Split Coordination in Passamaquoddy*

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1 Introduction: Types of Coordination

The most familiar type of coordination is that of English, illustrated below, where two constituents are coordinated with an overt marker of coordination, *and* in English:

- (1) a. Me and Thmug are going downtown.
 - b. I need to talk with you and Thmug.

In such coordinations, the two constituents appear to be of equal status with regard to grammatical role, case, and other syntactic phenomena (although asymmetries appear on closer inspection; for a good overview, see Progovac 1998).

Another form of coordination appears in many languages and has received wide attention; this is *comitative coordination*, in which the coordinator is not *and* but something equivalent to *with*, as illustrated in the examples below, from McNally 1993:

(2) Russian

a. Anna i Petja pridut. regular coordination
A.Nom and P.Nom come-3P

'Anna and Peter are coming.'

Anna s Petej napisali pis'mo.
 A.Nom with P.Inst wrote-P letter
 'Anna and Peter wrote a letter.'

The two NPs in this construction agree together on the verb (note plural agreement), just like in coordination with *and*, but they are not symmetric in case (the second NP receives instrumental case in Russian), and this type of coordination may not iterate.

A third type of coordination that has received less attention is called *verb-coded coordination* by Schwartz (1988b). In this type, illustrated in the following examples from Schwartz (1988b), the full NP is signalled only in the verbal agreement, while only part of that NP appears as a syntactic argument. For instance, in (3), the subject is signalled to be first person plural by the verbal agreement, but only part of the first person plural appears as an argument, in this case with an overt *and* (even though the first part of the conjunction is missing):

(3) Bulgarian

Otidohme s majka mi na paza. went.1P and mother my to market 'My mother and I went to the market.'

(4) Dakota

Niye kići Tim oũkiyakte. 2S and T. help.3S/12.Fut 'Tim will help you and me.'

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Schwartz points out that only null pronoun languages have verb-coded coordination. Others have suggested that verb-coded coordination is the same construction as comitative coordination, or that it, or both it and comitative coordination (Aissen 1989), are related to another construction called the *plural pronoun construction* (Schwartz 1988a, Ladusaw 1988, Vassilieva and Larson 2001, among others). I will not illustrate this construction here since it is limited to pronouns; see the references cited, and the Passamaquoddy examples in Section 2.2.2 and the appendix.

The purpose of this paper is to introduce and analyze yet another type of coordination in Passamaquoddy, which I will call *split coordination*. As far as I am aware this construction has only been noted in print in an unpublished manuscript by Quicoli (undated), in the closely related language Micmac (both languages are members of the Algonquian family of North America); I learned of the construction from Ken Hale (personal communication). In this construction two NPs agree together as a plural subject of a verb, but one appears before the verb while the other appears after the verb and is marked obviative (see below):

(5) Piyel ali-wiciyew-t-**uwok** Mali-wol. P. around-go.with-Recip-**3P** M.-Obv

'Piyel and Mary are going around with each other.'

The verbal agreement here is just like it is in the English type of coordination, where an overt and appears:

Piyel naka Mali ali-wiciyew-t-uwok.
 P. and M. around-go.with-Recip-3P
 'Piyel and Mary are going around with each other.'

I will show below, however, that the two NPs in split coordination act in many ways like separate syntactic arguments (for obviation, extraction, and other phenomena). I will give an analysis in which the two NPs *are* separate arguments, but are interpreted semantically as the same argument. The particular analysis makes use of a second specifier of v, the head that introduces the external argument. This second specifier of vP is argued by Chomsky (1995, 1998, 1999) to serve the functions of licensing the object of a verb and permitting success-cyclic movement. I show that split coordination argues that this is correct, since split coordination is incompatible with a direct object (it would take up the object licensing position) and with successive-cyclic movement, which also needs to stop in that position. Split coordination thus provides some empirical support for Chomsky's view of object licensing and successive-cyclic movement. It also requires a reformulation of the Phase Impenetrability Condition (Chomsky 1998), which leads to a better account of strong islands.

This construction is also interesting in that it is a sort of "missing link" (in the words of Hagit Borer, personal communication) between sentences like *John met Mary* and the almost synonymous *John and Mary met*. In the first, the two NPs are syntactically distinct arguments: one is subject and one is object. In Passamaquoddy, the second NP in split coordination *acts* like an object in various syntactic respects, but is interpreted as part of the subject, as in the second member of the English pair. Although the connection is not completely obvious at this point, the hope is that split coordination of the Passamaquoddy type will eventually shed some light on these English alternants.

2 Passamaquoddy

Before turning to split coordination, some background on Passamaquoddy is necessary. Passamaquoddy is an Eastern Algonquian language spoken in two communities in Maine, Sipayik (Pleasant Point) and Motahkomikuk (Indian Township). A mutually intelligible dialect known as Maliseet is spoken in New Brunswick, Canada (and in one location in Maine). All data (unless a published source is cited) come from my own fieldwork carried out in Sipayik and (primarily) Motahkomikuk in 2000–2003. Examples are given in the practical orthography in use in the Passamaquoddy community. ¹

2.1 Morphosyntax

Passamaquoddy is a head-marking language (Nichols 1986) with very complex verbal (and nominal) morphology. Verbal agreement is on a Direct-Inverse system, in which the same agreement morpheme can index different grammatical roles. In the following examples, the second person argument agrees in the prefix, while the third person argument agrees in a final suffix. The Direct marker indicates that the second person is the subject; the Inverse marker indicates the opposite:²

¹Passamaquoddy 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 $\langle o \rangle = \text{schwa}$, $\langle q \rangle = [kw]$, $\langle hC \rangle$ indicates a (pre-)aspirated consonant, and $\langle ' \rangle$ is an initial w whose phonetic effect is aspiration of the following stop or tensing of s. Consonants are voiced or tensed intervocalically and initially.

²Abbreviations: **3** = proximate third person; **3P** = proximate third person plural; **An** = animate; **C** = complementizer; **Conj** = Conjunct inflection (subordinate clauses, wh-questions); **Dim** = Diminutive; **Ditr** = ditransitivizing morpheme; **Dir** = Direct voice; **Dub** = dubitative; **Emph** = emphatic particle;

(7) a. K-ucem-a-k. b. K-ucem-ku-k. 2-kiss-**Dir**-3P 2-kiss-**Inv**-3P 'You kissed them.' 'They kissed you.'

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 as Direct; if it is the object, it is Inverse:

- (8) a. Pesq muwin '-toli-nuhsuphoqal-à mahtoqehsù. one bear 3-Prog-chase-**Dir**.ObvP rabbit.ObvP 'One bear (Prox) was chasing some rabbits (Obv).'
 - b. Mahtoqehs '-toli-nuhsuphoqal-ku-l muwinuw-ol. rabbit 3-Prog-chase-Inv-Obv bear-Obv
 'A rabbit (Prox) was being chased by a bear (Obv).'

There are two main paradigms of verbs, the Independent and the Conjunct. The Conjunct 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:

(9) a. Conjunct b. Independent ciksotu-linohq b. Isten.to-12ConjInvNeg 2-listen.to-Inv-Neg-1P-3P 'he/she/they do(es)n't listen to us (Incl)' 'they don't listen to us (Incl)'

The Independent is used in main clauses and several other environments, while the Conjunct is generally used in embedded clauses and questions.

Third person subjects of intransitives agree like objects of transitives, unlike first and second person subjects (the prefixes are n-, k-, '- (1, 2, 3) before consonants, nt-, kt-, 't- before vowels):

(10) a. opuw-ok b. n-tokom-a-k c. nt-op sit-3P 1-hit-Dir-3P 1-sit 'they sit' 'I hit them' 'I sit'

Intransitives distinguish dual from plural through a stem marker of plurality:

(11) a. 'toma-(w) b. 'toma-k c. 'tom-**hotuw**-ok smoke-3 smoke-3P smoke-Plural-3P 'the/she smokes' 'they (D) smoke' 'they (P) smoke'

With this much background, we can turn specifically to coordination.

2.2 Coordination

Passamaquoddy has the familiar English type of coordination, with a word meaning 'and':

(12) Piyel naka Mali ali-wiciyew-t-uwok.
 P. and M. around-go.with-Recip-3P
 'Piyel and Mary are going around with each other.'

This conjunction is used to coordinate all kinds of categories, not just NPs. The following examples illustrate VP and V coordination (example 13 could be coordination somewhere above VP, but below Tense; the two verbs are sharing a future second-position clitic, =(o)c):

(13) K-tomokuhu-ku-k=c naka k-tomokipil-ku-n.
2-crush-Inv-3P=Fut and 2-trample-Inv-N
'They'll crush you and trample you.' (Mitchell 1921/1976b, 12)

Fut = future; Hes = hesitation pronoun; IC = Initial Change (ablout); II = inanimate intransitive; Inan = inanimate; Intr = detransitivizing morpheme; Inv = Inverse voice; Loc = locative; Obv = obviative third person; ObvP = obviative third person plural; ObvS = obviative subject marker; N = morpheme with several distinct functions; Neg = negative; P = plural; Part = participle agreement (head of relative clause or wh-phrase); Perf = preverb that usually has perfective or past tense interpretation; Plural = stem marker of plural subject; Pret = preterite; Quot = quotative particle; Recip = reciprocal; Refl = reflexive.

(14) Nit etuci Koluskap wihqno-k naka mace-ptu-n wapap, naci-koluluwew-a-n Mikcic-ol. then at.that.point K. take-3Conj and (3)-start-take.with-N wampum (3)-go.do-speak.for-Dir-N M.-Obv 'Taking wampum, Koluskap goes to negotiate on behalf of Mikcic.' (Lit. 'Koluskap takes and carries wampum to go speak for Mikcic.')

In addition, Passamaquoddy has other means of coordinating NP arguments besides the split coordination that is the focus of this paper. I will illustrate them here simply for the sake of completeness.

2.2.1 Verb-Coded Coordination

In addition to split coordination, the main concern of this paper, Passamaquoddy possesses verb-coded coordination. In this construction the verbal agreement signals a plural subject, but only one, in this case singular, NP appears in the sentence. In Passamaquoddy there is no *and* in this construction:

- (15) a. Pesqon te etut-kawtiy-**ek** cihkonaqc. same Emph IC.such.extent-walk(D)-1PConj turtle 'Me and a turtle walk the same speed.'
 - Mali itomu-k eli nomiy-a-htit Piyel-ol Kehlis-k.
 M. say-3P C see-Dir-3PConj P.-Obv C.-Loc
 'Mary and him/her (someone else) said they saw Piyel in Calais.'

If there is an overt and, an overt pronoun must appear. Compare the following two examples:

- (16) a. Nil naka Piyel eci assokitahasi-yek. 1 and P. very surprised-1PConj 'Me and Piyel were very suprised.'
 - b. Piyel eci assokitahasi-yek.P. very surprised-1PConj'Me and Piyel were very suprised.'

2.2.2 The Plural Pronoun Construction

Passamaquoddy also has a construction that was alluded to above known as the plural pronoun construction (Schwartz 1988a). In this construction a plural pronoun appears juxtaposed with an NP, but, even though there is a plural pronoun plus an NP, the number of the whole is only two. This is visible in Passamaquoddy in the lack of plural morphology when the verb is intransitive:

(17) Kociciy-ul-pa **kiluwaw Piyel** keq weci oli-yay-**eq** Kehlis-k. know.TA-1/2-2P 2P P. what because there-go-2PConj Calais-Loc 'I know why you (sg.) and Piyel are going (dual) to Calais.'

Kiluwaw by itself is second person plural; but in this construction there is only a second person singular. For analyses of this construction, see Ladusaw 1988, Vassilieva and Larson 2001, and the references cited there.

Verb-coded coordination does look just like the plural pronoun plus pro-drop in Passamaquoddy, as Aissen (1989) claims; the pronoun part of the conjunction can be dropped, just like any pronoun, resulting in verb-coded coordination:

(18) (Kiluwaw) k-itap k-toli-nomiy-uti-pa Kehlis-k.
 (2P) 2-friend 2-there-see-Recip-2P Calais-Loc
 'You (sg.) and your friend saw each other (dual) in Calais.'

I will not have anything to say about verb-coded coordination or the plural pronoun construction; I give examples here only for illustration. Some comparisons with split coordination appear in the appendix.

3 Split Coordination

With this background we can turn to split coordination in Passamaquoddy, and contrast it with the familiar English type. The most obvious difference is in the presence versus absence of the marker of coordination, *naka* in Passamaquoddy:

- (19) a. Piyel **naka** Mali ali-wiciyew-t-**uwok**.
 - P. and M. around-go.with-Recip-3P
 - 'Piyel and Mary are going around with each other.'
 - b. Piyel ali-wiciyew-t-**uwok** Mali-wol.
 - P. around-go.with-Recip-**3P** M.-Obv
 - 'Piyel and Mary are going around with each other.'

Both of the verbs here are intransitive and show agreement with a plural subject (in fact, reciprocals *require* a plural subject), but in the split coordination case the two members of the plural subject are split around the verb.

In addition to the lack of a marker of coordination, split coordination differs from ordinary coordination in several other respects, enumerated below.

3.1 Difference 1: Obviation

With an overt 'and', the second NP may not be obviative if the argument as a whole is proximate:

- (20) Piyel naka Mali-(*wol) ali-wiciyew-t-uwok.
 - P. and M.-(*Obv) around-go.with-Recip-3P
 - 'Piyel and Mary are going around with each other.'

In split coordination, however, the second NP must be obviative:

- (21) Piyel ali-wiciyew-t-uwok Mali-*(wol).
 - P. around-go.with-Recip-3P M.-*(Obv)
 - 'Piyel and Mary are going around with each other.'

In this respect the two NPs in split coordination act like separate arguments of the verb, and not like the same argument.

3.2 Difference 2: Word Order

The second difference is in the word order. Although coordination with *naka* can be split apart, the most natural word order is with the two NPs together. In contrast, in split coordination, the most natural word order is with the proximate NP in a preverbal position and the obviative NP postverbal (hence *split coordination*):

- (22) Pivel ali-wiciyew-t-uwok Mali-wol.
 - P. around-go.with-Recip-3P M.-Obv
 - 'Piyel and Mary are going around with each other.'

This is the most natural order of a transitive too; see (8) and (37).

3.3 Difference 3: Extraction

The third difference is that, just like in English, it is not possible to extract from conjunction with an overt 'and':³

(23) * Keqsey Estela usam-som-a-t Pilips-ol [t naka toqonikon-ok] ? what Stella excessive-feed-Dir-3Conj Phil-Obv and dumpling-3P 'What did Stella feed Phil too much of t and dumplings?'

In contrast, it is possible to extract from split coordination:

(24) a. Wen-il Mali ali-wiciyew-ti-htic-il? who-Obv M. around-go.with-Recip-3PConj-PartObv 'Who are Mary and *t* going around with each other?'

³Example (23) is grammatical with the meaning, 'What did Stella feed him too much of, in addition to dumplings?', but in this case the 'and' phrase is not coordinated with the extracted element.

b. Tan kehsi-ni-ya muwinuw-ok ketunol-ot-ulti-htit mahtoqehsu? WH X.many-N-3P bear-3P IC.be.after-Recip-Plural-3PConj rabbit.ObvP 'How many bears are *t* and some rabbits after each other?'

Note that it is possible to extract either the proximate or the obviative member of the coordination:

- (25) a. **Wen-il** *Mali* ali-wiciyew-ti-htic-il? who-Obv M. around-go.with-Recip-3PConj-PartObv 'Who are Mary and *t* going around with each other?'
 - b. **Wen** ali-wiciyew-ti-htit *Mali-wol*? who around-go.with-Recip-3PConj M-Obv 'Who are *t* and Mary going around with each other?'

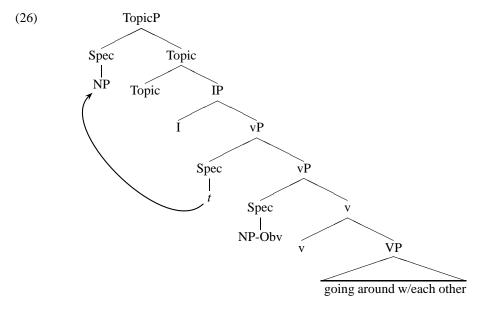
In this respect, as well, the two NPs in split coordination act as though they are distinct arguments, even though they bear the same semantic role.

4 Analysis of Split Coordination

I will assume that conjunction with *naka*, 'and', is just like familiar NP coordination in other languages, like English. Although this type of coordination still poses numerous interesting questions (see Progovac 1998), I will leave this construction aside and concentrate on split coordination.

The analysis that I propose for split coordination involves generating a second subject in a second specifier of vP, as in (26), where v is a functional head that projects the external argument (Kratzer 1996; Chomsky 1995, 1998; and others). Because the NP is generated in this position and is not moved there, the only way to interpret it is as a second subject, that is, as conjunction of the external argument role. I spell out the interpretation below.

The higher subject will be attracted to a higher position associated with some kind of discourse role (see below); for lack of a better name I call this TopicP:



Head movement of V-to-I (through v) will produce the correct word order, with the higher NP to the left of the verb and the lower to the right. Meanwhile, the lower NP will be forced to become obviative through general principles of obviation (explained below). Finally, although the two NPs are interpreted as a single argument thematically, the two positions can be targeted by syntactic processes differentially.

I spell out this analysis in the following subsections. I then turn to some predictions of the analysis that arise from Chomsky's theory that the second specifier of vP is used to license the object of a verb and as a stopping place in successive-cyclic movement. If this is correct, we might expect split coordination to block object licensing and successive-cyclic whmovement because the position at vP is taken. I show that this is correct.

4.1 Interpretation: Event Identification

The head v is responsible for introducing the external argument of a verb. In Kratzer's (1996) system, the verb itself takes only one NP argument (type <e>) if it is transitive, or none if it is intransitive, and it also takes an event argument (type <s>). v is of type <e,st>: it takes an NP argument and an event argument. The two are combined by the operation of Event Identification, illustrated here with an intransitive verb:

(28) Event Identification $f_{\langle e,st\rangle} + g_{\langle s,t\rangle} \rightarrow h_{\langle e,st\rangle} = \lambda x. \lambda e. [g(e) \& f(x)(e)]$

Event Identification takes two predicates of events, one of which also takes an individual argument, and turns them into a single predicate of events taking a type <e> argument, basically by conjoining them. The full derivation is shown below:

(29)
$$vP = \lambda e[walk(e) \& Agent(e,Mali)]$$

$$v = \lambda x. \lambda e[walk(e) \& Agent(e,x)]$$

$$v VP = \lambda e[walk(e)]$$

$$\lambda x. \lambda e.[Agent(e,x)] \mid walk$$

The vP then ends up denoting a predicate of events, where the event is an event of walking whose agent is Mary.

In Chomsky's theory, vP may have a second specifier that is involved in object licensing and successive-cyclic movement. Generally, then, anything that appears in the second specifier is moved there, and gets its interpretation from its base position. However, suppose we were to merge another NP there that was not related to some other position. What would be the result? How might it be interpreted?

I would like to suggest that there is a default interpretive rule for multiple specifiers that might be implicated in various syntactic phenomena, such as multiple wh-movement, multiple accusative objects, or multiple nominatives in various languages. This rule basically iterates the function of the head, or, more accurately, the function of the sister of the specifier (\overline{X} in older terminology). The rule is given below:

(30) Type-shifting rule for multiple specifiers:
$$\lambda x. f(x) \rightarrow \lambda x. \lambda y. f(\{x,y\})$$
 (or $f(x \oplus y)$)

The rule shifts the function from taking a single argument to taking two arguments, and interprets the two as a set. (I take no stand on how to represent plurals, so the rule can use $\{x,y\}$ or $x \oplus y$, depending on one's theory.) How this will work with v is shown below:

(31)
$$vP = \lambda e[walk(e) \& Agent(e, \{Piyel-ol, Mali\})]$$

$$vP = \lambda y. \lambda e[walk(e) \& Agent(e, \{Piyel-ol, y\})]$$

$$v = \lambda x. \lambda y. \lambda e[walk(e) \& Agent(e, \{x, y\})]$$

$$typeshift$$

$$v = \lambda x. \lambda e[walk(e) \& Agent(e, x)]$$

$$v VP = \lambda e[walk(e)]$$

$$walk$$

After the second specifier is merged, vP ends up denoting a predicate of events, where the event is an event of walking whose agent is the set of Pivel and Mary.⁴

Supporting Evidence: Intransitives Only

Some evidence that this is the right way to handle split coordination comes from the fact that it is only grammatical with intransitives, as shown below. It is possible with the subject of an intransitive only (32a), and is impossible with the subject of a transitive (32b), the subject of a transitive inverse (32c), or the object of a transitive direct (32d):

- (32)a. Mali al-kawtuw-ok Pivel-ol. Mary around-walk(Dual)-3P P.-Obv 'Mary and Piyel are walking around.'
 - b. * Mali nomiy-a-wa-l Piyel-ol Susehp-ol Kehlis-k. M. see-Dir-**3P**-Obv P.-Obv S.-Obv
 - 'Mary and Piyel saw Susehp in Calais.'
 - c. * Muwinuw-ok n-kolh-uku-k malsom. bear-3P 1-trap-Inv-**3P** wolf.ObvP
 - 'Bears and wolves caught me in a trap.' d. * Muwin n-kolh-a-**k** mahtoqehsuw-ol.

bear

1-trap-Dir-**3P** rabbit-Obv 'I caught a bear and a rabbit in a trap.'

Note that (32c-d) show that the problem is not that there are too many obviatives; first persons do not induce obviation in third persons. (In addition, ditransitives have one proximate NP and two obviative NPs if all the arguments are animate third persons, meaning that there is no general ban on two obviative NPs.)

An explanation for this restriction is available given the theory above and Chomsky's theory that the second specifier of vP is involved in licensing the object of a transitive. In his theory this is the position that checks object case. If the second subject in split coordination takes up the position that is necessary to license the object, an object will not be able to be licensed.

Splitting the object could be ungrammatical for a couple of different reasons; either two specifiers are just not allowed (only vP has the extra position), or vP can only license one object, leaving the other with its case features unchecked. One consideration suggests that the second explanation is correct; this is that split coordination is grammatical with all types of intransitive verbs, non-agentive ones as well as agentive ones. While I know of no unaccusativity diagnostics in Passamaquoddy, non-agentive verbs that are unaccusative in other languages are probably unaccusative in Passamaquoddy as well. Given that split coordination is grammatical with these verbs (some examples appear in the appendix), there must be no problem with generating two objects. It follows that what goes wrong in a transitive is that it is not possible to license both of them. See below for more discussion of how subjects of intransitives are licensed.

There is one exception to the transitivity restriction: a class of AI+O verbs, so called because they are morphologically intransitive (AI stands for "animate intransitive," meaning an intransitive verb that has an animate subject) but take a syntactic object ("+O"). The verb meaning 'throw' is such a verb:

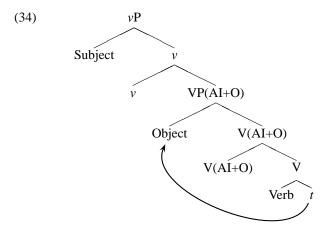
$$\text{(i)} \quad \llbracket \text{RecipV} \rrbracket = \lambda f_{< e, st>}. \lambda z : |z| \geq 2. \lambda e. \\ \llbracket \forall x \in z. \exists y, q \in z. \\ (x \neq y \ \& \ x \neq q \ \& \ (\exists e'[f(e', y) \ \& \ Agent(e', x) \ \& \ e' \leq e] \ \& \ \exists e''[f(e', x) \ \& \ Agent(e', q) \ \& \ e' \leq e])) \rrbracket$$

See Bruening (2004b) for details of how verbal reciprocals work.

⁴Many of the examples use reciprocal verbs, which are verbs derived from transitives through the addition of detransitivizing morphology. In the theory of Bruening (2004b), the reciprocal morpheme is a variety of v that takes an unsaturated VP as its complement. The denotation for this morpheme is shown in (i), and how this will work with the type-shifting rule is illustrated in (ii):

(33) Mali '-kisi-saputiy-ahka-ni-**ya** Piyel-ol *ponapsq* possiyanteski-k. M. 3-Perf-through-throw.AI+O-N-**3P** P.-Obv rock window-Loc 'Mary and Piyel threw a rock through the window.'

Bruening (2001, ch.2) suggests that the object of an AI+O verb is actually licensed by a lower head, V(AI+O), and not by v:



The reasons to believe this are independent, having to do with domains of obviation and a locality restriction on the Inverse construction. If this structure is correct, the second specifier of vP is available for a second subject, as it is not needed to license the object, and we explain why split coordination is grammatical with these verbs.

Morphologically intransitive verbs that take CP complements also allow split coordination; this follows if CPs do not need licensing (the Case Resistance Principle of Stowell 1981):⁵

(35) Mali yuhu-t-uwok Piyel-ol [CP wen-ihi keti-nipuwam-a-htic-ihi M. say.to-Recip-3P P.-Obv who-ObvP IC.Fut-marry-Dir-3PConj-PartObvP 'Mary and Piyel told each other who they're going to marry.'

In summary, the theory advanced here, which relates the position of the second subject to the object licensing position, succeeds in explaining the rather complicated transitivity constraints on split coordination.

4.3 Word Order

Recall that the natural word order of split coordination is with the proximate NP in a preverbal position and the obviative NP postverbal:

(36) Piyel ali-wiciyew-t-uwok Mali-wol.
 P. around-go.with-Recip-3P M.-Obv
 'Piyel and Mary are going around with each other.'

This is also the most natural word order of a transitive:

- (37) a. *Koluskap* 't-oli asitem-a-l *nicalku-l*, ...

 K. 3-thus answer-Dir-Obv 3.uncle-Obv

 'Koluskap answers his uncle, ...' (Mitchell 1921/1976b, 7)
 - b. Ipa, *Mali San* nit uci nuhsuhka-ku-n *wen-il*. hey Mary Jane there 3.from chase-Inv-N who-Obv 'Well, something [An.] chased after Mary Jane,' (Newell 1979, 8)

But different permutations are also possible, just like with transitives (Passamaquoddy has fairly free word order, allowing all possible permutations of S, V, and O):

(38) Mali-wol Piyel ali-wiciyew-t-uwok.
 M.-Obv P. around-go.with-Recip-3P
 'Piyel and Mary are going around with each other.'

⁵I have one example indicating that morphologically transitive clause-embedding verbs do not allow split coordination, which would mean that not all CPs are case-resistant; those that agree on the verb apparently do need syntactic licensing. However, this one example could be ungrammatical for an unrelated reason, so I hesitate to draw conclusions from it.

This again follows from the theory advanced here. The two NPs are not the same argument, they are distinct NPs, and can move around separately through scrambling operations or discourse-related reordering movements.

There is one restriction, however, which appears with the AI+O class of verbs discussed above. The restriction is that the obviative NP may not follow the object of the AI+O verb:

- (39) a. Mali '-kis-ahka-ni-ya Piyel-ol katkuhk.

 M. 3-Perf-throw.AI+O-N-3P P.-Obv pot.ObvP

 'Mary and Peter threw pots.'
 - b. * Mali '-kis-ahka-ni-ya <u>katkuhk</u> *Piyel-ol*.

 M. 3-Perf-throw.AI+O-N-3P pot.ObvP P.-Obv

 'Mary and Peter threw pots.'

The explanation for this is straightforward given the structure of AI+O verbs in (34). The object of these verbs does not move to vP; it is licensed in the specifier of the lower V(AI+O). The verb moves through this head to v and on to I, putting it much higher. The proximate subject will move to a yet higher position, while the obviative subject remains in Spec-vP. The object can scramble, but there is no landing site between the verb and the obviative NP. The only place it can move is to the left of the verb. (Rightward adjunction is only possible with heavy pauses, and is probably right-dislocation related to a pronoun.)

4.4 Agreement and Lexical Restrictions

So far I have only explained how the two NPs in split coordination are interpreted as the same argument semantically. It is important to show that they will be treated as the same argument morphologically as well, since they agree simultaneously on the verb as a plural subject. In addition, the two together satisfy requirements for dual or plural subjects. For instance, Passamaquoddy is like other Native American languages in having suppletive forms for 'walk' depending on whether the subject is singular, dual, or plural. Split coordination is grammatical with the dual form for 'walk', meaning that the two NPs together count as dual, but is ungrammatical with the plural form:

- (40) a. Mali al-**kawtuw**-ok Piyel-ol. Mary around-walk(Dual)-3P P.-Obv 'Mary and Piyel are walking around.'
 - b. * Mali al-**apasuw**-ok Piyel-ol. Mary around-walk(>2)-3P P.-Obv 'Mary and Piyel are walking around.'

In other words, the two NPs are treated as a single, dual argument by selectional restrictions.

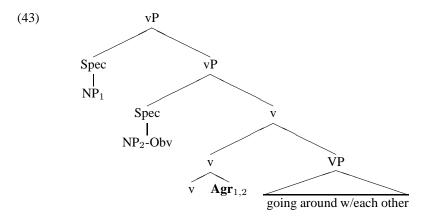
In addition, reciprocal verbs require a non-singular subject. Split coordination satisfies this requirement:

(41) Piyel ali-wiciyew-t-uwok Mali-wol.
 P. around-go.with-Recip-3P M.-Obv
 'Piyel and Mary are going around with each other.'

The satisfaction of these lexical restrictions follows immediately from the semantics proposed above. The type-shifting rule interprets the two arguments of the function as a set, for instance, {Mali, Piyel}, which is dual. Given that this is the semantics, we should expect that any lexical restrictions that are satisfied by a dual will be satisfied by split coordination. This is the case, as shown above.

As for the agreement, suppose that the morpheme that agrees with the object of a transitive (in the Direct) and the third person subject of an intransitive is an Agr node adjoined to v (see Halle and Marantz 1993), as in (43). This morpheme will take its values from whatever is licensed in the Spec of vP through Spec-Head agreement. I assume that A-movement disrupts Spec-Head agreement, such that the subject of a transitive, which will often be licensed by a higher head (say, I), will *not* agree with v, since it moves to a higher A-position. In this way agreement correlates perfectly with licensing (abstracting away from numerous complications, of course). As was shown above, agreement with a third person subject in intransitives is the same as agreement with an object in transitives; the example is repeated below:

(42) a. opuw-ok b. n-tokom-a-k c. nt-op sit-3P 1-hit-Dir-3P 1-sit 'they sit' 'I hit them' 'I sit'



I will not spell out here why third person subjects of intransitives are licensed by v rather than by I (see Bruening 2001, chapter 2), but let us take the agreement as an indication that they are. If they are, we explain why the verb agrees with both NPs in split coordination as a single argument. In split coordination, there are two NPs in specifiers of vP. Both of them are licensed by v, being subjects of an intransitive verb. Hence the Agr node adjoined to v copies the features of both NPs and agrees with both of them as a dual argument.

If this is how the agreement works, it follows that the normal movement of the proximate NP to a higher position (whence it is preverbal) is not related to licensing, but to something like discourse prominence. This is why I have labeled this position "TopicP" in (26). This is probably correct; the usual word order of proximate-V-obviative will follow from the proximate NP normally moving to TopicP, but the obviative may move there instead under the right discourse conditions, giving the order obviative-V-proximate. If this movement were related to licensing, this option would not be available.

One might question whether a single morpheme is able to agree with two NPs simultaneously, but this is exactly what happens in first and second person interaction in Passamaquoddy. First and second persons, whether subjects or objects, have to agree in the higher licensing position, call it I; they never agree in the final suffix that I am assuming adjoins to v. When the subject and object are both first or second person, the morphology spells out features of both of them simultaneously. The prefix is always the second person prefix, but the suffix, which marks person and number, takes its form based on both arguments. The first/second person Independent Subordinative paradigm of the verb meaning 'to listen to' is given below:

(44)		Object	
	Subject	1	1P
	2	k-ciksotuw-i-n-Ø	k-ciksotuw-i-ne-n
	2P	k-ciksotuw-i-ni-ya	k-ciksotuw-i-ne-n
		2	2P
	1	k-ciksotu-l-on-Ø	k-ciksotu-l-oni-ya
	1P	k-ciksotu-l-one-n	k-ciksotu-l-one-n

The relevant morphemes here are the prefix, the suffix immediately after the verb, -i- or -l-, and the final suffix, -n or -ya. (The morpheme in between the two suffixes, underlyingly -one, is a marker of the Subordinative, among other functions.) There are two things to note about this paradigm. First, the suffix -i/l- indicates which of the first and second person arguments is subject and which is object; to do that it must be indexing both arguments simultaneously. (-i- indicates that the second person is subject, -l that the first person is. Neither appears if one of the subject or object is third person.) Second, the first person plural suffix /-n/ always overrules any other suffix, and the second person prefix overrules any other prefix. The simplest way to capture these latter two facts is to say that both arguments are competing for the same agreement slots. If there is a first person plural, it overrules the second person plural, but if the first person is singular, then the second person plural can be spelled out. (See Halle and Marantz 1993 for similar instances of competition of features in spellout.)

Thus, we can see elsewhere in the language that agreement morphemes in Passamaquoddy often index two NPs simultaneously.

4.5 Obviation

The next property of split coordination that we need to account for is that the postverbal NP is marked obviative. As was stated briefly above, whenever there are two independent third person NPs in a single clause in Passamaquoddy, one will be proximate and the other will be obviative. In this theory of split coordination the two NPs are distinct NPs; hence one of them will have to be obviative, given the general principles of obviation in Passamaquoddy. Which one it is is determined by c-command.

Examining the full range of obviation in Passamaquoddy leads to a very simple generalization: higher NPs obviate lower NPs. In a ditransitive, for instance, the second object must be obviative if the first object is third person. This follows c-command: scope and variable binding indicate that the first object asymmetrically c-commands the second (see Bruening 2001, chapter 2). The same holds in the AI+O class of verbs mentioned above: the object is c-commanded by and is always obviated by the subject (Bruening 2001, chapter 2). In a possessed NP, the possessor must be proximate and the possessed NP must be obviative:

(45) Susehp w-ikuwoss-ol Jos. 3-mother-Obv 'Joseph's mother'

In other words, whenever c-command is clear, it is always the lower of two NPs that is obviative.

Things become a little more complicated in transitives. In the Direct, the subject is proximate and the object is obviative, which straightforwardly follows c-command (subjects c-command objects). But there is also the option of using the Inverse, where the subject is obviative while the object is proximate. However, it can be shown that the Inverse reverses hierarchical relations, meaning that the proximate (the object) still c-commands the obviative (the subject). For instance, using the Inverse gets around weak crossover:

(46) Wen pihce t w-itapihi-l nekol-iht t kcihku-k? who long.ago 3-friend-Obv IC.leave-3Conj**Inv** forest-Loc 'Who₁ (Prox) did his₁ friend (Obv) abandon in the forest a long time ago?'

The fact that there is no WCO in the Inverse indicates that the Inverse includes a step of A-movement that carries the object over the subject, as indicated by the movement arrows in (46). When the wh-word then undergoes wh-movement, there is no crossover (the launching site for wh-movement c-commands the pronoun to be bound as a variable). If this is correct, it means that proximates always c-command obviatives in Passamaquoddy, even in the Inverse.

When the Inverse cannot be used, for instance with an inanimate object, WCO does appear:

(47) * Keqsey pett-aqoso-k $[_{NP}$ not kis-uwikho-k] t? what IC.accidentally-burn-3Conj that.An Perf-write-3Conj 'What₁ did the one who wrote it₁ accidentally burn?'

Going back to split coordination, the higher A-position that the object moves to in the Inverse is not available in intransitives, as shown by agreement, the lack of an Inverse with the morphologically intransitive class of AI+O verbs, and WCO with that same class:

(48) * Keqsey [NP not kisi-ht-aq] napisqahma-t toward what Dem Perf-make-3Conj trip.over.AI+O-3Conj 'What1 did the one who made it1 trip over?'

Given that there is no higher A-position that the lower NP in split coordination could move to, the proposed structure for split coordination will force the lower NP to be obviative. The possibility of variable binding does indicate that the proximate NP c-commands the obviative one in split coordination:

(49) *Psi=te wen* ali-wiciyew-t-uwok **'-tutem-isqih-il**. every who around-go.with-Recip-3P 3-white.friend-Female-Obv 'Everyone₁ and his₁ girlfriend are going around with each other.'

(Unfortunately, it is extremely difficult, if not impossible, to show that the obviative NP may not bind a variable in the proximate NP. However, the fact that relevant examples are impossible to construct seems to me to be an argument that variable binding in this direction is impossible.)

In summary, one NP in split coordination must be obviative given the principle that if there are two distinct NPs in the same clause, one of them must be obviative. The lower NP is the one that is marked obviative given the principle that higher NPs obviate lower NPs.

4.6 Differential Extraction

As was shown above, each NP can undergo movement separately from the other in split coordination. This is true for every type of movement in Passamaquoddy; the following examples illustrate wh-questions and relative clauses:

(50) Wen-il Mali ali-wiciyew-ti-htic-il? who-Obv M. around-go.with-Recip-3PConj-PartObv 'Who are Mary and *t* going around with each other?'

WH-Question

(51) Wot nit skitap [Mali utuhkmin-ti-htit] . this.An that man M. date-Recip-3PConj 'This is the man that Mary and *t* are dating each other.'

Relative Clause

This is definitely movement; it obeys islands, for instance, as shown below for relative clause extraction:

(52) * Wot nit skitap wisokitohas-i ['sami Mali utuhkmin-ti-htit t] . this.An that man heartbroken-1Conj because M. date-Recip-3PConj 'This is the guy who I'm heartbroken because Mary and t are dating each other.'

Incidentally, many relational nouns in Passamaquoddy are formed as participle verbs (relative clauses) on this pattern. For instance, the word meaning 'his/her spouse' is literally 'the one who₁ he/she and t_1 are a couple':

(53) nisu-wi-htic-il two-be-3PConj-PartObv 'his/her spouse' (literally, 'the one who₁ he/she and t_1 are a couple')

A text example is what is translated as 'enemy' in the following:

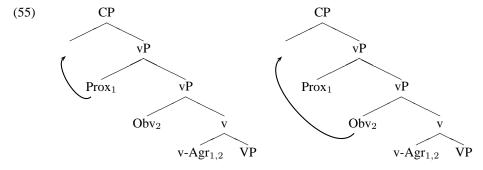
'-Keskuhtehq-a-l elomi-pusi-li-c-il Mociyehsw-ol, **kci**3-come.upon-Dir-Obv IC.away-leave.by.boat-ObvS-3Conj-PartObv M.-Obv great

nacitaham-ti-htic-il, naka Koluskap '-siwiyi.
hate-Recip-3PConj-PartObv and K. 3-relative.ObvP

'He comes upon Mociyehs, the partridge, his great enemy, pushing off with Koluskap's relatives.' (Mitchell 1921/1976a, 7)

This is literally 'he₁ comes upon [the great [one who₂ he₁ and t_2 hate each other_{1,2}]].'

It is easy to see how the current theory allows extraction of either of the two NPs in this construction to the exclusion of the other. The two NPs are distinct arguments in this theory, so it is no surprise that either one can be extracted without the other, even though the verb agrees with both of them as a single argument:



In summary, the proposed theory of a type-shifting rule for multiple specifiers accounts in a very simple way for all the properties of split coordination outlined above. This includes the transitivity restriction, which follows from Chomsky's hypothesis that a second specifier of the agent-introducing head is involved in licensing the object. Split coordination is impossible in a transitive because the same position is needed for both the second subject and the licensing of the object. In the next section I show that the other part of Chomsky's theory, that the second specifier is also a stopping place for successive-cyclic movement, predicts correctly that split coordination will be incompatible with long-distance extraction.

5 Successive-Cyclic Movement

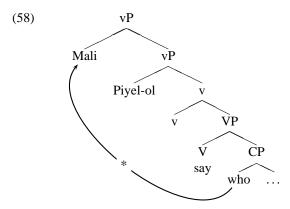
In Chomsky's theory, the second specifier of vP is also used by successive-cyclic movement as a stopping place. In Chomsky (1998), stopping in this position is made necessary by the Phase Impenetrability Condition, which says that heads outside of vP, such as C, may not attract elements lower than the specifier of vP, since v is a *phase* boundary and its sister is impenetrable. Therefore, in order to move out of vP, a moving element must first move to Spec-vP in order to be visible to attraction by some higher head.

(56) Phase Impenetrability Condition (Chomsky 1998) In phase α with head H, the domain of H is not accessible to operations outside α , but only H and its edge.

If this is correct, we might expect split coordination to interfere with successive-cyclic movement as well as with object licensing. This seems to be correct, though the judgements are not as firm as might be desired:⁶

(57) * Wen-il Mali itom-uk Piyel-ol [CP nemiy-a-htic-il] ? who-Obv M. say-3P P.-Obv IC.see-Dir-3PConj-PartObv 'Who did Mary and Piyel say they saw?'

As was stated briefly above, split coordination is grammatical with morphologically intransitive clause-embedding verbs, like *itom*, 'say'. Extraction out of the complement of *itom* is also grammatical. However, the combination of the two is not, as shown above. This is explained by the theory advocated here: the moving wh-phrase has to stop in Spec-vP, but this position is taken up by the second subject in split coordination:



Passamaquoddy allows only one wh-phrase to move, and disallows wh-in-situ (meaning that it does not allow multiple questions at all). This means that only one Spec-CP is available, and only one extra Spec-vP as well, I assume.

Split coordination contrasts with coordination with naka, which is perfectly compatible with long-distance extraction:

(59) Wen-il itom-uk Mali naka Piyel nemiy-a-htic-il? who-Obv say-3P M. and P. IC.see-Dir-3PConj-PartObv 'Who did Mary and Piyel say they saw?'

This is as expected, since the conjoined NPs are a single argument, occupying only a single Spec-vP.

In addition, long-distance extraction contrasts with wh-scope marking, indicating that extraction in general is not incompatible with split coordination, only long-distance extraction is:

(60) Keqsey Mali itom-uk Piyel-ol [CP wen-il nemiy-a-htic-il] ? what M. say-3P P.-Obv who-Obv IC.see-Dir-3PConj-PartObv 'What did Mary and Piyel say who did they see?' (wh-scope marking)

Bruening (2004a) shows that wh-scope marking of this type in Passamaquoddy has the analysis proposed by Dayal (1994), in which the scope marker *keqsey* is the complement of the higher verb. The basic meaning of the question is thus 'What did Mary and Peter say?', but the embedded clause adds the restriction that what they said is an answer to the question 'Who did they see?'. See Bruening 2004a for details. What this means is that wh-scope marking is not successive-cyclic movement, and so it is not disrupted by split coordination. This is just like simply questioning the complement of 'say', which is also grammatical:

⁶The way the judgements are not firm is that speakers over-reject; sentences that they have previously accepted, such as the examples here with regular coordination and wh-scope marking, are sometimes judged ungrammatical. This results in the contrast between split coordination and regular coordination, for instance, becoming less certain. None of the split coordination examples were accepted on any occasion, however.

(61) Keqsey Mali itom-uk Piyel-ol? what M. say-3P P.-Obv 'What did Mary and Piyel say?'

At this point one would naturally wonder why extracting the object of 'say' is not blocked by split coordination, since in Chomsky's theory extracted objects must also stop in Spec-vP. The explanation that I will propose involves reformulating Chomsky's Phase Impenetrability Condition.

5.1 Wh-Extraction of Object CP

It appears that objects that are not licensed by v do not need to move through Spec-vP in wh-extraction. In (61), the verb *itom* is morphologically intransitive and takes a clausal argument that does not agree on the verb. The fact that split coordination is grammatical with this verb in general was taken above to follow from the fact that clausal arguments do not need to be licensed by v. If this is so, we might suppose, contra Chomsky (1998), that not all moving wh-phrases need to stop in the most local Spec-vP; only those that are licensed in that Spec-vP do. However, in long-distance extraction, every wh-phrase must have to stop in higher Spec-vPs, or split coordination would not block long-distance movement.

One way to understand this is to think of Spec-vP as a kind of airlock between clauses that are otherwise closed to each other. In general, the domain of accessibility to a [+wh] C is its whole clause—hence the object of 'say' in (61) can move directly to CP—but no farther. The role of vP in long-distance extraction is to permit elements from a lower clause to enter a higher clause and be within the domain of C. The reason that vP plays this role is not because it is propositional, as in Chomsky (1998), but because it is the first functional element above a complement CP that could serve this function. Lower lexical heads, such as V, will only have selected specifiers.

This means that the domain of accessibility to C is as in (62), but the domain of accessibility to v is as in (63):

C can attract anything within the local clause, including elements within vP; vP has the unusual property of being able to see into the specifier of the next CP down. To formalize this, I revise Chomsky's notion of phases.

5.2 Phases

The new version of the Phase Impenetrability Condition that I propose is given below, together with subsidiary definitions:

- (64) Revised Phase Impenetrability Condition:Only elements within the domain of H are accessible to H.
- (65) a. The domain of a phase H is the sister of H, excluding the maximal projection of any phase H' dominated by H.
 - b. The domain of a non-phase H is the sister of H, excluding the sister of any phase H' dominated by H.
 - c. C is a phase; other heads are not phases.

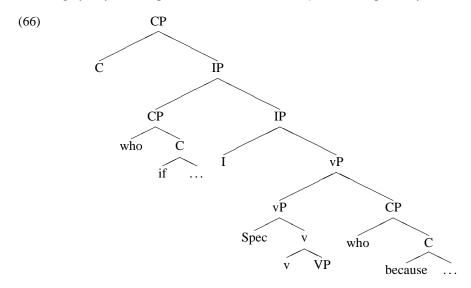
Unlike Chomsky, I stipulate only that C is a phase; v is not a phase. (I leave open whether other heads might be phases, like D.) Phases are absolute barriers to each other: the entire maximal projection of C is off-limits to any other C. In a way this can be seen as a type of Relativized Minimality (Rizzi 1990): the domain of a phase head is everything that is not a phase head; phase heads, being of the same type, interfere with each other. Non-phasal heads can peak into phases, however, and perform operations on elements at their edge: Spec-CP and C. This means that functional heads within a CP that are not C may attract elements in a lower Spec-CP. Once they do, those elements will be part of the higher phase, and from there accessible to the higher C. This is how v performs an "airlock" function: it passes moving elements from one phase into another phase.

Unlike Chomsky, I think that it is accidental that it is v that performs this function. v has no privileged status; it is simply the first functional head above an embedded CP that could have this function. Presumably other heads might as well; we would have to look for evidence that they might. Like Chomsky, I propose that v (or other functional heads) can be given a feature that will attract elements from the lower Spec-CP; Chomsky calls these [P] features. If v is given a [P] feature, it will attract what is in Spec-CP; if it is not, it will not, possibly leading to a crash if the element in the lower Spec-CP has not satisfied its own requirements (checking its features in the Spec of a [+wh] C, for instance).

Another way to think about this is as there being two phenomena involved in phases. One is related to spell-out, as Chomsky and others have suggested: the sister of a phase is spelled out (sent to the interfaces) upon completion of the phase. So when CP is built, the sister of C, IP, will be spelled out, meaning that the contents of IP are completely inaccessible to

further syntactic computation. Only elements that have moved out of IP to Spec-CP will still be syntactically active. This is why non-phase heads can only see Spec-CP and not IP; IP has been removed from the syntax. The other phenomenon is a locality condition of a relativized sort: phases are absolute barriers to each other, as explained above. One C may not see into another CP. Non-phases have no such restriction; if IP had not been spelled out, they would be able to see infinitely far down. The fact that phases are also spelled out upon completion results in the restriction above that non-phase heads can only see Spec-CP.

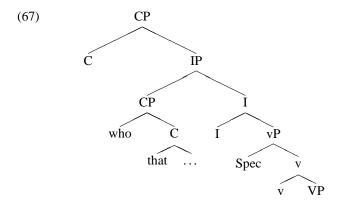
This way of formulating the Phase Impenetrability Condition has the virtue of automatically accounting for adjunct islands and sentential subject islands, while Chomsky's PIC did not. An adjunct CP could be adjoined to vP or to IP, as in (66), illustrating by way of example a *because* clause and an *if* clause, respectively:



Let us assume that nothing would prevent a wh-phrase from moving to the edge of this CP, by virtue of C being given a [P] feature. However, even in this position the wh-phrase would be inaccessible to the higher C, given the revised PIC above. Even if v were given a [P] feature, it would also be unable to attract the wh-phrase, since it does not c-command either adjunct clause. Assuming that I cannot be given a [P] feature, no other head could perform the airlock function of v.

Chomsky's version of the PIC, given above, does not rule out extraction from these adjunct clauses. Having moved to Spec-CP of the adjunct clause, a moving wh-phrase should be accessible to higher elements, including the higher C, since it is at the edge of its phase.

In (67), a CP is in Spec-IP as the subject of the clause. Let us assume again that nothing would prevent a wh-phrase from moving to the specifier of this CP:



Again, however, the wh-phrase will be inaccessible to the higher C, given the revised PIC. There is also no functional head that could pass the wh-phrase into the matrix clause.

If all of this is correct, we end up with a new understanding of phases that achieves more empirical coverage than Chomsky's version did. We also explain why the object of 'say' in Passamaquoddy can be extracted across split coordination, even though Spec-vP is occupied: C can attract elements within its own clause without them moving to Spec-vP.

6 Conclusion and Consequences

There is now a fairly sizable body of evidence indicating that vP can have an extra specifier to license an object and to permit successive-cyclic movement. I have proposed that Passamaquoddy can use this position to generate a second subject, interpreted via a type-shifting rule for multiple specifiers: $\lambda x.f(x) \rightarrow \lambda x.\lambda y.f(\{x,y\})$. If this is correct, we should see this rule in other areas of syntax, such as in multiple nominative constructions, multiple wh-movement, and other instances of multiple specifiers.

Using this second specifier to generate a second subject in Passamaquoddy renders that position unavailable for object licensing and successive-cyclic movement, explaining why split coordination in Passamaquoddy is incompatible with transitive verbs and with long-distance extraction. If this is correct, it adds to the evidence that the second specifier of vP does indeed perform these functions.

The proposal also required a revision of Chomsky's Phase Impenetrability Condition, but this revised version not only helps to account for the Passamaquoddy facts, it also accounts for adjunct islands and sentential subject islands, which Chomsky's PIC did not.

7 Appendix: Differences Among Coordination Types

Since one of the purposes of this paper is to introduce data about a new construction in Passamaquoddy, I feel it would be remiss not to include some data comparing split coordination to other types of coordination, such as the plural pronoun construction (PPC) and verb-coded coordination (VCC). Split coordination does differ from the latter two in significant respects, as well as from comitative coordination in other languages.

First, McNally (1993) has claimed that comitative coordination in Russian (and Polish) is limited to referential noun phrases (of type <e>), and forbids distributive readings. This is not true of split coordination in Passamaquoddy. Split coordination is compatible with distributive predicates like 'have a nightmare' or 'be bald' (two people being bald can only be true if each of them is bald; they cannot be bald only collectively):

- (68) a. Toqite Mali kisi-cipqahsin-uk Piyel-ol both M. Perf-have.nightmare-3P P.-Obv 'Both Mary and Piyel had nightmares.'
 - b. Susehp apolahsatpih-ik Piyel-ol.
 - S. be.bald-3P P.-Obv
 - 'Susehp and Piyel are bald.'
 - c. Mali mecimi=te kespoqs-uwok Sipuhsis-ol.
 - M. always=Emph oversleep-3P S.-Obv
 - 'Mary and Sipuhsis always oversleep.'

Either NP of the split coordination can be a nonreferential quantifier:

- (69) a. Yatte wen skitap cihpolakon-i-pom-ka-k yatte wen ehpilic-il. each who man eagle-Mod-along-dance-3P each who woman-Obv 'Each man and each woman did the eagle dance.'
 - b. Yatte wen tol-ewest-uwok Mali-wol. each who Prog-talk-3P M.-Obv 'Each one and Mary are talking.'

Split coordination also differs from both the plural pronoun construction (PPC) and verb-coded coordination (VCC). Both are acceptable with grammatical relations other than intransitive subjects, unlike split coordination (I illustrate here with the PPC only):

- (70) PPC
 - a. Nekomaw Piyel-ol k-nomiy-a-k?
 - 3P P.-Obv 2-see-Dir-3P
 - 'Did you see him and Piyel?'
 - b. Nekomaw Piyel-ol k-nomiy-uku-k?
 - 3P P.-Obv 2-see-Inv-3P
 - 'Did him and Piyel see you?'

Both the plural pronoun construction and verb-coded coordination can be extracted across, unlike split coordination:

- (71) a. Wen kiluwaw Piyel kt-itom-upa keti-maceha-t? *PPC* who 2P P. 2-say-2P IC.Fut-leave-3Conj 'Who did you and Piyel say is going to leave?'
 - b. Wen Piyel kt-itom-upa keti-maceha-t? *VCC* who P. 2-say-2P IC.Fut-leave-3Conj

'Who did you and Piyel say is going to leave?'

This is evidence that the pronoun and NP together form a constituent that occupies only a single Spec-vP. Every theory of the PPC that I am aware of has this character (Ladusaw 1988, Aissen 1989, Vassilieva and Larson 2001). Viewing VCC as the PPC plus pro-drop (Aissen 1989) unifies the two in this respect.

There is one respect in which the plural pronoun construction and verb-coded coordination do not differ from split coordination: they permit extraction from the coordinated NP. Consider the following PPC examples:

(72) *PPC*

- a. Wen kiluwaw eliy-ayeq?who 2P IC.go-2PConj'Who are you (sg.) going with?'
- b. Wen kiluwaw assokitahasi-yeq Piyel peci-wikuwamkom-osk?
 who 2P surprised-2PConj P. come-visit-2ConjInv
 'You (sg.) and who were surprised when Piyel came to visit you?'

In these examples the wh-phrase seems to question the makeup of the plural pronoun, asking about who besides the speaker is involved. In all of the PPC examples I have, the plural pronoun appears adjacent to the wh-phrase, which has moved overtly to Spec-CP. It is possible that the pronoun must be pied-pied with the wh-phrase, meaning that the coordinate structure has not actually been extracted from. Note, however, that the order here is the reverse of the usual order: the third person precedes the plural pronoun rather than follows it. Presumably the wh-phrase could be moving within the NP, and then pied-piping it.

In extraction from verb-coded coordination, the wh-phrase alone appears at the left edge of the clause:

(73) *VCC*

- a. Wen api-nis-akihw-iyeq? who go.and.back-two-watch-2PConj
 - 'Who are you and t going to the movies?'
- b. Wen kt-itom-upa Piyel keti-maceha-t? who 2-say-2P P. IC.Fut-leave-3Conj
 - 'Who did you and t say that Piyel was going to leave?'
- c. Wen assokitahasi-yeq peci-wikuwamkom-osk? who surprised-2PConj come-visit-2ConjInv

'Who were you and t surprised when she (someone else) came to visit you?'

If verb-coded coordination is just the plural pronoun construction plus pro-drop, the questions above might be identical to the PPC examples, and involve pied-piping of a null pronoun. This is not a possible analysis of the following raising-to-object examples, however, because the higher verb agrees with just one member of the coordinated NP, which is marked as a plural on the lower verb:

- (74) a. Kosiciy-ul eli toli-nomiy-uti-yeq k-itap Utoqehki-k.
 (2)-know.TA-1/2 C there-see-Recip-2PConj 2-friend G.L.S.-Loc
 'I know about you (sing.) that you and your friend saw each other at Grand Lake Stream.' (VCC)
 - b. N-kosiciy-a wot skitap eli toli-nomiy-uti-yeq (kiluwaw) Utoqehki-k. 1-know.TA-Dir this.An man C there-see-Recip-2PConj (2P) G.L.S.-Loc 'I know about this man that you and he saw each other at Grand Lake Stream.' (*VCC or PPC*)

It is also not a very likely analysis of relative clause extraction, which is similarly grammatical:

(75) Wot nit skitap nacitaham-t-iyek 'ciw wot ehpit. this.An that man hate-Recip-1PConj for this.An woman 'This is the guy that *t* and I hate each other because of this woman.'

This relative clause extraction obeys islands, meaning that it is definitely movement:⁷

(76) * Wot nit skitap wetomeyuw-it eli nacitaham-t-iyek. this.An that man IC.bother-1ConjInv C hate-Recip-1PConj

'This is the man that it bothers me that t and I hate each other.'

Thus it appears that verb-coded coordination and the plural pronoun construction can be extracted from.

This conclusion may be premature, however. The other possible analysis is that all of these extraction cases are actually split coordination. All of the extraction examples I have involve only intransitive verbs, so split coordination is a possible analysis of all of these cases. For instance, (74b) could have a lower clause with 'this man' and the pronoun *kiluwaw* split around the verb 'see each other' prior to raising of 'this man'. In the other examples one of the split NPs would be a null pronoun, which Passamaquoddy freely allows in all syntactic positions. The only way to tell the difference would be to extract from verb-coded coordination where the coordinate NP is not the subject of an intransitive. Unfortunately I have no data like this at the moment.

The data presented above indicate that split coordination differs both from verb-coded coordination and the plural pronoun construction in Passamaquoddy, and from comitative coordination in other languages. The extraction facts are also interesting in their own right, and deserve a fuller treatment than I can give them here.

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⁷This sentence is grammatical if the head of the relative clause is interpreted as the higher subject, meaning 'This is the man who bothers me because we hate each other.'

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