

Bipartite negation in Kanien'kéha: linking negation and focus*

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1. Introduction

In Kanien'kéha, the main negation strategy is bipartite: it consists of a left-periphery particle *iah*, located on the left periphery of the clause, and a negative prefix *te-/th-* on the predicate of the negated sentence. Neither part of the negation is optional; both elements need to be used for the sentence to be negated.¹

- (1) a. ***(iah) te-ra-atawen-s**
NEG NEG-MSGA-swim-HAB
'He doesn't swim.'
- b. **iah *(te)-ra-atawen-s**
NEG NEG-MSGA-swim-HAB
'He doesn't swim.'

A single semantic negation being expressed with multiple elements is not a typologically uncommon phenomenon. Other languages like French, Sgaq Karen and Ojibwe (Tilleson

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¹Glossing follows standard Leipzig conventions with the following additions and alterations: A = agent set, CIS = Cislocative, CONJ = conjunction, CONT = Continuative, DUP = Duplicative, EP = epenthetic vowel, FACT = Factual, FI = feminine-indefinite, FZ = feminine-zoic, HAB = Habitual, LK = linker vowel, NE = particle *ne*, OPT = Optative, P = patient set, PART = Partitive, PUNC = Punctual, SREFL = Semireflexive, STAT = Stative. Portmanteau prefixes are glossed X>Y, with X reflecting the features of the higher argument and Y reflecting the features of the lower argument. All Kanien'kéha examples were collected by the author during elicitation sessions with the Kanien'kéha L1 and advanced L2 speakers unless indicated otherwise. Examples from sources are updated to the modern orthography, and glosses are updated for consistency. The empirical data discussed in this paper has also previously been published in Morgunova (2024).

2019, Rooryck 2017, Zeijlstra 2023) have similar constructions, where the main negative strategy always involves two elements. Despite this fact, our understanding of the semantic compositionality of these structures is still quite limited (see, however, Rooryck 2017). This paper aims to add to this specific issue and discusses the semantic contribution of both elements in Kanien'kéha's bipartite negation. More specifically, I propose that the *iah* is the negation operator; the negative prefix on the verb, on the other hand, plays the role of focus operator which ensures that the negated proposition is contextually salient. This proposal takes into account both the language-specific data about the structural connection of negation with focus, as well as more general facts regarding it which have been established in the prior literature. In addition to that, it also adds to our understanding to the larger class of operator doubling constructions (see, for example, Quek and Hirsch 2017, Yip 2023b among others).

The rest of the paper is structured as follows. In Section 2 I discuss some of the relevant background facts about Kanien'kéha, specifically the facts regarding focus and word order. Section 3 looks at the data on the bipartite negation, establishing that both elements co-require the presence of each other in negative sentences, as well as the evidence for the structural connection between negation and focus in Kanien'kéha. Section 4 presents the analysis, and Section 5 concludes the paper.

2. Language overview

Kanien'kéha belongs to the family of Iroquoian languages spoken today in New York State, Ontario, Quebec, Wisconsin, North Carolina, and Oklahoma. It is a part of the Northern branch, which includes the languages of the six nations of the Iroquois Confederacy – Mohawk, Oneida, Onondaga, Cayuga, Seneca, and Tuscarora – as well as Wendat. Today, Kanien'kéha is spoken in upstate New York, southern Quebec, and southern Ontario. DeCaire (2023) reports that in 2021 Kanien'kéha had 562 L1 speakers, as well as 77 advanced L2 speakers. These numbers notably do not include the growing population of intermediate L2 speakers, estimated to exceed 1000 people (DeCaire 2023:p. 49, see also Stacey 2016).

Like other languages of the family, Kanien'kéha is head-marking and polysynthetic, which is reflected in frequent use of noun incorporation and pro-drop, as well as derivational and inflectional morphology on the verb; these properties are displayed in the example in (2) below.²

- (2) Te-ki-ate-'sere-ht-ahnhonter-ha'
 DUP-FZDUA-SRFL-car-NMLZ-adjust-HAB
 wa-hshako-ia't-aniiont-en'
 FACT-MSG>3PL-body-hang.on.hook-PUNC
 'He hitched them together on an adjustable wagon.' Jacobs (1976)

Word order in Kanien'kéha is not restricted syntactically in that all possible variations are generally acceptable in an appropriate context. However, the word order is affected by

²Example in (2) due to Flaim (2025).

the informational structure of the sentence. Various researchers have previously noted that focused constituents typically occupy the position on the left periphery of the sentence Mithun (2020). DeCaire et al. (2017), Flaim (2025) make further claims that focused items in Kanien'kéha occupy a determined structural position on the left periphery (Spec,CP or Spec,TP). The influence of focus on word order is most evident from examples like in (3). Thematic arguments in Kanien'kéha can be optionally incorporated into the predicate or appear as independent nominals on the periphery of the verb. However, in a context which forces a narrow focus on the direct object, it is preferred that the direct object appear on the left of the verb (DeCaire et al. 2017). Following the works mentioned above, I take these facts to support the claim about a designated focus position in Kanien'kéha; this fact will also become relevant in the discussion of interaction of focus with negation.

- (3) a. Q: wa-ha-honw-a-hninon-' ken ne Sewatis
FACT-MSGA-boat-LK-buy-PUNC Q NE John
'Did John buy a boat?'
- b. A1: iah. **ka'sere'** wa-ha-hninon-'
NEG **car** FACT-MSGA-buy-PUNC
'No. He bought A CAR_F.'
- c. A2: #iah. wa-ha-'**sere**-ht-a-hninon-'
NEG FACT-MSGA-**car**-NMLZ-LK-buy-PUNC
'No. He bought **a car**.' (DeCaire et al. 2017:p. 4)

3. Bipartite negation in Kanien'kéha

In this section, I provide the evidence for two claims regarding Kanien'kéha negation which will later be fundamental to the analysis I propose. First, I show that both elements of the construction are necessary for forming a negative statement. Second, I discuss how negation in Kanien'kéha is structurally connected with focus. In particular, I show that the latter affects the word order, as well as presence of negative marking on verbal modifiers.

3.1 Both elements are obligatory

As mentioned above, bipartite negation is the main strategy in Kanien'kéha that is used for the majority of verbal forms in the language.³ It appears in both matrix and embedded contexts and it always involves two elements.

- (4) **iah te-waken** tsi **iah te-rak-ken** ne Kor
NEG NEG-1SGP.say.STAT COMP NEG NEG-MSG>1SG-see.STAT NE Paul
'I didn't say that Paul didn't see me.'

³There are two exceptions to this generalization. First, verb forms in Kanien'kéha with the so-called future and factual modal prefixes cannot in general be negated. Second, Kanien'kéha also features an alternative negative strategy with the particle *tóhsa*. For more information, see language descriptions such as Michelson and Price (2011), Martin (2023).

On the surface, the particle *iah* could be viewed as the sole element which contributes the negative semantics, as it can be used on its own as a negative response particle. In this context, the use of the negative verb after the particle is not required; this is most evident from (5a), where *iah* is followed by a corrective positive response. However, these uses of particle *iah* seem to be independent from its use in full negative sentences. This is indicated by (5b), where the negative corrective answer features two instances of *iah*; the first *iah* acts as a response particle, while the other *iah* is a part of the bipartite negation.

- (5) a. Q: Warisose ken iontak-iat-s? A: **iah**, Wari iontak-iat-s
 Josephine Q FI>FI-call-HAB NEG Mary FI>FI-call-HAB
 ‘Is her name Josephine? **No**, her name is Mary.’ (Deering and Harries-Delisle 2007)
- b. **iah** *iah* Kor th-a’t_e-ron-at-atken
 NEG NEG Paul NEG-DUP-FZSG>MSG-meet.STAT
 ‘**No**, she didn’t meet with Paul.’

In fact, outside of response contexts, *iah* can never negate elements on its own. For example, in contexts where the negation is focused on a nominal constituent, there still must be a negative-marked verbs present. Consider (6). In this example, the noun *kanónhsa* ‘house’ cannot host the verbal negative morphology. Nevertheless, it cannot be negated with just the particle *iah*; rather, this context requires the insertion of the negative auxiliary *téken*. Thus, every full sentence with *iah* requires the presence of a negative verb.

- (6) *iah* kanonhsa’ ***(te-ken)**
 NEG house NEG-do
 ‘It’s not a house.’

Together, I take these facts to indicate that the particle *iah* cannot in fact be used on its own to negate statements. Its independent uses as a response particle could then be analyzed as a homophony between two elements similar in meaning, but different in functional properties. Alternatively, it can also be suggested that negative response particles represent a case of clausal ellipsis like Kramer and Rawlins (2009) propose for English response particles; I leave the exploration of these options for further work.

In a similar vein, we also never find negative-marked forms outside of the contexts where the negative particle is used. For example, we never find them in downward-entailing contexts on their own, such as an antecedent in a conditional clause (7a) or the restrictor of a universal quantifier (7b) (cf. elements like the French clitic *ne* which can appear in a wide variety of contexts outside of the bipartite negation constructions Rooryck 2017).

- (7) a. toka ohkwari ken’ ***(th)**-a-hr-e-hs-he-ke
 if bear there NEG-OPT-MSGA-be-BEN-HAB-CONT
 a-ionkwa-tkahth-on tehahsi’taierón:ni
 OPT-1PLP-look-STAT footprints

'If the bear will be here, we will see paw prints.'

- b. akwekon ne tsi ni-iak-on (*th)-iako-wennahnote' A
all NE COMP PART-FI.P-be.STAT NEG-FI.P-read.STAT A
en-iako-t-hiaton-'s-e'
FUT-FI.P-write-BEN-PUNC
'Everyone who read this book will get an A.'

3.2 Negation and focus

The interpretation of negative sentences has long been noted to be related to focus placement (see Fălăuş 2020 for an overview). For example, Jackendoff (1972) analyzes negation as a focus-sensitive operator (akin to items like *only*). This idea is based on the fact that changing the focus placement on the constituents in the scope of negation gives rise to different interpretations of the sentence. Consider the pair of sentences in (8). While their assertion is identical, these sentences trigger different implicatures: the former one implies that Mia lives in a place different from Montreal, while the latter sentence rather implies that some other contextually-salient individual, who is not Mia, lives in Montreal.

- (8) a. Mia doesn't live in [Montreal]_F.
b. [Mia]_F doesn't live in Montreal.

In Kanien'kéha, we find that this connection is also encoded structurally. More specifically, (i) it affects the general word order in negative sentences⁴ (ii) it determines the possibility of *negation spreading* (Koenig and Michelson 2020), where the negative prefix appears both on the matrix verb and a verbal modifier. These facts in turn become important for the analysis I propose below.

The word order in negative sentences in Kanien'kéha is dependent on its informational structure. If negation takes broad sentential scope, the particle *iah* and the negative-marked verb are typically adjacent to each other; nominal constituent are rather placed either preceding the particle *iah* (9a) or following the predicate (9b).

- (9) a. iah te-ka-kowan-en ne ohkwari
NEG NEG-N.A-large-STAT NE bear
'The bear is not big'
b. ohkwari iah te-ka-kowan-en
bear NEG NEG-N.A-large-STAT
'The bear is not big'

⁴In this paper, I focus on the possible word order of the verb relative to the nominal arguments; however, I ignore the possible word order of particles as at this topic requires much further investigation.

- For sentences like in (10), I propose that the narrow focus on the DP *Shawatis* is due to its position on the left of the negative predicate; this fact will become relevant in establishing the basic syntactic schema for the negative sentences. This assumption is consistent with the more general fact that the pre-verbal position in Kanien'kéha is reserved for focused constituents, as mentioned in Section 2.

On the other hand, it can be shown that the adjacency to the particle *iah* is *not* the factor responsible for the narrow focus on the DP following it. This is evident from the fact that this particle cannot form a separate constituent with the focused item. First, we see that *iah* on its own can never appear adjacent to constituents smaller than InflP; this is evident from the ungrammaticality of examples like (11), where *iah* is illicit in a DP-adjacent position.

- Second, in negative sentences, *iah* also doesn't form constituents with the DPs situated between the particle and the negative verb; this is evident from the fact that this sequence fails coordination tests for constituency:

- The structural connection between focus and negation can further be observed in sentences featuring the so-called *negation spreading* Koenig and Michelson (2020). This phenomenon characterizes Kanien’kéha sentences where one negative particle corresponds to multiple negative-marked predicates in a single sentence. Typically, there is a single negative predicate for each negative particle; for example, even in negative sentences with two coordinated verbs which share the same subject, it is preferred to use two particles *iah*, matching the number of predicates:

- (13) a. ??Katya **iah** **th**-a'te-iako-rahtat-on khoni' **te**-iako-atawen
 Katya NEG NEG-DUP-FI.P-run-STAT CONJ NEG-FI.P-swim-STAT
 'Katya didn't run or swim.'
- b. Katya **iah** **th**-a'te-iako-rahtat-on khoni' **iah** **te**-iako-atawen
 Katya NEG NEG-DUP-FI.P-run-STAT CONJ NEG NEG-FI.P-swim-STAT
 'Katya didn't run or swim.'

However, in sentences with certain predicates that play the role of verbal modifiers⁵, the negative morpheme may appear twice, marking both the main and the modifier verbs. This is illustrated in (14); in the negative version of the sentence in (14b), the negative morpheme can appear on both the main predicate *arahtat* 'to run', as well as on the verbal modifier *io-tkahte* 'often'.

- (14) a. io-tkahte ohrhon'kene t-en-ti-arahtat-e'
 N.P-often in.the.morning DUP-FUT-FZDUA-run-PUNC
 'They often will run in the morning.' (Martin 2023:p. 83)
- b. **iah** **te**-io-tkahte ohrhon'kene **th**-a'-t-a-ti-arahtat-e'
 NEG NEG-N.P-often in.the.morning NEG-DUP-OPT-FZDUA-run-PUNC
 'They won't often run in the morning.' (Martin 2023:p. 83)

Oftentimes, speakers find the presence of the negative morphology on the verbal modifier optional, and do not report any significant interpretational differences between sentences with and without negation spreading. In fact, even in more specific, not out-of-the-blue contexts, it's hard to find parameters which would make one of the version of the sentence at least more preferable over another alternative. Consider (15). In this context, negation takes a narrow scope over just the verbal modifier, rather than the whole proposition. One could hypothesize that in such configuration, speakers might show preference for one of the possible options of the sentence. However, this prediction is not borne out; both versions of the sentence are equally acceptable.

- (15) **iah** (**te**)-io-snore **th**-a'te-ionkw-arahtat-on skenen'shon'a
 NEG NEG-N.P-fast NEG-DUP-1PLP-run-STAT slow
 wa'-t-iakw-arahtat-e'
 FACT-DUP-1EX.PLA-run-PUNC
 'We didn't run fast, we ran slow.'

However, there are contexts where we observe negative spreading to be preferred. For (16), the proposed context talks about different types of track practices such as sprint practices. Crucially, here, the verbal modifier *iosnore* 'fast' is viewed as a more intrinsic to the event

⁵While the range of these verbs is not fully known, (Koenig and Michelson 2020) report that in Oneida negation spreading is observed "with certain expressions of quantity, extent, or manner."

description of sprinting. Notably, in this configuration, speakers find it more natural to use the version of the sentence where both predicates have the negative prefix.

(16) Context: Yesterday, we had the only sprint workout of the week scheduled, but we missed it.

- a. #Iah **io-snore** th-a'te-ionkw-arahtat-on
NEG **N.P-fast** NEG-DUP-1PLP-run-STAT
'We didn't run fast.'
- b. Iah **te-io-snore** th-a'te-ionkw-arahtat-on
NEG **NEG-N.P-fast** NEG-DUP-1PLP-run-STAT
'We didn't run sprints.'

I suggest that the difference in speakers' preference with respect to whether to use negative spreading or not is related to different types of focus. In most cases, the use of the negative spreading on verbal modifier is optional. Narrow focus on the verbal modifier, as in (15), does not change this. However, in cases where the verbal modifier is more semantically integral to the main predicate, acting as a part of a compound, rather than an optional adjunct, negative spreading is preferred. This fact indicates that negative spreading is primarily associated with broad sentential focus of negation which subsumes both the main and the embedded predicates. Below, I discuss what this tells us about the overall semantics of the bipartite negation.

4. Analysis

I propose that the bipartite nature of negation in Kanien'kéha arises from the close relationship between negation and focus, as discussed in the previous section. More specifically, I suggest that the particle *iah* is the negative operator, reversing the truth value of its complement, while the role of the negative marker *te-* is akin to that of $\sim$ operator proposed in Rooth (1992), as it presupposes the contextual salience of some focus alternatives. Below, I first discuss the previous formal approaches that represent focus as a part of semantic contribution of negation, and then turn to how these insights could be extended to the Kanien'kéha data.

4.1 Formal representation of focus in negative sentences

The analysis I propose builds on some of the previous works on the semantics of negation (Kratzer 1989, Weiß 2002, Partee 1993, Jackendoff 1972), which have focused on the facts about the interaction of negation and focus, akin to the ones shown earlier in (8). While the exact formalisms differ, these proposals converge on positing that, in addition to asserting the negation of the proposition, negation additionally presupposes the salience of some focus alternatives in the discourse, which are derived by replacing the focused constituent with a variable. Negative sentences then can be represented as in (17)-(18); the different implicatures of the two expressions arise through the differences in their presuppositions.

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- (17) a. Mia doesn't live in [Montreal]_F.
b. Presupposition: x is a place and Mia lives in x
c. Assertion: Mia doesn't live in Montreal
- (18) a. [Mia]_F doesn't live in Montreal.
b. Presupposition: x is a person and x lives in Montreal
c. Assertion: Mia doesn't live in Montreal

In sentential scope negation, the entire proposition is assumed to be in focus. Consequently, the replacement of it with a variable to derive focus alternatives results in a presupposition that there exist some contextually-salient proposition (19).

- (19) a. [Mia doesn't live in Montreal.]_F
b. Presupposition: x is a proposition
c. Assertion: Mia doesn't live in Montreal

While this presupposition is very weak, there are independent considerations justifying it. It has long been noted that negative statements are not equal in their pragmatic contribution to affirmative statements, as they appear “less valuable than affirmative ones, less specific and less informative” (Horn and Wansing 2022). These intuitions find further empirical support from the psycholinguistic studies, which show that in out-of-the-blue contexts, negative statements have higher processing costs compared to their positive counterparts (Tian and Breheny 2019). To account for this property of negation, researchers generally suggest that negative statements introduce an assumption that the positive counterpart is part of its background. While in some cases this counterpart could be represented explicitly, like in denial contexts as in (20), in many cases this requirement is satisfied by the inferences we derive from larger meta-linguistic context, like in (21).

- (20) A: My cat is the best cat in the world.
B: No, **he isn't!** Mine is.

- (21) Examples adapted from Tian and Breheny (2019:p. 201)
 - a. Context 1: You are walking on a street where every other house has a sign ‘Hotel’ on it; it must be a touristy area. Among these buildings, you see a house with the following sign:
‘This is not a hotel.’
 - b. Context 2: You are walking on a regular street with no signs around. Suddenly, on one of the buildings, you see the following sign:
#‘This is not a hotel.’

Overall, the negation in general seems to require the presence of some salient alternatives in the contexts. Notably, this requirement has previously also been noted to hold for all

focus-sensitive elements in general by Rooth (1992). In the next section, I argue that this parallel is directly reflected in the bipartite nature of negation in Kanien'kéha.

4.2 Extending to Kanien'kéha

For the bipartite negation in Kanien'kéha, I propose that *iah* is a typical negative operator which selects for a proposition as its complement and reverses its truth value. The negative morpheme, on the other hand, I propose to analyze akin to the $\sim$ operator proposed in Roothian theory of focus semantics (Rooth 1992). This is an operator that triggers the presupposition about contextual salience of focus; below, I spell out this idea in more details.

Rooth proposes that each linguistic expression has two subtypes of semantic value: ordinary semantic value ($\llbracket \alpha \rrbracket^o$) and focus semantic value ($\llbracket \alpha \rrbracket^f$). For constituents which are marked by a syntactic diacritic F, the focus value is the set of alternatives which result from substituting the focused element with an alternative meaning of the same type; for unmarked constituents, the focus semantic value is simply equal to the ordinary semantics value.

Notably, sentences with focus marking exhibit an additional pragmatic constraint which requires the focused expression to have a salient antecedent in the discourse. This explains, for example, why contrastive focus marking is only felicitous when there is a salient contrastive antecedent in the discourse, cf. (22a) with (22b).

- (22) a. Mia lives in Montreal_F, while Oscar lives in Toronto_F.
 b. Mia lives in Montreal_F, #while Oscar_F lives in Toronto.

In alternative semantics, this requirement is implemented by using a special $\sim$ operator ('squiggle'). This operator typically takes two arguments — a constituent that includes focus marking and a contextual variable C, representing a set of propositions forming the context of a given utterance. It then introduces a presupposition that C is a subset of focus alternatives of the other argument. As a result of that, the context is constrained in such a way that the contextual salience of focus is always satisfied. This operator could be used on its own, or in tandem with other focus-sensitive elements like particles *only* and *even*.

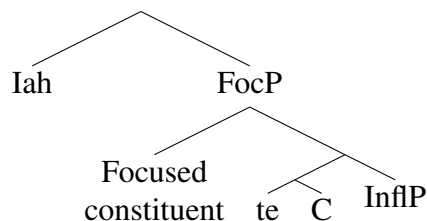
Notably, this requirement is largely parallel to the pragmatic requirement that negation poses independently, as discussed in the last section. Given that, I propose that negation, in general, should be analyzed as one of the focus-sensitive operators which subcategorizes for the presence of $\sim$.

Turning back to Kanien'kéha, I suggest that the negative prefix is exactly parallel to $\sim$ in its syntax and semantics. Given its morphological status as a prefix, I assume it always selects for InflP as one of its argument, with contextual variable C being the other. It then introduces a presupposition that the focus alternatives introduced by the verbal phrase are contextually salient.

Syntactically, the negative sentences can then be represented as in (23). Here, *iah* is a left-periphery negative particle, which attaches high in the verbal spine, as reflected by the linear position it occupies in the clause. The negative particle *te-*, on the other hand, is a focus operator. First, it combines with two arguments — C and InflP — as discussed above.

Second, it can also optionally attract focused constituents into its specifier; this idea builds on the observation that we see focused DP constituents appear on the left of the predicate.

(23)



Let us now consider how this representation can explain the properties of different negative sentences in Kanien'kéha. I start with the sentences where negation takes narrow focus over a DP, like in (24a). In this case, the DP *Shawatis* is moved to the focused position on the left of the verb; as mentioned in Section 2, this word order for focused constituent is the most prominent one. The prefix *te-*, being a focus operator, triggers a presupposition (24c) that the contextual set *C* is a subset of the set of focus alternatives derived by replacing the focused constituent, *Shawatis*, with a variable. The particle *iah*, on the other hand, asserts the reversal of the truth value of the whole sentence (24d). In combination, these two parts result in the perceived implicature, that even though the agent didn't help John, they did help some other individual.

- (24)
- a. *iah Shawatis te-ro-ienawa'se*
 NEG John NEG-MSG>MSG-help.STAT
 'It was not John whom he helped'
 - b. [*Iah [te- [ra-atawen-s]_F]*]
 - c. Presupposition: $C \subseteq \{\lambda w. \text{he helped John in } w, \lambda w. \text{he helped Mary in } w, \lambda w. \text{he helped Stacey in } w, \dots\}$
 - d. Assertion: $\llbracket \text{He helped John} \rrbracket^W = 0$

For sentential negation case, I assume that the *F* marking applies to the whole predicate. When the focus operator *te-* adjoins to that structure, it then triggers a weak presupposition that there is some salient proposition in the discourse (25c). Note that in this case, the focused marked constituent cannot move out overtly to the specifier of the negative prefix; if that would happen, the latter would not be able to attach to the word and consequently would not be spelled out at all.⁶

- (25)
- a. *Iah te-ra-atawen-s*
 NEG NEG-MSG_A-swim-HAB
 'He didn't swim.'

⁶This idea builds on the analysis of incorporated nouns in Kanien'kéha proposed in Boles (2024), which also resist A'-movement.

- b. [Iah [te- [ra-atawen-s]_F]]
- c. Presupposition: $C \subseteq \{\lambda w. \text{He swam in } w, \lambda w. \text{Mary bought a car in } w, \lambda w. \text{John sent Mary a letter in } w, \dots\}$
- d. Assertion: $\llbracket \text{He swam} \rrbracket^w = 0$

Finally, let us consider the cases of negative spreading. In sentences like (26a), where the context requires the focus of negation to include both the main verb and the modifier, the latter is not marked as focused individually; rather, like in sentential focus case, the F-marking applies to the whole InflP. Because the whole verb phrase cannot be moved to the specifier of *te-* for the reasons specified above, both the verb and the modifier stay in the domain of the negative prefix, and negation spreading is observed.

- (26)
- a. Iah te-io-snore th-a'te-ionkw-arahtat-on
NEG NEG-N.P-fast NEG-DUP-1PLP-run-STAT
'We didn't run sprints.' Lit.: 'We didn't run fast.'
 - b. [Iah [te- [iosnore ionkwarahataton]_F]]
 - c. Presupposition: $C \subseteq \{\lambda w. \text{We ran sprints in } w, \lambda w. \text{John bought a car in } w, \lambda w. \text{We ran an endurance practice in } w, \dots\}$
 - d. Assertion: $\llbracket \text{We ran sprints} \rrbracket^w = 0$

Recall, however, that in cases where the modifier is focused, there is optionality in whether it gets the negative marking or not. Here, I propose that this stems from the optionality of focus movement for verbal modifiers; the two possible structures, which, however, give rise to the same semantics, are presented in (27).

- (27)
- a. Iah **(te-)io-snore** th-a'te-ionkw-arahtat-on
NEG **NEG-N.P-fast** NEG-DUP-1PLP-run-STAT
'We didn't run fast.'
 - b. **LF with negation spreading**
[Iah [te- [[iosnore]_F ionkwarahataton]]]
 - c. **LF without negation spreading**
[Iah [iosnore]_F [te- [iosnore ionkwarahataton]]]
 - d. Presupposition: $C \subseteq \{\lambda w. \text{We ran fast in } w, \lambda w. \text{We ran slow in } w, \lambda w. \text{We ran with a medium speed in } w, \dots\}$
 - e. Assertion: $\llbracket \text{We ran fast} \rrbracket^w = 0$

In this regard, notably, the modifiers are different from noun phrases. Nouns in Kanien'kéha can appear in multiple configuration: they can be pro-dropped, being represented only by verbal agreement, incorporated or excorporated and be used as a stand-alone word. How-

ever, when they are focused, they must appear excorporated; these facts were also demonstrated above in Section 2. Due to this, when they are focused in negative sentences, like in (24a), they must appear in the specific focus position. On the other hand, as verbal modifiers always appear as separate words, it is plausible to assume that the focus movement would not be obligatory for them.

While this analysis allows us to understand the possible motivation for the bipartite nature of negation, as well as its observed interactions with focus, it nevertheless faces an overgeneration problem. More specifically, so far nothing in the semantics of either negative particle *iah* or the negative prefix requires the presence of another element. Given this, we could expect them to occur separately from each other, contrary to the empirical facts we observe. Thus, the analysis above must be supplemented with an explanation for why the two elements co-require each other. While in this paper I do not provide a definitive answer to this problem, below, I outline possible ways of implementing this requirement in future work.

On the one hand, it could be proposed that the co-occurrence of the two elements is due to syntactic agreement between the two. This latter approach is often adopted in accounts for other bipartite operator constructions (Zeijlstra 2004, 2007, Quek and Hirsch 2017, Yip 2023a, Sun 2021). The basic assumption of this approach is that one of the elements in the bipartite construction plays the role of an agreement probe on some feature, while the other one plays the role of the agreement goal. This type of approach with respect to the Kanien'kéha data is discussed in more details in Morgunova (2024).⁷ In that paper, I suggest that the particle *iah* acts as a [uNeg] probe which probes downwards to look for a [iNeg] goal, represented by the negative prefix *te-*.

The general problem of the Agree approach, however, is that it cannot capture *both* elements co-requiring each other, as goals and probes are inherently asymmetrical in the Agree relation. Indeed, the analysis in Morgunova (2024) still does not explain why we only see the negative prefix *te-* in the context of negation. In fact, if *te-* is akin to focus operator, we would expect to find it in other focus constructions or with other focus-sensitive particles; this, however, is not the case for Kanien'kéha.

One possible workaround would be to suggest that Kanien'kéha has multiple squiggle-like operators. In regular sentences with focus, a null unmarked $\sim$ would be used; in negative sentences, the $\sim$ [iNeg] operator would be used instead, spelled out as *te-*, as only this element would be able to match the agreement requirements of the negative operator merging higher up. Another possibility would be to assume that, like other focus-sensitive operators, the negative operator *iah* always comes with the corresponding $\sim$ operator (Rooth 1992); the two parts of this joint operator are simply spelled out across different level in syntax. At this time, I do not have a way to distinguish between these theoretical possibilities; I thus leave this issue for further work.

⁷The structural representation for bipartite negation I propose in Morgunova (2024) is largely parallel to the one suggested in the current paper; however in this version I assume that Foc and the head hosting the negative morpheme are the same heads, rather than two separate items.

5. Conclusion

In this paper, I outline a semantic analysis for the bipartite negation in Kanien'kéha. I propose that the presence of two elements is related to the inherent connection of negation with focus, and respectively represent the two elements as the negative operator and a $\sim$ operator. If this analysis is on the right track, it suggests that the previous observations about negation requiring more prominent contextual support (Kratzer 1989, Weiß 2002, Partee 1993, Jackendoff 1972) can be further justified by morphological evidence from languages like Kanien'kéha, where the focus operator is an obligatory part of the negative construction.

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