, and to the Roti'nikonhrowá:nens group for their comments.

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Result State Perfect (Nishiyama & Koenig, 2010)

The **Result State Perfect** approach treats perfects as essentially *stativizing operators*. The eventuality denoted by P is related by: ① anteriority condition (53a) and ② pragmatically to the ongoing state (53c)

Symbolically:

(52) $[\![\text{STAT}]\!] = \lambda P_{<v,t>} \lambda s \lambda t \exists e \exists e' .$

a. $P(e) \,\&\, P(e') \,\&\, e' \sqsubseteq e \,\&\, \tau(e') \prec t$ (anteriority condition)

b. $X(s) \,\&\, t \subset \tau(s)$ (stativity condition)

c. where X is a contextually determined state; see Nishiyama and Koenig (2010) for discussion on the pragmatic principles

Result State Perfect (Nishiyama & Koenig, 2010)

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a. $P(e)$ & $P(e')$ & $e' \sqsubseteq e$ & $\tau(e') \prec t$ (anteriority condition)

b. $X(s)$ & $t \subset \tau(s)$ (stativity condition)

c. where X is a contextually determined state; see Nishiyama and Koenig (2010) for discussion on the pragmatic principles

NB. Stating the anteriority condition over subparts of eventualities allows a restriction of *continuative/universal* readings of perfects to atelic/imperfective complements

Derivations: perfect

(54) a. **roti**-hnhot-on
MPLP-close-STAT

'They **have** closed it.'

b. LF: [② $v_{BE}{}^{\circ}$ [$_{vP,①}$ NP_{MPL} [NP_{NSG} v $\sqrt{CLOSE}$]]]

(55) a. $[\![①]\!] = \lambda e.\exists e_1, e_2 [e = e_1 \sqcup e_2 \,\&\, close(e_1) \,\&\, be.closed(e_2)] \,\&\, AGENT(e_1) = pro_{MPL} \,\&\, THEME(e_2) = pro_{NSG}$

b. $[\![①]\!] = \lambda e.they.close.it_{TELIC}(e)$ (abbreviation)

c. $[\![②]\!] = \lambda s \lambda t.\exists e, e'.they.close.it_{TELIC}(e) \,\&\, they.close.it_{TELIC}(e') \,\&\, e' \sqsubset e \,\&\, \tau(e') \prec t \,\&\, X(s) \,\&\, t \subset \tau(s)$

d. **NB.** e' is in the denotation of $they.close.it_{TELIC}$; therefore, e must have culminated (since a subpart of it also includes the result state).

Derivations: state

(56) a. **rati**-hnhot-on
MPLA-closed-STAT

'They are locked up.'

b. LF: [② NP_{MPL} v_{BE}° [① $\sqrt{CLOSE}$]]

(57) a. $[\![①]\!] = \lambda e.\text{be.closed}(e)$

b. $[\![②]\!] = \lambda s \lambda t. \exists e, e'.\text{be.closed}(e) \,\&\, \text{be.closed}(e') \,\&\, e' \sqsubset e \,\&\, \tau(e') \prec t \,\&\, X(s) \,\&\, t \subset \tau(s) \,\&\, \text{HOLDER}(s) = pro_{MPL}$

c. **NB.** be.closed(e) is a homoegeneous and unbounded event; we can set $s = e = e'$ without contradiction. Thus, we have a state of being closed (a subpart of which is in the past) and an ongoing state (obligatorily) inferred to be identified with the latter state.