Passamaquoddy quantifiers: Outlier of distributivity-number generalization?[1][2]

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Abstract. Recent work (Haslinger et al., 2023) proposes a cross-linguistic *Distributivity–Number Generalization* (DNG) for universal quantifiers (UQs): UQs combining with singular nominal complements enforce distributive interpretations, while those combining with plural complements allow non-distributive (collective or cumulative) readings. We present two apparent counterexamples from Passamaquoddy(-Wolastoqey), an Eastern Algonquian language. First, the UQs *i-pesq*/*ehtahsi-pesq* obligatorily combines with plural nominals but permits only distributive interpretations. Second, the UQ *psi-te* can combine with singular nominals and nevertheless yield collective readings. We argue that these facts can largely be reconciled with a unified semantics for UQs by positing a covert group-formation operator independently motivated by the absence of singular group nouns in Passamaquoddy. A residual puzzle concerning *psi-te* remains, which we leave for future research.

Keywords: distributivity, quantification, number, Passamaquoddy

1. Background: the Distributivity-Number Generalization

Building on Gil (1995), Haslinger et al. (2023) propose a refined, cross-linguistic generalization governing the interaction between universal quantifiers (UQs), nominal number, and distributivity (cf. Winter 2001). The generalization can be stated as follows.

(1) **Distributivity–Number Generalization (DNG)**
If the complement of a universal quantifier is
a. SINGULAR, it is [+dist] (restricted to distributive interpretations)
b. PLURAL, it is [−dist] (not restricted to distributive interpretations)

English illustrates this generalization straightforwardly. With a singular nominal complement, *every* enforces a distributive interpretation and is incompatible with collective predicates.

(2) **Every girl** ate 20 sausages/*met in the yard.
DISTRIBUTIVE, *CUMULATIVE, *COLLECTIVE

By contrast, when the nominal complement is plural, *all* allows not only distributive but also cumulative and collective interpretations.

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[2]Throughout, we cite examples collected in elicitations with a code—[elicitor initials]: [consultant initials] YYYY.MM.DD (elicitation date). JCR: J. Cooper Roberts, PG: Peter Grishin, EM: Edwina Mitchell, MA: Margaret Apt.

(3) **All the girls** ate 20 sausages/met in the yard.
DISTRIBUTIVE, CUMULATIVE, COLLECTIVE

Importantly, the DNG does not require a lexical distinction between distributive and non-distributive universal quantifiers. In some languages, a single lexical item can give rise to both interpretations, with the availability of distributivity correlating systematically with the number of the nominal complement. Syrian Arabic provides a clear illustration. The universal quantifier *kul* enforces distributivity with a singular complement but allows non-distributive readings with a plural complement.

(4) **kul tefi** akl tlet tufahat
UQ child.SG ate.SG three apple.PL
'Every child ate three apples.'
DISTRIBUTIVE, *CUMULATIVE

(5) **kul al atfal** akalu tlet tufahat
UQ DEF child.PL ate.PL three apple.PL
'All the children ate three apples.' [Syrian Arabic]
DISTRIBUTIVE/?, CUMULATIVE

To account for languages where [+dist] and [−dist] UQs share the same lexical item, Haslinger et al. (2023) argue that universal quantifiers share a single semantic denotation, given in (6).

(6) $\mathbf{Q}_{\forall} \coloneqq \lambda P_{\langle e,t\rangle}.\, \lambda Q_{\langle e,t\rangle}.\, \forall x.\, [P(x) \wedge \neg\exists y.\, (P(y) \wedge \exists z.\, (z \sqsubseteq x \wedge z \sqsubseteq y) \wedge y \not\sqsubseteq x)] \rightarrow Q(x)$

Intuitively, $\mathbf{Q}_{\forall}$ quantifies only over individuals that do not overlap with any other individual in the relevant domain, except for their own subparts. This semantics derives the DNG from independently motivated assumptions about the structure of nominal denotations. Figure 1 illustrates the maximal elements of singular and plural noun extensions

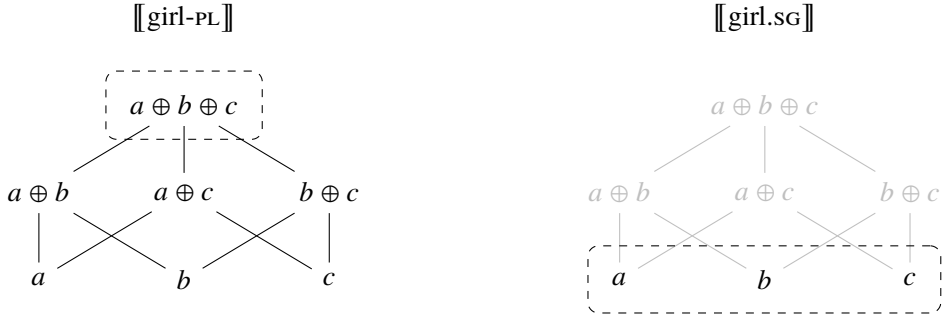
When $\mathbf{Q}_{\forall}$ combines with a singular nominal, the denotation contains only atomic individuals. Since atoms do not overlap with one another, quantification necessarily ranges over each atomic individual, yielding a strictly distributive interpretation. The contrast between singular and plural nominal complements thus follows directly from the interaction between $\mathbf{Q}_{\forall}$ and the mereological structure of nominal denotations.

By contrast, when $\mathbf{Q}_{\forall}$ combines with a plural nominal, whose denotation is closed under sum formation (Link et al., 1983), the non-overlap condition ensures that quantification targets the *unique maximal plurality* in the domain. As a result, distributive, cumulative, and collective interpretations are all in principle available.

2. Background: Passamaquoddy(-Wolastoqey)

The crucial data of this work comes from Passamaquoddy-Wolastoqey, which we take this section to introduce. It is an endangered Eastern Algonquian language spoken on the Maritime Peninsula of North America, territory that is now recognized as Maine, USA and New Brunsiwck, Canada. There are an estimated 500 speakers in total (Lewis et al., 2016), most if not all

Figure 1: Maximal elements of plural and singular noun extensions



of whom are over 60. This small speaker population and cessation of inter-generational transmission has raised concerns about the long-term vitality of the language, in turn prompting education, preservation, and revitalization efforts by community members and scholars.

There are two major dialects of the language: Passamaquoddy, spoken in Maine, and Wolastoqey, spoken in New Brunswick. The second of these is also called by the exonym *Maliseet/Malecite*. There are some differences between these two in the realms of phonology, morphology, and lexicon, but they are largely mutually-intelligible (Grishin, 2023: 17). For this reason, we follow a significant portion of the literature by calling the language as a whole simply *Passamaquoddy*.

Passamaquoddy bears many of the traits Algonquian in general is known for; it is strongly polysynthetic, has a complex polypersonal verbal agreement system, and exhibits great flexibility in word order. These features are on display in (7)-(8).[3]

(7) ’-puw-akson-tah-a-l ’-qoss-ol <e>wehkah-a-t cihkihikon-ol
3-shake-shoe-hit.TA-3OBJ-OBV.SG 3-son-OBV.SG <IC>use.TA-3OBJ-3.CJ broom-OBV.SG
‘She brushes the snow off her son’s shoes with a broom’

(8) on n-cihkihikon-ihtuh-uku-n nt-ehpit-em
CONJ 1-broom-hit.TA-INV-1PL 1-woman-POSS
‘...and then my wife hit us with a broom’

As far as the nominal domain is concerned, Passamaquoddy follows many Algonquian languages in having a grammatical gender system based on animacy. The distinction is semi-arbitrary, as all notionally-animate things like people and animals are grammatically animate, but notionally-inanimate things are split between animate and inanimate genders. For example, *suwon* ‘cranberry’ is inanimate, but *pskihqimins* ‘strawberry’ is animate. We direct the reader to Greenberg (1954); Hallowell (1955); Dahlstrom (1995); Quinn (2018) for discussion on the predictability of Algonquian gender.

Let us also briefly mention that third-person animates participate in a system called OBVIATION. These nouns are PROXIMATE (glossed PROX) in the unmarked case, but they can become OBVIATIVE (glossed OBV) if certain conditions are met; we abstain from the details here, but point curious readers to Grishin et al. (2024). Obviative morphology interacts with number, realized as *-ol* for singulars and a low-tone (notationally represented as `) for plurals.

[3]From Francis et al. (2024).

(9) a. emqan
'spoon (prox.)'
b. emqanol
'spoon (obv.)'

(10) a. emqanok
'spoons (prox.)'
b. emqàn
'spoons (obv.)'

Most relevant to the current work is that Passamaquoddy makes a two-way grammatical number distinction for nouns.[4] Number is marked with a suffix that depends on the head noun's animacy and obviation status (see (9)-(10), also (11)).

(11) a. askat
'skirt (inan.)'
b. askatol
'skirts (inan.)'

With the basics of Passamaquoddy grammar in place, we turn to §3. There, we present the data central to this work as it poses a problem for the generalization discussed in §1.

3. Two counterexamples to the DNG

In this section, we focus on three universal quantifiers found in Passamaquoddy: *i-pesq*, *ehtahsi-pesq*, and *psi-te*. The first of these is plausibly specific to the more-northern Wolastoqey dialect as we have yet to elicit or observe it with speakers of Passamaquoddy proper. It is decomposable to the numeral *pesq* 'one' and a distributive prefix *i-*. It also participates in concord with the head noun, exhibiting number, animacy, and (if applicable) obviation morphology. Original fieldwork shows that the predicate in the nuclear scope of this quantifier is morphologically-plural; the consultant rejects forms where the complement is singular (12).[5] Despite this, *i-pesq* has a necessarily distributive interpretation. This is suggested by the translation of (12a), but it is also shown by the inability of *i-pesq*-quantified nouns to combine with collective predicates like *maqehe* 'gather' out of the blue (13).

(12) a. i=pesku-wok **skitapi-yik** 't-opeltom-oni-ya-∅ 'tapakon
I=one-PROX.PL man-PROX.PL 3-have.TI-N-PL-IN.SG car.IN.SG

[4] A particular class of verbs (*animate intransitive*, AI) have been described as exhibiting a three-way distinction, introducing a dual form to the paradigm. See, e.g., the Peskotomuhkati-Wolastoqey Dictionary (Francis et al., 2024)).

(i) a. accossu 's/he changes color'
b. accossuwok 'they (2) change color'
c. accossultuwok 'they (3+) change color'

[5] It is possible that in earlier varieties or in other dialects that the complement must be singular. One dictionary (Francis et al., 2024) lists some examples where *i-pesq* takes a singular noun. Such examples also occur with *yat-te*, another distributive quantifier (not discussed here).

(i) yat-te wen k-mil-a-n i-pesku-wol cikoni-yil
YAT-TE who 2-give.TA+O-3OBJ-N I-one.AN-OBV.SG apple-OBV.SG
'Give one apple to each of them.'

The same resource lists examples where *i-* can combine with other numerals (ii), but our speaker who has *i-pesq* seems unable to use the prefix this way.

(ii) yat-te wen k-mil-a-n i-nisonu-l sukol-is-ol
YAT-TE who 2-give.TA+O-3OBJ-N I-TWO.INAN-IN.PL sugar-DIM-IN.PL
'Give each of them two candies.'

'Each man has a car.' JCR: EM 2024.10.18

b. *i=pesq **skitap** 't-opeltom-on-∅ 'tapakon
I-one.PROX.SG man.PROX.SG 3-have.TI-N-IN.SG car.IN.SG
Intended: 'Each man has a car.' JCR: EM 2024.10.18

(13) #i=pesku-wok **ehpic-ik** kisi= maqey-yik
I=one-PROX.PL woman-PROX.PL PFV= be.together.AI-PROX.PL
Intended: 'All the women gathered.' JCR: EM 2024.01.20

The same speaker who has (this use of) *i-pesq* has another quantifier *ehtahsi-pesq*. Like *i-pesq*, it requires that its first argument be morphologically-plural and it agrees with the features of said argument. Additionally, only a distributive interpretation is available (14)-(15).[6]

(14) ehtahsi=pesqonu-l **sqoci-yil** tkiqonu-l n-taluwi= pqanom-on-∅
EHTAHSI-one.IN-IN.PL pumpkin-IN.PL be.heavy.II-IN.PL 1-fail= lift.TI-N-IN.SG
'Every pumpkin is heavy, I can't lift it' JCR: EM 2025.10.16
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(15) *ehtahsi=pesqon **sqoc** tkiqon-∅ n-taluwi= pqanom-on-∅
EHTAHSI-one.IN.SG pumpkin be.heavy.II-IN.SG 1-fail= lift.TI-N-IN.SG
Intended: 'Every pumpkin is heavy, I can't lift it' JCR: EM 2025.10.16

Finally, there is the quantifier *psi-te*. For some speakers, it can be combined with either a singular or plural noun phrase. Interestingly, Bruening (2008) reports that both distributive and collective interpretations are available regardless of the grammatical number of the complement. For example, a predicate like *'tawi-pokomu* 'know how to skate' is necessarily distributive because knowledge is a property of atomic individuals, not pluralities. Yet, it can take a subject like *psi-te wasisok*, which is plural (16). Conversely, *naci-mawsqesu* 'going to gather' can only be collective since a gathering event cannot hold of a single atomic individual. However, it can appear with *psi-te skicin*, which is singular (17).

(16) psi-te **wasis-ok** 'tawi= pokom-ultu-wok
PSI-EMPH child-PROX.PL know.how= skate.AI-PL-PROX.PL
'Every child knows how to skate.' (Bruening, 2008: p. 80)

(17) psi-te **skicin** naci= mawsqesu-∅
PSI-EMPH Indian.PROX.SG go.do= gather.AI-PROX.SG
'Every Indian is going to gather.' (Bruening, 2008: p. 80)

[6]One interesting difference between *i-* and *ehtahsi-* is the latter's ability to combine with a verb. In this case, *ehtahsi-* seems to quantify over events (i). Data from fieldwork suggests this is not a property of *i-* (ii).

(i) ehtahs=lahqe-t n-siwehs 't-olaqosom-on-∅ wiyuhs
EHTAHSI=cook.AI-3CJ 1-brother.PROX 3-cook.TI-N-IN.SG meat.IN
'Every time my brother cooks, he cooks meat' JCR: EM 2026.01.15

(ii) *i=lahqe-t n-siwehs 't-olaqosom-on-∅ wiyuhs
I=cook.AI-3CJ 1-brother.PROX 3-cook.TI-N-IN.SG meat.IN
Intended: 'Every time my bother cooks, he cooks meat' JCR: EM 2026.01.15

On top of more more-typical noun phrases, *psi-te* can also take quexistentials such as *wen* 'who/one'. Observe in (18)-(19) that this quantified quexistential can be either singular or plural.[7] Furthermore, the use of the singular does not preclude the possibility of combining with collective predicates like *maqehe* 'be together, gather' (20).

(18) psi-te **wen** siktewocu-∅ welaqik
PSI-EMPH WHO.PROX.SG be.cold.AI-PROX.SG last.night
'Everyone was cold last night.' PG: EM 2023.12.04

(19) psi-te **weni-k** mocimahsu-ltu-wok
PSI-EMPH WHO-PROX.PL stink.AI-PL-PROX.PL
'Everyone stinks' PG: EM 2023.12.04

(20) psi-te **wen** maqehe-∅
PSI-EMPH WHO.PROX.SG be.together.AI-PROX.SG
'Everyone gathered.' JCR: EM 2024.01.20

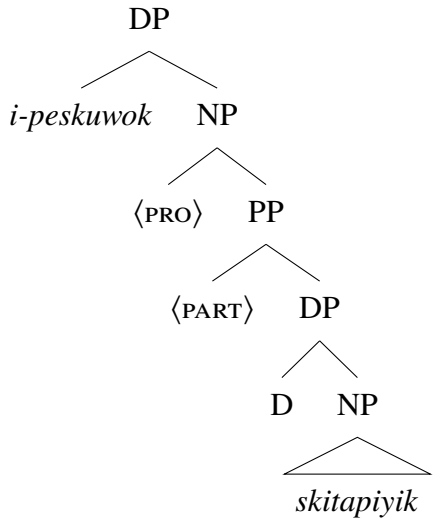
In summary, each of the three universal quantifiers presented in this section present a challenge to the DNG. The first two, *i-pesq* and *ehtahsi-pesq* require their complement be plural, a configuration that is predicted to allow collective and distributive interpretations (i.e., [−dist]). Yet, we show that collective interpretations are banned under these quantifiers (13), (14), suggesting it is in fact [+dist]. The remaining quantifier, *psi-te*, is problematic for the opposite reason. It is selectionally-flexible in being able to take a singular or plural argument, and the DNG predicts that it should be [+dist] when it takes a singular. In actuality, *psi-te* + NP.SG must be [−dist] since it can combine with collective predicates as in (17) and (20).

4. Two means of reconciling *i-pesq*, *ehtahsi-pesq*

Here, we suggest two possible paths for making sense of *i-pesq*/*ehtahsi-pesq*'s behavior with regard to the DNG. The first of these is to assume that DPs quantified by these items are actually (zero) partitive constructions which contain a (plausibly-silent) pronominal item, giving them a structure like that in (21). This configuration makes it so that, despite appearances, the UQ is not combining with a plural DP directly; rather, it takes a (presumably singular) nominal heading a partitive construction, and this is what is quantified over. As it so happens, this is what Haslinger et al. (2023) propose for counterexamples to the generalization found in Q'anjob'al and St'át'imcets which also exhibit a [+dist] semantics despite taking a plural complement (22).

[7] It is worth noting, though, that our consultants tend to use the singular *psi-te wen* over *psi-te wenik*. Bruening (2008, fn. 11) additionally acknowledges that text examples of *psi-te* + a plural quexistential are sparse.

(21)



(22) #Zí7zeg i sqáycw-a gew'p
each pl.det man-DET meet
Intended: 'All of the men met' St'át'imcets (Matthewson, 1999: ex. 42-b)

There are two empirical points which support such an approach. First, while *i-pesq*/*ehtahsi-pesq* bear plural agreement with the head noun, they still contain an element that indicates singularity (i.e., numeral *pesq* 'one'). Furthermore, Passamaquoddy happens to be an article-less language, and as a consequence nouns will often appear bare. Ergo, it can be difficult to tell for any given nominal whether it is a DP or something smaller (NP, etc.). A clear prediction of the (zero) partitive account is that these UQs can quantify over objects larger than an NP. As it so happens this prediction is realized; (23) shows that *i-pesq* can range over nominals like *nsiwehsok* 'my brothers', which bear possessive morphology. Ergo, this UQ can take either DPs (if possessors are merged at [Spec, DP]) or at least something like a PossPs (if possessors exist in their own functional projection—see Delsing 1998). On either account the UQ takes a syntactic object larger than an NP, lending credibility to the covert partitive analysis.

(23) n-siwehs-ok 't-olaqosom-oni-ya wiyuhs i=pesku-wok
1-brother-PROX.PL 3-cook.TI-N-PL meat.IN I=one-PROX.PL
'Each of my brothers cook meat' JCR: EM 2025.10.02

Alternatively, we could propose that there is a covert operator **G** to convert a set of pluralities into a set of group atoms based on a cover. This operator is defined in (24).

(24) $\mathbf{G}_{\text{Cov}} \coloneqq \lambda P_{\langle e,t\rangle}.\, \lambda g_e.\, \exists X_e \in \text{Cov}.\, g = \uparrow X$ where Cov is a set of individuals that cover $\bigoplus P$.

This operation is not mere stipulation as it is independently needed to express group meanings in Passamaquoddy, a possible consequence of the language's apparent lack of group nouns like English *team* or *committee*.[8] In lieu of these kinds of nominals, speakers will often use plural nouns or headless relative clauses. Yet, some speakers can still count and predicate of contextually-

[8]Originailly brought to our attention by Peter Grishin.

salient groups which these pluralities compose despite there being no overt reference to a group (see also Roberts et al. 2025). This can be seen transparently in (25)-(26).

(25) yaliqsenomu-c-ik 'kan-ey-∅
oversee.TA-3.CJ-PROX.PL old-ADJZ-SG
'The steering committee is an old one.' JCR: MA 2025.04.11
⇏ 'The steering committee members are old.'

(26) nisonu-l nuci=epeskom-hoti-htit ehte-k Sipayik
be.two.II-IN.PL regularly=play.ball.AI-PL-3PL.CJ IC.be.there.II-IN.CJ Sipayik
'There are two baseball teams in Sipayik.' JCR: MA 2025.05.02
⇏ 'There are two baseball players in Sipayik.'

Fortunately, such an operation can also be invoked for the purposes of reconciling *i-pesq*/*ehtahsi-pesq* with the DNG. $\mathbf{G}_{\text{Cov}}$, with the Cov containing pluralities corresponding to the contextually salient groups, makes such counting possible. Incidentally, the inanimate morphology (IN) we see on 'two' and 'be.there' in (26) suggests that these groups can be Agreed with.[9] When $\mathbf{Q}_\forall$ applies to $\mathbf{G}_{\text{Cov}}(\llbracket\text{NP-PL}\rrbracket)$, each group is quantified over, since the group atoms cannot overlap. Both the distribution-to-member and the distribution-to-committee readings are derivable for (27):

(27) i=pesku-wok litposuwinu-wok '-kotuw-ewestuwawam-a-∅
I=one-AN.PL council.member-PROX.PL 3-going.to-speak.TA-3OBJ-PL-3CJ-PROX.SG
not kehkimsu-lti-c-ik
that.AN learn.AI-PROX.PL
'Each committee/each member of the committee spoke to the students.'
JCR: EM 2024.11.11

Furthermore, groups can share members without the group atoms themselves overlapping each other. For example, $g_1 = \uparrow(a \oplus b)$ and $g_2 = \uparrow(a \oplus c)$ share the member a, but still $\neg\exists x.\, x \sqsubseteq g_1 \wedge x \sqsubseteq g_2$. This means $\mathbf{Q}_\forall$ will be able to quantify over groups with shared members; if groups were not available, $\mathbf{Q}_\forall$ would only be able to quantifier over non-overlapping pluralities, as per its definition in (6). This predictdion is borne out. (28), which has another distributive UQ *yat-te*, can be true in a situation where one player is on multiple teams.

(28) yat-te epeskoma-c-ik tomhuwe-k tuciya-k elluhkemk
YAT-TE play.ball-3.CJ-PROX.PL win.AI-PROX.PL go.by.AI-3.CJ week.CJ
✓ 'Every team won last week' JCR: MA 2025.08.15

Example (29) illustrates the analysis in detail. Suppose that `council_members` $= *\{a, b, c, d\}$, and that a, b are a council, and that c, d are a council. Then, choosing $\{a \oplus b, c \oplus d\}$ as the

[9] On some occasions, the same speaker prefers animate agreement morphology with groupified nouns, as in (i).
(i) nuhu-wok epeskoma-c-ik
be.three.AI-PROX.PL play.ball.AI-3.CJ-PROX.PL
'Three teams' JCR: MA 2025.08.15
At this point, it is unclear what licenses inanimate/animate morphology in group contexts.

cover makes **G** return the set of council group atoms. Choosing $\{a, b, c, d\}$ as the cover makes **G** return the set of council members.

(29) a. $\mathbf{G}_{\{a\oplus b, c\oplus d\}}(\texttt{council\_members}) = \{\uparrow(a \oplus b), \uparrow(c \oplus d)\}$.
b. $\mathbf{G}_{\{a,b,c,d\}}(\texttt{council\_members}) = \{\uparrow a, \uparrow b, \uparrow c, \uparrow d\}$.

Because the sets produced, such as those in (29), contain only group atoms, which do not overlap, $\mathbf{Q}_\forall$ is able to quantify over all of them as if it were the universal quantifier traditionally understood ($\lambda P.\, \lambda Q.\, \forall x.\, P(x) \rightarrow Q(x)$).

Recall that *i-pesq* and *ehtahsi-pesq* cannot produce collective readings. However, given the machinery introduced, the collective reading is derivable, as long as we assume the availability of the singleton cover, i.e., $\text{Cov}_{\text{max}} \coloneqq \{\bigoplus[\![\text{NP-PL}]\!]\}$.

(30) $\mathbf{Q}_\forall(\mathbf{G}_{\text{Cov}_{\text{max}}}([\![\text{NP-PL}]\!])) = \lambda Q.\, \forall x \in \{\uparrow(a \oplus b \oplus c \oplus d)\}.\, Q(x) = \lambda Q.\, Q(\uparrow(a \oplus b \oplus c \oplus d))$

There is a solution to this problem. We follow Haslinger et al. (2023: a.o.) in assuming that quantifier domains can not be a singleton set. The argument of $\mathbf{Q}_\forall$ given Cov_{max} is a singleton, i.e., $\{\uparrow(a \oplus b \oplus c \oplus d)\}$. This will then rule out the choice of Cov_{max} as the cover for **G**, and therefore the collective reading of *i-pesq* + NP-PL.

5. The puzzle of *psi-te* persists

Recall that we can obtain collective readings for *psi-te* + NP.SG. If we assume the same mechanism is responsible for such collective readings as for the distributive readings of *i-pesq* + NP-PL, then a problem arises: We need to relax the ban on singleton domains for quantifiers, but just for *psi-te*. Once the constraint is relaxed, the cover $\{\bigoplus[\![\text{NP.SG}]\!]\}$ can be used with *psi-te* + NP.SG to derive the collective reading. However, this relaxation of the ban just for *psi-te* is an ad hoc stipulation. Additionally, if such covers and **G** are generally available, NP.SG is predicted to be compatible with collective readings without UQs, contrary to fact.

(31) *pesq ehpit maqehe-∅
one woman.PROX.SG gather.AI-PROX.SG
Intended: 'Some women gather.' JCR: EM 2024.01.20

The puzzle of the collective readings of *psi-te* + NP.SG is thus left for future research.

6. Conclusion

In summary, we discuss three quantifiers in Passamaquoddy—an endangered and under-described language—which seemingly contradict a cross-linguistic generalization on the interpretation of quantifiers and the grammatical number of their complement (Haslinger et al., 2023). In many languages, a UQ which takes a morphologically-singular complement (e.g., *every boy*) has a necessarily-distributive meaning; meanwhile, a UQ which takes morphologically-plural complement (*all the boys*) additionally have access to collective and cumulative interpretations. Data

from original fieldwork and Bruening (2008) suggest that Passamaquoddy is an exception to the DNG; UQs *i-pesq* and *ehtahsi-pesq* require their complement be plural but only have a distributive interpretation. In contrast, some speakers allow the UQ *psi-te* to combine with singular nouns, yet this configuration does not preclude the possibility of collective interpretations.

For the first two, we suggest two possible routes. It could be that *i-pesq*, *ehtahsi-pesq* are not combining with NPs directly but are instead heading partitive constructions analogous to English *each*-partitives (e.g., *each of the boys*). This is plausible given aspects of Passamaquoddy syntax and the inclusion of a singularity-denoting element *pesq* 'one'. The alternative is to posit a group-formation operator which can take a set of pluralities (NP.PL) and return a set of group atoms defined by a contextually-supplied cover. Such a device is independently motivated by the ability of some speakers to count and predicate of groups of atomic individuals and distribute to subpluralities of a plural individual.

The final UQ, *psi-te*, is not so easily resolved. To prevent the collective reading for *i-pesq*/*ehtahsi-pesq*, we assume a ban on singleton domains (i.e., where the only member of the set in the nuclear scope of the quantifier is the maximal plural individual for a given predicate). We could relax this constraint for *psi-te* so that a cover could apply to the set denoted by NP.SG and return a set containing the maximal plural individual $\{\bigoplus[\![\text{NP-PL}]\!]\}$. Without independent motivation, though, this position is ad hoc. Pending a satisfactory account of *psi-te* + NP.SG, it may well be the case that Passamaquoddy represents a genuine counterexample to the DNG.

References

Bruening, B. (2008). Quantification in passamaquoddy. *Quantification: A cross-linguistic perspective*, 67–103.

Dahlstrom, A. (1995). Motivation vs. predictability in Algonquian gender. *Algonquian Papers-Archive 26*.

Delsing, L.-O. (1998). Possession in Germanic. In *Possessors, predicates and movement in the determiner phrase*, pp. 87–108. John Benjamins Publishing Company.

Francis, D. A., R. M. Leavitt, and M. Apt (2024). Passamaquoddy-Maliseet language portal; language keepers and Passamaquoddy-Maliseet dictionary project.

Gil, D. (1995). Universal Quantifiers and Distributivity. In E. Bach, E. Jelinek, A. Kratzer, and B. H. Partee (Eds.), *Quantification in Natural Languages*, Studies in Linguistics and Philosophy, pp. 321–362. Dordrecht: Springer Netherlands.

Greenberg, J. H. (1954). Concerning inferences from linguistic to nonlinguistic data. *Language in culture 56*(6 Part 2).

Grishin, P. (2023). Lessons from cp in passamaquoddy and beyond. *Dissertation, MIT*. `https://ling.auf.net/lingbuzz/007567`.

Grishin, P., E. Newman, and G. Roversi (2024). Obviation in Passamaquoddy-Wolastoqey: Dependent case? *Presented at Understanding Obviation Workshop*.

Hallowell, A. I. (1955). *Culture and experience*. University of Pennsylvania Press.

Haslinger, N., N. A. Hien, E. Rosina, V. Schmitt, and V. Wurm (2023, October). A unified semantics for distributive and non-distributive universal quantifiers across languages.

Lewis, M. P., G. F. Simons, and C. D. Fennig (2016). *Ethnologue: Languages of the World*. SIL International.

Link, G. et al. (1983). The logical analysis of plurals and mass terms: A lattice-theoretical approach. *Formal semantics: The essential readings 127*, 147.

Matthewson, L. (1999). On the interpretation of wide-scope indefinites. *Natural language semantics 7*(1), 79–134.

Quinn, C. M. (2018, 11). Productivity vs predictability: Evidence for the syntax and semantics of animate gender in four northeastern-area algonquian languages. In *Gender and Noun Classification*. Oxford University Press.

Roberts, J. C., H. Li, and Y. Jiang (2025). How to talk about groups in a language without group nouns: the case of Passamaquoddy. *Presented at TripleA 12*.

Winter, Y. (2001). *Flexibility Principles in Boolean Semantics: coordination, plurality and scope in natural language*. Cambridge, Massachusetts: MIT Press.