

Differences between the *Wh*-Scope-Marking and *Wh*-Copy Constructions in Passamaquoddy

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Several phenomena in Passamaquoddy clearly distinguish *wh*-scope marking with ‘what’ from an apparently similar *wh*-copy construction. These facts argue for a theory of *wh*-scope marking like that in Bruening 2004 (based on Dayal 1994), where the embedded question is the syntactic and semantic restriction on the matrix *wh*-word ‘what’. The *wh*-copy construction, in contrast, is best analyzed as spelling out multiple copies of a long-distance movement chain. This copy theory is extended to scope marking with *tan* and comparatives in Passamaquoddy.

Keywords: *wh*-movement, partial movement, *wh*-copying, *wh*-scope marking, comparatives, Passamaquoddy, Algonquian

1 *Wh*-Scope Marking and *Wh*-Copying

In addition to long-distance *wh*-movement, many languages make use of what is known as *wh*-scope marking (sometimes called *partial movement*; Van Riemsdijk 1983). A long-distance question and its scope-marking counterpart in Passamaquoddy (Algonquian, Maine) are given for illustration in (1). In (1a), the contentful *wh*-phrase ‘when’ moves to the matrix Spec,CP. In (1b), it moves only as far as the embedded Spec,CP, while another *wh*-phrase—corresponding to English ‘what’—marks its scope as the matrix CP.¹

- (1) a. [_{CP} *Tayuwe* kt-itom-ups [_{CP} apc k-tol-i malsanikuwam-ok]]?
when 2-say-DUB again 2-there-go store-LOC
‘When did you say you’re going to go to the store?’

This article includes data from research supported by the National Science Foundation under grant BCS-0081003, by the Ken Hale Fellowship for Linguistic Field Research, and by the University of Delaware. Special thanks to the Passamaquoddy speakers who provided the data for this study: Anna Harnois, Stella Neptune, Wayne Newell, David Francis, and Dolly Dana. Thanks also to two anonymous *LI* reviewers and, especially, Philip LeSourd for valuable comments and criticism.

¹ Examples are given in the practical orthography in use in the Passamaquoddy community. Letters have their usual values except that *o* = schwa, *q* = [kʷ], *c* = alveopalatal affricate, ‘ = initial *h* (phonetic effect initially is aspiration of the following stop or tensing of *s*). Obstruents are voiced in many environments. Pitch accent is not marked.

Abbreviations: *3* = proximate third person; *3P* = proximate third person plural; *AN* = animate; *ANO* = animate object; *C* = complementizer; *CONJ* = conjunct inflection (subordinate clauses, *wh*-questions); *DIR* = direct voice; *DUB* = dubitative; *EMPH* = emphatic particle; *FUT* = future; *IC* = initial change (ablaut); *INAN* = inanimate; *INANO* = inanimate object; *INV* = inverse voice; *LOC* = locative; *OBV* = obviative third person; *OBVP* = obviative third person plural; *OBVS* = obviative stem marker; *N* = morpheme with several distinct functions; *NEG* = negative; *P* = plural; *PART* = participle agreement (head of relative clause or *wh*-phrase); *PERF* = preverb that usually has perfective or past tense interpretation; *PRET* = preterite; *QUOT* = quotative particle.

- b. [_{CP} *Keq* kt-itom-ups [_{CP} *tayuwe* apc k-tol-i malsanikuwam-ok]]?
 what 2-say-DUB when again 2-there-go store-Loc
 ‘When did you say you’re going to go to the store?’

In addition, some languages allow a *partial copy* or *wh-copy* construction like that in (1c), where a copy of the contentful *wh*-phrase appears in each of the matrix and the embedded Spec,CPs (Du Plessis 1977, Hiemstra 1986, McDaniel 1986).

- (1) c. [_{CP} *Tayuwe* kt-itom-ups [_{CP} *tayuwe* apc k-tol-i malsanikuwam-ok]]?
 when 2-say-DUB when again 2-there-go store-Loc
 ‘When did you say you’re going to go to the store?’

These constructions raise numerous issues (for a good overview, see the introduction to and the papers collected in Lutz, Müller, and von Stechow 2000). One is whether the contentful *wh*-phrase in the embedded Spec,CP in the scope-marking construction (1b) moves (at LF, for instance) to the matrix Spec,CP (e.g., Van Riemsdijk 1983, McDaniel 1989, Beck and Berman 2000, Fanselow and Mahajan 2000), or whether matrix scope is achieved in some other fashion (e.g., Dayal 1994, 2000, Lahiri 2002). On this issue, I argue elsewhere (Bruening 2004), with data from Passamaquoddy, that the scope-marking construction illustrated in (1b) does not involve movement from the embedded clause to the matrix. Instead, following Dayal (1994), there are two questions: the matrix ‘what’ questions the propositional complement of the matrix verb, while the embedded question acts as a restriction on the propositions that ‘what’ ranges over. The question is thus paraphrasable as ‘What proposition [in the form of an answer to the question “When are you going to the store?”] did you say?’, where the square brackets are the embedded restriction. (This analysis is commonly called the *indirect dependency* analysis, in contrast to the LF movement or *direct dependency* analysis.) Some of the arguments for this analysis are repeated below.

A question then arises with regard to the *wh-copy* construction in (1c). This could not possibly have the same analysis, as the matrix *wh*-phrase does not range over propositions, but over times. Does this mean that *wh-scope-marking* and *wh-copy* constructions are very different, with the latter involving, say, a full movement chain of some sort? Although some researchers have distinguished the two constructions, others have equated them, viewing them as fundamentally similar. They obey many of the same constraints in German, for instance (Fanselow and Mahajan (2000) give a good summary of these). They are also both sometimes produced and accepted by children acquiring English, although they are both absent from adult English (Thornton 1990, 1995, McDaniel, Chiu, and Maxfield 1995). The acquisition literature has accordingly tended not to distinguish the two constructions; that research has either viewed the two constructions as fundamentally similar (e.g., McDaniel, Chiu, and Maxfield 1995) or put one of them aside (e.g., Thornton 1995). Theoretical analyses have also been proposed that explicitly unify them (e.g., Hiemstra 1986).

This article has two purposes. The first is to argue that the *wh-scope-marking* and *wh-copy* constructions are distinct in Passamaquoddy, as Felser (2004) has argued for German. The *wh-scope-marking* construction in (1b), I will show, is best analyzed as described above, following Dayal (1994); the embedded *wh*-question forms the syntactic and semantic restriction on the

matrix *wh*-phrase ‘what’, and the embedded *wh*-phrase never moves to the matrix Spec,CP. In contrast, the *wh*-copy construction in (1c) is essentially identical to the long-distance movement chain in (1a), except that two copies of the *wh*-phrase are pronounced, as proposed by Fanselow and Mahajan (2000), Fanselow and Ćavar (2001), and Felser (2004). Several arguments will be given to establish that *wh*-copying differs from *wh*-scope marking in being treated as long-distance movement.

The second purpose of the article is to show that *wh*-scope-marking constructions never make use of the LF movement analysis, contra Bruening 2004. In that article, I argued that Passamaquoddy has two distinct *wh*-scope-marking constructions, the one illustrated in (1b), which has a Dayal-style analysis, and a second one using the *wh*-quantifier *tan* (examples below), which has an LF movement analysis. I argue here, however, that *tan* scope marking is actually the *wh*-copy construction, with nonequivalent copies spelled out in distinct positions of the movement chain (similar to what Felser (2004) proposes for German). The crosslinguistic conclusion is that there are two and only two constructions: a *wh*-scope-marking construction that has the Dayal-style analysis, and a *wh*-copy construction that involves spelling out multiple copies of a movement chain. There is no *wh*-scope-marking construction that involves LF movement to the matrix Spec,CP.

Section 2 describes the proposed analyses and summarizes the differences between the two constructions in German noted by Felser (2004).² Section 3 turns to the differences between the two constructions in Passamaquoddy. Several phenomena treat the *wh*-copy construction as equivalent to long-distance movement. *Wh*-scope marking, in contrast, is treated as distinct from long-distance movement, and patterns with questioning a proposition. Section 4 goes into more details of the analysis of the two constructions: *wh*-scope marking is Dayal’s indirect dependency, while *wh*-copying is spell-out of more than one copy of a full movement chain. Section 4.1 extends this analysis to *tan* scope marking in Passamaquoddy, showing that thinking of it as a *wh*-copy construction has numerous advantages. Section 4.2 shows how this analysis receives some empirical support from comparative (sub)deletion in Passamaquoddy.

2 Preliminaries

Before turning to Passamaquoddy, I briefly outline the two analyses I will be arguing for. *Wh*-scope marking is Dayal’s (1994) indirect dependency analysis, while *wh*-copying is a long-distance movement chain with multiple links pronounced. I also summarize some of the differences between the two constructions in German that point to these two distinct analyses.

2.1 The Analyses

Dayal (1994, 2000) treats the embedded *wh*-question in *wh*-scope marking as a semantic restriction on the scope marker ‘what’. Thus, ‘what’ in (2) ranges over sets of propositions (*keqsey* is a longer form of ‘what’ in free variation with *keq* in (1b)). The embedded question restricts that

² I am grateful to an anonymous *LI* reviewer for bringing this article to my attention.

set to propositions of a certain form, namely, the set denoted by the embedded question (answers to the question ‘Who did I dance with?’).

- (2) *Keqsey* Mali itom *wen* nil kisi-niskam-uk?
 what Mary say.3 who 1 PERF-dance.with.ANO-1CONJ
 ‘Who did Mary say I danced with?’

Syntactically, I argue in Bruening 2004, following Herburger (1994; as cited and discussed in Horvath 1997:fn. 16), that the *wh*-phrase ‘what’ and the embedded *wh*-phrase start out together as a constituent of type DP. Within the DP, the embedded *wh*-phrase undergoes *wh*-movement to form a question (within the CP complement of D). In the matrix clause, the head of the DP, ‘what’, splits away from its restriction and undergoes *wh*-movement to the matrix Spec,CP.³

- (3) $[_{CP} \text{ what } [_{IP} \text{ Mary say } [_{DP} t \text{ } [_{CP} \text{ who } [_{IP} \text{ I danced with } t]]]]]$


Some of the arguments for this analysis from Passamaquoddy are presented below. It should be contrasted with the direct dependency analysis, which claims that the matrix *wh*-phrase, ‘what’, is a semantically contentless scope marker that is replaced at LF by the embedded *wh*-phrase. At LF, then, in this analysis, a *wh*-scope-marking question is identical to the corresponding long-distance question. The Passamaquoddy data show that this is not the correct analysis: *wh*-scope marking patterns with questioning a propositional complement, and not with long-distance movement.

In contrast, the *wh*-copy construction *is* a long-distance movement chain and is treated as such by the grammar. Following Fanselow and Mahajan (2000), Fanselow and Ćavar (2001), and Felser (2004), I will analyze the *wh*-copy construction as long-distance movement, but with more than one link in the chain pronounced.

- (4) *Wen* Mali wewitaham-a-c-il *wen*
 who Mary (3)-remember.ANO-DIR-3CONJ-PARTOBV who
 kisi-niskam-uk?
 PERF-dance.with.ANO-1CONJ
 ‘Who does Mary remember I danced with?’

- (5) $[_{CP} \text{ who Mary remember } [_{CP} \text{ who I danced with } t]]]$


This movement chain is identical to the long-distance movement chain in (1a), except for one difference in pronunciation. This analysis then predicts that unlike *wh*-scope marking, *wh*-copying will be treated as identical to long-distance movement.

³ As discussed in Bruening 2004, this may involve remnant movement: first the modifying CP moves out of the DP, and then the remnant DP undergoes *wh*-movement.

2.2 German

As noted above, the *wh*-scope-marking and *wh*-copy constructions in German obey many of the same constraints, which has led numerous researchers to view them as instances of the same construction. However, Felser (2004) has recently argued that they are distinct. Some of her arguments are summarized here before we turn to Passamaquoddy, as they support the two analyses above.

Many speakers of German permit both *wh*-scope marking and *wh*-copying with declarative-embedding bridge verbs (all examples from Felser 2004).

- (6) a. *Was* glaubst du, *wovon* sie träumt?
 what believe you of.what she dreams
 ‘What do you believe that she dreams of?’
 b. *Wovon* glaubst du, *wovon* sie träumt?
 of.what believe you of.what she dreams
 ‘What do you believe that she dreams of?’

However, Felser shows that the two constructions are distinct in numerous ways. For one, *wh*-copying is grammatical with raising verbs, but *wh*-scope marking is not (Höhle 2000, Reis 2000).

- (7) a. **Was* scheint es, *wen* Hans geschlagen hat?
 what seems it who Hans hit has
 ‘Who does it seem that Hans has hit?’
 b. ?*Wen* scheint es, *wen* Hans geschlagen hat?
 who seems it who Hans hit has

This difference follows if *wh*-scope marking involves questioning the embedded clause itself, as described above; (7a) is ungrammatical for the same reason **What does it seem?* is (Case, for instance). *Wh*-copying, in contrast, is just like long-distance movement (*Who does it seem that Hans has hit?*).

Other differences include the fact that *wh*-scope marking but not *wh*-copying permits intermediate Spec,CPs to lack a *wh*-word (for some speakers); that *wh*-copying but not *wh*-scope marking can take place with verbs that embed only clauses and not also DPs; that *wh*-scope marking can be used with complex *wh*-phrases (like *which* phrases), but *wh*-copying cannot (see section 4.1); and that *wh*-scope marking can embed conjoined *wh*-clauses, while *wh*-copying cannot. There is one other difference that I believe argues for a Dayal-style indirect dependency analysis of *wh*-scope marking, and so I illustrate it here. This is that a pronoun referring to the question must be inanimate if *wh*-scope marking is used, but animate if *wh*-copying is used (this contrast was first noted by Hinrichs and Nakazawa (2000)).

- (8) a. *Was* Hans sagt, *wen* er verdächtigt, *das*/**den* habe ich überprüft.
 what Hans says who he suspects that/*him have I evaluated
 ‘I checked what Hans says as to whom he suspects.’

- b. *Wen* Hans sagt, *wen* er verdächtigt, **das/den* habe ich überprüft.
 who Hans says who he suspects *that/him have I evaluated
 'I checked the person who Hans says he suspects.'

This indicates that the *wh*-scope-marking question is a question over propositions, as in the Dayal-style analysis, and so is inanimate. The *wh*-copy question, in contrast, is a question over individuals, just like a long-distance question, and so is animate.

All of these differences enumerated by Felser indicate that *wh*-copying is distinct from *wh*-scope marking. Another consideration leading to this conclusion is that some languages have just one of the constructions, and not both (e.g., French has copying but not scope marking (Reis 2000), and Hindi has scope marking but not copying (Fanselow and Mahajan 2000)); if they were the same construction, we would expect any language that has one to have the other. Furthermore, Felser also argues that the best analysis of *wh*-scope marking in German is the Dayal-style indirect dependency analysis, as I argued in Bruening 2004 for Passamaquoddy. This is an important conclusion, since it was in German where the arguments for a direct dependency, LF movement analysis were the strongest (e.g., Beck and Berman 2000). If German turns out to be better analyzed as an indirect dependency, there is no impediment to the hypothesis that *wh*-scope marking is universally of the indirect dependency type.

With a view to crosslinguistic variation or uniformity, then, let us turn to Passamaquoddy. I will present several phenomena that indicate that in Passamaquoddy, just as in German, *wh*-copying is a different construction from *wh*-scope marking. *Wh*-copying is treated by these phenomena in the same way as long-distance movement. *Wh*-scope marking is not, and in fact it patterns in all cases with questioning a proposition. This follows if *wh*-scope marking has the Dayal-style indirect dependency analysis I argued for in Bruening 2004. I will then reexamine the *tan* scope-marking pattern argued in Bruening 2004 to instantiate the direct dependency, LF movement analysis of *wh*-scope marking, and argue instead that it is an instance of the *wh*-copy construction. This means that, universally, *wh*-scope marking is of the indirect dependency variety. There is no such thing as a *wh*-scope-marking construction distinct from *wh*-copying that has a direct dependency analysis.

3 Passamaquoddy

I will describe here two differences between *wh*-scope marking, as in (1b), and *wh*-copying, as in (1c), in Passamaquoddy. The first involves extraction across raising-to-object verbs. The second is found in a pattern of operator agreement. Both treat *wh*-copying in the same way as long-distance *wh*-movement, and treat *wh*-scope marking differently.

For details of the morphology of Passamaquoddy in questions of this form, see Bruening 2001, 2004.

3.1 Two Types of Wh-Scope Marking

In Bruening 2004, I investigate the type of *wh*-scope marking illustrated in (1b) and contrast it with another type of apparent *wh*-scope marking using the *wh*-quantifier *tan* (*WH*). Examples of

each appear in (9). The pattern with *tan* can be used only with what are called *relative root* questions: questions over arguments added to the verb by a preverb, known as a relative root (the verbal element is italicized; examples from Bruening 2004 are cited as *B* plus the example number).

- (9) a. *Keq* itom Pil [_{CP} *tan* 't-(o)li-nat-ama-n]?
 what say.3 Bill WH 3-thus-go.do-fish-N
 'How did Bill say he was going fishing?' (B (18a))
- b. *Tan* kt-oli-wewitaham-a-n [_{CP} *tan* '-tuci-molihkikona-ne-ss]?
 WH 2-thus-remember.ANO-DIR-N WH 3-X.extent-be.strong.3-N-DUB
 'How strong do you remember he was?' (B (3))

Both embedded questions in (9) are questions over relative root arguments: in (9a), manner is questioned using the most general preverb, *oli-*; in (9b), degrees of strength are questioned using the degree preverb *tuci-*. The *keq(sey)* scope-marking pattern in (9a) uses the inanimate *wh*-phrase *keq(sey)*; this is the *wh*-phrase used to question propositions. The *tan* scope-marking pattern instead uses *tan*, which questions relative roots; notice that the matrix verb is also marked with a relative root, an apparently contentless one, as it does not add anything like manner to the matrix verb. It appears to be there as some sort of default element to allow the question to range over arguments of the relative root type (see Bruening 2004 and section 4.1 below).

As stated above, I am arguing here that *wh*-scope marking with *keq(sey)* has the indirect dependency analysis proposed by Dayal (1994). In Bruening 2004, I hypothesized that the *tan* pattern involves LF movement of the embedded *wh*-phrase (plus relative root) to the matrix CP and that it was thus an instance of the direct dependency analysis. Below, I will argue that it is better understood as the *wh*-copy construction. I hypothesize that the *wh*-copy construction is a full movement chain, with more than one link in the chain spelled out. In *tan* scope marking, the two links are spelled out in slightly different ways.

If these are the right analyses of *wh*-scope marking and *wh*-copying, we expect that they should differ in whether they are treated like long-distance movement. *Wh*-scope marking should not be treated as a long-distance movement chain and should instead pattern with questioning of the propositional object of a clause-embedding verb. *Wh*-copying, and *tan* scope marking, should pattern like long-distance movement.

In Bruening 2004, I list several phenomena that treat the *tan* pattern like long-distance movement, but the *keq(sey)* pattern like questioning a proposition. Two of these phenomena are described below and applied to the *wh*-copy construction. The *wh*-copy construction is shown to pattern with *tan* scope marking in being treated like long-distance movement, and unlike *keq(sey)* scope marking.

3.2 *Difference 1: Raising-to-Object Verbs*

As described in Bruening 2001:chap. 5, 2004, Passamaquoddy possesses a series of clausal-complement-taking verbs that may agree with an NP from the lower clause. These verbs take two forms: one that is used with inanimate objects (INANO), and another that is used with animate

objects (ANO). The inanimate form simply takes a CP complement, and it is apparently the CP complement that agrees with the verb as an inanimate object (or the inanimate form is a default).

- (10) a. *Sesolahki = te mihqitahatomo-n* [_{CP} *eli keq Koluskap*
suddenly = EMPH (3)-recall.INANO-N C something Koluskap
kisi-mil-at-pon].
PERF-give-3CONJ-PRET
'All of a sudden he remembers that Koluskap has given him something.' (Mitchell 1976b:22)
- b. *Kat = te 'kocicihtu-w-on* [_{CP} *tan oc 't-oli-kisi-qsokassi-n*].
Neg = EMPH 3-know.INANO-NEG-N WH FUT 3-thus-able-cross-N
'He does not know how he is to get across.' (Mitchell 1976a:21)

The animate version of the verb, in contrast, agrees with one of the arguments of the lower clause, which is interpreted as topical or focused.

- (11) a. *N-kosiciy-a-k nuhuw-ok muwinuw-ok* [_{CP} *keq kis-tom-uhitit*].
1-know.ANO-DIR-3P three-3P bear-3P what PERF-eat.INANO-3PCONJ
'I know what the three bears ate.' (B (47a))
- b. *Ma = te k-wewitaham-ol-uh-pa* [_{CP} *kt-api-kotunkal-a-n-iyia*
NEG = EMPH 2-remember.ANO-1/2-NEG-2P 2-go.and.back-hunt.ANO-DIR-N-3P
kiluwaw Piyel otuhk].
2P Piyel deer.OBVP
'I don't remember if you and Piyel went to hunt deer.' (B (47b))

The agreeing NP may appear to the left of CP elements like the embedded *wh*-phrase *keq* in (11a), or in situ in the lower clause as in (11b). (On raising to object in other Algonquian languages, see Frantz 1978, 1980, Massam 1985, Dahlstrom 1991, Branigan and MacKenzie 2002.)

In long-distance *wh*-questions that cross raising-to-object verbs, the verb is required to agree with the moving *wh*-phrase (Branigan and MacKenzie 2002). It may not agree with some other NP (12b), in contrast with the embedded question in (11a), nor may it take the nonagreeing inanimate form (13b).

- (12) a. *Wen₁ kil piluwitaham-ot* [_{CP} *kisi-komutonom-uk t₁*]?
who 2 suspect.ANO-2CONJ PERF-rob.ANO-1CONJ
'Who do you suspect that I robbed?' (B (48a))
- b. **Wen₁ kil piluwitaham-iyin* [_{CP} *kisi-komutonom-uk t₁*]?
who 2 suspect.ANO-2/1CONJ PERF-rob.ANO-1CONJ
'Who do you suspect (of me) that I robbed?' (B (48b))
- (13) a. *Wen₁ mihqitaham-ot* [_{CP} *t₁ kisi-komutonomuw-at Piyel-ol*]?
who remember.ANO-2CONJ PERF-steal.from.ANO-3CONJ Piyel-OBV
'Who did you remember stole it from Piyel?' (B (49a))
- b. **Wen₁ mihqitahatom-on* [_{CP} *t₁ kisi-komutonomuw-at Piyel-ol*]?
who remember.INANO-2CONJ PERF-steal.from.ANO-3CONJ Piyel-OBV
'Who did you remember stole it from Piyel?' (B (49b))

Turning to *wh*-scope marking, the *keq(sey)* pattern is simply ungrammatical with the agreeing form of raising-to-object verbs.

- (14) *Keqsey piluwitaham-ot *wen* nemiy-at Piyel-ol?
 what suspect.ANO-2CONJ who IC.see.ANO-3CONJ Piyel-OBV
 ‘Who do you suspect saw Piyel?’ (B (50))

In (14), the animate form of ‘suspect’ agrees either with the embedded *wh*-phrase *wen* (which is independently possible) or with the embedded object *Piyel-ol*, which is also independently possible (the morphology only specifies a third person object). The sentence is ungrammatical, however. This is completely unexpected on a direct dependency analysis of *keq(sey)* scope marking: *keq(sey)* should be an expletive, inserted into the matrix CP and deleted at LF, while the embedded *wh*-phrase should move at LF to the matrix CP. In doing so, it should act just like the long-distance questions in (12)–(13) and *require* agreement with the *wh*-phrase taking matrix scope.

Keq(sey) scope marking *is* grammatical with raising-to-object verbs if they take their non-agreeing inanimate form.

- (15) Keqsey Tihtiyas wewitahato-k [CP *wen-il* mace-wici-yem-ku-n Sipayik]
 what Tihtiyas remember.INANO-3CONJ who-OBV start-with-go-INV-N Sipayik
 ‘Who does Tihtiyas remember went with her to Sipayik?’ (B (51))

In this way, scope marking with raising-to-object verbs patterns with extraction of the complement itself. Here also, the inanimate form must be used.

- (16) Keqsey wewitahatom-on?
 what remember.INANO-2CONJ
 ‘What do you remember?’ (B (52a))

This follows from the indirect dependency analysis, which treats *wh*-scope marking as questioning of a proposition. Propositions are uniformly inanimate in Passamaquoddy (they are questioned using the inanimate *wh*-word *keq(sey)*).

Turning now to the *wh*-copy construction, it *is* compatible with the animate form of a raising-to-object verb (17b), patterning just like the corresponding long-distance extraction (17a).

- (17) a. *Wen* Mali wewitaham-a-c-il eli
 who Mary (3)-remember.ANO-DIR-3CONJ-PARTOBV C
 kisi-niskam-uk?
 PERF-dance.with.ANO-1CONJ
 ‘Who does Mary remember I danced with?’
 b. *Wen* Mali wewitaham-a-c-il *wen*
 who Mary (3)-remember.ANO-DIR-3CONJ-PARTOBV who
 kisi-niskam-uk?
 PERF-dance.with.ANO-1CONJ
 ‘Who does Mary remember I danced with?’

The verb in both cases agrees with the *wh*-word that has crossed it. (I believe that *wh*-copying

is ungrammatical without the agreement, just like long-distance movement, but I do not yet have the relevant data.)

Wh-copying and *wh*-scope marking are distinct in Passamaquoddy, then: *wh*-copying acts just like long-distance movement, but *wh*-scope marking acts like questioning a proposition.

Tan scope marking is also grammatical with agreeing raising-to-object verbs, as shown in Bruening 2004.

- (18) *Tan kt-oli-wewitaham-a-n* [CP *tan tuci-molihkikona-n-ess*]?
 WH 2-thus-remember.ANO-DIR-N WH X.extent-be.strong.3-N-DUBPRET
 ‘How strong do you remember he was?’ (B (53))

The verb meaning ‘remember’ in (18) agrees with the embedded subject, a third person argument, as object. In this case, the verb is not agreeing with the *wh*-word, since relative root arguments may not agree as objects. Nevertheless, *tan* scope marking does not pattern like *keq(sey)* scope marking in being treated like questioning a proposition.

So *wh*-copying and *tan* scope marking pattern with long-distance movement and against *wh*-scope marking with *keq(sey)*. This follows from the distinct analyses proposed above: *tan* scope marking is an instance of the *wh*-copy construction, which involves spell-out of multiple links in a long-distance movement chain.⁴ *Keq(sey)* scope marking, in contrast, is questioning of a propositional complement, with no movement from the embedded clause to the matrix.

3.3 Difference 2: Operator Agreement

In Bruening 2004, I also argue that a pattern of agreement with moving operators diagnoses long-distance movement, whether it is overt or covert. This agreement, referred to as *participle endings*, optionally appears on verbs crossed by moving operators in *wh*-questions and relative clauses.

- (19) *Wen-ik₁ kisitahatom-on-ik* [CP *keti-naci-wikuwamkom-oc-ik t₁*]?
 who-3P decide.INANO-2CONJ-PART3P IC.FUT-go.do-visit.ANO-2CONJ-PART3P
 ‘Who (PL) did you decide to go visit?’ (B (62b))
- (20) *Wot nit pahtolias₁* [CP *Mali elitahasi-c-il* [CP *eli wen*
 this that priest Mary IC.think-3CONJ-PARTOBV C someone
kisi-komutonom-ac-il t₁]].
 PERF-rob.ANO-3CONJ-PARTOBV
 ‘This is the priest that Mary thinks someone robbed.’ (B (59))

It also appears on verbs that are within the scope of an element that has not actually moved on the surface. These cases appear to involve LF movement. They include internally headed relative clauses (21) and focus (22).

⁴ Since relative root arguments may not agree as objects, I assume that a long-distance chain involving a relative root is exempt from whatever constraint forces agreement with a moving *wh*-phrase in raising to object. This frees up the raising verb to agree with some other NP.

- (21) Not nit [_{CP} elitahasi-c-il [_{CP} kisi-pson-ac-il
that.AN that IC.think-3CONJ-PARTOBV PERF-catch.ANO-3CONJ-PARTOBV
otuhk-ol]].
deer-OBV
'This is the deer that he thought he was going to catch.' (B (69))
- (22) *Tehpu* kisi-wicuhkem-uk-il Piyel [*kespahl-ac-il*
only PERF-help.ANO-1CONJ-PARTOBV Piyel IC.wash.ANO-3CONJ-PARTOBV
'-temis-ol].
3-dog-OBV
'I only helped Piyel wash HIS DOG.' (B (82a))

In (21), the head of the relative clause remains in its argument position in the lower clause. Nevertheless, both verbs may agree with it as a moving operator. In (22), the focused phrase takes scope at the position of *tehpū* 'only', a particle that associates with focus, but it does not occur there on the surface. In Bruening 2004, I argue that the simplest analysis of both phenomena is LF movement: in (21), the head of the relative clause moves at LF to the highest position of the relative clause (Spec,CP, say), and in (22), the focused phrase moves at LF to its scope position. In both cases, operator agreement can agree with the moving operator, even though its movement is covert.

Operator agreement, then, can diagnose long-distance movement, even if it has not occurred on the surface. Significantly, it cannot appear on the matrix verb in the *keq(sey)* type of scope marking.

- (23) a. *Keqsey tepitahatom-on* [_{CP} *wen-ih_i*
what think.INANO-2CONJ who-OBVP
ketuw-ewestuwam-ac-ih_i *t₁*?
IC.FUT-talk.to.ANO-3CONJ-PARTOBVP
'Who all do you think he'll talk to?' (B (90a))
- b. **Keqsey tepitahatom-on-ik* [_{CP} *wen-ih_i*
what think.INANO-2CONJ-PART3P who-OBVP
ketuw-ewestuwam-ac-ih_i *t₁*?
IC.FUT-talk.to.ANO-3CONJ-PARTOBVP
'Who all do you think he'll talk to?' (B (90b))

Compare the possibility of participle agreement with this embedding verb with long-distance movement.

- (24) *Wen-ih_i* *tepitaham-oc-ik* [_{CP} *ketuw-ewestuwam-ac-ih_i* *t₁*?
who-OBVP think.ANO-2CONJ-PART3P IC.FUT-talk.to-3CONJ-PARTOBVP
'Who all do you think he'll talk to?' (B (91))

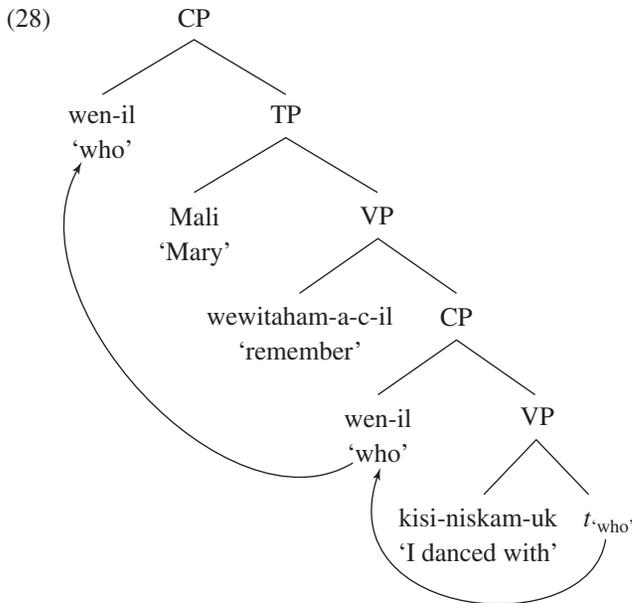
The contrast between (24) and (23b) indicates that covert movement of the embedded *wh*-phrase does not take place in (23). If it did, then just as in the long-distance movement case in (24), the moving *wh*-phrase should be able to trigger participle agreement on the higher verb.

4 The *Wh*-Copy Construction

The analysis of the *wh*-scope-marking pattern with *keq(sey)* that I am arguing for was spelled out above, and in Bruening 2004. Universally, I am arguing, *wh*-scope marking has Dayal's (1994) indirect dependency analysis, where the question ranges over propositions of a particular form. I turn in this section to the analysis of *wh*-copying and its particular realization in *tan* scope marking in Passamaquoddy.

The simplest theory of the *wh*-copy construction, it appears to me, is one where the two *wh*-phrases are simply pronounced copies of the same movement chain. In other words, the *wh*-copy construction is identical to long-distance movement, except that two (or more) copies of the *wh*-phrase are pronounced rather than one (Fanselow and Mahajan 2000, Fanselow and Ćavar 2001; cf. Hiemstra 1986).⁶ Obviously, more questions arise—such as why it is only the copies in Spec,CP that are pronounced (and not those in argument position), and why this double pronunciation is allowed in some languages (and in child English) but not in others—but these are questions I will not attempt to answer here. See Fanselow and Ćavar 2001 and Felser 2004 for discussion of these issues.⁷

The structure I propose for a *wh*-copy construction like that in (26), then, is shown in (28).



⁶ Some anecdotal evidence for this comes from the circumstances surrounding elicitation of the example in (1c). Two speakers I was working with produced the long-distance version in (1a). I asked if the same question could be formed as (1c). One speaker assented. The other also nodded, and then said, "Some people are repeaters." In other words, (1c) is equivalent to (1a), but with a word repeated, exactly as in this theory.

⁷ Felser (2004) suggests that languages that have split *wh*-phrases, like the *was-für* split in German (see below), will allow *wh*-copying. Passamaquoddy is consistent with this claim, since it allows a broad class of split quantifier-restriction constructions (see Bruening 2001, 2004).

The *wh*-phrase ‘who’ undergoes successive-cyclic *wh*-movement from its argument position first to the embedded Spec,CP, and then on to the matrix Spec,CP. Assuming the copy theory of movement (Chomsky 1993), the two pronounced copies of ‘who’ are the links of the chain that occur in Spec,CP. (I use t_{who} to indicate an unpronounced copy in this tree.)

An alternative proposed by Thornton (1990) is based on Rizzi’s (1990) idea that successive-cyclic movement through CP requires agreement with the complementizer in C^0 . Thornton proposes that the medial copy in *wh*-copying is a spell-out of the agreeing complementizer, not a copy of the *wh*-phrase. As support, Thornton points to parallels between the *wh*-phrases that can be copied and those that appear in free relatives (or even as complementizers under subject extraction, as in French). One reason to believe that this is not correct is that the parallel breaks down in Passamaquoddy: *tayuwe* ‘when’ in (1) is used only in questions, and *never* in free relatives (or as a complementizer). A second reason comes from the pair of examples in (17), repeated here.

- (29) a. Wen Mali wewitaham-a-c-il *eli* kisi-niskam-uk?
 who Mary (3)-remember-DIR-3CONJ-PARTOBV C PERF-dance.with-1CONJ
 ‘Who does Mary remember I danced with?’
 b. Wen Mali wewitaham-a-c-il *wen* kisi-niskam-uk?
 who Mary (3)-remember-DIR-3CONJ-PARTOBV who PERF-dance.with-1CONJ
 ‘Who does Mary remember I danced with?’

The complementizer *eli* is in complementary distribution with *wh*-phrases. The fact that it can be extracted across must mean, in Rizzi’s theory, that it agrees with a moving *wh*-phrase. If this is so, then Passamaquoddy has a multiplicity of agreeing complementizers: ones that look exactly like the complete set of *wh*-phrases, plus *eli*. Even ignoring the duplication of all *wh*-forms as complementizers, the complementarity of *eli* and *wh*-phrases that is evident in (29) would not have a uniform explanation in this theory. *Eli* would be in complementary distribution with copies of the moving *wh*-phrase in the *wh*-copy construction because only one complementizer can be spelled out; but it would be in complementary distribution with *wh*-phrases in embedded questions (not shown here) because, I suppose, of something like the Doubly Filled Comp Filter. This theory, then, multiplies lexical items and explanations. In the spelled-out-trace theory, in contrast, there is no set of agreeing complementizers that happen to be identical to *wh*-phrases; there are only *wh*-phrases. And the complementizer is in complementary distribution with embedded *wh*-phrases because they are all embedded *wh*-phrases, either the head of a chain (embedded questions) or an intermediate link in a chain (*wh*-copying). This theory has the virtue of simplicity and unity. (German examples like (34b) below would also be difficult for the agreeing-complementizer theory to account for. See also Felser 2004 for additional arguments against the agreeing-complementizer theory.)

The right theory of *wh*-copying, then, is pronunciation of more than one link in a long-distance movement chain. I now turn to the *tan* pattern of scope marking and show that it can

be analyzed as the same construction, given some striking parallels between it and *wh*-copying in German.

4.1 *Tan Scope Marking*

Relative root questions in Passamaquoddy were discussed briefly above. These are questions that quantify over an argument added by a preverb, as in (30). In Passamaquoddy, many kinds of adjuncts require the addition of a preverb to the verb. In (30a), a locative can only appear in a sentence with the addition of the preverb *toli-*; this same preverb must be present to question a location, as in (30b).⁸

- (30) a. N-qecimul-ku-n Tolitoli [_{CP} n-*toli*-nomiy-a-n *Malikons-ok*].
 1-ask.ANO-INV-N Tolitoli 1-there-see.ANO-DIR-N Mulligan's-LOC
 'Tolitoli asked me to meet her at Mulligan's.' (B (10a))
- b. Keqsey kisi-qecimul-osk Tolitoli [_{CP} *tama* k-*toli*-nomiy-a-n]?
 what PERF-ask.ANO-2CONJINV Tolitoli where 2-there-see-ANO-DIR-N
 'Where did Tolitoli ask you to meet her?' (B (10b))

In order to question one of these oblique arguments long-distance, either *wh*-scope marking must be used, as in (30b), or a semantically contentless preverb of the same sort has to be added to the higher verb, as in (31b).

- (31) a. **Tama* 'kolahmuw-a-n 't-us-ol 't-*otoli*-nomiy-a-n Piyel-ol?
 where 3-forbid-DIR-N 3-daughter-OBV 3-there-see-DIR-N Piyel-OBV
 'Where did he forbid his daughter to see Piyel?' (B (11a))
- b. *Tama* 't-*otoli*-kolahmuw-a-n 't-us-ol 't-*otoli*-nomiy-a-n Piyel-ol?
 where 3-there-forbid-DIR-N 3-daughter-OBV 3-there-see-DIR-N Piyel-OBV
 'Where did he forbid his daughter to see Piyel?' (B (11b))

The long-distance pattern in (31b) is restricted to the locative *wh*-phrase *tama*, however. Of more general applicability is the *tan* type of scope marking introduced above, and illustrated again in (32). In this pattern, the scope marker is not 'what', but a quantifier *tan* that appears with various types of relative roots and in free relatives (see Bruening 2004). The higher verb must also have a semantically empty relative root, usually the most general one, *oli-*, usually glossed 'thus' (in (32b), *oli-* (*eli-* after initial change) is a lexical part of the verb 'think').

- (32) a. *Tan* kt-*oli*-wewitaham-a-n [_{CP} *tan* *tuci*-molihkikona-ne-ss]?
 WH 2-thus-remember.ANO-DIR-N WH X.extent-be.strong.3-N-DUB
 'How strong do you remember he was?'

⁸ Speakers sometimes produce and accept declarative sentences with locatives without a preverb, but reject interrogatives without one.

- b. *Tan elitahasi-yin* [_{CP} *tan* 'kehsi-n nemiy-oc-ik apiqsehsuw-ok]?
 WH IC.think-2CONJ WH 3-X.many-N IC.see-2CONJ-3P rat-3P
 'How many rats do you think you saw?'

In Bruening 2004, I argued that the pattern in (32) is a type of scope marking, but distinct from the pattern seen above with 'what'. In these questions, there is evidence of movement of the lower *wh*-phrase (which in the earlier article I took to be LF movement), namely, the ability of the matrix verb to agree with it as an operator. This is illustrated in (33), repeated from (25).

- (33) a. *Tan elitahasi-yin-ik* [_{CP} *tan* 'kehsi-n nemiy-oc-ik
 WH IC.think-2CONJ-PART3P WH 3-X.many-N IC.see.ANO-2CONJ-PART3P
apiqsehsuw-ok?
 rat-3P
 'How many rats do you think you saw?' (B (97a))
- b. *Tan elitahasi-c-ih* psi = te wen [_{CP} *tan* 'kehsi-n
 WH IC.think-3CONJ-PARTOBVP all = EMPH someone WH 3-X.many-N
apiqsehsu nemiy-ac-ih?
 rat.OBVP IC.see.ANO-3CONJ-PARTOBVP
 'How many rats does everyone think he saw?' (B (97b))

Recall from above that agreement is impossible in the *keq(sey)* scope-marking construction, indicating that the embedded *wh*-phrase does not move through the matrix clause in that construction.

However, given the findings above, another analysis of these questions suggests itself: perhaps these questions are the same *wh*-copy construction, with both positions of the *wh*-phrase spelled out. Only now they are spelled out unequally: the lowest copy is spelled out fully, while the higher copy is spelled out in a more minimal way.

One reason to think that this is the right analysis is that the construction resembles the *wh*-copy construction in German in how it handles complex *wh*-phrases. For most speakers of German, Fanselow and Čavar (2001) show, the higher copy must be simplex, but the lower copy can be quite complex.

- (34) a. **Wessen Studenten* denkst du *wessen Studenten* wir kennen?
 whose student think you whose student we know
 'Whose student do you think that we know?'
- b. *Wen* denkst du *wen von den Studenten* man einladen sollte?
 who think you who of the students one invite should
 'Which of the students do you think that one should invite?'

A 'which' phrase cannot appear in the *wh*-copy construction, but complex *wh*-phrases like *wen von den Studenten* 'who of the students' can. But the higher copy is not the full phrase; it is only 'who'. Fanselow and Čavar (2001) suggest that the higher copy here (and in all *wh*-copy constructions) is a spell-out of just the formal features of the *wh*-phrase, while the lower copy is the full, contentful one. They develop an Optimality Theory analysis of pronunciation of copies

that derives this pattern in German. In a related proposal, Felser (2004) suggests that the *wh*-copy construction is an instance of the *was-für* split in German, where the quantifier part of a *wh*-phrase splits away from its restriction. Examples like (34b), as well as the following one, also from Fanselow and Čavar 2001, strongly resemble the *was-für* split:

- (35) *Wieviel* sagst du *wieviel* *Schweine* ihr habt?
 how.many say you how.many pigs you have
 'How many pigs do you say that you have?'

Felser also shows that the *wh*-copy construction suffers the same intervention effects as the *was-für* split (see Obenauer 1984, Rizzi 1990, Beck 1996, Pesetsky 2000) and argues that they are both instances of a quantifier being separated from its restriction.

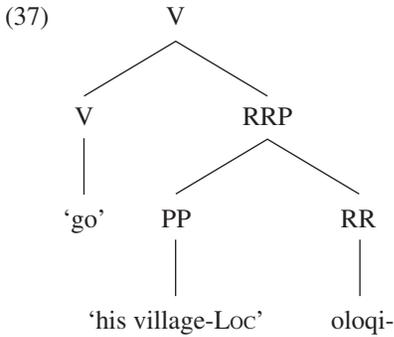
The important thing here is the striking parallel between German and the *tan* scope-marking pattern in Passamaquoddy. In both cases, the higher copy is minimal and underspecified (the relative root in Passamaquoddy is the most general or least specific), while the lower copy is where the semantic content is pronounced. This parallelism is captured by the suggestion that the *tan* scope-marking pattern is the *wh*-copy construction.

In addition, analyzing the *tan* scope-marking pattern as the *wh*-copy construction permits a solution to a constituency problem that arises in the LF movement theory. One question for any analysis of the pattern in (32) concerns constituency and movement in Passamaquoddy. How can a morpheme on the verb move, together with a separate quantifier (*tan*), in questions like (32a)? The quantifier *tan* and the preverb *tuci-* do not appear to be a phrasal constituent, since they can be and frequently are separated by other material. Yet the semantics of the question require the preverb *tuci-* that is located in the lower clause on the surface to get together with the *wh*-quantifier *tan* in the matrix Spec,CP. On the LF movement analysis, it is unclear how the preverb would move through the higher clause, and what exactly the semantically contentless relative root in the higher clause does to facilitate this movement. If *tuci-* were to replace the scope-marking relative root in the higher clause, it would be combining with the wrong verb. The position where the contentless relative root occurs is *not* where we want to interpret the contentful relative root; the contentful one needs to occur with the *wh*-quantifier *tan*. But then what is the contentless relative root doing in the sentence at all?

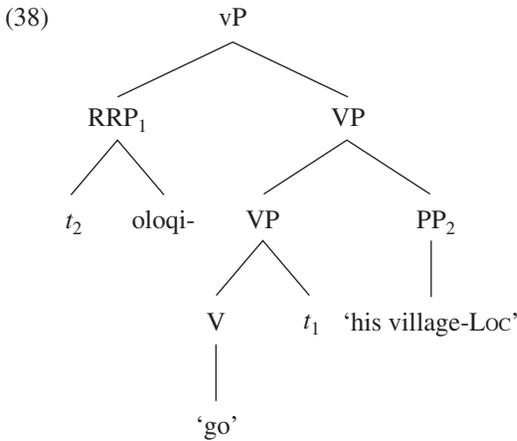
In Bruening 2001:chap. 3, I argue that, despite appearances, *tan* plus the preverb is in fact a constituent. In general, oblique arguments added by relative roots are low, c-commanded by all other arguments. C-command tests like variable binding confirm this.

- (36) On yatte wen 't-*oloqi*-ya-n 't-*utene*-k.
 then each who 3-toward-go-N 3-village-Loc
 'Then each one₁ goes toward his₁ own village.' (Mitchell 1976b:18)

Arguments of verbs can bind into relative root arguments, but not vice versa. Given these c-command data, I suggest in Bruening 2001:chap. 3 that relative roots (RRs) are added to the argument structure of a verb in a low position, as a constituent (RRP) with their argument, as shown in (37).



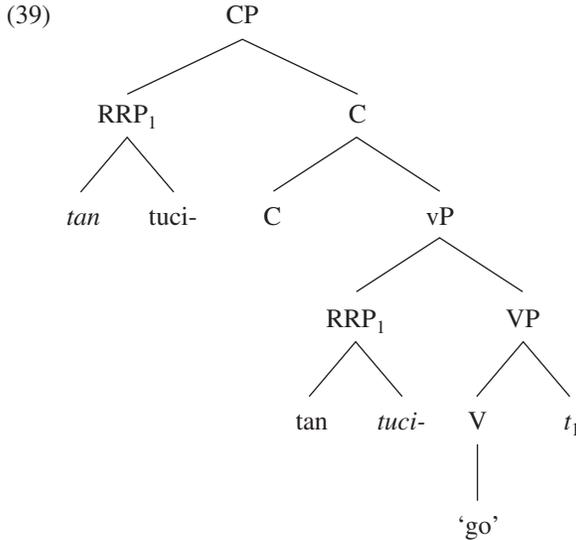
If the NP/PP argument is heavy phonologically (not a demonstrative, simple quantifier, or pronoun), it will move away and adjoin somewhere else in the clause (VP, say). The relative root phrase will then move to a preverbal position, carrying the NP argument if it is some sort of pronoun, stranding it if it is a heavy NP (full NPs generally come after the verb, while pronouns, quantifiers, and demonstratives come immediately before the preverb). Adopting Chomsky's (2000, 2001) phase theory of movement, I suggest that the preverbal position the relative root phrase moves to is the vP phase edge, as shown in (38). (I omit the subject for simplicity.)



From this position, the relative root head will attach phonologically to the verb stem, giving the word order in (36).⁹

⁹ The initial prefix in (36) comes outside all verbal material, including preverbs, even ones that are separated from the rest of the verb by some other constituent. This prefix has often been argued to be a clitic and is frequently suggested to reside in C⁰. See, for example, Halle and Marantz 1993.

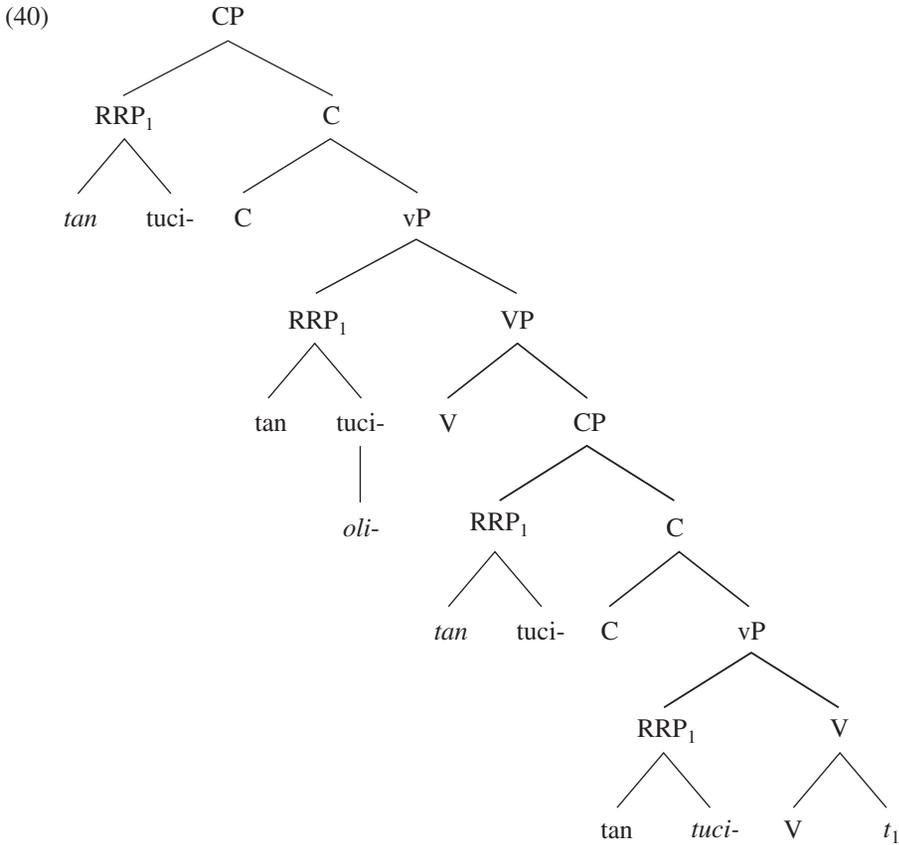
In a question, the *wh*-quantifier *tan*, being light phonologically, will move along with the relative root to the preverbal position. The copy analysis now makes plausible the conjecture that the whole phrase moves in a subsequent step to Spec,CP, with the *wh*-quantifier *tan* spelled out in that position and the preverb *tuci-* spelled out in the lower position, attached to the verb stem, since phonologically it is a verbal dependent. This step is illustrated in (39) (italics indicate the spelled-out copy).



Now material is able to intervene between *tan* and *tuci-*, since, although they form a constituent, they are spell-outs of different copies of the constituent.¹⁰

In a long-distance question, another step of movement will be repeated from the embedded Spec,CP to the matrix Spec,CP, by way of vP in the phase theory. Now, the relative root, or rather a copy of it, is able to cliticize onto the matrix verb as well, as shown in (40).

¹⁰ Another possibility is that the whole relative root phrase is spelled out in Spec,CP, and it is from that position, not the vP position, that the preverb attaches to the verb phonologically. In Bruening 2001:chap. 3, I present some word order data indicating that both possibilities are actually realized.



Now, given that the highest copy is spelled out in the most minimal way possible—apparently as just a spell-out of formal features—that copy will be spelled out as *tan* plus the least specified relative root, which happens to be *oli-*. The lowest copy will be a full spell-out of the whole phrase, as the semantic content of the *wh*-quantifier: *tan tuci-*. This pattern of pronunciation will give us exactly what is observed in (32a).¹¹

Now this construction is the same *wh*-copy construction discussed above. It is a full movement chain with multiple copies spelled out, which accounts for the operator agreement. As in German, the most contentful spell-out appears in the lowest clause, while higher copies are the most

¹¹ Matters are slightly different in (32b) and (33). There, the relative root indicates that the quantifier ranges over numbers of things, where those things are specified by the direct object of the verb. In these examples, however, the relative root is inflected as a freestanding element (similar to a verb) and is not attached to the verb stem. I suggested in Bruening 2001:chap. 3 that in such cases the quantifier and the relative root start out as a constituent with the direct object, *tan 'kehsi-n apiqsehsuw-ok* 'WH 3-X.many-N rat-3P (how many rats)' (they can move together long-distance in some cases, for instance). The *wh*-quantifier and relative root in these examples move away from the restriction, exactly as in argument extraction, and the relative root, being a freestanding element, does not attach to the verb phonologically (it is not spelled out at vP).

minimal possible, perhaps because the construction is an instance of separation of a quantifier from its restriction, as Felser (2004) argues.

There is one difference between *wh*-copying with relative roots and *wh*-copying with arguments, namely, that pronouncing multiple links of the chain is obligatory in long-distance extraction of relative roots, but optional in long-distance extraction of arguments. At present, I do not have an explanation for why this difference exists, but thinking of *tan* scope marking as *wh*-copying does have numerous advantages: it parallels the German case; it permits a solution to the constituency problem that plagued the LF movement account of *tan* scope marking; and, as discussed in the next section, it makes sense of comparative (sub)deletion in Passamaquoddy.

4.2 Comparative (Sub)deletion

The copy theory of long-distance relative root extraction is further supported by comparatives in Passamaquoddy, which also use relative root preverbs and also show evidence of movement. The matrix verb has a preverb indicating the comparison (e.g., ‘more’), and the verb inside the comparative clause is also marked with a preverb indicating what is being quantified over. In a long-distance comparative like the following, the general preverb *oli-* is also added to the highest verb:

- (41) Mali 't-aqami-htu-n-ol mahkut-ol katok [_{CP} nil eli-kiseltomu-w-uk n-tus
 Mary 3-more-have-N-INANP dress-INANP than 1 IC.this-allow-1CONJ 1-daughter
 [_{CP} 'kehs-onuhm-on]].
 3-X.many-buy-N
 ‘Mary has more dresses than I would allow my daughter to buy.’

The preverb *kehs(i)-* indicates that quantification is over numbers of things, but as in *tan* scope marking the relative root that appears on higher verbs is the more general *oli-*.

Kennedy (2002) gives semantic arguments that the quantifier plus a specification of what kinds of things it ranges over must raise to the highest Spec,CP in comparatives. In the Passamaquoddy example (41), this must include the preverb *kehs(i)-* that is only pronounced in the lowest clause, since it is this preverb that indicates quantification over numbers of things. The preverb *oli-* does not, by itself, range over numbers of things; used contentfully, it usually indicates manner. Thus, there is a semantic reason to believe that the preverb in the lowest clause moves, but again the question of how a preverb can split away from a verb arises. The copy theory outlined above solves this problem: *oli-* is a minimal spell-out of a copy of *kehs(i)-*.

Comparatives, then, are just like *tan* scope marking in having a quantifier plus relative root move long-distance. In comparatives, the quantifier itself is usually null (though it can be pronounced, as *tan*), but we can see evidence that it moves in that the matrix verb can agree with it in operator agreement.¹²

¹² The moving phrase must include a specification of the things being quantified over as a number of inanimate plural things, since agreement spells out inanimate plural in this example. Perhaps what is moving is a null quantificational phrase including the noun *dresses*, rendered null by obligatory comparative deletion of the noun. See Kennedy 2002 and footnote 13.

- (42) Mali 't-aqami-htu-n-ol mahkut-ol katok [_{CP} nil
 Mary 3-more-have-N-INANP dress-INANP than 1
 eli-kiseltom-uw-uk-il n-tus [_{CP} 'kehs-onuhm-on]].
 IC.thus-allow-APP-1CONJ-PARTINANP 1-daughter 3-X.many-buy-N
 'Mary has more dresses than I would allow my daughter to buy.'

Comparatives also obey islands (these are examples of comparative *subdeletion*).

- (43) a. N-koti-*kceyaw*i-pson-a-k nil sikiliyem-ok katok [_{CP} nekom
 1-FUT-more-catch-DIR-3P 1 cricket-3P than 3
 eli-pson-a-t coqols].
 IC.thus-catch-DIR-3CONJ frog.OBVP
 'I'm going to catch more crickets than he's going to catch frogs.'
- b. *N-koti-*kceyaw*i-pson-a-k nil sikiliyem-ok katok [_{CP} (eli) (komac op)
 1-FUT-more-catch-DIR-3P 1 cricket-3P than (IC.thus) (very would)
 assokitahasiy-in [_{Island} eli-pson-a-t coqols]].
 be.surprised-2CONJ IC.thus-catch-DIR-3CONJ frog.OBVP
 'I'm going to catch more crickets than you'll be surprised if he catches frogs.'

An attempt at a comparative like (43b) is simply irredeemable, whether or not the higher clause contains the preverb *oli-* (here *eli-* after initial change, and detached from the verb *assokitahasi-*, which is independently possible). Hence, we have good reason to believe that some kind of phrase moves in these comparatives.

The important point here for *tan* scope marking is that, in comparatives, we have good semantic arguments from Kennedy (2002) that the relative root from the lower clause moves all the way to the highest CP of the comparative. This is confirmed by the island and operator agreement data. But on the surface, the construction looks very much like *tan* scope marking, only without *tan*. There is a semantically contentless relative root on the higher verb, and the contentful relative root occurs attached to the lowest verb. The occurrence of *tan* as a marker of scope cannot be crucial at all in allowing the relative root to move, and the contentless relative root does not mark the actual scope of the quantifier (this can be seen clearly in (43a), where the pronoun *nekom* that is within the scope of the comparative occurs to the left of the relative root). Hence, the expletive analysis of *tan*, with LF movement to replace it, will not work for comparatives. Positing a different analysis would lose the strong similarity between them, however, and claiming that the scope marker is null in comparatives would beg the question of why it is null just when the actual quantifier is also null. On the other hand, if the higher, empty relative root is simply a copy of the lower one, this pattern makes sense: there is no *tan* in the higher clause because there is none in the lower—the two are copies.

Just as in the *tan* scope-marking pattern, we can hypothesize that a *wh*-quantifier, here null, moves successive-cyclically together with the relative root. Principles of pronunciation require a minimal spell-out of the formal features of this relative root in the higher clause, and a full spell-out in the lower clause.¹³

¹³ Matters are a little more complicated in (42). There, the relative root indicates that the null *wh*-quantifier ranges over numbers of things, where the things are supplied by the direct object of the verb. Given that the operator agreement

In conclusion, the proposal that *tan* scope marking is actually an instance of the *wh*-copy construction captures the parallelism between Passamaquoddy and German, the operator agreement facts, and the island facts, and it extends naturally to comparatives (and subcomparatives). It also permits a solution, as outlined above, to the problem of constituency in questions and comparatives involving relative roots.

5 Conclusion

If all of this is correct, we have good reasons to think that Passamaquoddy has only two constructions: a *wh*-scope-marking construction with *keq(sey)* and a *wh*-copy construction. The *wh*-scope-marking construction has Dayal's (1994) indirect dependency analysis, and *wh*-copying consists in spelling out multiple links of a long-distance movement chain. There is no LF movement to replace a scope marker in Passamaquoddy.

Crosslinguistically, the conclusion should be the same: there is no such thing as a *wh*-scope-marking construction that involves LF movement. Either languages have a *wh*-scope-marking construction with the equivalent of 'what', ranging over propositions, or they spell out multiple links of a long-distance movement chain (or both).

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knows the animacy value of the direct object, the relative root must include some reflex of the direct object. I suggest that this relative root (*kehs(i)-*) includes a null argument (PRO, say, or the actual object; see footnote 12) that indexes one of the arguments of the verb that it attaches to (usually the object). (This is the same relative root as discussed in footnote 11, but here it is not freestanding.)

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