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3

QUANTIFICATION IN PASSAMAQUODDY¹

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1 INTRODUCTION

This paper offers a description of how quantificational notions are expressed in Passamaquoddy, a head-marking, free-word-order language of the Algonquian family. I will examine how Passamaquoddy expresses such propositions as *some/many/few/each/every/no girl(s) like horses*. Most of the paper concentrates on quantifiers that have the distribution of or appear within noun phrases (NPs), like these English examples, but the last section (section 6) treats adverbial and verbal quantifiers. For the most part the paper will remain at a descriptive level, but in some cases I will suggest possible analyses. I start with some background on Passamaquoddy, then turn to the inventory of quantificational nominal elements (section 3), their nominal syntax (section 4), their external syntax, including scopal interactions (section 5), and finally adverbial and verbal quantifiers (section 6).

2 BACKGROUND ON PASSAMAQUODDY

Passamaquoddy is an Algonquian language spoken in two communities in Maine, Sipayik (or Pleasant Point) and Indian Township. A mutually intelligible dialect known as Maliseet (sometimes spelled Malecite) is spoken across the border in the province of New Brunswick,

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Canada, and in one community in Maine. The two together are variously referred to as Maliseet-Passamaquoddy or Passamaquoddy-Maliseet; most of the data here come from the Passamaquoddy dialect, so I will refer to the language simply as Passamaquoddy. Passamaquoddy is a head-marking language with complex morphology and agreement. Like many such languages, it has very free word order and makes heavy use of null anaphora.

Quantification is expressed in various ways in Passamaquoddy. I will concentrate on two here: quantifiers that occur in the nominal domain, and, to a lesser extent, quantifiers that are adverbial or verbal morphemes. In presenting the examples, I will try to gloss the morphology in a manner that is as transparent as possible, while not being misleading as to the function of any given morpheme. This means that I will sometimes gloss the same morpheme differently, to capture the fact that it relates the arguments that are present in a particular way. Passamaquoddy verbs make use of a direct-inverse system, so that the agreement morphology always agrees with particular persons, while a direct or inverse morpheme indicates the grammatical function of each. Some slots on the verb (meant only in a descriptive way) agree with first, second, or proximate third persons, while others agree with unmarked third persons, obviative third persons, or inanimates. In (1), the prefix agrees with arguments of the first obviative third person in (1a-b), proximate third person in (1c-d), while the final suffix agrees with arguments of the second (unmarked third person plural in (1a-b), obviative third person in (1c-d)). The use of the direct suffix, generally an *-a-*, indicates that the first, second, or proximate third person is the subject; the use of the inverse, generally an allomorph of *-oku-*, indicates that the unmarked, obviative, or inanimate third person is the subject. I gloss the direct or inverse morpheme as indicating what grammatical role the first, second, or proximate third person takes.²

- (1) a. N-tokom-a-k. 1-hit-1Subj-3P
 'I hit them.'
 b. N-tokom-ok-u. 1-hit-1Obj-3P
 'They hit me.'
 c. 'tokom-a-l. 3-hit-3Subj-Obv
 'S/he (Prox) hit him/her (Obv).'
 d. 'tokom-ok-u-l. 3-hit-3Obj-Obv
 'S/he (Obv) hit him/her (Prox).'

² Examples are given in the practical orthography in use in the Passamaquoddy community. Passamaquoddy is a pitch accent language (see LeSourd 1993), but in general I will not mark accent here (also following general practice). Letters have their usual values except that <ɔ> = schwa, <ɔ> = [ɛ], <ɔ> = [ɛ], <ɔ> = [kw], and <ɔ> is an initial [h] whose phonetic effect is aspiration of the following stop or tensing of s. Consonants are voiced or tensed intervocally and initially.
 Abbreviations: 1 = first person; 2 = second person; 12 = first person plural inclusive; 3 = proximate third person; 3P = proximate third person plural; Abs = absolutive; An = animate; C = complementizer; Conj = Conjoint Inflection (subordinate clauses, wh-questions); Dir = ditransitivizing morpheme; Emph = emphatic particle; Fut = future; IC = Initial Change (about); Inan = inanimate; Indef = indefinite argument; Loc = locative; Obv = obviative third person; ObvP = obviative third person plural; N = marker of secondary object; Neg = negative; P = plural; Perf = perfective or past tense interpretation; Pret = preterite; Prog = progressive; Rcip = recipient; Refl = reflexive (also middle and other intransitive uses); Sub = Subordinate mode of the Independent Order; Top = (contrastive) topic marker.

So the same morpheme will be glossed slightly differently, depending on what persons the arguments are ("1Subj" vs. "3Subj" and "1Obj" vs. "3Obj"; I gloss proximate and unmarked third persons as "3," vs. obviative and inanimate third persons, which are "Obv" and "Inan," respectively). I hope that this will make it easier to figure out any given example. Within a certain syntactic domain (roughly, the clause), one third-person NP must be distinguished as *proximate*, and all others must be *obviative*. The proximate NP is unmarked, while the obviative NP is marked with a suffix *-ol* if singular, or a pitch accent if plural (plus suppression of final truncation). If the proximate NP is the subject, the verb is marked with the direct marker, *-a-*, as in (1c); if it is the object, it is marked with *-oku-*, as in (1d). The following example illustrates obviative marking on a full noun:

- (2) Mahioqehs 'ol-i-nuhsuphoga-l-ku-l muwinu-wol. rabbit 3-Prog-chase-3Obj-Obv bear-Obv
 'A bear (Obv) was chasing a rabbit (Prox).'

Although the inverse involves an apparent reversal of arguments, it is important to note that it is not a passive: there is no argument demotion or change in valence (the verb is still transitive). In section 5.3, I will suggest that the inverse involves a step of movement, of the object over the subject. There are two main paradigms of verbs, the Independent and the Conjoint. The Conjoint is exclusively suffixal and is more fusional (it is difficult to segment out individual morphemes, so I generally do not attempt to in the glosses), while the Independent is characterized by a prefix and a sequence of suffixes (note that "12" is an inclusive first person, or first and second person together):

- (3) a. Conjoint cikso-tu-linohp
 listen.to-12Obj-ConjNeg
 'he/she/they do(es)n't listen to us (Incl)'
 b. Independent k-cikso-ta-ku-wi-nuu-k
 2-listen.to-12Obj-Neg-1P-3P
 'they don't listen to us (Incl)'

A verb that is not glossed as "Conj" is Independent.

The Independent is used in main clauses and several other environments, while the Conjoint is generally used in embedded clauses, including relative clauses (see below), and in argument wh-questions. For more on the morphology and phonology of Passamaquoddy, see Sherwood (1986), LeSourd (1993), Leavitt (1996), and Bruening (2001).

³ Passamaquoddy has various (morpho-)phonological processes of epenthesis and deletion; the *w* is epenthetic here.

3 INVENTORY OF QUANTIFICATIONAL ELEMENTS

I will first describe quantificational elements that have the distribution of NPs, or occur within NPs, and turn to quantification expressed as adverbial or verbal morphemes in section 6.⁴ I begin with nominal elements that can be used as indefinites with an existential import, and then turn to more clearly quantificational elements (on some analyses, such as that of Heim 1982, indefinites are not actually quantificational).

3.1 Bare nouns

Let us begin with bare nouns in Passamaquoddy. Passamaquoddy does not have determiners, so bare nouns are generally ambiguous between definite and indefinite uses (an example of a definite is the noun 'deer' in example (17a)). The following example from a text illustrates a bare noun used as an existential, in the first case asserting existence, in the second denying it under negation:

(4) (Newell 1979, 12)

- a. N-ikwoss na neqt 'tol=nomly-a-l
 I-mother also one.time 3-there=see-3Subj-Obv
 wapeyi-li-c-ii ahahsu-wol qocom-ok,
 be.white-Obv-3Conj-Obv horse-Obv outdoors-Loc
 'My mother once saw a white horse outside the house,
 an Neg Quot Emph horse 3-have-Neg-InanObj Indian-Place-Loc
 and there weren't any horses on the Township.'
- b. naka ma yaq ote ahahs 't-thi-wo-n
 skicinnuwi-hku-k
 an Neg Quot Emph horse 3-have-Neg-InanObj Indian-Place-Loc
 'and there weren't any horses on the Township.'

Nouns are obligatorily marked for number in Passamaquoddy, so if more than one is meant, a plural noun must be used (*tan* is a special quantificational morpheme that I will describe in section 3.8):

⁴ A reviewer wonders whether Passamaquoddy makes use of reduplication in expressing quantificational notions, as some other Algonquian languages do. The answer is that it does not. I have not found any productive reduplication processes in Passamaquoddy.

3.2 Numerals

- (5) Kotama mekiki-c-ik weyossis-ok, wahanau-wok, naka ket
 Neg IC.be.bad-3Conj-3P animal-3P devil-3P and big
 athussos[u]-wok toli=mkskuw-a-wi-yik tan qhiw
 snake-3P there=find-IndSubj-Neg-3PObj TAN near
 eyu-iti-iti pomawsuwinu-wok
 IC.be.located-Plural-3PConj person-3P
 'No evil beasts, devils, or great serpents could be found near where men live.' (Mitchell 1921/1976d, 4)

Numerals usually precede the head noun. A noun modified by a numeral (without a demonstrative) is frequently used as an indefinite, to introduce new discourse referents:

- (6) a. On yaq ['t-itom-on pesq ehpit,
 then Quot 3-say-Sub one woman
 'A woman said.' (W. Newell 1974, 11)
- b. Pihce nису-wok skitapi-yik tama al
 tol-luhki-yik.
 long.ago two-3P man-3P where Uncertain there-work-3P
 'A long time ago two men were working way off (beyond Dana Point)'
 (Newell 1979, 19)

Numerals plus nouns, or numerals by themselves, are definite when used with demonstratives (7a); they may also be definite without a demonstrative (7b), although such examples are rare:

- (7) a. Nikt nисic-ik, kotama wewinuw-a-wiy-ik wen not miyaw.
 that.AnP two-3P Neg recognize-Dir-Neg-3P who that.An exactly
 'The two of them cannot be distinguished, one from the other.' (Mitchell 1921/1976b, 16)
- b. Wot olu mahtoqehs pemipt-ag nohonu-l piyaqthikon-ol
 this.An Top rabbit IC.carry-3Conj three-manP wood.chip-InanP
 'This rabbit was carrying the three chips.' (E. Newell 1974, 14)

In (7b), the three wood chips were previously established in the discourse.

3.3 'Few', 'many', 'some'

Passamaquoddy has the elements *kianagsu* and *keyawiw*, meaning 'many', and *wahkhesu*, 'few', which appear to be verbal in nature. These may occur as the main predicate (note that they can take tense morphology, like a verb):⁵

- (8) Sami pihce **kianagsu-pon-ik** motewolonu-wok.
because long-ago be.many-Pre-3P motewolon-3P
'because there used to be a lot of *motewolonwok*.' (Newell 1979, 3)

The example in (8) might be more literally translated as, 'because *motewolonwok* used to be numerous'.

If there is another predicate present, what would be the main predicate in English often appears to be in the form of a relative clause, so that a sentence like, 'Many bears eat fish', would have the form, 'The bears that eat fish are many' in Passamaquoddy. Alternatively, the verb meaning 'many' is the relative clause, so that the sentence is, 'Bears that are many eat fish'. (A relative clause can be identified on the basis of morphology: the verb of a restrictive relative clause in Passamaquoddy always appears in a particular morphological form, the Changed Conjunction or Conjunction plus an ablaut process called initial change, glossed "IC,") Some examples that could be analyzed in this way appear below:

- (9) a. **Wahkhesu-wok** ehpic-ik muhsal-a-hitit sakoma-l.
few-3P like-3Subj-3PConj governor-Obv
'Few women like the governor.' ('Few are the women who like the governor.')
- b. N-koti-nomi-a-k **kehceyaw-i-c-ik** weyossis-ok.
I-Fut-see-1Subj-3P IC.be.many-3Conj-3P animal-3P
'I want to see a lot of animals.' ('I want to see animals that are many')

However, there are numerous examples that do not fit this characterization so nicely. It appears that the quantifier, whether it appears in the form appropriate for a relative clause or not, can be a modifier forming a constituent with the noun. Consider the following example, where neither 'live' nor 'be many' is inflected appropriately for a relative clause, and yet the latter seems to be part of a noun phrase serving as the object of a preposition:⁶

⁵ A *motewolon* is a person (often in the form of an animal) with supernatural power.

⁶ It is not clear that Passamaquoddy has real prepositions that take objects, however. Particles like *wicw* frequently appear separately from what would be their object in English. Nevertheless, neither predicate here is a relative clause.

- (10) Koluskap neke wiku-ss monihku-k wicw **kianagsu-wok**
K. then.Past live-3-Pre island-Loc together.with be.many-3P
skicinu-wok,
Indian-3P

'Long ago, Koluskap lived on an island with many Indians.' (Mitchell 1921/1976c, 5)

In some syntactic contexts, like the question below, what would be the main predicate in English is also forced to be the main predicate in Passamaquoddy. In some such cases, the quantifier must appear in the form appropriate for a relative clause, suggesting that analyzing the quantifier as a verb is correct at least in some instances:

- (11) Wen-il well-nuw-a-hitit nikt-ok **kehthenagst-hitit**
who-Obv IC.good-find.looks-2Subj-3PConj that-3P IC.be.many-3PConj
pitsgehsis-ok?
girl-3P
'Who do those many girls like the looks of?'

I will leave open the question of whether these quantifiers are truly verbs; they may be certainly, but in some cases they could be analyzed like the quantifier 'some', to which we now turn, which is a nominal modifier.

What could be translated as English 'some', or a plural indefinite marker, is the numeral 'one' with a plural suffix. It typically appears before the noun it modifies, and, unlike 'few' and 'many', does not appear in the inflection appropriate for a relative clause. It therefore appears to be a nominal modifier:

- (12) **Pesku-wok** pitsgehsis-ok macaha-wolot-wkk.
one-3P girl-3P leave-Plural-3P.Abs
'Some of them girls left.' (informant's translation)

3.4 Cardinal and proportional readings

The quantifiers 'many' and 'few' in Passamaquoddy seem to have both cardinal and proportional readings.⁷

⁷ Unfortunately, I have only been able to elicit judgments on this issue from one informant so far. It will be important to confirm these judgments with other speakers.

The following example was judged to be true in two different contexts. In the first, there are five girls total, four of whom leave. This means that 'many' has a proportional reading, since four is only many out of the total of five—'few' is said to be around five out of context, and 'many' is a lot more than 'few'.

- (13) Elinagst-
 plisqehstis-ok macaha-woloti-hit.
 IC.be.many-3Conj girl-3P leave-Plural-3PConj
 'Many girls left.' (4 out of 5: true; 100 out of 500: true)

In the second context, 100 out of 500 girls leave. 100 is not many out of 500, but the sentence is still judged to be true, because 100 is a large number. It follows that 'many' has both proportional and cardinal readings.

The same holds for 'few'. The following example was judged to be true in the same context where four out of five girls leave, since four is a small number (the cardinal reading); but it was also judged to be true when 100 out of 500 girls leave, since 100 is not many out of 500 (the proportional reading):

- (14) Wahkeshu-wok
 plisqehstis-ok elomi-ya-woloti-hit.
 girl-3P IC.away-go-Plural-3PConj
 'Few girls left.' (4 out of 5: true; 100 out of 500: true?)

However, the informant hesitated somewhat in accepting the above sentence for 100 out of 500, because 100 is a large number. She also judged the following to be anomalous in a context where there are one million chickens total, because 100 chickens is still a lot to eat:

- (15) %Wahkeshu-wok nekka-hi-uk-ik
 ehemu-wok IC.call-ear-1SubjConj-3P chicken-3P
 'I ate (a) few (of the) chickens.' (context: 100 out of 1 million)

But then the same informant accepted the following, where 'few' is a few hundred. What counts as 'few' seems to be heavily dependent on context, since hundreds is not many in terms of human populations:

- (16) Wahkeshu-wok wiki-c-ik kelis-k.
 be.few-3P five-3Conj-3P Calais-Loc
 'Only a few (people) live in Calais.'

In any case, 'many' certainly has both cardinal and proportional readings; 'few' certainly has a cardinal reading, and may also have a proportional reading.

3.5 Wh-words as indefinites

Passamaquoddy uses wh-words as indefinites. These are *wen*, 'who' (more precisely, 'an mate'), *keq(sey)*, 'what' (more precisely, 'animate', 'what' and *keqsey* appear to be identical in meaning and occur in free variation), and *tama*, 'where'. These wh-words are used not interrogatively as indefinites, with the meaning 'someone/something/somewhere' or 'anyone/anything/anywhere'. Some examples are the following:

- (17) a. Kesq yaq pemacqim-a-hitit otuk-ol, on keq nutom-oni-ya.
 while Quot drag-3Subj-3PConj deer-Obv then what (3)-hear-InanObj-3
 'While they were dragging the deer they heard something.' (W. Newell 1974, 5
 On yaka wesuwiy-apasit-hit, wot yaq wen
 pemt=sakhiya-t.
 IC.along=come.into.view-3Conj
 'Then, on their way back, something [animate] came into sight.' (Newell
 1979, 25)

- c. Wot yaq mahtoqehs naka coqots tama al
 kchik-uk Dem Quot rabbit and frog where Uncertain forest-Loc
 etol-akonutom-ahit.
 IC.Prog-tell.stories-3PConj
 'This rabbit and a frog somewhere in the woods were telling stories' (E. Newell
 1974, 1)

Wh-words as indefinites may take modifiers (and note that *wen* inflects for number as obviation; *keq(sey)* and *tama* are invariant):⁸

⁸ According to Lesourd (2004), wh-words can also appear as NP modifiers; Lesourd gives the following in Matisseet examples (in Lesourd's transcription, an acute accent indicates a stressed vowel bearing distinctive pitch, while a grave accent indicates a stressed vowel bearing distinctive low pitch):

- (i) a. wen kólok skien
 who other Indian
 'some other Indian' (Matisseet, Lesourd 2004, (12d))
 b. keqsey káon-ey
 what cotton-NF
 'something cotton' (Matisseet, Lesourd 2004, (16a))

However, it is also possible to analyze these as the wh-word being the head (ib), or what follows the wh-word an appositive (ia, as suggested by a reviewer). I have not seen any examples that clearly require treating the word as an NP modifier.

- (18) $Cu=he$ wen-ik $pi|u|weya-k$ naci=qilwah-a-wa-l
 must=Fut who-3P different-3P (3)-go.do=look.for-3Subj-3P-Obv
 'Some different people must go look for him.' (W. Newell 1974, 6)

Wh-words also combine with other elements to form universal quantifiers, as described in the next section. (For more on the use of wh-words as indefinites in Passamaquoddy, see Bruening 2007.)

3.6 Universal quantifiers

Passamaquoddy has two chief universal quantifiers, *psi*, which very often occurs with the emphatic clitic *te* (*psite*), and *psiw* (*psit*) has a high pitch, *psiw* low pitch; henceforth I do not mark them). The only difference that I can find between them is that *psiw* can occur in the phrase *nite psiw*, meaning 'that's all', but *psite* cannot. I find *psite* in much more common use than *psiw* among my informants. Both *psite* and *psiw* can occur alone, with an NP, or with a wh-phrase, as described in the next subsections.

There is also a distributive quantifier *yatte wen*, which consists of the remote demonstrative *yat* plus the emphatic clitic *te*, and the animate wh-phrase *wen*. It has a peculiar distribution, as described below.

Psite and Psiw, All, Every.⁹ Both *psite* and *psiw* can occur by themselves, as in the following examples. (The sequence *ps* used to be pronounced *ms*.) Note that the quantifier can be modified by *eluwete*, 'almost':

- (19) a. On yaq $psite$ ul-opu-ti-ni-ya naka wolasoweltonu-ti-ni-ya
 then Quot all 3.there-sit-Plural-Sub-3P and give.thanks-Plural-Sub-3P
 kist=pi|it=nonawo-tu-ti-hiti. Nite $psiw$.
 able=new=know-Recip-Plural-3PConj that all
 'Then they all sat down and gave thanks for the chance to get to know someone new. The end.' (W. Newell 1974, 11)
- b. Nite sonuwi $msiw$ etoi|=cip-hucu-ti-hiti
 there=Emph along.edge all [C.there=scare(d)-stand-Plural-3PConj
 'There by the water's edge they all stand in a frightened posture.' (Mitchell 1921/1976d, 6)

⁹ Note that I render both of these quantifiers in English sometimes as 'all' and sometimes as 'every'. The glosses and translations are meant to be rough guides only, and should not be taken to imply an analysis. I do not think either of these is exactly 'all' or 'every'. They are quantifiers with universal force whose properties must be determined.

- c. $Eluwete$ $msiw$ 't-ihi-ni-ya $pi|uwitposuwakon$.
 almost all 3.have-InanObj-3P supernatural.power
 'Almost all had supernatural power.' (Mitchell 1921/1976c, 5)
- d. $Msite$ wekihtu-ni-ya-l
 all (3)-break-InanObj-3P-InanP
 'They have ruined them all.' (Mitchell 1921/1976a, 18)

They can also both occur with an NP, where the NP forms the restriction on the quantifier:

- (20) a. Wespasahkiwik $msiw$ skitapt-yik komunka-tiu-wok.
 in.morning all man-3P hunt-Plural-3P
 'In the morning, all the men go hunting.' (Mitchell 1921/1976, 17)
- b. Yuki tokec $msite$ skihsh[u]-wok $Piktu-k$ 'pawatomo-ni-ya-l yuhitoi
 these now all young.man-3P Pictou-Loc 3-want-N-3P-Obv this
 naksqiyi-l.
 young.woman-Obv
 'Now the youths at Pictou all want this girl.' (Mitchell 1921/1976, 8)
- c. 'T-all yaq qecimul-a-wa $psite$ Skicinu cipoute wen
 3-around Quot ask-3Subj-3P.ObvP all Indian.ObvP maybe who
 nomiy-a-l yu[h]toi kukec-oi, not oli
 (3)-see-3Subj-Obv this.Obv warden-Obv this Top
 pallitahamst-t.
 think.highly.of.self-3Conj
 'They're going around asking all the Indians if someone saw this warden, the one who thinks highly of himself.' (W. Newell 1974, 6)
- They may also occur to the right of the NP they are associated with, much like floating *all* in English; this may be an adverbial use (see section 6):
- a. K-moc-k-ul-ponec Epsons, ipocol nliun $msiw$
 2-bad-affect-2Subj/1Obj-1P=Fut Epsons because.of.course 1P all
 Psuimin-ok.
 Chokeberry-3P
 'We would affect you badly, Epsons, because we are all choke-berries.'
 (Mitchell 1921/1976a, 22)
- b. On yaq Skicinu-wok psi macyi-apasi-ni-ya.
 then Quot Indian-3P all leave-walk-Sub-3P
 'Then the Indians all left.' (W. Newell 1974, 11)

They also both occur with the wh-words *wen*, *keq(sey)*, and *tama* (in the first example, *yag* is a second-position clitic that freely disrupts constituents):

(22) a. *Psi=yag=ote wen itom*, "Kotama."

all=Quot=Emph someone say.3 no

'Everyone said, "No..."' (W. Newell 1974, 6)

b. *Eluwe nokka=kci:ci:hu-n psiw wen-i!*

almost (3)-completely=know-InanObj all who-Objv

el-omahitu-i!

'He knows how almost everyone behaves.' (Francis and Leavitt 1995, line 250)

(23) a. *Tokoc olu msite keq -ki:wac:ehu-n.*

now Top all what 3-make:lonely-InanObj

'But now, he makes everything feel lonely.' (Mitchell 1921/1976d, 7)

b. *Kchtaqs kahk psite tama kisi=yai!-ye, peci te lampaq.*

ghost Emph all where able=around-go.3, even Emph underwater

'A ghost can go anywhere—even under water.' (Newell 1979, 21)

With a wh-word the quantifier is almost always *psite* rather than *psiw*; (22b) is one of the few examples I have of *psiw* plus wh-word. In discussing this combination, I will therefore refer only to *psite*.

The sequence *psite* (*wh-word*) appears to form a constituent of a nominal type. One argument for this constituency comes from dislocation. Passamaquoddy has a "raising to object" process, whereby a higher verb may agree with an argument of its complement clause. In addition, this argument may dislocate to a position immediately to the left of CP-elements (the complementizer *eli* and wh-phrases) in the lower clause (see Bruening 2001, Ch. 5). In the following, we see that *psite* (*wh-word*) may dislocate to this position:

(24) a. *N-kosicy-a psite wen eli kselm-it*

1-know-1Subj all who C love-3ObjConj 3-mother-Objv

'I know that everyone_i is loved by his_i mother.'

b. *Ma=te n-wewitaham-a-w psite wen lama*

Neg=Emph 1-remember-1Subj-Neg all who where

'I-ki-kis-onu-wa -takom.

3-there-Perf-buy-3Subj.ObvP 3-snowshoe.ObvP

'I don't remember where everyone_i bought his_i snowshoes.'

This and other facts, like the fact that *psite* and the wh-word almost always occur adjacent (except when disrupted by second-position clitics) and in the order *psite* (*wh-word*), indicate

(NP).

that they together form a constituent (and, moreover, this constituent has the distribution of a

Note that agreement on the verb is generally singular with *psite* (*wen* or *psiw* (*keq(sey)*), but it is often, but not always, plural with *psite* (*psiw* by itself or *psite*/*psiw* NP. I

addition, the NP following *psite*/*psiw* can be either singular or plural (with the choice determining agreement). The following examples illustrate both singulars and plurals:¹⁰

(25)

a. *Msiw skicin nuto-k akonutom-akon, msiw wolihasu.*

all Indian hear-3Conj tell-story-Nominal all be.happy.3

'Every Indian who heard the news, every one was happy.' (Leavitt and Francis 1990, 53)

b. *Wespasahkiwik msiw skitapi-yik kotunk-ahtu-wok.*

in.morning all man-3P hunt-Plural-3P

'In the morning, all the men go hunting.' (Mitchell 1921/1976e, 17)

The most common case is for *psite*/*psiw* to be followed by a plural noun that agrees on the verb as a plural. The singular appears to be limited to certain grammatical positions (subject of intransitive is the most general) and depends on the predicate (only certain transitive verb permit the singular, like 25a; I do not know what, if anything, they have in common). Speaker report intuitions that the singular and the plural sometimes have different interpretations, but further investigation reveals that they have the same *range* of interpretations (though different ones may be preferred in any given context). For instance, the singular is often reported to have a distributive, "one at a time" interpretation, while the plural may have that reading or collective one:

(26)

a. *Psite wasis kisi-ntu.*

all child Perf-sing.3

'Every child sang.' (separately)

b. *Psite wasis-ok kisi-ntu-ltu-wok.*

all child-3P Perf-sing-Plural-3P

'Every child sang.' (prefers group, but can be separately)

Nevertheless 'sing' is inherently distributive; even when singing as a group, every child i cannot have group or collective interpretations, as in (27a), while, conversely, singulars are compatible with collective predicates that normally require plural subjects (27b):

¹⁰ Intransitives in Passamaquoddy make a dual-plural distinction: with the plural stem marker (glossed "Plural" in addition to plural subject agreement), the subject is signaled to be plural; without it, dual.

Yatte Wen, *Each*, *Yatte wen*, which consists of the remote demonstrative *yar*, the emphatic clitic *ie*, and the animate wh-word *wen*, is strongly distributive. There does not appear to be an inanimate version with *keq* (nor can *yatte wen* be used with inanimates), and it is not clear whether the whole can inflect as an obviative (see below).
Yatte wen can appear by itself or with an NP. All the text examples I have (there are only three) involve *yatte wen* by itself:¹²

- (29) a. On *yatte wen* 't-olq-i-ya-n 't-utene-k
 then each 3-that.direction-go-sub 3-village-loc
 'Then each one goes toward his own village.' (Mitchell 1921/1976d, 18)
- b. *Msite* 'pawatom-uw-a-ni-ya 'peciya-li-n *yatte wen* wi-ik-uwa-k.
 all 3-want-Ditr-3Subj-N-3P 3-come-Obv-N each 3-house-3P-Loc
 'Each one desires him to visit at her wigwam.' (Mitchell 1921/1976e, 5)
- c. Kenog olu *yatte*=hc *wen* 't-uwehkah-a-l
 however Emph each=ful 3-use-3Subj-Obv
 't-epeskom-akon-u-m-ol
 3-play.ball-Nom-Poss-Obv
 'But each one will use his own ball.' (Mitchell 1921/1976b, line 55)

When *yatte wen* co-occurs with an NP, this NP does not appear to form a constituent with it (although they may be adjacent); instead *yatte wen* seems to have the syntax of a floated quantifier or an adverb of some kind. The NP that *yatte wen* occurs with can be either singular or, more commonly, plural. A common pattern is for a plural NP (sometimes with *psite*, 'all') to appear first, followed by the floating *yatte wen* and singular agreement on the verb:

- (30) a. Pathtoliyas-ok *yatte wen* mokosew-sewe.
 priest-3P each black-dress.3
 'The priests are each dressed in black.'
- b. Nisu-wok muwinu-wok *yatte wen* 'k-ihceyawi-pokehl-a skitapi.
 two-3P bear-3P each 3-many-bite-3Subj-ObvP man.ObvP
 'Two bears each bit a lot of men.'
- c. *Psite* kiyahq-ok *yatte wen* 'tehsaq-opi-n-ol oposih-il.
 all seagull-3P each 3-on.top.of-sit-N-Obv tree-Obv
 'All the seagulls are each sitting on a tree.'

¹² Phil LeSourd (p.c.) notes that 'house' is almost always inflected for a nonsingular possessor, even when the overtly expressed possessor is singular; this makes (29b) consistent with *yatte wen* generally triggering singular agreement, as described below.

- (27) a. *Psite* wasis-ok 'lawi-pokom-ulu-wok.
 all child-3P know.how-skate-Plural-3P
 'All the children know how to skate.'
- b. *Psite* skicin nact-mawsqesu.
 all Indian go.do-gather.3
 'Every Indian is going to gather.'

Further evidence that the singular-plural distinction does not encode anything like distributivity comes from pairs like the following, with *psite* and *psite* occurring alone. In (28a), agreement is singular, while in (28b), agreement is plural; nevertheless both are psychological predicates and are inherently distributive:

- (28) a. *Msiw* woihtahasu.
 all be.happy.3
 'Every one was happy.' (Leavitt and Francis 1990, 53)
- b. *Msite* aqami-musqitahas-ulu-wok.
 all more-hate-Plural-3P
 '[They all hate (him) more].' (Mitchell 1921/1976e)

Note that it is not the case that *psite* takes singular agreement and *psite* plural; compare (25a-b) and (26a-b).

While I do not fully understand the difference between singular and plural, or the constraints on the use of the singular, I think we can conclude that the singular-plural distinction is probably not relevant to the denotation of *psite* as a quantifier. The sentence in (27b) further shows that *psite* plus singular NP is semantically plural, since 'gather' requires a semantically plural subject.¹¹

¹¹ In Passamaquoddy, wh-words can be suffixed with the plural morpheme, as in the following question:
 Wen-thi lepihtam-oc-ik ketuw-ewestuwam-a-c-thi?
 who-ObvP think-2-Comp-3P IC.Fut-talk.to-3Subj-3-Comp-ObvP
 'Who all do you think he'll talk to?'
 However, the plural morpheme appears only very rarely on a wh-word following *psite/psiw*; the two text examples I have are the following:
 (ii) a. Skitkomiq, *msite wen*-thi 'sivacy-a-wa.
 earth all who-ObvP 3-make.tired-3Subj-3P.ObvP
 'On earth they have made everyone tired because of their many evil acts.' (Mitchell 1921/1976b)

b. Neke Koluskap nekoto-k skitkomiq, nokka-hpawol-a-sopon-thi
 then.Past Koluskap IC.leave-3-Comp earth (3)-completely-sear-3Subj-Pre-ObvP
 'At the time when Koluskap left the earth, he had scared away all evil-looking creatures.'
 (Mitchell 1921/1976d, 4)

As stated above, it is not clear whether *yatte wen* can inflect as an obviative (and/or modify an object, whether that is proximate or obviative). The expected obviative form would be *yehol=te wen-il*, and that form does occur occasionally, but what occurs more frequently is the unexpected *yatte wen-il*, where the wh-word is obviative but the remote demonstrative is in its proximate form. One example is the following:

(31) Skitap *yatte wen-il* 't-otol-ahsom-a-l puepiy-il nomehs-ol-
man each-Obv 3-Frog-feed-3Subj-Obv whale-Obv fish-Obv

'The man is giving each whale one fish.' (one man, many whales each getting a fish)

This example, and others I have collected, make it look like *yatte wen* can distribute over an object (most often, the first object of a ditransitive). However, I have also received very mixed judgments on this form from informants. Quite often they are reluctant to produce it, and the interpretation is often different from what would be expected. I suspect that *yatte wen* is a fixed form that much prefers to distribute over a *subject*, although speakers will occasionally extend it to an obviative object by suffixing the whole with the obviative suffix *ol* (actually, its allomorph *il*). However, much more work needs to be done here.¹³

As stated, *yatte wen* is strongly distributive. If it occurs with a group-denoting predicate, a special interpretation is required. For instance, the preverb *mawi* means to do things together, collectively. If *yatte wen* is used with it, *yatte wen* forces strong distributivity, so that, even though all the people are engaged in the activity together, each has to be acting individually as well:

(32) *Yatte wen mawi-pkon-a pskhiqimins.*
each (3)-together-pick-3Subj-ObvP strawberry-ObvP
'Each one picked strawberries together.'

The informant commented here that each strawberry picker would have their own cup and be picking their own strawberries, although the pickers are all working together.

¹³ One of many odd examples is the following. This sentence has a null subject and a null object, both singular according to the verbal agreement. Nevertheless, according to the informant who produced it, there is more than one object. *Yatte wen* apparently distributes the adverbial 'one hand' (which is inanimate) over each object: (1) *Yatte wen pespon 'pibin mocok-pin-eh-a-l one-hand-3-hand (3)-dirty-hand-make-3Subj-Obv* 'He made one of each person's hands dirty.' So the interpretation is something like 'One hand each, he made his/her hands dirty,' with the action being repeated on more than one person. Note that even though the object is obviative (as marked by agreement on the verb), *yatte wen* is not, and 'hand' is inanimate, while *yatte wen* is animate. I would guess that *yatte wen* is distributing the action of the verb over temporal slices of the subject, according to the object (one hand per object). But again, I confess that I do not really understand what exactly *yatte wen* does.

3.7 Negation and negative quantifiers

Sentential negation in Passamaquoddy is expressed by one of several preverbal particles (*na*, *kotama*, *kat*, *skat*), plus negative morphology (a suffix) on the verb.¹⁴ Negative quantifiers consist of sentential negation plus an existential (wh-word, bare noun):

(33) a. *Peciya-l kotama=te olu wen maccessi-w.*
come-3Conj Neg=Emph Top who move-3-Neg
'When she gets near them, none of them moves.' (Mitchell 1921/1976a, 13)

b. *Kat=op keq kt-ol-essl-w.*
Neg=would something 2-thus-happen-Neg
'Nothing shall happen to you.' (Mitchell 1921/1976c, 11)

c. *Ma=te tama k-nomy-a-w mahtoqehs yut tuciy-e-w?*
Neg=Emph where 2-see-2Subj-Neg rabbit here go-by-3-Neg
'Haven't you seen a rabbit anywhere going by here?' (E. Newell 1974, 3)

The examples in (4b) and (5), above, illustrated negation with bare nouns. For more information on wh-words with negation, see Bruening (2007).

3.8 The element *tan*

One particularly interesting quantificational element in Passamaquoddy is *tan*, an element that generally appears at the left edge of the clausal constituent it appears in (what might be analyzed as CP). In one use *tan* is a question word, combining with what is known in the Algonquian literature as a *relative root* (Bloomfield 1946) to produce an adjunct question:

(34) a. *Tan 'kisi-qoni-tuwiya-n cihopolakon 'kekiv?*
TAN 3-able-X.length-ty-Sub eagle day
'How far can an eagle fly in a day?'

¹⁴ Note that in (33c), an additional negative suffix appears on the verbal complement of the verb that is actually negated. This seems to optionally occur with perception verbs (Bruening 2001, 51).

- b. **Tan** op 'kisi-ili-tuwya-n cihpolakon?
 TAN would 3-able-thus-fly-Sub eagle
 'How would the eagle fly?'
Tan k-tu-aloqika-n?
 TAN 2-X.extent-eye-Sub
 'How big are your eyes?'

For more on these types of questions in Passamaquoddy, see Bruening (2004, 2006).
 In another, probably related, use, *tan* does not form a question, but something like a free relative or a quantificational structure. *Tan* may again quantify over a relative root, or over an indefinite wh-word. Some examples are the following:

- (35) a. **Tan** oc wot wen qilwith-it, pesqon=c **tan** wen
 TAN Fut this.An who search.for-1ObjConj one.Inan=Fut TAN who
 eli-pawato-k nt-oli-mil-a-n pskuw-it, **tan** tehpu **keq**.
 IC.thus-want-3 Conj I-thus-give-1Subj-N find-1ObjConj TAN only what
 'Whoever seeks me, I shall give one thing that he wants when he finds me,
 whatever it may be.' (Mitchell 1921/1976d, 10)

- b. Kollu na kotama apc kisi-piskapotasu-hke-w **tan**
 Kollu also Neg again able-get-dark-make-Neg TAN
 etuct-sipelehl-a-t wonoski.
 IC.X.extent-spread-3Subj-3Conj (3)-wing.ObvP
 'Kollu never again could bring darkness by spreading his wings.' (Mitchell
 1921/1976d, 4)
- c. **tan** te
 Wisay, wisay, wisisa-hul-an
 hurry hurry hurry-take.by.boat-2Imp TAN Emph
 kisi-tuct-ya-yin!
 able-X.extent-go-2Conj
 'Hurry, hurry, hurry him across as fast as you can go.' (Mitchell 1921/1976c,
 11)

Informants will generally translate English free relatives by using *tan*:

- (36) a. **Tan** te nekom eli-ya-t, nil te=hc ona.
 TAN Emph 3 IC.there-go-3Conj I Emph=Fut also
 'Wherever he goes, I'll go too.'
- b. **Tan** te **keq** kisi-hi-aq mecim=te woli-kon.
 TAN Emph what Perf-make-3Conj always=Emph good-be.II
 'Whatever he makes is good quality.'

3.9 Summary

This section has illustrated various kinds of quantifiers that quantify over nominal elements. Some appear to be part of a noun phrase (*psite*), 'some', 'few', etc.); while others are more like floating 'each' in English (*yatte wen*) or some kind of wh-element in CP (*tan*). I turn now to the nominal syntax of those quantifiers that are part of a noun phrase.¹⁵

4 NOMINAL SYNTAX

I turn now to the syntax of these nominal quantifiers within the NP. As discussed in section 3.1, Passamaquoddy does not have determiners, and bare nouns can be used as either definites or indefinites. Demonstratives are often used with discourse-old NPs, and quantifiers may co-occur with demonstratives. With many quantifiers any order seems to be possible, but it appears that the unmarked order is *psite niktok*, 'all those', but *niktok peskuwok*, 'those some', and *wot pesq*, 'this one':

- (37) Nit **tan** te wen eli-wewi-phuwe-t: yate nekom pesq oloq-ye.
 then TAN Emph who IC.there-?-run-3Conj that=Emph 3 one away-go.3
 'Then each one runs off on his own; that one goes one way and another that way.'
 (Mitchell 1921/1976d, 7)
- In other examples, *tan* plus *wen* can mean 'everyone' or 'each one':

- c. **Tan** tehpu wen k-nael-kotunke-pa, kamote nihataw-hika-n.
 TAN only who 2-go.do-hunt-2P better=Emph (3)-know.how-shoot-Sub
 'Whoever you go hunting with better know how to shoot.'
- d. **Tan** te ect=nomly-ot muwin, k-macephuw-a-n.
 TAN Emph when=see-2Conj bear 2-run.away-N
 'When you see a bear you should run away.'

¹⁵ One question that might be asked about this inventory of quantificational elements is whether they divide up into "strong" and "weak" categories (Mitchell 1974). I have not found any phenomena in Passamaquoddy that divide up quantifiers in this way. (There is no dedicated existential construction in Passamaquoddy, for instance.)

(38) a. psite niktok pilsqhsis-ok yut 'c-eya-woltu-wok
all those.3P girl-3P here from-be-Plural-3P
'all the girls from here'

b. niktok psite pilsqhsis-ok yut 'c-eya-woltu-wok
those.3P all girl-3P here from-be-Plural-3P
'all the girls from here'

(39) a. Niktok pesku-wok pilsqhsis-ok macaha-wolot-uk.
those.3P some.3P girl-3P leave-Plural-3P.Abs
'Some of them girls left.'

b. Niktok pilsqhsis-ok peskuwok macaha-wolot-uk.
those.3P girl-3P some.3P leave-Plural-3P.Abs
'Some of them girls left.'

c. Peskuwok niktok pilsqhsis-ok macaha-wolot-uk.
some.3P those.3P girl-3P leave-Plural-3P.Abs
'Some of them girls left.'

The unmarked order also appears to have 'few' or 'many' following the demonstrative (but they can also precede the demonstrative, not shown):

(40) a. Niktok wahkehssosu-wok pilsqhsis-ok ketti-peciya-hiti.
those.3P be.few-3P girl-3P IC.Fut-come-3PConj

b. Wen-ii welli-nuw-a-hiti niktok kehienagsi-hiti
who-Obv IC.good-fnd.looks-3Subj-3PConj those.3P IC.be.many-3PConj
pilsqhsis-ok?
girl-3P

'Who do those many girls like the looks of?'

Universals may co-occur with numerals:

(41) a. psite newonul kotok-ii wikuwam-ol
all four.InanP other-InanP house-InanP

'all four other houses'

b. newonul psite (kotok-ii) wikuwam-ol
four.InanP all (other-InanP) house-InanP

'all four (other) houses'

c. Psite nihro newonul wikuwam-ol
all those.InanP four.InanP house-InanP sell-Left-InanConj-InanP

'All four of those houses are on sale.'

Quantifiers may co-occur with possessors:

(42) a. Psite wot skitap 'goss koti-peciya-wolotu.
all this.3 man 3-son.ObvP Fut-come-Plural.ObvP

'All that men's sons are going to come home.'

b. Katolu not skitap psite 'goss peciya-wolotu.
of.course that.3 man all 3-son.ObvP come-Plural.ObvP

'Of course all of that man's sons are coming.'

c. Pesku wot skitap 'goss koti-peciya-wolotu kenog mate
some.ObvP this.3 man 3-son.ObvP Fut-come-Plural.ObvP however Neg
psite.
all

'Some of that man's sons are coming but not all.'

All may co-occur with pronouns:

(43) a. Psite nekomaw mokesew-sew-hotu-wok.
all 3P black-dress-Plural-3P

'All of them are dressed in black.'

b. Peskuwok nekomaw mokesew-sew-hotu-wok.
some.3P 3P black-dress-Plural-3P

'Some of them are dressed in black.'

c. Wahkesu-wok nekomaw mokesew-sew-hot-hiti.
few-3P 3P black-dress-Plural-3PConj

'A few of them are dressed in black.'

d. Ktenagsu-wok nekomaw mokesew-sew-hot-hiti.
many-3P 3P black-dress-Plural-3PConj

'A lot of them are dressed in black.'

e. Pesq nekom/*nekomaw skat mokesew-sew-hq.
one 3/*3P Neg black-dress-3ConjNeg

'One of them isn't dressed in black.'

f. Nuhu-wok nekomaw mokesew-sew-hot-hiti.
three-3P 3P black-dress-Plural-3PConj

'Three of them are dressed in black.'

In summary, all quantifiers appear to be able to combine with any element within the NP. Although other orders are possible, the unmarked order within NP seems to be *Universal Demonstrative Numeral/Some/Few/Many Modifier Noun*. (For more on the structure of the NP, see Lesourd 2004.)

5 EXTERNAL SYNTAX

Most of the quantifiers described above, those that appear within NP, have the distribution of an NP when used alone, or their containing NP does when they appear within one (at least as far as I can tell, given the generally free word order of Passamaquoddy; but they do trigger agreement on the verb when they are arguments). However, there are a few tendencies to point out that distinguish quantified NPs from other NPs.

First, wh-words used as indefinites tend to appear immediately before the verb, as in most of the examples given above. This tendency appears to be close to absolute when negation is also present; the wh-word usually immediately follows the negative particle, and precedes the verb. When associated with *tan*, wh-words almost always immediately follow *tan*, although they may be separated by emphatic particles or *lehpu*, 'only', which in combination with *tan* means something like 'no matter which'. *Tan* itself is almost always initial, which suggests that it occurs at the left edge of CP, like wh-words in wh-questions.

When they occur alone, the universal quantifiers *psite* and *psiw* generally also come right before the verb. When they combine with a wh-word, they also often come right before the verb, although this tendency is not as strong as for a bare wh-word or for the quantifier by itself (as a look at the examples above will attest).
As for the distributive quantifier *yatte wen*, I believe it to be some kind of adverbial element. It generally appears close to the verb, but may appear on either side of it. Much more research needs to be done to understand how *yatte wen* works.

5.1 Discontinuous constituents

Discontinuous constituents are very frequent in Passamaquoddy, but they all conform to a specific pattern. This is for a quantifier or demonstrative to occur preverbally, while the rest of the NP occurs postverbally. Some examples follow:

(44) a. *Msite=hc* 'i-y-ult-ni-ya *naksqj-yik* young.woman-3P 3-located-Pural-Sub-3P
all=Fut 'All the young girls will be there.' (Mitchell 1921/1976, 5)

b. On *yag apc macephoga-n*, *wot olu mahtogets pcosol* then Quot again follow-Subord this.An Top rabbit last
pesqon eyi-t piyagtttikon one.Inan IC.have-3Conj wood.chip
'And he took off again—this Rabbit had only one chip left.' (E. Newell 1974, 6)

c. *Malom=ote moskuw-a-wa-l* 'khič-sakoma-m-uwa-l, not finally=Emph (3)-find-3Subj-3P-Obv
msiw sakomawam-a-t skitapiyi naka weyossis all govern-3Subj-3Conj man.ObvF and animal.ObvF
'At last they find their great chief, the one who governs all men and animals.' (Mitchell 1921/1976d, 12)

d. *Nutum-on eli newwok* pson-ot *coqols-ok* (1)-hear-InanObj C four.3P
'I heard that you caught four frogs.'

e. [*'sami wisokolamson*, *naka psite puscokpe piwoskul* because wind.blows.strongly and all be.wel.Inan firewood
etol-lu|wehke-c-il IC.Frog-use-3Conj-InanF
'because of the wind and the fact that all the firewood he uses is wet.' (W. Newell 1974, 2)

f. *Ipcol msite k-nactaham-ku-k skinuhsis-ok yut*, *kt-oqeci=hc* because all 2-hate-2Obj-3P young.man-3P here 2-try=Fut
nepuhnu-ku-k kill-2Obj-3P
'Since all the young men here hate you, they will try to kill you.' (Mitchell 1921/1976, 12)

5.2 Use as predicate

'Few', 'many', and numerals may serve as predicates, but other quantifiers may not. The division is not between those that are verbal, like 'few' and 'many', and those that are not, since numerals are not verbal. This is also not a strong-weak distinction, since 'some' and 'all' pattern alike in not being able to be predicates:

(45) a. *Nikt-ok pilsqehsis-ok wahkehssu-wok* that-3P girl-3P be.few-3P
'These girls are few.'

- b. Wahkehsu-wok nekomaw.
be.few-3P 3P
'They are few.'
- c. Nikk pilsqehsis-ok ktenagsu-wok.
that.3P girl-3P be.many-3P
'Those girls are a lot.'
- d. Neww-ok nekomaw.
Four-3P 3P
'They are four.'
- a. * Nekomaw psite.
3P all
'They are all.'
- b. * Nekomaw psiw.
3P all
'They are all.'
- c. * Pesku-wok nekomaw.
some-3P 3P
'They are some.'

As mentioned above, *psite* can be a predicate, but only in the fixed expression *nite psiw*, 'that's all'.

5.3 Scope

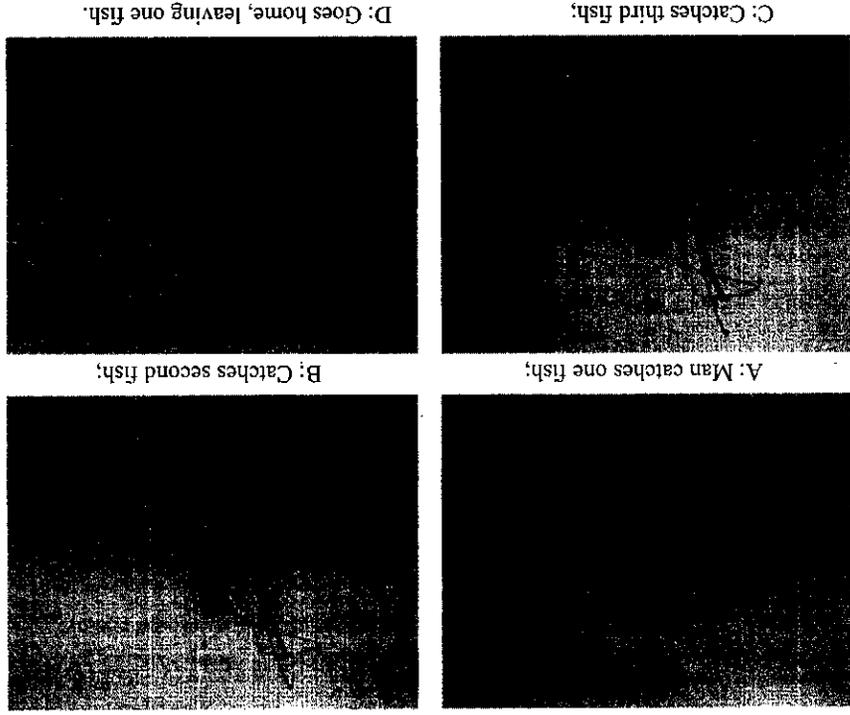
I have argued elsewhere (Bruening 2001, chapter 2) that scope interactions among quantifiers in Passamaquoddy reveal much about the clause structure of the language and the proper analysis of the direct-inverse opposition. Data collected since then, elicited using pictures created for the purpose and illustrated below, have confirmed the generalizations of Bruening (2001); I illustrate these generalizations here using the new data. The facts appear to be quite robust. Before showing the data with more than one quantifier, I illustrate the interaction between quantifiers and negation.

Negation. In order to test the interaction between universal quantifiers and negation, I created picture stories like the one illustrated below. In this story the man catches three out of four fish, and then leaves. Both of the sentences in (47a–b) are appropriate descriptions of what happened in this story, indicating that negation may take scope over a universal quantifier as object. In another picture story, not shown, the man does not catch any fish, but the same sentence (repeated with a continuation in 48) is also an appropriate description, meaning that the universally quantified object may also take scope over negation:

- (47) a. Mate =Emph 3-hook-3Subj-Neg.ObvP all fish.ObvP
'He didn't catch all the fish.' (Neg over all)
psite nomehsu.
Mate =Emph 3-hook-3Subj-Neg.ObvP all fish.ObvP
'He didn't catch all the fish.' (Neg over all)
- b. Mate =Emph all 3-hook-3Subj-Neg.ObvP fish.ObvP
'He didn't catch all the fish.' (Neg over all)
psite nomehsu.
Mate =Emph all 3-hook-3Subj-Neg.ObvP fish.ObvP then go-N
wikwa-k.
home-Loc
- (48) a. Mate =Emph all 3-hook-3Subj-Neg.ObvP fish.ObvP then go-N
nomehsu on macaha-n
Mate =Emph psite 3-hook-3Subj-Neg.ObvP fish.ObvP then go-N
'He doesn't catch all the fish and then he goes home.' (all over Neg)

That is, a universal quantifier as object may take scope above or below negation.

However, as Bruening (2007) shows, wh-words that are used as indefinites can only take scope below negation:



(49) Ma=tc wen 'kist-toh-a-wi-yil Piyel-ol
 Neg=Emph who 3-Perf-beat-3Subj-Neg-Obv P-Obv
 'No one beat Piyel.' (*'There is someone who didn't beat Piyel.')

Interactions among Quantifiers. I also constructed single pictures and asked whether sentences were appropriate descriptions of the situation they depicted. I give one example below, which illustrates that subjects can easily distribute over objects, whether the subject is singular or plural:



(50)

a. Psite skiap-i-yik 'sakolon-a-wa puthaya.
 all man-3P 3-hold.onto-3Subj-3P-ObvP bottle.ObvP
 'All the men are holding bottles.' (one each, distributive)

b. Psite skiap 'sakolon-a-l puthaya-l.
 all man 3-hold.onto-3Subj-Obv bottle-Obv
 'Every man is holding a bottle.' (one each, distributive)

A universal quantifier as subject does not need to distribute over the object; one informant offered this sentence as a description of a picture where everyone hooked the same fish simultaneously:

(51) Psite 'poh-a-wa-l peskuw-ol nomehs-ol
 all 3-hook-3Subj-3P-Obv one-Obv fish-Obv
 'Everyone hooked one fish.' (all hook same fish)

Similarly for *yatte wen*; this sentence can describe a case where all the whales are biting down on the same fish:

(52) Putepi-yik yatte wen 't-askikom-a-l nomehs-ol
 whale-3P each 3-bite.clamp-3Subj-Obv fish-Obv
 'Whales are each biting a fish.' (distr. or non-distr, biting same one)

This is not true for object quantifiers. An object may not take scope over a subject. The following sentences are not true where several men are each holding a bottle, or where several whales are each biting a fish, respectively:

(53) a. Skiap psite 'sakolon-a puthaya.
 man all 3-hold.onto-3Subj-ObvP bottle.ObvP
 'A man is holding all the bottles.' (only one man total)

b. Pesq putep psite 't-askikom-a nomchs.
 one whale all 3-bite.clamp-3Subj-ObvP fish.ObvP
 'One whale is biting all the fish.' (only one whale total)

Instead, these sentences only describe pictures where a single man is holding all the bottles, or where a single whale has all the fish in its mouth.¹⁶

However, this is only true when the direct voice is used (with the morpheme *-a-* described above). When the inverse is used, suddenly the object takes scope over the subject:

(54) Psite puthaya-k 'sakolon-oku-wa-l peskuw-ol skiap-i-yil.
 all bottle-3P 3-hold-3Obj-3P-Obv one-Obv man-Obv
 'One man is holding all the bottles.' (distributive, several men each holding one, non-distributive, one man holding all)

Importantly, an asymmetry arises between the direct and the inverse. In the former, the subject may take scope over the object, but the object may not take scope over the subject. In the inverse, the object may take scope over the subject; but the subject may also take scope over the object. The following sentence can describe two different pictures. In one, a single man is being attacked by all the whales, but in the other, different men are being attacked, one per whale:¹⁷

¹⁶ The same subject-object asymmetry holds with other kinds of transitive verbs, such as those that only take inanimate objects and those that only take secondary objects (the class sometimes called "A+O," meaning a intransitive verb with an animate subject ("A+")) that takes an object despite being formally intransitive). Neither of these classes has an inverse.
¹⁷ The pictures actually involved sharks, but the informant could not remember the word for shark (*sikolm*) and called them whales instead.

(55) Skiap psite 'gila-ku puepyi;
man all 3-attack-3Obj.ObvP whale.ObvP
'All the whales are attacking a man.' (distributive or non-distributive)

Note that the word order of this sentence is identical to that of (53a), but the possible interpretations are different. The only difference between them is that (53a) uses the direct voice, while (55) uses the inverse voice. The difference in possible interpretations could not be due to word order or to the discontinuous object. The generalization, stated in Brueining (2001, chapter 2), is that, in the direct voice, subjects rigidly take scope over objects, but in the inverse voice, objects most naturally take scope over subjects but subjects may also take scope over objects.

Brueining (2001) draws several important conclusions from this generalization. First, Passamaquoddy arguments, or quantificational ones at least, must be generated in argument positions, and not in adjoined (or nonhierarchical) positions as in various accounts of tree-word-order languages (e.g., Hale 1983, Jelinek 1984, Baker 1996). This is so because their possible scope interpretations are determined by their relative argument positions: subject over object, for instance. If they were simply adjuncts, their scope should be free, since adjuncts can be adjoined in any hierarchical order.

Second, this finding argues for a movement analysis of the inverse. To account for the scope facts, Brueining (2001) argues that the object undergoes a step of movement across the subject in the inverse voice. Generally, scope is strictly limited by the argument hierarchy: subjects are higher than objects. But by crossing over the subject, the object may now take scope over it. In addition, it may reconstruct, permitting it to take scope below the subject as well. This analysis also accounts for why weak crossover is missing in Algonquian languages in the inverse (Dahlstrom 1986); see Brueining 2001, chapter 2. The scope facts rule out other possible analyses of the inverse: If the arguments were simply base-generated in the opposite order in the inverse, scope should be rigid in the inverse just like it is in the direct, but it is not. (No one that I know of has actually advocated such a theory, but it is important to rule it out nonetheless.) Similarly, if the direct-inverse opposition were purely morphological, with the arguments generated in the same syntactic positions in both cases (as in Aissen 1997), we would expect no differences between them in possible scope interpretations.¹⁹

¹⁸ A reviewer suggests that the analysis of Rhodes 1976, 1994, and Perlmutter and Rhodes 1988 has this character; but that theory, couched within a Relational Grammar framework, involves simultaneous demotion of the subject and promotion of the object. The derivational nature of this analysis could potentially be exploited to give the scope facts, as in the movement theory I am advocating.
¹⁹ Ives Goddard (p.c.) suggests that a purely morphological theory of the inverse can be maintained, if the scope facts are only about the interaction between proximate and obviative NPs. I interpret this idea as a requirement that proximate NPs must c-command obviative NPs; in the inverse, the object would be required to raise over the subject, leading to the scope patterns reported here. While I do not have definitive data distinguishing this suggestion from the theory presented in the text, I believe that this alternative would miss the connection between the availability of syntactic movement and the morphological form of the verb. Where there is no morphological

Note that these judgments are quite robust, and do not vary from speaker to speaker (that I have found) or from time to time or context to context. It appears to be very strongly grammatically conditioned. In addition, word order very often mirrors scope, but not always, as the pair above showed. When word order is different, scope is determined not by word order but by the grammatical hierarchy (subject over object in the direct, object over subject over trace of object in the inverse). (In ditransitives, scope is rigidly subject > first object > second object in the direct voice, but scope between the subject and first object becomes free in the inverse.) In addition, as we saw above, the relative scope of a universal quantifier and negation is free, so it is not the case that scopal elements are simply fixed in Passamaquoddy. This is also shown by locative adjuncts, which can take either scope:

- (56) a. Psite passaqhenomakon ekhuteu/kolomu oposi-hkuk.
all lantern hang.lan/be.stuck.lan tree-Loc.P
'Every lantern is hanging in a tree.' (distributive)
- b. Psite oposi-hkuk kolomu passaqhenomakon.
all tree-Loc.P be.stuck.lan lantern
'In every tree is stuck a lantern.' (distributive)
- c. Possaqhenomakon kolomu psite oposi-hkuk.
lantern be.stuck.lan all tree-Loc.P
'A lantern is stuck in every tree.' (distributive)

In summary, quantificational NPs interact with the syntax of the direct-inverse opposition to produce only a limited range of interpretations.

6 ADVERBIAL AND VERBAL QUANTIFIERS

The preceding sections concentrated on nominal quantifiers, including floating *yatie wen* wh-words used as indefinites. This section turns to adverbial quantifiers and to quantificational preverbs.

inverse available (between two objects of a ditransitive, with so-called "AI+O" verbs, among others), scope is simply rigid.

6.1 *Psite* and *psiw* as adverbs

Both *psite* and *psiw* can appear without quantifying over a nominal argument, much like English *all* (in both languages this is clearest with a singular subject, where *all* could not be quantifying over the subject). In this use they typically (but not always) appear right before the verb, and again they may be modified by elements like 'almost':

- (57) a. Paholiyas **psiw** wap-sewe. priest all white-dress.3
 'The priest is all dressed in white.'
 b. Paholiyas **eluwte psite** wap-sewe. priest almost all white-dress.3
 'The priest is almost all dressed in white.'
 c. **Psite** paholiyas wap-sewe. all priest white-dress.3
 'The priest is all dressed in white.'
- (58) a. Espons nit willtpan **msite** nuteht[h]m-uw-a-n. Espons that brain all (1)-knock.out.from-Ditr-1Subj-N
 'That is Espons' brain that I have [completely] spattered.' (Mitchell 1921/1976a, 15)
- b. Koluskap '1-qiimu-m, 'kolumkew-ku, K. 3-loon-Poss.ObvP 3-hunt.for-3Obj.ObvP
 wimnasti-pomi-tuwiya-wolotu-wok **msite** noluwiw skitkomiq. aimless-along-fly-Plural-3P all everywhere earth
 'Koluskap's loons, his hunters, fly aimlessly all over the earth.' (Mitchell 1921/1976d, 9)

Passamaquoddy has a large inventory of preverbal elements that attach more or less loosely to the verb stem.²⁰ Some of them were illustrated in section 3.8, where they were quantified over

²⁰ In some cases the preverb seems to be tightly bound, as a prefix, to the verb stem (because the verb stem is itself a bound morpheme, and requires something to its left); in other cases it can be separated, either by overt material or by what sounds impressionistically like a word boundary. I transcribe preverbs rather inconsistently here, sometimes with a morpheme boundary (I try to use this only for cases of bound verb stems), sometimes with a clitic boundary ("=") when I do not hear a word boundary but the verb stem is not bound), sometimes as separate words (as they are often written in texts; I use this when it is my impression that there is a word boundary). I do not have the phonological expertise to be able to describe what exactly is going on, and the reader should use

6.2 Preverbs

In this use the universal quantifiers appear to be some kind of adverbial element.

- (61) a. **Tan** te=hc **kehs**-alk-iyin **naka tan kehsi**=ksomon-ot TAN Emph=Fut X.much-dig-2Conj and TAN X.much=push-2Conj
 wot opos, kat=te=hc k-moson-i-w. this.An tree Neg=Emph=Fut 2-catch-2Subj/1Obj-Neg
 'However much you dig and however much you push on this tree, you will not catch me.' (Mitchell 1921/1976a, 8)
- b. Nil kat op ape nit n-toll=komogq-i-w-on, **tan** le **kehsi**=mil-iyeq man. X.much=give-2PSubj/1ObjConj money
 'I'm not going down there again, no matter how much money you give me!' (Mitchell 1979, 20)
- c. Ni-assokitahas **tan kehsi**=pson-a-t cogqols. I-be-surprised WH X.many-catch-3Subj-3Conj frog.ObvP
 'I'm surprised at how many frogs he caught'
Kehsi=koti-pson-uk sikiliyem-ok. X.many-Fut-catch-1Conj cricket-3P
 'I'm going to catch a lot of crickets.'
- d. Note that in such cases, the preverb may quantify over the verb itself (amount of digging and

But it also appears as a bound prefix or a preverb:

- (60) **Kehsu-wok** paysihkolo-ok tepelom-oc-ik? X.many-3P bicycle-3P IC.own-2Conj-3P
 'How many bicycles do you have?'

Similarly, the stem *kehs*, 'X much', has a free form inflected like a verb (this sentence might literally be, 'How many are the bicycles that you have?'):

- (59) Paholiyas **wahkehsi**=wap-sewe. priest few=white-dress.3
 'The priest is partially dressed in white.'

by *tan*. Many preverbs are quantificational in nature; some also have free-standing forms. For instance, the stem for 'few', *wahkehs*, can be used as a quantificational preverb:²¹

these transcriptions with caution. Note that, even when separated from the rest of the verb stem, the agreement prefix on the verb attaches to the preverb, and Initial Change affects the first vowel of the preverb.
²¹ Many preverbs are derived from stems by addition of the vowel -i-.

pushing in (61a)) or over one of its arguments (second object in (61b), sole object in (61c-d)). There is also a series of preverbs that, when used with a singular argument, mean some-thing like 'completely', but when used with a plural argument X, quantify over that argument and mean 'all X'. These include *nokka* and *kikka*:²²

(62) a. *Nokka*=kuwh-a-l oposit-hil.

(3)-all=chop-down-3Subj-Obv tree-Obv

'He chopped the tree down completely.'

b. *Nokka*=kuwh-a oposit.

(3)-all=chop-down-3Subj-ObvP tree-ObvP

'He cut all the trees down.'

(63) a. *Keka te 'kikka* saputiy-a lokotom-on khakon,

almost Emph (3)-all through-eat-InanObj door

'He had just about gnawed his way completely through the door. . . .' (Gabriel

1979, 32)

b. *'Kikka* yaq ote macephu-wolotu-wok.

all Quot Emph run-away-Plural-3P

'Every one of them ran out.' (Newell 1979, 14)

These preverbs do not mean 'completely' with a plural argument; the only requirement is that every member of the quantified-over argument be affected. Consider the following pair of sentences, for instance, involving a morphologically complex verb meaning 'knock the teeth out of'. All the teeth have to be knocked out with a singular object, but with a plural object, the number of teeth does not matter; all that matters is that at least one tooth is knocked out of each member of the object set:

(64) a.

Nokka=mon-apti-ethah-a-l.

(3)-all=off-tooth-strike-3Subj-Obv

'He knocked all the teeth out of him.'

b.

Nokka=mon-apti-ethah-a.

(3)-all=off-tooth-strike-3Subj-ObvP

'He knocked a tooth/teeth out of all of them.'

Because the preverb quantifies over a plural argument, and does so as a universal quantifier, no incompatible quantifier may be used with that argument:

²² *Nokka* and *kikka* are historically allomorphic. *Nokka* appears when the verb stem has a prefix (because of a regular phonological rule, only the prefix *k-* is actually pronounced before the *n* of *nokka*), *kikka* when it does not. However, my informants do not always treat them this way, and I have found a few text examples that do not follow this rule, either (such as 63a). It is possible that some contemporary speakers are treating them as distinct but synonymous elements.

(65)

% *Nokka*=milla-a-n-ol

skinuhsis boy some-InanP rock-InanP

pesonnu-l ponapsku-l

'I gave the boy all some rocks.' (contradiction)

Quantificational preverbs fall under the scope of sentential negation:

(66)

a. *Kikka*=kisasu-ttu-wok.

all=be.ready-Plural-3P

'They are all ready.' (everybody)

b.

Ma=te 'kikka=kisasu-lti-wi-yik.

Neg=Emph all=be.ready-Plural-Neg-3P

'They are not all ready.' (some are not ready, the rest are)

that the preverb, perhaps by default, takes scope below the subject:

I have so far been unable to get clear judgments on whether these preverbs can interact scopally with quantificational arguments. The following type of example would be relevant, but I do not have a clear judgment regarding possible interpretations. I do know that this sentence can refer to just one man total (and the informant did interpret it that way), meaning

(67)

Pesq skitap nokka=psahl-a

kiwhosu.

one man (3)-all=skin-3Subj-ObvP

muskrat.ObvP

'One man skinned all the muskrats.'

But I do not know if the other interpretation is possible, where there is one man per muskrat.

One interesting fact about *kikka* and *nokka* is that, under appropriate conditions, they can quantify over an implicit argument. Passamaquoddy has indefinite subject forms, where the only argument that appears is the object, and the agreement indicates that the subject is unspecified, as in the following:

(68)

Litahasu-ttu-wok, *Kikusap 'kikka*=nokol-ut

monihsu-k, cu

think-Plural-3P *Kikusap* all=leave-IndefSubj/3ObjConj island-Loc surely

mehsine,

die.3

'They thought that if *Kikusap* were left behind on the island, he would die.' (Mitchell 1921/1976c, 6)

In discussing this sentence with an informant, it turned out that *kikka*'s role in the sentence is to specify that many people, not just one, are leaving him behind. This interpretation does not arise automatically, however. If the object is plural, the

most natural interpretation is that the preverb quantifies over that, and not over the indefinite subject, which is just unspecified.²³

- (69) Kivhosu-wok nokka=psehl-a-k
 muskrat-3P all=skin-IndeSubj/3Obj-3P
 'Someone skinned all the muskrats.'

Or if the verb is one that can be modified naturally by 'completely', the preverb is interpreted in that way with a singular object and indefinite subject:

- (70) Kivhos 'kivka=psehl-ut, ...

muskrat all=skin-IndeSubj/3ObjConj
 'If the muskrat is skinned completely, ...' (possibly just one person skinning it)

But in cases where that modification does not make sense, like with the verb 'see', and the object is singular, the preverb again quantifies over the indefinite subject:²⁴

- (71) Muwin nitte macaha-woloti-ni-ya
 bear all=see-IndeSubj/3ObjConj then (3)-leave-Plural-Sub-3P

'If the bear is seen (by all of them), they will leave.'

Passamaquoddy has numerous other quantificational preverbs. I will do no more than illustrate a few here. There is *milli*, meaning 'many, various':

- (72) a. Motahkomikuk kete meciw eci psi keq **milli**
 Motahkomikuk for.example formerly very all what various
 nomlitu-hiti-hiti

see-Plural-3PConj
 'At Peter Dana Point (Motahkomikuk), you know, it used to be that people saw a lot of strange things.' (Newell 1979)

- b. Laks kisi **milli** pomawsu, ...

Laks able variouslive-3

'Laks can live in many different ways. . . .' (Francis and Leavitt 1995, line 250)

The preverbs *aqami* and *piyemi* mean something like 'more' and 'most', respectively, and appear in comparatives:

- (73) a.

Nit eli-peciya-k, msite **aqami**=mუსqtahasu-tu-wok
 then IC.thus-come-InanConj all more-hate-Plural-3P

'So it comes to pass that they hate him all the more.' (Mitchell 1921/1976, 17)
Aqami ketokomahnu katok kotok-ik kcithku-k toll weyossis-ok; **aqami**
 more be.cunning-3 than other-3P forest-Loc ? animal-3P more
 nehkatomahnu katok psite kehsti-hiti
 be.dreadful.3 than all be.many-3PConj.

'He's [more cunning] than any other kind of animal in the woods, and crueler than all of them put together.' (Francis and Leavitt 1995, line 154)

- a. (74)

Yuhtoi **piyemi** te wolt-nuw-a-e-ii
 this.Obv most Emph good-find.looks-3Subj-3Conj-Obv that.3 Emph
 tomk tetomihk-ah-e-ii;
 first IC.catch.up.to-3ObjConj-Obv

'The one he thinks is prettiest catches up with him first.' (Francis and Leavitt 1995, line 51)

- b.

Yaka Kollu 'peciya-n; not yaka **piyemi** siki-ki-t psi
 kehsti-hiti pomaws-uli-e-ik.
 be.many-3PConj live-Plural-3Conj-3P

'Now Kollu himself comes—assuredly the most fearsome of all living creatures.' (Francis and Leavitt 1995, line 277)

For more on comparatives in Passamaquoddy, see Bruening (2006).

Fehki and *sesomi* appear to be very similar to *nokka* and *kikka* (at least in meaning 'completely'); *maw*, meaning 'together, as a group', was illustrated above (32); (*co*)*cepti* means 'separately'; *mehnuwi* means 'as much as possible'; *possomi* or *psomi* means 'fully'; *sami* means 'too much, excessively'; *sawe* indicates that the action of the verb takes place many times; *lepti* means 'enough'. There are many other preverbs in Passamaquoddy, expressing a variety of concepts. I have tried here to list the ones that seem to me to be of relevance to a discussion of quantification, but I am sure there are some that I have missed.

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²³ The expected form in (69) is *kikka* (see footnote 21), as in (70); I do not know if *nokka* is a mistake.
²⁴ The expected form in (71) is again *kikka*.

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**QUANTIFICATION:
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