DEDUCING CLAUSE STRUCTURE FROM THE RIGHT PERIPHERY IN TLỊCHǪ YATỊİ

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TLỊCHǪ YATỊİ, a Dene language of the Northwest Territories, Canada, has a number of post-verbal auxiliaries and particles indicating categories such as futurity, mode, negation, information structure, and evidentiality. The interaction of these elements reveals that they occur in a strict order, which in turn illuminates the structure of the clause in this language, with positions for future, mode, negation, and focus as functional categories at the right edge.

[KEYWORDS: clause, TLỊCHǪ, Dogrib, post-verbal, particles]

1. Introduction. This article proposes a model of the clause structure of TLỊCHǪ YATỊİ (a.k.a. Dogrib) (ISO code: dgr), a Dene language of the Northwest Territories, Canada. It uses post-verbal auxiliaries and particles as diagnostics of this structure, showing that word order alternations and differences in grammaticality judgments paint a highly precise picture of the right periphery and, hence, in this head-final language, of clause structure itself.¹

1.1. Claims. I propose that clauses in TLỊCHǪ YATỊİ have several projections between the verb and C, including Future (Fut), instantiating an obligatory temporal distinction, a Modal (Mod) projection structurally distinct from either C or Fut, a Negation (Neg) projection, and Focus (Foc), marking propositional/clausal focus. I show that all these projections are instantiated by post-verbal particles. I further claim that several other post-verbal particles do not instantiate multiple functional heads but belong to the category C.

1.2. Assumptions. A word or two is in order about background assumptions. I assume a clause structure that includes at least the projections CP and VP. Given the head-final syntax and stem-final verb structure of this language, of which examples follow, and starting from the assumption that

¹ I am grateful to Marie-Louise Bouvier-White, Lianne Mantla, Mary Siemens, Archie Wedzin, and an anonymous consultant for sharing their knowledge of TLỊCHǪ YATỊİ with me; to Lisa Matthewson and two anonymous reviewers at IJAL for reviews of an earlier draft; and to Bronwyn Bjorkman, Elizabeth Cowper, Keren Rice, and Leslie Saxon for feedback and suggestions. The fieldwork for this article was supported by a University of Toronto Postdoctoral Fellowship, SSHRC Doctoral Scholarship 752–2010–2724, the Jacobs Research Funds, and the Phillips Fund for Native American Research.
clause structure can include multiple functional heads, I further assume that items that follow the verb are functional heads in the clausal spine, unless there is evidence to the contrary, such as variable position or optionality, and that ordering differences among these post-verbal items reflect the order of the heads that they instantiate. I formalize this idea in (1):

(1) Structure-to-Surface Mapping: At the surface level, the order of obligatory and immovable morphemes at the right periphery reflects the order of functional heads that they instantiate.

By an obligatory morpheme, I mean one that yields an obligatory semantic contribution by either its presence or its absence. For example, one might be tempted to say that an adverb like fortunately is an obligatory element, since, if we wish to convey that a situation was fortunate, we must include the word fortunately or its equivalent. However, the absence of the word fortunately does not yield an obligatory semantic interpretation: a bald declarative sentence without fortunately need not be interpreted as an unfortunate situation. By contrast, the absence of the future marker ha in Tłı̨chǫ Yatì, for example, yields a clause that must be interpreted as non-future.

The statement of Structure-to-Surface Mapping in (1) explicitly refers to the right periphery, that is, to the post-verbal elements of the Tłı̨chǫ clause rather than to the verb-internal morphology. Dene languages are famous for the complexity of their verbal morphology and for the typologically unusual ordering of that morphology within the verb word. The explication of this ordering is the subject of an entire book (Rice 2000), arguing that the verb word is syntactically formed and that principles of semantic scope underlie Dene morphological ordering. I assume that something like Rice’s explanation of the structure of the verb word operates at the level of structure below FutP, but that structure is not the goal of the investigation in this paper.  

1.3. Methodology and sources. Most of the data in this paper come from my own traditional elicitation-based fieldwork with native-speaker consultants in the Northwest Territories. Some items are the consultants’ Tłı̨chǫ translations of English sentences proposed by me, while others are grammaticality judgments of my own constructed sentences in Tłı̨chǫ Yatì. Where consultants wished to be identified and credited, I have identified examples by consultants’ initials. Those who requested anonymity are credited as ANON.

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2 I am grateful to Lisa Matthewson for pointing out, in a review of an earlier version of this paper, the potential ambiguity associated with obligatoriness.

3 The one apparent exception to the semantic-scope principle in the morphological order of the verb is the position of the stem, which is considerably farther rightward than Rice’s model would predict (Rice 2000:74–78). This position may be a result of competing phonological and semantic constraints (Keren Rice, personal communication, 2013) or the result of a move to a higher node (Rice 2000:77–78).

4 AW = Archie Wedzin; LM = Lianne Mantla; MLBW = Marie-Louise Bouvier White; MS = Mary Siemens.
Where such credits occur at the bottom of a list of examples under the same item number, they indicate that all examples under that number were provided by the same consultant; where items under a single number come from different sources, I have identified the source below each example.

Additional examples are drawn from the Tł̨chǫ Yatıì Multimedia Dictionary (Tł̨chǫ Community Services Agency 2007 [henceforth TCSA 2007]); from the Dogrib New Testament (Dogrib Translation Committee 2003 [henceforth DTC 2003]), currently the longest published text that exists in Tł̨chǫ Yatıì; from Lynda Ackroyd’s “Dogrib Grammar” (1982), and from published stories in the language (cited by author/editor).

1.4. Structure of the article. This article consists of three sections after this introduction. The first gives a brief sketch of relevant characteristics of Tł̨chǫ Yatıì, while the second explores the right periphery of its clause, projection by projection, beginning with Fut and ending with C. The third section concludes and identifies theoretical implications and remaining issues.

2. Tł̨chǫ Yatıì. Tł̨chǫ Yatıì ([ǁɬʰĩ́.ʧʰṍ já.tʰîː], literally, ‘Dog-rib Speech’) is a language of the Dene (Athapaskan) family, spoken in a region between Great Bear and Great Slave lakes in the Northwest Territories. There are currently around 2,000 speakers (Statistics Canada 2011). It is endangered, though revitalization efforts are underway and have met with some success.

Like the rest of the Dene family, Tł̨chǫ Yatıì is an SOV language, head-marking and synthetic, with strongly head-final syntax. Verbs show agreement in person and number with both subject and object. Verbal morphology is overwhelmingly prefixing: a verb, therefore, consists of a stem at the right edge, to which are appended numerous prefixes, including markers of subject and object agreement, viewpoint and situation aspect, indicative or optative mode, and causative or passive morphology as well as incorporated nouns, adverbs, and postpositions. In addition, numerous verbs contain, as part of their lexical entry, prefixes, some derivational and some no longer independently analyzable, that are collectively referred to as “thematic” in the literature, just as a verb’s lexical entry is referred to as a “theme.”

5 The literature on Tł̨chǫ Yatıì typically refers to verb stems rather than verb roots. The distinction is largely etymological in this language: whereas in many other Dene languages, the verb stem consists of the root plus an aspectual/modal suffix, in Tł̨chǫ Yatıì these have coalesced, and the suffixes are no longer predictable, productive, or, in most cases, detectable except as patterns of vocalic or tonal ablaut. (Derivational suffixes exist, however, that create nouns and adverbs from verbs [Saxon 2000]. I do not consider these under verbal morphology.)

When a postposition is incorporated into the verb word, its complement is either the direct or the indirect object of the verb. For discussion and examples, see Ackroyd (1991:154–59).
The head-final nature of the syntax of Tłıcho Yatıì is apparent in (2), where quantifiers (2a) and adpositions (2b) follow nouns, complementizers follow verbs (2c), and matrix verbs follow their complement clauses (2d).6

(2) Tłıcho Yatıì’s head-final syntax

(2a) Łıwe ῥq ̀ gõhtì.  
fish lots exist  
‘There are lots of fish’.

(2b) Negolà Edzo gots’ ô natìa.  
Nicholas Edzo to THM-IPFV.3.SBJ-walk-IPFV  
‘Nick is walking to Edzo’.

(2c) Detà hayędì h ě gha natถอนèhja.  
de-tà ha-ye-Φ-dì ha gha  
REFL-father THM-4.OBJ-IPFV.3.SBJ-tell-IPFV FUT to  
nat-ียม-เrh-ja  
back-THM-IPFV.3.SBJ-run-IPFV  
‘He ran home to tell his dad’.

(2d) Asìì eyi t̓ts’ àadìì n̓ōgha h̓ót’e k’è-nez̓q?  
asìì eyi t̓ts’ àadìì n̓ōgha ha-1-t‘e  
if DEM animal wolverine THM-IPFV.3.SBJ-be-IPFV  
k’è-ne-zq  
THM-IPFV.2SG.SBJ-know-IPFV

 ‘Do you know if that animal is a wolverine?’ (ANON 2013)

The morphological breakdown of a typical verb appears in (3).7

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6 I use the following abbreviations in trees, glosses, and diagrams: AR = areal gender; EVID = evidential; Mod = Modal head; PROG = progressive; ASP = Aspect head; FOC = focus; NEG = negative; PROH = prohibitive;  C = complementizer; FUT = future; OBJ = object; QN = question; CLAS = classifier; I/INFL = inflectional head; OPT = optative; SBJ = subject; CONT = continuous; INC = inceptive; PFV = perfective; SG = singular; DU = dual; IPFV = imperfective; PL = plural; T = Tense head; EPI = epistemic; JUSS = jussive; PNS = possessed noun suffix; THM = thematic (lexical) affix.

The examples of Tłıcho Yatıì are presented in the practical orthography, which is phonemic. With the exception of those shown below, all letters have their IPA values save that those that represent voiced stops and affricates in English represent unaspirated voiceless ones in Tłıcho Yatıì. An apostrophe represents glottalization, an ogonek (ą) nasalization, and a grave accent (à) low tone. The mora (μ) that appears in some glosses is a nominalizer/relativizer (Saxon 2000); it is represented orthographically by a double vowel. The low-tone mora (μ̀) marks possessed/modified nouns (Wilhelm and Saxon 2010). The values of the remaining letters are as follows: ch = [ʧʰ]; j = [ʃ]; ts = [ʦʰ]; dl = [ɬ]; kw = [kʷʰ]; wh = [ʍ]; dz = [ʈɬ]; ʃh = [ʃ]; dz = [ɬ]; gw = [kʷ]; ɬt = [ʈɬʰ].

7 Morphological breakdowns in this paper are my own.
(3) **Natłseèchì.**

\[ na-	ext{tlq}-se-ê-∅-chi \]

back-dog-1SG.OBJ-PFV-3.SBJ-bring.PFV

‘Dogs brought me back’. (I.e., I came back by dogsled.) (TCSA 2007)

Here, working from the right edge leftward, we can see a stem, subject agreement (often null in the third person, as here), aspect marking (where the prefix è- is one instantiation of the combination of accomplishment situation aspect with perfective viewpoint aspect), object agreement, an incorporated noun (tlq ‘dog’), and an incorporated adverb (na- ‘back’). ⁸

### 3. Clause structure.

The following sections are devoted to detailing the syntactic structure of clauses. Based on the evidence in this paper, I propose figure 1 as a model for the Tłı̨chǫ clause.

Even if we grant that this model abstracts away from projections below Fut, and thus from verb morphology, the structure in figure 1 differs somewhat from Rice and Saxon’s (2005) model of the Dene-language clause (see figure 2), which does not include the projections Fut(ure), Mod(ality), Neg(ative), and Foc(us) that I posit below C(omplementizer).

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⁸ Although the distinction between viewpoint and situation aspect was first delineated nearly two decades ago (Smith 1997), the two are still occasionally confused in discussions of temporal categories. For a discussion of the interaction of the two kinds of aspect, with examples from the Dene language Slave (ISO code: den), a close relative of Tłı̨chǫ Yatıì, see Rice (2000:246–70).
These four projections also depart to a greater or lesser degree from standard Minimalist assumptions about clause structure. I justify them in 3.1–3.4 below, using evidence from word order and distribution.

Although the verb is the only obligatorily overt sentential constituent, and the constituent order is SOV, sentences in Tłı̨chǫ Yatı̀ are often not verb-final, as there are numerous post-verbal auxiliaries and particles marking categories such as futurity, modality, and evidentiality. It is these that I use to model clause structure and that I delineate in the next sections.
3.1. Future (Fut). Tłı̨chǫ Yatił shows an obligatory future/non-future distinction. Futurity is marked by the morpheme *ha*, which for some speakers has a reduced variant *-a*. This marker appears immediately to the right of the verb word, as in (4).11

(4) Future marker *ha*

(4a) *Sechı̀ dzọ̀ nį̀thla ekò ‘et’ı̀, ele-xè nàdú̀zè ha.*

se-chı̀ dzọ̀ nį̀-tla ekò ‘et’ı̀ term-PFV.3.SBJ-arrive.PFV when

‘As soon as my younger brother arrives, we’re going to go hunting together’. (MLBW 2012)

(4b) *Dżëtanık’e nè xàehtła ha.*

dżëtanı-k’e nè xà-e-h-tla- ha

afternoon-at when out-PFV.1SG.SBJ-go.PFV-FUT

‘I’m going to go out this afternoon’. (AW 2012)

Material cannot intervene between the verb and the future marker:

(5) Inseparability of verb and future marker

(5a) *Satsq nàhzè ha.*

satsq nà-h-zè ha

tomorrow term-PFV.1SG.SBJ-hunt.PFV FUT

‘I’m going to hunt tomorrow’.

(5b) *Satsq nàhzè ha sqon.*

satsq nà-h-zè ha sqon

tomorrow term-PFV.1SG.SBJ-hunt.PFV FUT DUB

‘Maybe I’m going to hunt tomorrow’.

9 As I argue elsewhere (Welch 2015), *ha* marks a relative future, that is, one that refers to an eventuality subsequent to a contextually determined time, which is generally the time of utterance but need not be, as evidenced by sentences like *Kwe ghiats’eeda ha ictionary ha* ‘it is that we were going to look at the rock’, where the combination of *ha* with the so-called past marker *ictionary* results in a past deontic interpretation, in which the eventuality of looking at the rock was to occur in a time subsequent to a contextually determined past time but not necessarily subsequent to the utterance time.

10 Ackroyd (1982:165–66) refers to this morpheme as an enclitic. Whether it is a full word, a clitic in the sense of Zwicky (1985), or simply an affix is a question beyond the scope of this paper, and the evidence is mixed: like a full phonological word, *ha* can bear stress (Jaker 2012:384) (and in the orthography of Tłı̨chǫ Yatił, it is written as a separate word), but it attaches only to the verb, has a reduced variant, and precedes all other post-verbal particles, like an affix.

11 In numbered examples, forms under discussion are shown in boldface.
(5c) *Satsǫ nàhzè sọnī ha.
satsǫ nà-h-zè sọnī ha
tomorrow THM-IPFV.1.SBJ-hunt/IPFV DUB FUT
Intended: ‘Maybe I’m going to hunt tomorrow’.

(5d) Dàanaà satsǫ nàhzè ha.
dàanaà satsǫ nà-h-zè ha
certainly tomorrow THM-IPFV.1.SBJ-hunt/IPFV FUT
‘Certainly I’m going to hunt tomorrow’.

(5e) *Satsǫ nàhzè dàanaà ha.
satsǫ nà-h-zè dàanaà ha
tomorrow THM-IPFV.1.SBJ-hunt/IPFV certainly FUT
Intended: ‘Certainly I’m going to hunt tomorrow’.

(5f) Ekwǫ’nìt dele t’à, satsǫ nàhzè ha.
ekwǫ nì-t-de t’à
caribou THM-IPFV.3.SBJ-arrive/IPFV because
satsǫ nà-h-zè ha

tomorrow THM-IPFV.1.SBJ-hunt/IPFV FUT
‘Because the caribou have arrived, I’m going to hunt tomorrow’.

(5g) *Satsǫ nàhzè ha ekwǫ nìt dele t’à ha.
satsǫ nà-h-zè ha
tomorrow THM-IPFV.1.SBJ-hunt/IPFV FUT
ekwǫ nì-t-de t’à ha
caribou THM-IPFV.3.SBJ-arrive/IPFV because FUT
Intended: ‘Because the caribou will have arrived, I’m going to hunt tomorrow.’ (MLBW 2013)

Therefore, this future marker, when it occurs, is always closer to the verb than any other post-verbal element. Unlike the English future will, it is obligatory for future readings. While (6a), (7a), and (8a) are grammatical sentences, the corresponding (b) sentences are not:

(6) Obligatoriness of ha for future interpretations

(6a) Sechı dzǫ nıtla nè, nàdı̀ı zè ha.
se-chı dzǫ nì∅-tła nè
1SG-younger.brother here back-IPFV.3.SBJ-arrive/IPFV when

nà∅-dì̀ı-zi nè ha
THM-IPFV-1.DU-hunt FUT
‘When my younger brother arrives here, we’re going to go hunting together’.

(6b) *Sechı dzǫ natlha nè, nàdı̀ı zè.
se-chı dzǫ na∅-tła nè
1SG-younger.brother here back-IPFV.3.SBJ-arrive/IPFV when
\(\text{clause structure in Tł̨ichǫ Yatì}\)

\textit{nà-∅-dùì-żè}
\textit{THM-IPFV-1.DU-hunt}

Intended: ‘When my younger brother arrives here, we’re hunting together’. (AW 2012)

(7) Obligatoriness of \textit{ha} for future interpretations

(7a) \textit{Satsǫ, sa nàʔà kwe t’iì, tàba ewaà k’èhtlo ha.}
\textit{satsǫ sa naʔà kwe t’u tàba ewaà}
tomorrow sun set before just shore sand
\textit{k’è-∅-h-tlo ha}
\textit{around-IPFV-1SG.SBJ-walk.FUT}

‘Just before sunset tomorrow, I’m going to walk along the beach’.

(7b) *\textit{Satsǫ, sa naʔà kwe t’iì, tàba ewaà k’èhtlo.}
\textit{satsǫ sa naʔà kwe t’u tàba ewaà}
tomorrow sun set before just shore sand
\textit{k’è-∅-h-tlo}
\textit{around-IPFV-1SG.SBJ-walk.IPFV}

Intended: ‘Just before sunset tomorrow, I’m walking along the beach’. (AW 2012)

(8) Obligatoriness of \textit{ha} for future interpretations

(8a) \textit{Indaà Dzadzéék’eè nè, k’omọqọdọqọ ọọtọ nịʔọ nè, dọ k’èè hànehtọ ha.}
\textit{indaà Dzadzéék’eè nè k’omọqọdọqọ ọọtọ nịʔọ nè}
next Monday when morning nine o’clock when
\textit{dọ k’èè hoghà-ne-∅-h-h-tọ}
\textit{people according.to THM-2SG.OBJ-IPFV-1SG.SBJ-CLAS-teach.IPFV}
\textit{ha FUT}

‘I’m going to teach you our language at nine o’clock next Monday’.

(8b) *\textit{Indaà Dzadzéek k’èè nè, k’omọqọdọqọ ọọtọ nịʔọ nè, dọ k’èè hànehtọ.}
\textit{indaà Dzadzéek k’èè nè k’omọqọdọqọ ọọtọ nịʔọ nè}
next Monday at when, morning nine o’clock when
\textit{dọ k’èè hoghà-ne-∅-h-h-tọ}
\textit{people according.to THM-2SG.OBJ-IPFV-1SG.SBJ-CLAS-teach.IPFV}

Intended: ‘I’m teaching you our language at nine o’clock next Monday’. (AW 2012)

\(^{12}\) Dọ k’èè ‘according to/in the way of the people’ and its cognates are common idiomatic ways of referring to Dene languages.
As the next sections demonstrate, *ha* occurs inside the modal auxiliaries, negation, and propositional focus. By the criteria discussed in 1.2—that is, obligatoriness and rigid position—we can declare it a functional projection (see figure 3).

### 3.2. Modals (Mod)

Besides the optative mode, marked inflectionally, there are also periphrastic modal markers, which occur in the right periphery of the clause. In a position immediately following the future marker, modality can be marked by two auxiliaries that are identical to, and derived from, third-person copular forms inflected for optative mode.

There are two of them: *welì*, an epistemic which yields clauses that assert possibilities, and *welè*, which has jussive or hortatory force: 13

(9) Epistemic modal *welì*

(9a) *Ekwǫ̀ ghọ̀ sègeze welì ahxọ.*

_Ekwǫ̀ ghọ̀ sègeze welì ahxọ_ caribou from THM-IPFV.3PL.SBJ-eat.İPFV EPI maybe

‘They might eat caribou’. (LM 2011)

(9b) *Mìshè Madlı̓̌e weđọ̌̌ elì welì.*

_Mìshè Madlı̓̌e we-dọ-μ ∅ -lì welì_ Michel Madeleine 3-husband-PNS IPFV.3.SBJ-be.İPFV EPI

‘Michel may be Madlı̓̌e’s husband’. (MS 2010)

(10) Jussive modal *welè*

(10a) *Amì sets’ọ̀ elà deʔìt sìt, eyaelì welè!*

_amì set-s’ọ̀ elà de-∅-ʔìt μ sìt_ who 1SG-belonging.to boat THM-IPFV.3.SBJ-steal.İPFV-NML FOC

_eyaelì welè_ eya-∅-lì welè

_sick-İPFV.3.SBJ-COP-İPFV Juss_

‘Whoever steals my boat, let him be sick!’ (MS 2010)

13 Notice that *welì* conveys diminished confidence in the proposition denoted by the clause (epistemic modality), while *welè* asserts the speaker’s preference for the truth of the proposition (deontic modality). The significance of this fact is discussed in 4 below.
(10b) *Amı̀ı wedžı̀ gòhlt̓̓ɬ sìì eèhk’w̓ q’ welè.
   amı̀ı we-dzìì gòh-l̓ t̓ -l̓ -mu sìì eèh-kw’q’
   who 3-ear AR.IPFV.3.SBJ-COP.IPFV-NML FOC IPFV.3.SBJ-hear.IPFV
   welè
   JUSS
   ‘Whoever has ears, let them hear’. (DTC 2003: Matthew 13:9)

These modal markers occur outside the future ha:

(11) Position of modals relative to future ha

(11a) Amı̀ı sets’q̓̓ elà deʔ̓ t̓ t̓ sìì, eyael̓� ha welè!
   amı̀ı se-ts’q̓̓ elà de-∅-ʔ̓ t̓ t̓ sìì
   who 1SG-belonging.to boat THM-IPFV.3.SBJ-steal.IPFV-NML FOC
   eya-∅-l̓ t̓ t̓ ha welè
   sick-IPFV.3.SBJ-COP.IPFV FUT JUSS
   ‘Whoever steals my boat, let him get sick!’ (MLBW 2013)

(11b) Zhah at’̓ t̓ ha we̓l̓ī.
   z̕ ah a-∅-t̓’t̓ ha we̓l̓ī
   snow THM-IPFV.3.SBJ.do.PROG FUT EPI
   ‘It might be going to snow’. (MLBW 2013)

(11c) *Amı̀ı sets’q̓̓ elà deʔ̓ t̓ t̓ sìì, eyael̓� we̓l̓̓̓ e̓l̓̓ ħa!
   amı̀ı se-ts’q̓̓ elà de-∅-ʔ̓ t̓ t̓ sìì
   who 1SG-belonging.to boat THM-IPFV.3.SBJ-steal.IPFV-NML FOC
   eya-∅-l̓ t̓ t̓ we̓l̓̓̓ e̓l̓̓ ħa
   sick-IPFV.3.SBJ-COP.IPFV JUSS FUT
   Intended: ‘Whoever steals my boat, let him get sick!’ (MLBW 2013)

(11d) *Zhah at’̓ t̓ we̓l̓ī ha.
   z̕ ah a-∅-t̓’t̓ we̓l̓ī ha
   snow THM-IPFV.3.SBJ.do.IPFV EPI FUT
   Intended: ‘It might be going to snow’. (MLBW 2013)

The modals have scope over ha as well. A jussive clause with welè expresses the preference of the speaker for a possible world in which the complement of welè is true. Thus (10a) expresses the speaker’s present preference for a world in which the thief is sick. The similar (11a) expresses not a future wish for such a world but a present wish for a world in which the thief will eventually be sick. That is, the world of the thief’s future sickness is the content of the wish, just as the FutP headed by ha is the semantic complement of the modal welè. The ungrammaticality of (11c) indicates,
in this head-final language, that the FutP is the syntactic complement of the modal as well (see figure 4).

### 3.3. Negation (Neg)
Negation is expressed by an enclitic particle, -le. It is clearly a clitic rather than an affix or an independent word: it cannot bear primary stress, and it can attach either to a verb stem (12a), the future ha (12b), or a modal auxiliary (12c and 12d). If more than one of these is present, it attaches to the highest:

(12) Negative marker -le  

(12a) Satsǫ nezǫ etle-le.  
    satsǫ ne-∅-z-μ  
    engine THM-IPFV.3.SBJ-be.good.IPFV-ADV IPFV.3.SBJ-work.IPFV-NEG  
    ‘The engine doesn’t work well’. (MLBW 2011)

(12b) Hanì-dè k’achì bebìa lats’ìt’e ha-le  
    hanì-dè k’achì bebìa la-ts’ìt’e ha-le  
    then again baby THM-IPFV.1PL.SBJ-be.IPFV FUT-NEG  
    ‘Then we will no longer be like infants...’ (DTC 2003: Ephesians 4:14)

(12c) Hagode welì-le.  
    ha-go-de welì-le  
    thus-AR.IPFV.3.SBJ-happen.IPFV EPI-NEG  
    ‘It might not happen’. (MLBW 2013)

(12d) Hagode welè-le!  
    ha-go-de welè-le  
    thus-AR.IPFV.3.SBJ-happen.IPFV JUSS-NEG  
    ‘May it not happen!’ (MLBW 2013)

It must occur after the highest of these; it cannot, for example, intervene between the future and a modal:
(13) Position of negation outside modality

(13a) *Hagode ha-weli-le.

\textit{hagode} ha-weli-le

\textit{thus-AR.IPFV.3.SBJ-happen.IPFV FUT EPI-NEG}

'It might not be going to happen.'

(13b) *Hagode ha-le weli.

\textit{hagode} ha-le weli

\textit{thus-AR.IPFV.3.SBJ-happen.IPFV FUT-NEG EPI}

(Intended: ‘It might not be going to happen.’) (MLBW 2013)

We can therefore represent it structurally as in figure 5. It cannot, however, attach to the so-called past marker \textit{t\l}, as we shall see.

3.4. Past: a red herring? This marker, \textit{t\l}, is identical to and derived from a perfective third-person copula. As I argue elsewhere (Welch 2015), it is not an instance of tense, for several reasons. First, it is not obligatory for past interpretations; these may be recovered from either the default interpretation of perfective verbs (14a), explicit temporal adverbials like \textit{x\j}x ‘yesterday’ (14b), or \textit{cheko eh\j} ‘when I was a boy’ (14c), or discourse context (14d, which occurs in a narrative with a past setting):

(14) Optionality of \textit{t\l}

(14a) Ehts\j ne\j z\j t\l-le.

\textit{ehts\j ne-∅-z\j-t\l-le}

\textit{grandmother THM-IPFV.3.SBJ-be.good.IPFV-ADV}

\textit{t-t\l-le}

\textit{PFV.3.SBJ-sleep.PFV-NEG}

‘Grandmother didn’t sleep well’. (MLBW 2013)
If tense is thought of as having an anchoring role, whereby it occurs in order to establish a necessary location of the event with respect to the utterance (Enç 1987; 1996, Ritter and Rosen 2009, and Ritter and Wiltshko 2005; 2010), we should not expect it to be optional in a clause. The English will, for independent reasons, is generally argued not to be an instance of tense (Abusch 1985; 1988; 1997 and Matthewson 2006). Combining this argument with an Ençian view of anchoring correctly predicts that will should be optional in clauses with future interpretation: if I intend to leave tomorrow, I can refer to this event by saying either I will leave tomorrow or I leave tomorrow. The English past markers (-ed, etc.), on the other hand, are obligatory for a past interpretation and are universally agreed to be true tense.

Another reason for rejecting īlē as a tense marker is that it can contribute more information than simple pastness or anteriority to a clause. It often yields a habitual interpretation, as in (15): the sentence in (15a) is ambiguous about whether it happened once or more than once, but (15b) is explicitly habitual (Archie Wedzin, personal communication, 2012):

(15) Habitual readings of īlē

(15a) Cheko ehtē ekō, sehtsēe xē nāhzē.
cheko h-ht ekō, se-ehtsēe xē
boy IPFV.1SG-SBJ be.IPFV when 1SG-grandfather with
nā-h-zē
THM-IPFV.3.SBJ hunt.IPFV

(15b) Cheko ehtē ekō, sehtsēe xē nāhzē.
cheko h-ht ekō, se-ehtsēe xē
boy IPFV.1SG-SBJ be.IPFV when 1SG-grandfather with
nā-h-zē
THM-IPFV.3.SBJ hunt.IPFV

‘When I was a boy, I was going hunting with my grandfather’. (AW 2012)
When I was a boy, I was going hunting with my grandfather'.

(15b) Cheko ehł ekò, sehtsèe xè nàhzè ćlè.

When I was a boy, I used to go hunting with my grandfather'.

Furthermore, while the negative -le follows ha, as demonstrated in 3.3 above, it must precede ćlè, as demonstrated below, indicating that negation occurs in an intervening position:

(16) Position of ćlè outside negation

(16a) Mishè nezzì nàzè-le ćlè.

Michel didn’t hunt well’. (MLBW 2011)

(16b) *Mishè nezzì nàzè ćlè-le.

Michel didn’t hunt well’. (MLBW 2013)

Finally, ćlè appears to have a somewhat flexible position with respect both to modal marking and to the clausal focus marker (of which more in 3.5). Normally, it occurs outside the modals (17a), but it is possible, though dispreferred, to place it inside (17b), with a different interpretation:

(17) Flexible position of ćlè with respect to modals

(17a) Sets’q elà dèʔì welè ćlè.

‘Let him/her not have stolen my boat.’

(17b)*Sets’q elà dèʔì ćlè welè.

‘He really had to steal my boat’. (MLBW 2013)
When ɨlè occurs inside the clausal focus marker ḥǫt’e, the anteriority of the situation described by the predicate is what is focused; i.e., the emphasis is on the past, not on the situation itself (18a). When ɨlè occurs outside ḥǫt’e (18b), the focus does not include the anteriority but only what lies inside the focus marker:

(18) Flexible position of ɨlè with respect to clausal focus

(18a) Kwe ḡhàts’eeda ɨlè ḥǫt’e.
    kwe  ḡhà-ts’ee-da  ɨlè  ḥǫt’e
    rock  TIM-IPFV.1PL.SBJ-look.IPFV  FUT  ɨlè  FOC

    ‘We were supposed to look at the rock’.

(18b) Kwe ḡhàts’eeda ḥǫt’e ɨlè.
    kwe  ḡhàts’eeda  ḥǫt’e  ɨlè
    rock  TIM-IPFV.1PL.SBJ-look.IPFV  FUT  FOC  ɨlè

    ‘We were supposed to look at the rock’. (I.e., we were planning to look at it [Mary Siemens, personal communication, 2013]) (MS 2007)

These properties of ɨlè contrast with those of widely agreed-upon instances of Tense, such as the English past. So in (19), past interpretations are not available in English without past marking (19a and 19b); the addition of past marking to a clause yields a past interpretation, not an explicit habitual (19c); future and past marking pattern alike with respect to negation (19d); and tense and modals such as must and might occur in a rigid order (19e and 19f).

(19) Obligatoriness of English past marking

(19a) *Yesterday I walk along the beach.
(19b) *All night he cry loudly.
(19c) I am/was going hunting with my grandfather.
(19d) I will/did not go.
(19e) I must/might have gone.
(19f) *I have must/might gone.

Based on asymmetries in obligatoriness, word order, and interaction with other categories, we can conclude that ɨlè is not an instance of Tense.

The question remains as to what exactly ɨlè is, if not a tense marker. Two possibilities are that it is an adjunctive temporal adverbial or that it is a matrix verb in a higher clause, on the order of ‘It was that Grandmother didn’t sleep well’ or ‘That Grandmother didn’t sleep well was the case’.

The latter possibility seems to be ruled out. ɨlè shows no paradigmatic variation: while its phonologically identical counterpart, the perfective third-person
copula, alternates with a full subject-agreement paradigm (neèlè ‘you (sg.) were’, etc.), tłè shows no such alternations when it occurs in post-verbal position as a past marker. While we might expect that such paradigmatic variation would be ruled out in any case in a copula with an expletive (or clausal) subject, there is in fact evidence that in another Dene language such variation is possible. In Dene Dzage (a.k.a. Kaska [ISO code: kkz]), spoken in northern British Columbia and southern Yukon, there are attested sentences where an inflected copula apparently takes a clausal complement, with both the matrix copula (unlè) and the verb of the embedded clause (gunyān) exhibiting the second-person subject marker n- in agreement with the embedded clause’s subject:

(20) “Łą /macroncomb́ gunyān unlè t’ē’, eslē’,” yéhdī.
really you’re smart you will be then, my dog,” she said to it.
‘Then she said to the squirrel, “Be really smart”’. 14 (Moore 1999:211)

In addition, the facts of negation seem to indicate that we cannot analyze tłè as a matrix verb. The minimal pair (16a and 16b) is unexpected: if tłè were a matrix verb, there should be no reason to bar its negation by a postposed -le like the negated verb tè ‘slept’ in (21a). In fact, however, such usage is ungrammatical, as in (21b), while adding the past marker to the negated verb is grammatical, as in (21c). By contrast, true instances of tłè as a matrix verb—in its use as a copula with a nominal complement—may indeed be negated like any other verb, as in (21d).

(21) Incompatibility of tłè with analysis as a matrix verb

(21a) Ehtsɪ nezɪ tlè-le.
grandmother THM-IPFV.3.SBJ past-neg
unlè PFV.3.SBJ-sleep.PFV
‘Grandmother didn’t sleep well’.

(21b)*Ehtsɪ nezɪ tlè tlè-le.
grandmother THM-IPFV.3.SBJ-be.good.PFV
unlè PFV.3.SBJ-sleep.PFV
‘Grandmother didn’t sleep well’.

14 The squirrel, being a pet/companion in this story, is addressed by the term for the default pet, ‘dog’.
For present purposes, then, I assume that ᵇᵉ is an adverbial with semantics similar to the English formerly and exclude it from our picture of the clausal functional heads. Its position in the right periphery of the clause is somewhat puzzling, however, compared with more canonical temporal adverbials, as in (22), which tend to occur clause-initially. ¹⁵

(22) Unusual position of ᵇᵉ compared to temporal adverbials

(22a) Whaₐ k’e gocho du nèk’e nàgᵊdè.
whaₐ k’ego-cho du nèk’e nà-gᵊ-dè
long.ago at 1PL-ancestor DEM land THM-PFV.3PL.SBJ-live.PFV
‘Long ago our ancestors lived on this land’. (MLBW 2013)

(22b) Ᵽxⱳ chọ ade ts’enwᵊ.
�xⱳ chọ a-∅-de ts’em-wᵊ
yesterday rain THM-IPFV.3.SBJ-occur.IPFW PFV.1PL.SBJ-think.PFV
‘Yesterday we thought it was going to rain’. (TCSA 2007)

(22c) Đu toò liwe ᵇᵊ gōhᵊlᵊ.
du toò liwe ᵇᵊ gōh-lᵊ
DEM night fish lots AR.IPFW.SBJ-COP.IPFW
‘Tonight there is lots of fish’. (MLBW 2013)

I intend to resolve this question in future work.

3.5. Clausal focus (Foc). The marker hᵊt’e is identical with a third-person imperfective copular form. It is evidently an independent word phonologically, as it can receive stress. Its cognates in the closely related language Slave have been described as “emphasis” (Rice 1989:1300–1301). It focuses the constituent immediately to its left. ¹⁶ When it occurs immedi-

¹⁵ Leslie Saxon (personal communication, 2013) reminds me that there are, in fact, other adverbials that occur in the right periphery, such as tahkọ/ahkọ ‘maybe’.

¹⁶ The label “clausal focus” is used not because it focuses a clause but because it occurs in the clausal domain, unlike the nominal focus particle ᵇᵊ.
ately post-verbally, it puts the truth of the proposition in focus, contrasting it with its opposite truth-value.17

(23) Clausal focus $hot'e$

(23a) Setà nàzè $hot'e$.

\[
\begin{array}{l}
\text{se-tà} \quad \text{nà-∅-zè} \quad \text{hot'e} \\
1\text{SG-father} \quad \text{THM-IPFV.3.SBJ-hunt-IPFV} \quad \text{FOC}
\end{array}
\]

‘My father hunts’/ ‘My father does hunt’.

(23b) Kòt’a seweè xè $elegòh't'e$ $hot'e$!

\[
\begin{array}{l}
kòt'a \quad \text{se-weè} \quad \text{xè} \quad \text{ele-go-h-t'e} \quad \text{hot'e}
\end{array}
\]

already 1SG-death with RECIP-IPFV.3.SBJ-be.same.IPV FOC

‘It’s all the same if I die!’ (Lit., ‘It’s already the same with my death’.)

(23c) Edì $hot'e$!

\[
\begin{array}{l}
edì \quad \text{hot'e}
\end{array}
\]

hot FOC

‘It is hot!’ (MS 2007)

It follows future and negation, consistent with a position c-commanding these functional heads:18

(24) Position of $hot'e$

(24a) Satsǫ dzętanı, Wekwèetì ts'ò dehtła $ha$ $hot'e$.

\[
\begin{array}{l}
satsǫ \quad \text{dzętanı,} \quad \text{Wekwèetì} \quad \text{ts'ò de-h-tła}
\end{array}
\]

tomorrow afternoon Wekwèetì to INC-IPFV.1SG.SBJ-go.

\[
\begin{array}{l}
ha \quad \text{hot'e}
\end{array}
\]

FUT FOC

‘Tomorrow at noon I will leave for Wekwèetì’.

(24b) Mishè mòla k'ëgë gode-le $hot'e$.

\[
\begin{array}{l}
mishè \quad \text{mòla} \quad \text{k'ëgë} \quad \text{go-∅-de-le}
\end{array}
\]

Michel French.person like THM-IPFV.3.SBJ-speak.IPV-NEG FOC

‘Michel isn’t speaking French’ (MLBW 2013)

17 Mary Siemens (personal communication, 2007) mentions that she has often heard this marker used by children when arguing (‘It is so!’) and by politicians making speeches (‘We’re doing it!’), suggesting that the opposite truth-value is being denied. Her focus intonation (and that of the other consultants as well) in the English translations is indicated by underlining. Note that in some sentences it is difficult to detect exactly how $hot'e$ affects the interpretation; the semantics of this marker need to be more fully explored.

See Rooth (1992) and Gawron (2004) for definitions and discussion of propositional focus, and Koch and Zimmermann (2010) for instantiations of operators in a Salishan language that are sensitive to it.

18 There are two particles glossed as foc in (24a). $sìì$ is a nominal focus marker; as this paper concerns the structure of the clause rather than the noun phrase, I do not investigate $sìì$ here.
Although we might expect it to be able to focus any part of a clause, and thus to have some flexibility in its position within that clause, in fact we find that this is not so. In a similar manner to what we saw to be true of the negative particle, hǫt’e, must occur after the verb, the future marker ha, or negation (25c), whichever is highest; it cannot intervene between the verb and the future (25b) or between the future and negation (25d): 19

(25) Rigidity of hǫt’e’s position

(25a) Satsq dzętanı, Wekwèetı̀ ts’ǫ dehtła ha hǫt’e.
     satsq dzętanı, Wekwèetı̀ ts’ǫ de-h-tła tomorrow afternoon Wekwèetı̀ to INC-IPFV.1SG.SBJ-GO.IPFW
     ha hǫt’e  
     FUT FOC

‘Tomorrow at noon I will leave for Wekwèetı̀’. 20

(25b) *Satsq dzętanı, Wekwèetı̀ ts’ǫ dehtla hǫt’e ha.
     satsq dzętanı, Wekwèetı̀ ts’ǫ de-h-tła tomorrow afternoon Wekwèetı̀ to INC-IPFV.1SG.SBJ-GO.IPFW
     hǫt’e ha
     FOC FUT

Intended: ‘Tomorrow at noon I will leave for Wekwèetı̀’.

(25c) Dzǫ nàhde-le hǫt’e.
     dzǫ nà-h-de-le  
     here THM-IPFV.1SG.SBJ-LIVE.IPFW-NEG FOC

‘I don’t live here’.

(25d) *Dzǫ nàhde hǫt’e-le.
     dzǫ nà-h-de  
     here THM-IPFV.1SG.SBJ-LIVE.IPFW FOC-NEG

Intended: ‘It’s not that I live here’. (MLBW 2013)

On the grounds of its rigid position, then, we can assign it to a functional head above negation (see figure 6). 21

The next section examines a set of discourse particles that occur in rigid clause-final position, arguing that they are instances of C.

3.6. Discourse particles and complementizers (C). There are four particles that all occur following any other post-verbal element and appear to be in complementary distribution both with each other and with

19 I have not been able to find or elicit examples of modals occurring with hǫt’e.
20 An idiomatic interpretation of (25a) is also available: ‘... I have to leave for Wekwèetı̀’.
21 Our other criterion for headship, obligatoriness, is difficult to test with respect to the focus marker, as syntactic material can also be focused by intonation, as in English.
complementizers. They do not seem to form a readily discernable semantic class, given that they include an epistemic modal, an evidential, a force/deontic marker, and a question marker. I refer to them collectively as discourse particles, following Saxon, O’Neill, and Van Vliet (2013).

The dubitative marker *sǫnı* conveys the speaker’s doubt or uncertainty that the proposition expressed by the clause is true:

(26) **Dubitative marker *sǫnı***

(26a) *Dǫ hànì gogede *sǫnı.*

 person thus **THM-IPFV.3PL.SBJ**-speak.IPFV **DUB**

‘Maybe people talk like that’. (MLBW 2013)

(26b) *Naıtla ha nì? — *sǫnı.*

 back **IPFV.2SG.SBJ**-go **FUT** **QN** **DUB**

‘Are you going?’ — ‘*Dunno*’. (MLBW 2013)

The evidential marker *nǫǫ* conveys the speaker’s possession or acquisition of evidence that the proposition is true rather than an absolute assertion of its truth. Thus the contexts for (27) were as follows: in (27a), the speaker may have been told that some people talk that way but has not actually heard them with her own ears, while in (27b), the speaker was about to fire in dim light at what he thought was a moose but then realized the shape was wrong—it was apparently a horse.22

22 These contexts were both created by me to elicit clauses containing *nǫǫ*; upon hearing the second one, the consultant burst out laughing, saying that the situation that I described had actually happened to him once!
(27) Evidential marker nǫǫ

(27a) Dọ hàńi gogede nǫǫ.
  dọ hàńi go-ge-de  nǫǫ
  person thus THM-IPFV.3PL.SBJ-speak.IPFV EVID
  ‘Apparently people talk that way’. (MLBW 2013)

(27b) Dedì wehk’è ha dehwhọ ịlẹ, hanìhọ tłtsọ hot’e nǫǫ.
  dedì weh-k’è  ha  de-h-wọ
  moose OPT.1SG.SBJ-shoot.OPT fut THM-IPFV.1SG.SBJ-want.IPFV
  ịlẹ hanìhọ tłtsọ ha-ị-t’e  nǫǫ
  ịlẹ but horse THM-IPFV.3.SBJ-COP.IPFV EVID
  ‘I wanted to shoot a moose, but it seemed it was a horse’. (AW 2012)

(28) Question marker nì

(28a) Gìghàda nì?
  gi-ghà-t-da  nì
  3PL.OBJ-THM-IPFV.2SG.SBJ-see.IPFV QN
  ‘Do you see them?’ (AW 2012)

(28b) Eyi nànedè nì?
  eyì nà-ne-dè  nì
  DEM THM-IPFV.2SG.SBJ-live.IPFV QN
  ‘Do you live there?’ (MLBW 2013)

Sọ̀ọ̀ is a prohibitive marker, conveying the speaker’s strong preference for a world in which the complement proposition is not true:

(29) Prohibitive marker sọ̀ọ̀

(29a) Dọ hàńi gogude sọ̀ọ̀!
  dọ hàńi go-gu-de  sọ̀ọ̀
  person thus THM-OPT.3PL.SBJ-speak.OPT PROHIB
  ‘Let people not talk that way!’ (MLBW 2013)

(29b) Eyi wedọ sọ̀ọ̀.
  eyì we-dọ  sọ̀ọ̀
  DEM OPT.3.SBJ-drink.OPT PROHIB
  ‘Make sure he doesn’t drink that’. (TCSA 2007)

All of these markers are barred from occurring before the clausal focus marker, hot’e:
(30) Position of discourse markers with respect to clausal focus

(30a) *Dọ hàní gogede ḥọt’e sọnì.
\[
\begin{array}{l}
dọ \quad \text{hànì \ go-ge-de} \\
person \text{ thus \ TM-IPFV.3PL.SBJ-speak.IPFV} \\
\end{array}
\quad \begin{array}{l}
\text{ḥọt’e} \\
\text{FOC} \\
\end{array}
\quad \begin{array}{l}
sọnì \\
\text{DUB} \\
\end{array}
\]
‘Maybe people do talk like that’.

(30b) *Dọ hàní gogede sọnì ḥọt’e.
\[
\begin{array}{l}
dọ \quad \text{hànì \ go-ge-de} \\
person \text{ thus \ TM-IPFV.3PL.SBJ-speak.IPFV} \\
\end{array}
\quad \begin{array}{l}
\text{sọnì} \\
\text{DUB} \\
\end{array}
\quad \begin{array}{l}
\text{ḥọt’e} \\
\text{FOC} \\
\end{array}
\]
Intended: ‘Maybe people talk like that’.

(30c) Dọ hàní gogede ḥọt’e nọ̀ọ.
\[
\begin{array}{l}
dọ \quad \text{hànì \ go-ge-de} \\
person \text{ thus \ TM-IPFV.3PL.SBJ-speak.IPFV} \\
\end{array}
\quad \begin{array}{l}
\text{ḥọt’e} \\
\text{FOC} \\
\end{array}
\quad \begin{array}{l}
nọ̀ọ \\
\text{EVID} \\
\end{array}
\]
‘It seems people do talk like that’.

(30d) ??Dọ hàní gogede nọ̀ọ ḥọt’e.
\[
\begin{array}{l}
dọ \quad \text{hànì \ go-ge-de} \\
person \text{ thus \ TM-IPFV.3PL.SBJ-speak.IPFV} \\
\end{array}
\quad \begin{array}{l}
nọ̀ọ \\
\text{EVID} \\
\end{array}
\quad \begin{array}{l}
\text{ḥọt’e} \\
\text{FOC} \\
\end{array}
\]
Intended: ‘It seems people talk like that’.

(30e) Eyì nànedè ḥọt’e nì?
\[
\begin{array}{l}
eyì \quad \text{nà-ne-dè} \\
\text{DEM \ TM-IPFV.2SG.SBJ-live.IPFV} \\
\end{array}
\quad \begin{array}{l}
\text{ḥọt’e} \\
\text{FOC} \\
\end{array}
\quad \begin{array}{l}
nì \\
\text{QN} \\
\end{array}
\]
‘Do you live there?’

(30f) *Eyì nànedè nì ḥọt’e?
\[
\begin{array}{l}
eyì \quad \text{nà-ne-dè} \\
\text{DEM \ TM-IPFV.2SG.SBJ-live.IPFV} \\
\end{array}
\quad \begin{array}{l}
nì \\
\text{QN} \\
\end{array}
\quad \begin{array}{l}
\text{ḥọt’e} \\
\text{FOC} \\
\end{array}
\]
Intended: ‘Do you live there?’

(30g) *Dọ hàní gogede sọ̀ọ ḥọt’e.
\[
\begin{array}{l}
dọ \quad \text{hànì \ go-ge-de} \\
person \text{ thus \ TM-IPFV.3PL.SBJ-speak.IPFV} \\
\end{array}
\quad \begin{array}{l}
sọ̀ọ \\
\text{PROHIB} \\
\end{array}
\quad \begin{array}{l}
\text{ḥọt’e} \\
\text{FOC} \\
\end{array}
\]
Intended: ‘Let people not talk like that’. (MLBW 2013)

Combinations of the discourse particles are ungrammatical. Note that some of the intended interpretations, such as (31b) and (31f), are semantically odd,

\[23\] The prohibitive sọ̀ọ also appears to be barred after ḥọt’e:

* Dọ hàní gogede ḥọt’e sọ̀ọ.
\[
\begin{array}{l}
dọ \quad \text{hànì \ go-ge-de} \\
person \text{ thus \ TM-IPFV.1PL.SBJ-speak.IPFV} \\
\end{array}
\quad \begin{array}{l}
\text{ḥọt’e} \\
\text{FOC} \\
\end{array}
\quad \begin{array}{l}
sọ̀ọ \\
\text{PROHIB} \\
\end{array}
\]
Intended: ‘Let people not talk like that’.

I do not have an explanation for this fact at present.
which in itself might well bar those combinations. Others, however, such as (31a) and (31d), have more semantically plausible intended interpretations but are nevertheless ungrammatical.

(31) Complementary distribution of discourse markers

(31a) *Dọ hàńi gogede sọq nị?

\[dọ \ hàńi \ \text{go-ge-de} \ \text{sọq} \ \text{nị?}\]

\text{person thus THM-IPFV.3PL.SBJ.speak.IPFV PROHIB QN}

Intended: ‘Should people not talk that way?’

(31b) *Dọ hàńi gogede nị sọq.

\[dọ \ hàńi \ \text{go-ge-de} \ \text{nị} \ \text{sọq}.\]

\text{person thus THM-IPFV.3PL.SBJ.speak.IPFV QN PROHIB}

Intended: ‘Let it not be questioned whether people talk that way’.

(31c) *Dọ hàńi gogede nọọ sọq.

\[dọ \ hàńi \ \text{go-ge-de} \ \text{nọọ} \ \text{sọq}.\]

\text{person thus THM-IPFV.3PL.SBJ.speak.IPFV EVID PROHIB}

Intended: ‘Let it not seem that people talk that way’.

(31d) *Dọ hàńi gogede sọq nọọ.

\[dọ \ hàńi \ \text{go-ge-de} \ \text{sọq} \ \text{nọọ}.\]

\text{person thus THM-IPFV.3PL.SBJ.speak.IPFV PROHIB EVID}

Intended: ‘Apparently people shouldn’t talk that way’.

(31e) *Dọ hàńi gogede nọọ nị?

\[dọ \ hàńi \ \text{go-ge-de} \ \text{nọọ} \ \text{nị}.\]

\text{person thus THM-IPFV.3PL.SBJ.speak.IPFV EVID QN}

Intended: ‘Do people apparently talk that way?’

(31f) *Dọ hàńi gogede nị nọọ?

\[dọ \ hàńi \ \text{go-ge-de} \ \text{nị} \ \text{nọọ}.\]

\text{person thus THM-IPFV.3PL.SBJ.speak.IPFV QN EVID}

Intended: ‘Apparently, do people talk that way?’ (MLBW 2013)

This fact leads me to believe that their co-occurrence is barred for syntactic rather than semantic reasons, and that they are members of the same category.

These particles occur in clause-final position, following all other post-verbal particles:

(32) Clause-final position of nọọ

(32a) Dọ hàńi gogede ha nọọ.

\[dọ \ hàńi \ \text{go-ge-de} \ \text{ha} \ \text{nọọ}.\]

\text{person thus THM-IPFV.3PL.SBJ.speak.IPFV FUT EVID}

‘Apparently people will talk that way’.
(32b) Dọ hùnì gogede welì nọ̀ọ́.
    dọ̀ hùnì go-ge-de welì nọ̀ọ́
    person thus THM-IPFV.3PL.SBJ-speak.IPFV EVID
    ‘Apparently people might talk that way’.

(32c) Dọ hùnì gogede-le nọ̀ọ́.
    dọ̀ hùnì go-ge-de-le nọ̀ọ́
    person thus THM-IPFV.3PL.SBJ-speak.IPFV-NEG EVID
    ‘Apparently people don’t talk that way’.
    (MLBW 2013)

(33) Clause-final position of sọ̀ọ́

(33a) Dọ yek’èezǫ welè sọ̀ọ́.
    dọ̀ ye-k’èe-∅-zǫ welè sọ̀ọ́
    person 3.OBJ-THM-IPFV.3.SBJ.know.IPFV JUSS PROHIB
    ‘Let people not know about it’.

(33b) Wenaahdì-le sọ̀ọ́!
    we-na-ah-dì-le sọ̀ọ́
    3.OBJ-THM-IPFV.2PL.SBJ-remember-NEG PROHIB
    ‘Don’t you (plural) forget it!’ (MLBW 2013)

(34) Clause-final position of nì

(34a) Naṭṭła ha nì?
    na-ṭṭła ha nì
    THM-IPFV.2SG.SBJ-go.IPFV FUT QN
    ‘Are you going?’ (repeated from 26b)

(34b) Naṭṭła welì nì?
    na-ṭṭła welì nì
    THM-IPFV.2SG.SBJ-go.IPFV EPI QN
    ‘Might you be going?’ (MLBW 2013)

(34c) Eyì nànedè hot’e nì?
    eyì nà-ne-dè hot’e nì
    DEM THM-IPFV.2SG.SBJ-live.IPFV FOC QN
    ‘Do you live there?’ (repeated from 30)

(35) Clause-final position of sọ̀ọ́

(35a) Seza gots’ātla ha sọ̀ọ́.
    se-za go-ts’ā-∅-tla ha sọ̀ọ́
    1SG-SON 1PL.OBJ-THM-IPFV.3.SBJ.visit.IPFV FUT DUB
    ‘Maybe my son will visit us’.

24 In (35b), the combination of the verb stem -wo, which occurs with singular or dual subjects, with the third-person plural subject agreement marker ge- yields an interpretation where the subject must be dual.
These particles also do not co-occur with complementizers. There are two ways of embedding complement clauses in Tłı̨chǫ Yatıì, illustrated in (36): ghá (36a), which introduces an embedded purposive clause, and simple concatenation without a complementizer morpheme (36b).

(36) Embedded clauses

(36a) Setà kawèehs̓ ghá natǫm̓eḥja.
se-tà ka-we-èeh-s̓ ghá 1SG-father THM-3.OBJ-IPFV.3.SBJ-tell.IPFV in.order.to
na-tomq̓-eh-ja
back-THM-PFV.1SG.SBJ-run.PFV
‘I ran back to tell my father’. (TCSA 2007)

(36b) Bebì k’ewehge newhǫ.
bebì k’e-weh-ge ne-h-w̓  baby around-OPT.1SG.SBJ-OPT.PFV THM-IPFV.1SG.SBJ-want.PFV
‘I want to pack the baby’. (Ackroyd 1982)

Clauses in which ghá co-occurs with discourse particles are ungrammatical: 25

(37) Complementary distribution of discourse markers and complementizer ghá

(37a) *Detà tśɔ ḥadi noq̓ ghá yetśɔ ek’èt’à natomq̓eja.
detà tśɔ ḥa-φ-di noq̓ ghá refl.-father to THM-IPFV.3.SBJ-tell.IPFV EVID in.order.to
ye-tśɔ ek’èt’à na-tomq̓-e-ja
4.OBJ-to back-back-THM-IPFV.3.SBJ-run.IPFV
Intended: ‘He ran back to him, apparently to tell his father’.

25 I do not at present have elicited sentences showing ghá and the discourse particles in the reverse order to be ungrammatical as well. However, such examples are unattested in the texts that I have (DTC 2003 and various traditional stories). Further fieldwork should settle this detail.
(37b) *Detà ts’ɔ hadı sönı gha natomoeja.
  de-tà  ts’ɔ  hadı-ɔ-di  sönı  gha
  REFL-father  to  THM-IPFV.3.SBJ-tell.ipfv  DUB  IN.ORDER.to
  na-tomq-e-ja
  back-THM-IPFV.3.SBJ-run.ipfv

  Intended: ‘He ran back, in order perhaps to tell his father’.

(37c) *Elàehwhı sòp̂ gha natomqehja.
  elà-eh-wı  sòp̂  gha
  THM-IPFV.1SG.SBJ-die.ipfv  PROHIB  IN.ORDER.to
  na-tomq-eh-ja
  back-THM-IPFV.1SG.SBJ-run.ipfv

  Intended: ‘I ran back so that I should not die’. (MLBW 2013)

The discourse particles can, however, occur in clauses embedded under matrix verbs without the presence of a complementizer, as in (38), where prohibitive sòp̂ (38a), dubitative sönı (38b), and evidential nǫǫ (38c) end clauses embedded under the verb ‘think’. This fact is further evidence of their complementary distribution with complementizers.

(38) Embedding of discourse markers under matrix verbs

(38a) Dọ naxỳghaγuʔa sòp̂ dehwhọ... 
  person  2PL.OBJ.3PL.SBJ.OPT-deceive  PROHIB  1SG.SBJ.think
  ‘I think that people had better not deceive you [pl]. . .’

(38b) Dọ xè naetłe sönı gùwọ. 
  people  with  3.SBJ.walking  DUB  3PL.SBJ.think
  ‘They thought that we were walking with the people’.

(38c) Sarayi gaʔu ekò ts’eko sì wèdaat’ı 
  Sarayi  3.OBJ.3PL.SBJ.saw  when  woman  very  3.beautiful
  nǫǫ  gùwọ. 
  EVID  3PL.SBJ.think
  ‘When they saw Sarayi they thought she was a very beautiful
  woman’. (Saxon, O’Neill, and Van Vliet 2013:11)

The complementary distribution of the discourse particles, their rigid position after all other post-verbal particles, and their semantic commonalities lead me to suggest that they are instantiations of a single functional head, which, because of their complementary distribution with complementizers, I propose is C (see figure 7), completing our picture of Tłı̨chǫ Yátu clause structure.
4. Conclusions and implications. The ordering relations among post-verbal elements enable us to determine the structure of the Tičho Yati right periphery—and, by extension, the clause—with considerable precision. There are several facts in particular that stand out as a result.

First among these facts is the existence of at least two positions in which markers of modality appear: a Modal projection above Fut, and a position at the head of the clause where a dubitative marker, apparently some kind of epistemic modal, alternates with other discourse particles and complementizers. Contrary to the predictions of numerous researchers, there appears to be no structural distinction between root modals (including deontic) and epistemic modals; we find markers of epistemic modality in both low (Mod) and high (C) positions, as well as finding both deontic and epistemic modals in the same low position (Mod). A question thus raised is whether other semantic distinctions exist corresponding to the structural distinction between Mod and C and, if so, what these distinctions are.

The past marker ḥe raises other questions. As remarked in 3.4 above, it is optional, unlike the future ḥa, and occurs in a different structural position.

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26 Structural distinctions between low (root) and high (epistemic) modals were postulated by Kratzer (1981; 1991) and Cinque (1999). For recent work on the topic, see Gergel (2009) and Hacquard (2009; 2010).

27 The morpheme I have glossed as evidential may also be an epistemic modal; the difference between epistemic modality and evidentiality is subtle. Even if one admits the possibility that markers of root modality (like the prohibitive sëtë) exist in a high structural position due to movement from a low position, the question remains how epistemic modals (like welë) exist in a low structural position, contrary to the predictions in the literature.
The latter fact could be reconciled with a view of tense that includes multiple heads, like Cinque’s (1999), which, intriguingly, includes a Past Tense head that c-commands the Future Tense head, as we might expect from the facts of linear order in Tłı̨chǫ Yatı̨w. On the other hand, the optionality of past tle and the obligatoriness of future ha strongly suggest that these are essentially different categories, unlike the past and future categories in the Romance languages upon which Cinque’s work is founded. The lack of paradigmatic variation we see in past-marking tle, and the fact that it cannot be negated by a postposed -le, imply that it is not a matrix copula. Viewing it as adjunctive, as I am inclined to do, introduces other challenges, however, since it occupies a place in the clause that is uncharacteristic of temporal adverbials. Deciding what tle truly is will require further investigation.

The facts of complementation also suggest at least one question. If, as it appears, the high-modal markers (evidential nǫǫ̀, prohibitive sǫ̀ ǫ̀, dubitative sǫ̀ ni, and question nì) are in complementary distribution with the complementizer gha, a question that naturally occurs is why this should be so. The sentences in (37) appear to have nothing wrong with them semantically: there is no semantic difficulty, for instance, with observing that someone has run back, and making an assumption or deduction about why, as in (37a) and (37b). This question is linked to a broader cross-linguistic one: why do we very often find modal and interrogative meanings associated with C and its specifier?28

Why is it, also, that the complementizer gha can embed the low modals but not the dubitative marker sǫ́ni, which also seems to be modal? The semantics of (39) are apparently the same, yet (39a) is grammatical and (39b) is not.

(39) Complementizers, modals, and dubitative

(39a) Ełàehwhı welè-le gha natǫmǫehja.
  elà-eh-wı welè-le gha
  THM-IPFV.1SG.SBJ-die.
  na-tǫmǫ-eh-ja
  back-THM-PFV.1SG.SBJ-run.

‘I ran back so that I should not die’. (MLBW 2013)

(39b) *Ełàehwhı sǫ̀ ǫ̀ gha natǫmǫehja.
  elà-eh-wı sǫ̀ gha
  THM-IPFV.1SG.SBJ-die.
  na-tǫmǫ-eh-ja
  back-THM-PFV.1SG.SBJ-run.

Intended: ‘I ran back so that I should not die’. (repeated from 37)

If semantics do not drive structure in cases like this, what does?

28 As, for example, English whether and if select irrealis clauses, which at a former stage of the language were subjunctive-marked.
The structure of the clause above Fut has cross-linguistic implications as well. It has been postulated that the structural location of negation varies across languages, being high in the clause structure in some and low in others (Ladd 1981 and Zanuttini 1991), while some languages allow both positions (Munshi and Bhatt 2010 and Haeberli 2011). Are other categories between T and C similarly parameterized? If so, is it mere coincidence that in some languages, low and high merge positions for modals seem to correspond to deontic and epistemic modality, since no such correspondence appears in Tłı̨chǫ Yatıì? Or is it possible that structural distinctions of this kind may map to semantic distinctions in some languages but not in others?

The mapping of Tłı̨chǫ Yatıì clause structure has thus raised several further questions, not only about the syntax and semantics of this language but also about their relationship in all languages.

REFERENCES

CLAUSE STRUCTURE IN TŁı̨CHǫ YATÌI


