Raising to Object and Proper Movement[*]

Benjamin Bruening, University of Delaware

Draft, submitted to Linguistic Inquiry. Printed February 21, 2002

1 Introduction

Many languages have been described as possessing a construction in which some embedded constituent apparently raises out of the clause that it is a semantic and syntactic argument of, and becomes a constituent of a higher clause. In these languages the lower CP is demonstrably a finite clause, with Comp material present (even wh-phrases, in Passamaquoddy, for example). The "raised" NP apparently becomes a constituent of the higher clause, as indicated by word order, Case, agreement, and/or syntactic facts such as binding. Massam (1985), for example, lists as having raising to object constructions Blackfoot and Cree (Algonquian), Berber, Ilokano, Malagasy, Moroccan Arabic, Quechua, Standard Arabic, and Zacapoaxtla Nahuat; she also provides analyses of this phenomenon in Bauan Fijian, Kipsigis (see also Jake and Odden 1979), and Niuean. The construction has been described in other languages as well; for example Japanese (e.g., Kuno 1976, Hiraiwa 2000, Tanaka 2001), Korean (e.g., Hong 1990, Schütze 2001), Turkish (Zidani-Eroğlu 1997, Moore 1998), and Tsez (Potsdam and Polinsky 1999, 2001).

An example of raising to object in Passamaquoddy (Algonquian, Maine) appears in 1:[1]

(1)   '-Kosiciy-**a-l**   yaq **uhsimis-ol**   [CP eli keka   peciya-li-t   ] .
      3-know.TA-Dir-Obv Quot 3.younger.sib-Obv   C almost come-ObvS-3Conj
      '[She knew that her brother had almost arrived.]' (Gabriel 1979, 7)

The NP 'her younger brother' appears here before the complementizer-like particle *eli*, and agrees with the matrix verb 'know' (by the Direct morpheme, indicating a third person obviative object, and the obviative agreement suffix; see below).

[1]This sentence was translated in the text, misleadingly, as 'She knew that it was her brother.' I have replaced it with a more syntactically accurate translation. See below for explanation of the morphology.

Examples are given in the practical orthography in use in the Passamaquoddy community. Letters have their IPA values except that **o** = schwa, **q** = [kw], **c** = palatal affricate, **hC** = (pre-)aspirated C, **'** = abstract morpheme (or segment) inducing aspiration in following consonant. Consonants are voiced intervocalically and initially.

Abbreviations: **3** = proximate third person; **An** = animate; **App** = applicative; **Conj** = Conjunct inflection (subordinate clauses, wh-questions); **Dir** = Direct voice; **Dub** = dubitative; **Emph** = emphatic particle; **IC** = Initial Change (ablout); **Inan** = inanimate; **Inv** = Inverse voice; **Loc** = locative; **Obv** = obviative third person; **ObvS** = obviative subject marker; **N** = morpheme of uncertain function; **Neg** = negative; **P** = plural; **Part** = participle agreement (head of relative clause or wh-phrase); **Perf** = perfective; **Pret** = preterite; **Quot** = quotative particle; **Recip** = reciprocal; **Refl** = reflexive; **TA** = transitive verb with animate object; **TI** = transitive verb with inanimate object.

The problem with raising to object is that it apparently violates locality conditions on A-movement. The lower clause is a full finite clause, yet the raised NP is able to undergo further A-movement processes in the higher clause. For instance, in Passamaquoddy the raised NP can undergo *inversion*, as diagrammed in 3; this inversion enables it to bind into the matrix subject:[2]

(2) **Psi=te   wen**   '-kosiciy-**uku**-l   w-ikuwoss-ol [$_{CP}$ etoli-koti-peciya-t
    all=Emph someone 3-know.TA-Inv-Obv 3-mother-Obv   IC.there-Fut-come-3Conj
    etolonukahk] .
    gathering
    'His$_1$ mother knows that everyone$_1$ is coming to the gathering.'

(3) [**everyone** his mother knows t [$_{CP}$ *eli t* ...]]
          |_____|_____|
                   A-mvmt

The fact that the raised NP can undergo further A-movement means that it must have raised across the clause boundary by A-movement, something that is usually taken to be impossible. Contradictory evidence, however, suggests that raising to object is often *A-bar* movement across the clause boundary. If this is correct, raising to object does not violate locality conditions on A-movement, but it does violate the ban on improper movement (Chomsky 1973, May 1979): A-bar movement across the clause boundary seems to be able to feed A-movement in the higher clause. Either way, standardly assumed restrictions on movement are violated.

The purpose of this paper is to show that, despite appearances, these restrictions are not in fact violated in raising to object constructions; they are instead strictly obeyed, providing striking confirmation of their cross-linguistic validity. The study examines raising to object constructions in two typologically, spatially, and genetically separated languages, Passamaquoddy and Japanese. It concludes that raising to object constructions have two different derivations: one in which the NP from the lower clause undergoes A-bar movement to the clause edge, where it can agree with (or be case-marked by) the higher verb (4a); and one in which the NP is generated at the clause edge, coindexed with a (null or overt) pronoun in the lower clause (4b). The latter is available only when the NP undergoes further A-movement in the higher clause.

(4) a.   [$_{CP}$ ... V+Agr$_1$ [$_{CP}$ NP$_1$ [$_C$ ... t_1 ...]]]
                           |_____|_____|
                           A-bar mvmt

   b.   [$_{CP}$ ... NP$_1$ V+Agr$_1$ [$_{CP}$ t_1 [$_C$ ... **pro**$_1$ ...]]]
                |_____|_____|
                     A-mvmt

These two derivations also enable an understanding of the ban on improper movement: it follows quite simply from the way feature checking and deletion work. A-features (ϕ-features, Case) are normally checked and deleted within a finite clause and are hence unavailable for checking in a higher clause. An NP must therefore be generated with unchecked A-features outside of the finite clause if it is to be available for A-feature checking in the higher clause. At the same time, if an NP generated in this position does not undergo A-movement for feature checking, its A-features will not be checked and the derivation will crash. In this way, raising to object constructions, as will be shown in Section 6, can clarify the mechanisms at work in feature checking.

We begin with an introduction to the constructions in the two languages, followed by arguments that raising to object involves movement out of a finite clause in both Passamaquoddy and Japanese (Section 3). This is followed by evidence of A-movement within the higher clause (Section 4). Combining these arguments, however, shows that an NP that undergoes higher A-movement *did not* raise out of the lower clause by movement (Section 5). Section 6 provides an analysis of these facts and explores the issues involved.

---

[2]Passamaquoddy examples that do not cite a published source come from my own fieldwork.

2 Raising to Object in Passamaquoddy and Japanese

Raising to object constructions in Passamaquoddy and Japanese differ in numerous ways. For instance, in Passamaquoddy, raising is realized as agreement on the matrix verb; in Japanese it is realized as case marking on the NP. In Passamaquoddy, any argument can raise; in Japanese, only the subject may. I hope to show here that the two languages make use of strikingly similar mechanisms and obey similar constraints. (The comparison of Japanese and Passamaquoddy also supports the view that Case and agreement are two instantiations of essentially the same phenomenon.)

2.1 Passamaquoddy

Passamaquoddy is a head-marking, agglutinative language that permits pro-drop of all arguments. Nouns are either animate or inanimate, and animate nouns are further divided within a syntactic context through a system of obviation: one third person is proximate (unmarked), and all others must be obviative (marked with a suffix in the singular or pitch accent in the plural). Agreement on the verb is in animacy, obviation, person, and number. The *Direct* voice is used with first and second person subjects acting on a third person object, and with a third person proximate subject acting on a third person obviative object. The *Inverse* is used in the opposite situations: a third person subject with first or second person object, and a third person obviative subject with third person proximate object.[3] The "Dir" and "Inv" morphemes therefore serve to index agreement with arguments, as will be seen in raising to object constructions. (If a verb is marked neither "Dir" nor "Inv," it is the unmarked Direct.)

Various kinds of verbs in Passamaqoddy take clausal complements. The type that is of interest here comes in two varieties, like most transitive verbs: a form used with inanimate objects (TI, for Transitive Inanimate), and a form used for animate objects (TA, for Transitive Animate). The TI form simply takes a CP complement, and it is apparently this CP complement that agrees with the verb as an inanimate object (alternatively, the TI form is simply a default):

(5) a. Cel mesq nokkaht-uw-on, nit etuci-**wewitahat-ok**   [_CP_ eli nekom=c kisi
        even not.yet eat.up.TI-Neg-N then at.that.point-**remember.TI-3Conj**   C 3=Fut   able
        assok-taqsi-t   ] .
        strange-make.noise-3Conj

        'Before he has finished eating it, he remembers that he will be able to make the strange noise:'
        (Mitchell 1921/1976c, 22)

    b. Kat=te   **'-kocicihtu-w-on** [_CP_ tan oc 't-oli-kisi-qsokassi-n] .
        Neg=Emph **3-know.TI-Neg-N**   WH Fut 3-thus-able-cross-N

        'He does not know how he is to get across' (Mitchell 1921/1976a, 21)

The TA version of the verb, in contrast, agrees with one of the arguments of the lower clause, which is interpreted as topical or focussed:[4]

(6) a. '-Kosiciy-a-**l**   yaq **uhsimis-ol**   [eli] keka peciya-li-t.
        3-know.TA-Dir-**Obv** Quot 3.younger.sib-**Obv** C   almost come-ObvS-3Conj

        '[She knew that her brother had almost arrived.]' (Gabriel 1979, 7)

    b. Susehp '-kosiciy-à   **akòm**   [eli] Muwin kisi-mil-at   Wiphun.
        S.   3-know.TA-Dir.**ObvP** snowshoe.**ObvP** C   M.   Perf-give-3Conj W.

        'Susehp knows that Muwin gave Wiphun snowshoes.'

---

[3]I will show below that syntactic inversion takes place in the Inverse: the object raises to a subject position (but without demotion of the underlying subject).

[4]*Wiphun* in 6b would be expected to be obviative. That it is not is probably an error (either by the speakers, or in transcription).

This agreeing argument may, but need not, appear in the higher clause, to the left of CP elements like the complementizer *eli* in 6.[5] To avoid prejudging what this position is, I will draw attention to it by enclosing *eli* and other Comp elements in a box, rather than by attempting to delimit clause boundaries with brackets.

Some examples without raising of the NP are the following:

(7) a. N-wewitaham-a-**k** [CP ma=te   nomiy-a-w-ik   **mawsuwinuw-ok** Kehlis-k   ] .
     1-remember-Dir-3P   Neg=Emph see-Dir-Neg-Part3P person-3P   Calais-Loc
     'I remember that I didn't see people in Calais.'

b. Ma=te   **k**-wewitaham-**ol**-uh-**pa** [CP kt-api-kotunkal-a-n-iya   **kiluwaw Piyel**
     Neg=Emph 2-remember-1/2-Neg-2P   2-go.and.back-hunt-Dir-N-3P 2P   P.
     otuhk   ] .
     deer.ObvP
     'I don't remember if you and Piyel went to hunt deer.'

One item to note about this agreement and associated dislocation process is that it can skip arguments in the lower clause. For instance, agreement applies across both the subject and the indirect object to the direct object in 6b, and across the subject to the in-situ object in 7a.

A raised NP can also appear before wh-words in embedded questions:

(8) a. Ma=te   n-wewitaham-**a**-wiy-**ik**   **mahtoqehsuw-ok** [tama] al
     Neg=Emph 1-remember.TA-Dir-Neg-3P rabbit-3P   where Uncertain
     n-toli-putoma-n-ok kcihku-k.
     1-there-lose-N-3P   forest-Loc
     'I don't remember where in the forest I lost the rabbits.'

b. N-kosiciy-**a-k**   **nuhuw-ok muwinuw-ok** [keq] kis-temu-htit.
     1-know.TA-Dir-3P three-3P   bear-3P   what Perf-eat-3PConj
     'I know what the three bears ate.'

Wh-movement is obligatory in Passamaquoddy. I assume that it always targets Spec-CP; moreover, the lower clause in all of these examples is fully finite, differing in no way from a matrix clause. This means that agreeing NPs like those in 8 must be higher than wh-phrases in Spec-CP. There are two logical possibilities: first, the NP is in some position in the higher clause (object position, say); and second, that it is at the edge of the lower clause, say in a second specifier of CP, or adjoined to CP. (I will argue below for the latter position.)

2.2 Japanese

Raising to object is realized not as verbal agreement in Japanese, but as case marking on the noun. The subject of a finite clause embedded under certain verbs can optionally be marked with accusative case rather than nominative, and appear to the left of matrix adverbs:

(9) Kuno 1976, ex.21–22

a. Yamada-wa, orokanimo, [**Tanaka-ga** tensai da to   ] omotte ita.
     Y.-Top   stupidly   **T.-Nom**   genius is Comp   thinking was
     'Stupidly, Yamada thought that Tanaka was a genius.'

b. Yamada-wa **Tanaka-o**, orokanimo, [tensai da to   ] omotte ita.
     Y.-Top   **T.-Acc**   stupidly   genius is Comp   thinking was
     'Stupidly, Yamada thought that Tanaka was a genius.'

---

[5]It is not entirely clear that *eli* should be analyzed as a complementizer, but I will assume here that it should be. Nothing crucial hinges on this assumption.

This process only affects subjects, and only subjects of stative predicates. It cannot occur with an embedded question as in Passamaquoddy, but the embedded clause can be seen to be finite from the fact that it has the complementizer *to*. (See also Kuno 1976 for arguments for the finite nature of these embedded clauses.)

3 Arguments for Movement

Various arguments that raising to object in Japanese involves movement have been given in the literature. Some of these are repeated here, following arguments for the same conclusion in Passamaquoddy.

3.1 Passamaquoddy

Raising to object in Passamaquoddy has all the hallmarks of movement: obedience to island constraints, reconstruction phenomena, and so on. These are detailed below.

3.1.1 Singular 'Every'

Passamaquoddy has a peculiar restriction on the form of the NP complement to the universal quantifier *psi=te*: only the subject of an intransitive can have the form *psi=te* + singular NP:

(10) Subject of Intransitive

    a.   Psi=te   wasis kisi-ntu.
           all=Emph child Perf-sing.3

           'Every child sang (singly).'

    b.   Psi=te   wasis-ok kisi-ntu-ltuw-ok.
           all=Emph child-3P Perf-sing-Plural-3P

           'Every child sang (together or singly).'

Objects and subjects of transitives must be plural:

(11) Object of Transitive

    a. * Mali kis-ewestuwam-a-l   psi=te   pomawsuwinuw-ol.
        M.   Perf-talk.to-Dir-Obv all=Emph person-Obv

        'Mary spoke with every person.'

    b.   Mali kis-ewestuwam-a   psi=te   pomawsuwinu.
           M.   Perf-talk.to-Dir.ObvP all=Emph person.ObvP

           'Mary spoke with every person.' (at once or separately)

(12) Subject of Transitive

    a. * Psi=te   mus   micin 'saht.
        all=Emph moose eat.TI blueberry

        'Every moose ate a blueberry.'

    b.   Psi=te   musuw-ok micin-iya-l   'sathi-l.
           all=Emph moose-3P eat.TI-3P-InanP blueberry-InanP

           'Every moose ate blueberries.'

As can be seen above, a singular NP always gives a distributive reading, while a plural NP is ambiguous.

    Although only the subject of an intransitive can be singular, a singular *psi=te* subject of an intransitive *can* raise to object under a raising to object verb:

(13) a. N-kosiciy-**a** **psi=te** **wasis** eli kisi-pokomi-t.
      1-know.TA-Dir all=Emph child C Perf-skate.3
      'I know that every child can skate.'

   b. N-kosiciy-**a** **psi=te** **wasis** eli tawi-pokomi-t.
      1-know.TA-Dir all=Emph child C know.how-skate-3-Conj
      'I know that every child knows how to skate.'

If this type of quantified NP is only licensed as subject of an intransitive verb, the raised NP in the examples above must have originated as the lower subject.

3.1.2   Reconstruction: Variable Binding

Agreeing NPs that appear to the left of CP elements (such as a wh-phrase) can also show reconstruction effects. If Hornstein (1984), Barss (1986), and Chomsky (1993) (among others) are correct that reconstruction is only a property of movement chains, then reconstruction in raising to object indicates that the raised NP moved out of the lower clause.

A raised NP containing a variable can be bound by a quantifier in the lower clause:[6]

(14) a. N-kosiciy-a   eli *psi=te*   *wen*   koseloma-t **nisuwihtic-il**.
      1-know.TA-Dir C   all=Emph someone love-3Conj spouse-Obv
      'I know that everyone$_1$ loves his$_1$ spouse.'

   b. N-kosiciy-a   **nisuwihtic-il**   eli *psi=te*   *wen*   koseloma-t *t*.
      1-know.TA-Dir 3.spouse-PartObv C   all=Emph someone love-3Conj
      'I know that everyone$_1$ loves his$_1$ spouse.'

(15) a. N-kosiciy-a   eli *psi=te*   *wen*   kselm-iht   **wikuwoss-ol**.
      1-know.TA-Dir C   all=Emph someone love-3ConjInv 3.mother-Obv
      'I know that everyone$_1$ is loved by his$_1$ mother.'

   b. N-kosiciy-a   **wikuwoss-ol** eli *psi=te*   *wen*   kselm-iht   *t*.
      1-know.TA-Dir 3.mother-Obv C   all=Emph someone love-3ConjInv
      'I know that everyone$_1$ is loved by his$_1$ mother.'

3.1.3   Reconstruction: Conjunctive 'or'

Two NPs disjoined with the Passamaquoddy version of 'or', *kosona*, can receive a conjunctive interpretation only within the scope of negation:

(16) a. Nomiy-a [cihpolakon kosona kuhas] .
      see-Dir   eagle   or   hawk
      'I saw an eagle or a hawk.' (don't know which)   Disjunctive

---

[6]Reconstruction across a negative quantifier is ungrammatical:

(i) a. N-kosiciy-a eli *skat wen*   musqitaham-ahq **nisuwihtic-il**.
      1-know.TA C   Neg someone hate-3ConjNeg   3.spouse-Obv
      'I know that no one$_1$ hates his/her$_1$ spouse.'

   b. * N-kosiciy-a **nisuwihtic-il**   eli *skat wen*   musqitaham-ahq *t*.
      1-know.TA 3.spouse-PartObv C   Neg someone hate-3ConjNeg
      'I know that no one$_1$ hates his/her$_1$ spouse.'

Cf. Beck (1996), Beck and Kim (1997). Sentential negation does not block reconstruction, as can be seen in example 18.

b. **Ma=te** nomiy-a-w [cihpolakon kosona kuhas] .
Neg=Emph see-Dir-Neg eagle or hawk
'I didn't see an eagle or a hawk.' (didn't see either) Conjunctive

The subject also falls within the scope of negation, which can independently be shown with quantifiers and negative polarity items:

(17) a. [Cihpolakon kosona kuhas] n-kisi-maton-oq.
eagle or hawk 1-Perf-fight-Inv
'An eagle or a hawk attacked me.' (don't know which) Disjunctive

b. [Cihpolakon kosona kuhas] **ma=te** n-kisi-maton-oku-wih-ik.
eagle or hawk Neg=Emph 1-Perf-fight-Inv-Neg-3P
'(Neither) an eagle (n)or a hawk attacked me.' (neither attacked) Conjunctive

Two disjoined NPs can undergo raising to object and still receive a conjunctive interpretation if the lower clause is negated. This, again, implies that a raised object must have raised via movement, and can reconstruct at LF back to a position within the scope of the lower negation:

(18) a. N-wewitaham-a [cihpolakon kosona kuhas] eli **skat** kisi-maton-ihq.
1-remember.TA-Dir eagle or hawk C Neg Perf-fight-1ConjInvNeg
'I remember that an eagle or a hawk didn't attack me.' (neither did) Conjunctive

b. [Cihpolakon kosona kuhas] n-wewitaham-a eli **skat** kisi-maton-ihq.
eagle or hawk 1-remember.TA-Dir C Neg Perf-fight-1ConjInvNeg
'I remember that an eagle or a hawk didn't attack me.' (neither did) Conjunctive

Note that in 18b a raised NP can move further, fronting to the left edge of the matrix clause, while the conjunctive interpretation remains intact. The disjoined NP must be able to reconstruct all the way to the lower clause.

3.1.4 Islands

The strongest piece of evidence that raising to object is movement is the fact that it obeys islands. For example, raising to object obeys adjunct islands:[7]

(19) a. N-piluwitaham-**a not skitap** nipa-kotunke [eci kukec oli-ya-t Kehlis-k] .
1-suspect-Dir that.An man night-hunt.3 when warden there-go-3Conj Calais-Loc
'I suspect that that man poaches when the warden goes to Calais.'

b. * N-piluwitaham-**a kukec**$_1$ eli not skitap nipa-kotunke [eci t_1 oli-ya-t
1-suspect-Dir warden C that.An man night-hunt.3 when there-go-3Conj
Kehlis-k] .
Calais-Loc
'I suspect (of *the warden*) that that man poaches when *t* goes to Calais.'

(20) a. N-kosiciy-**a Mihku** koti-macehe [mesq 'Tolitoli naka witapih-il peciya-htihq] .
1-know.TA-Dir M. Fut-leave.3 not.yet T. and 3.friend-Obv arrive-3PConjNeg
'I know that Mihku is going to leave before 'Tolitoli and her friend arrive.'

---

[7]In these and subsequent examples, I indicate raising to object in the English translation by a paraphrase using the English topic construction, for instance 'he knows (about *his mother*) that *she* hates muskrat stew.' Enclosing the topic in parentheses indicates that the syntactic structure is not meant to correspond to the English paraphrase.

b. ?? N-kosiciy-**a-k**   **'Tolitoli naka witapih-il**₁ [eli] Mihku koti-maceha-t   [mesq t_1
   1-know.TA-Dir-3P T.   and   3.friend-Obv C   M.   Fut-leave-3Conj not.yet
   peciya-htihq   ] .
   arrive-3PConjNeg
   'I know (about *'Tolitoli and her friend*) that Mihku is going to leave before *t* arrive.'

In addition, raising to object obeys wh-islands; the example in 21 is an attempt at in-situ agreement without dislocation:

(21)   * Ma=te   n-wewitaham-a-wiy-**ik**   Susehp kisi-qecimul-osk [$_{CP}$ *keq* kisi-htu-htit
       Neg=Emph 1-remember.TA-Dir-Neg-3P S.   Perf-ask-2ConjInv   what Perf-make-3PConj
       skitapiy-ik] .
       man-3P
       'I don't remember (about *them*) if Susehp asked you what *the men* made.'

Finally, raising to object obeys the Complex NP Constraint:

(22)   a.   Kosiciy-**ul**   kis-ankuweht-**uwon** [$_{NP}$ atomupil-ol Piyel naka Susehp
           know.TA-**1/2** Perf-sell-**2Conj**   car-InanP   P.   and S.
           mil-osk-opon-il   ] .
           give-2ConjInv-Pret-PartInanP
           'I know that you sold the cars Piyel and Susehp gave you.'
       b.   * N-kosiciy-**a-k**   kis-ankuweht-uwon [$_{NP}$ atomupil-ol **Piyel naka Susehp**
           1-know.TA-Dir-**3P** Perf-sell-2Conj   car-InanP   P.   and S.
           mil-osk-opon-il   ] .
           give-2ConjInv-Pret-PartInanP
           'I know (about *them*) that you sold the cars *Piyel and Susehp* gave you.'
       c.   * N-kosiciy-**a-k**   **Piyel naka Susehp**₁ kis-ankuweht-uwon [$_{NP}$ atomupil-ol t_1
           1-know.TA-Dir-3P P.   and S.   Perf-sell-2Conj   car-InanP
           mil-osk-opon-il   ] .
           give-2ConjInv-Pret-PartInanP
           'I know (about *Piyel and Susehp*) that you sold the cars they gave you.'

If raising the agreeing NP to a position to the left of complementizer elements were not movement, there would be no reason to expect it to obey islands (compare the English paraphrases with *know about* and *suspect of*). I conclude, therefore, that raising to object is syntactic movement. Furthermore, 21a and 22b show that agreement with an NP in situ is also blocked by islands, suggesting that covert movement takes place with in-situ agreement as well (see Section 6.5).

It should also be noted that resumptive pronouns do not save island violations in raising to object:

(23)   ?? N-kosiciy-a-**k**   **Piyel naka Susehp** kis-ankuweht-uwon [$_{NP}$ atomupil-ol **nekomaw**
       1-know.TA-Dir-3P P.   and S.   Perf-sell-2Conj   car-InanP   3P
       mil-osk-opon-il   ] .
       give-2ConjInv-Pret-PartInanP
       'I know (about *Piyel and Susehp*) that you sold [the cars *they* gave you].'

The ungrammaticality of 23 shows that there are not two distinct arguments in raising to object structures; there is only one, which undergoes movement (again, contrast the English paraphrase, with two distinct arguments).

3.1.5 WH-Movement

Agreeing wh-phrases also show that movement takes place in raising to object. In indirect questions embedded under raising-to-object verbs, the verb commonly agrees with the wh-phrase in the embedded Spec-CP. This wh-phrase must have raised to that position by wh-movement, a well-attested process in Passamaquoddy (Bruening 2001, ch.3). For one thing, this wh-movement also obeys islands:

(24) a. N-kosiciy-**a** **wen**$_1$ t_1 elomi-ya-t [mesq Mali mace-ntu-hk] .
     1-know.TA-Dir who IC.away-go-3Conj not.yet M. start-sing-3ConjNeg
     'I know who left before Mary started singing.'

  b. * N-kosiciy-**a** **wen**$_1$ elomi-ya-t Mihku [mesq t_1 mace-ntu-hk] .
     1-know.TA-Dir who IC.away-go-3Conj M. not.yet start-sing-3ConjNeg
     'I know who Mihku left [before t started singing].'

Similarly, matrix wh-questions in which the wh-phrase came from the complement of a raising-to-object verb must involve agreement between the wh-phrase and the verb (see Section 6.6); an example appears in 25a. Once again, this can be shown to be movement, since it again obeys all islands (25b):

(25) a. **Wen**$_1$ Susehp piluwitaham-at [$_{CP}$ t_1 kisi-komutonatom-uw-at Piyel-ol mani-m] ?
     who S. suspect.TA-3Conj Perf-steal-App-3Conj P.-Obv money-Poss
     'Who does Susehp suspect stole Piyel's money?'

  b. * **Wen-il**$_1$ taktal '-kosiciy-a-l [$_{CP}$ *keqsey* kikih-iht t_1] ?
     who-Obv doctor 3-know.TA-Dir what cure-3ConjInv
     'Who does the doctor know what will cure?'

3.1.6 There Are Not Two Distinct Arguments

In addition to giving arguments *for* movement, it is also possible to give arguments against a possible alternative, according to which there are two distinct arguments: one of the higher verb, one of the lower. Such a hypothesis would make raising to object in Passamaquoddy analogous to such English structures as 'I know *about Susehp* that *he* went to Calais.'

We already saw one argument against this hypothesis, from the unavailability of a resumptive pronoun in the lower clause (example 23). This can be shown to be true also in cases where syntactic islands are not involved; a doubling pronoun is simply ungrammatical:[8]

(26) a. N-kosiciy-**a** eli **Piyel** koti-nathul-at Susehp-ol.
     1-know.TA-Dir C P. Fut-pick.up.in.boat-3Conj S.-Obv
     'I know that Piyel will pick up Susehp in a boat.'

  b. * N-kosiciy-**a** **nekom** eli **Piyel** koti-nathul-at Susehp-ol.
     1-know.TA-Dir 3 C P. Fut-pick.up.in.boat-3Conj S.-Obv
     'I know about him that Piyel will pick up Susehp in a boat.'

Additional arguments are easy to muster. For one thing, indirect questions often show agreement between the matrix verb and the embedded wh-phrase:

---

[8]Condition C is not at issue in 26b; it appears to be violable in Passamaquoddy:

(i) Litahasu [$_{CP}$ '-tahcuwi-tqon-ku-l Susehp hesis-ol not nucitqonket] .
    think.3 3-must-arrest-Inv-Obv Jos. older.bro-Obv this policeman
    'He$_1$ thinks that Joseph$_1$'s older brother the policeman has to arrest him$_1$.'

(27) Piyel ma=te wewitaham-**a**-wiy-**il** **wen-il** kisi-mil-uk atomupil.
Piyel Neg remember.TA-Dir-Neg-Obv who-Obv Perf-give-1Conj car

'Piyel doesn't remember who I gave a car to.'

There is no coherent two-argument interpretation of such cases: *'Piyel doesn't remember about him$_1$ who$_1$ I gave a car to', *'Piyel doesn't remember about who$_1$ that I gave a car to him$_1$' (cf. Branigan and Mackenzie 1999).

From all of these considerations—the form of quantifiers, reconstruction, island phenomena—we can conclude that dislocation in the raising to object construction, associated with agreement with the higher verb, is movement.[9] We can also conclude that there are not two separate arguments in these constructions. The same can be shown for Japanese.

3.2 Japanese

Various kinds of evidence point to overt movement in raising to object constructions in Japanese. One type (due to Tanaka 2001) comes from the Proper Binding Condition (Fiengo 1977).

3.2.1 The Proper Binding Condition

Ordinarily finite clauses can scramble in Japanese, but they may not if something else has scrambled out of them first (on an ECP account, the scrambled NP does not c-command its trace after remnant movement; Saito 1989):

---

[9]There is one potential argument that raising to object is *not* movement. This is that agreement on the higher verb can be with a *subset* of a lower argument (Frantz 1978):

(i) a. Kosiciy-**ul-pa** | eli | toli-nomiy-uti-**yeq** Utoqehki-k.
(2)-know.TA-1/2-2P C there-see-Recip-2PConj G.L.S.-Loc

'I know (about *you* (Pl.)) that *you* (Pl.) saw each other at Grand Lake Stream.'

b. 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* (Sg.)) that *you* and your friend saw each other at Grand Lake Stream.'

c. 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.'

In 9a, agreement is with a second person plural, the subject of the lower clause (a reciprocal). In 9b, however, the higher verb agrees only with a second person singular, a subset of the lower argument 'you and your friend.' In 9c, the higher verb agrees with 'this man', which is a subset of 'you and this man' in the lower clause.

However, this phenomenon is just something that the language independently allows. For instance, relative clauses can be headed by a subset of one of their arguments; this is the case for what is translated as 'enemy' in the following text example:

(ii) '-Keskuhtehq-a-l elomi-pusi-li-c-il Mociyehsw-ol, **kci** **nacitaham-ti-htic-il**,
3-come.upon-Dir-Obv IC.away-leave.by.boat-ObvS-3Conj-PartObv M.-Obv great hate-Recip-3PConj-PartObv
naka Koluskap '-siwiyi.
and K. 3-relative.ObvP

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

This is literally 'he$_1$ comes upon [the great [one who$_2$ he$_2$ and he$_1$ hate each other$_{1,2}$]].' That is, the relative operator (a singular) is a subset of the subject of the reciprocal verb, which is necessarily plural (semantically and syntactically). This is exactly the configuration we see in 9, but in relativization rather than raising to object. There is every reason to believe that relativization involves movement (numerous reasons are listed in Bruening 2001, ch.3). If relativization can pick out subsets of arguments, then movement operations generally must be able to. The fact that raising to object can is therefore not surprising at all, and does not argue against a movement analysis.

(28) Proper Binding Condition (Saito 1992, ex.29,31)

    a.   [$_{CP}$ Hanako-ga sono hon-o   yonda to   ] Taroo-ga t_{CP} itta (koto).
                H.-Nom   that book-Acc read Comp T.-Nom   said (fact)

          'That Hanako read that book, Taroo said.'

    b.   * [$_{CP}$ Hanako-ga t_1 yonda to   ] sono hon-o$_1$ Taroo-ga t_{CP} itta (koto).
                H.-Nom   read Comp that book-Acc T.-Nom   said (fact)

          'That Hanako read t_1, that book$_1$, Taroo said.'

The same ungrammaticality with raising to object indicates that the raised NP has undergone movement; compare a Control case with PRO in the embedded clause, where scrambling the clause is perfectly grammatical:

(29) Tanaka 2001, ex.34–35

    a.   * [$_{CP}$ t_1 Baka da to   ] John-ga Bill-o$_1$ t_{CP} omotteiru.
                   fool is Comp J.-Nom B.-Acc   think

          'As a fool, John thinks of Bill.'

    b.   [$_{CP}$ PRO gakkoo-ni iku yoo-ni   ] John-ga Bill-ni t_{CP} meizi-ta.
                   school-to go in.order.to J.-Nom B.-Dat   ordered

          'To go to school, John ordered Bill.'

If *Bill-o* has raised out of the embedded clause in 29a, we can explain its ungrammaticality as a violation of the PBC. If *Bill-o* were simply a matrix constituent, the ungrammaticality of this sentence would be mysterious; it should pattern with Control in 29b.

3.2.2 Idioms

The ability of idiom chunks to appear in the raising to object construction also argues for movement:[10]

(30) a.   Taroo-ga [**sono-seejika-no**   **kao-ga**   hiroi to   ] omotta.
            T.-Nom   that-politician-Gen face-Nom wide Comp   thought

          'Taroo thought that that politician was well-known.'

    b.   Taroo-ga **sono-seejika-no**   **kao-o**   (orokanimo) [hiroi to   ] omotta.
            T.-Nom   that-politician-Gen face-Acc (stupidly)   wide Comp   thought

          'Taroo (stupidly) thought that that politician was well-known.'

(31) a.   Taroo-ga [**John-no ketsu-ga** aoi   to   ] omotta (koto).
            T.-Nom   J.-Gen   hip-Nom blue Comp   thought (fact)

          'Taroo thinks that John is inexperienced.'

    b.   Taroo-ga **John-no ketsu-o** [aoi   to   ] omotta (koto).
            T.-Nom J.-Gen   hip-Acc   blue Comp   thought (fact)

          'Taroo thinks that John is inexperienced.'

The fact that the idiom chunk can appear before a matrix adverb when marked with accusative case in 30b indicates that it has dislocated out of the embedded clause. Because it can be interpreted idiomatically, it must have been generated as a constituent with the verb in the embedded clause. This means that raising to object in Japanese must involve movement.

---

[10]Japanese examples that are not attributed to a published source come from various speakers: Ken Hiraiwa, Shinichiro Ishihara, Shigeru Miyagawa, Shogo Suzuki, Satoshi Tomioka, Takae Tsujioka, and Hideaki Yamashita. All examples were checked with at least two of these speakers.

3.2.3 There Are Not Two Distinct Arguments

Just as in Passamaquoddy, it is impossible to double the raised NP with a pronoun in the lower clause in Japanese, although this is possible with Control cases (Kuno 1976):

(32) Kuno 1976, ex.67–68

    a. * Yamada wa **Tanaka**$_1$ **o** [**kare**$_1$ **ga**   baka da to]   omotte ita.
           Y.   Top T.   Acc he   Nom fool is Comp thinking was

        'Yamada thought of Tanaka that he was a fool.'   Raising

    b. ? Yamada wa **Tanaka**$_1$ **ni** [**kare**$_1$ **ga**   sore o   suru] koto o meizita.
           Y.   Top T.   Dat he   Nom it   Acc do   that   ordered

        'Yamada ordered Tanaka that he do it.'   Control

This fact indicates that in Japanese, just like in Passamaquoddy, there is only one argument in raising to object constructions, not two.

3.3 Conclusion

Judging by the results of these syntactic tests—islands, the Proper Binding Condition, reconstruction, and so on—raising to object in both Passamaquoddy and Japanese appears to be movement. Furthermore, this movement crosses a finite clause boundary: the complementizer *to* in Japanese, and the complementizer *eli* and wh-phrases in Spec-CP in Passamaquoddy.

    We turn now to processes in the higher clause, which seem to indicate that the NP that has moved out of the lower clause occupies an A-position in the higher. The raised NP can undergo A-scrambling in Japanese, for instance, and the Inverse in Passamaquoddy.

4 Raising Feeds A-Movement

If raising to object is movement out of a finite clause, as argued above, we would expect it to be A-bar movement. However, it seems to be able to feed A-movement processes in the higher clause, as shown here for both languages.

4.1 Passamaquoddy

4.1.1 The Inverse

Passamaquoddy has a morphosyntactic process of *inversion* (usually considered a voice alternation) that carries an object over a subject. This process is triggered whenever the object of a transitive verb is higher on a person hierarchy than the subject. The hierarchy ranks first and second persons highest, then third proximate persons, then third obviative persons, and inanimates lowest.

    The Inverse can be shown to involve syntactic movement through scope and binding. In the Direct Voice, where the subject outranks the object, the subject may take scope over and bind into the object, but not vice versa:[11]

(33) Direct Voice: Subject > Object, *Object > Subject

    a.   Katolu **psi=te**   **wen**   '-koselom-**a**-l *wikuwoss-ol.*
          of.course all=Emph someone 3-love-**Dir**-Obv 3.mother-Obv

        'Of course everyone$_1$ loves his$_1$ mother.'

---

[11]Word order does not appear to matter; see Bruening 2001, ch.2.

b. * **Skitap musqitaham-ac-il** '-koti-tqon-**a**-l   *psi=te*   *wen-il.*
man   hate-3Conj-PartObv 3-Fut-arrest-**Dir**-Obv all=Emph someone-Obv

'A man that he$_1$ hates will arrest everyone$_1$.'

In the Inverse, however, the object is able to take scope over and bind into the subject. The opposite is also marginally possible (similar to Japanese A-scrambling, below):

(34)   Inverse Voice: Object > Subject, ?Subject > Object

a.   Katolu *psi=te*   *wen*   '-kosiciy-**uku**-l   **wikuwoss-ol**.
of.course all=Emph someone 3-know.TA-**Inv**-Obv 3.mother-Obv

'Of course his$_1$ mother knows (about) everyone$_1$.'

b.   **Ma=te**   **keq**   utomeya-**ku**-w-on   [$_{NP}$ *tepelto-k*   ] .
Neg=Emph something 3.bother-**Inv**-Neg-N   IC.own-3Conj

'Nothing$_1$ bothers the one who owns it$_1$.'

These facts suggest that the Inverse involves A-movement similar to the passive: the object raises over the subject to a higher A-position (note the change in word order as well, though word order is flexible enough to preclude drawing any conclusions from it). Unlike the passive, however, there is no concomitant demotion of the subject; it remains in its base position, and the verb is fully transitive. The hypothesized movement is diagrammed in 35:[12]

(35)   **A-movement:** [$_{HP}$ [$_{NP}$ the one who owns it] [$_{vP}$ nothing [$_{VP}$ bothers *t*]]]

Now, raising to object can feed the Inverse in Passamaquoddy:

(36)   **Psi=te**   **wen**   '-kosiciy-**uku**-l   Maliw-ol ⟨eli⟩ nucitqonket nomiy-at.
all=Emph someone 3-know.TA-Inv-Obv M.-Obv   C   policeman see-3Conj

'Mary knows that a policeman saw everyone.'

In the matrix clause in 36, 'Mary' is obviative while the raised NP 'everyone' is proximate. In such a situation (the object outranks the subject), the Inverse is required. (Note that the word order here becomes OVS.)

Furthermore, the Inverse in the higher clause permits new binding relations, just as it does within a single clause. A quantifier raised out of the lower clause can bind a variable contained within the matrix subject:

(37)   **Psi=te**   **wen**   '-kosiciy-**uku**-l   *w-ikuwoss-ol* [$_{CP}$ etoli-koti-peciya-t
all=Emph someone 3-know.TA-**Inv**-Obv 3-mother-Obv   IC.there-Fut-come-3Conj
etolonukahk] .
gathering

'His$_1$ mother knows that everyone$_1$ is coming to the gathering.'

This fact indicates that raising to object—across a clause boundary—can feed A-movement. As stated in the introduction, this is problematic for one of two reasons: either A-movement can cross a clause boundary, violating commonly assumed locality restrictions on A-movement; or A-bar movement across the clause boundary can feed A-movement, violating the ban on improper movement.

---

[12]See Bruening (2001, ch.2). Besides the ambiguity of the Inverse (as opposed to the Direct), one other fact argues against simply linking thematic roles in the opposite order in the Inverse: that the form of the verb (TA vs. TI) is determined by the underlying (logical) object, not the derived object (the logical subject). Agreement must therefore make reference both to underlying (logical) relations and derived ones.

4.1.2 Reciprocalization

A second process within the higher clause that is apparently fed by raising to object is reciprocalization. Reciprocals are indicated by derivational morphology on the verb in Passamaquoddy rather than by an NP anaphor. A detransitivizing suffix is added to the verb, causing it to inflect like an intransitive. For instance, 38 lacks the third-person prefix that is characteristic of transitive verbs, and it also lacks the Direct or Inverse morpheme:

(38)   Susehp naka Piyel koti-tqon-**tu**-wok.
        S.   and   Piyel Fut-arrest-**Recip**-3P
        'Susehp and Piyel will arrest each other.'

Raising to object apparently feeds this derivational process. In 39, 'Susehp and Piyel,' the logical object of the lower verb, raises into the higher clause and becomes the subject (and object) of a reciprocal verb (derived from the TA stem).[13] The word order again is worthy of remark: the raised NP, now the matrix subject, is preverbal, as subjects often are in Passamaquoddy:

(39)   Susehp naka Piyel mili-kciciyu-**tu**-wok   eli Lehpit koti-tqon-at.
        Susehp and   Piyel varied-know.TA-**Recip**-3P C L.   Fut-arrest-3Conj
        '*Susehp and Piyel* know about *each other* that Lehpit will arrest *them*.'

The TA form of a transitive verb serves as the base for reciprocalization. This fact indicates that reciprocals have an object at some level of analysis. That is, the TA form is determined, in the raising to object case, by an animate argument counting as the object of the verb. This means that the NP that ends up as the matrix subject raises out of the lower clause first to some position where it counts as the object of the matrix verb, agreeing with the TA stem, then to subject position, as forced by the detransitivizing reciprocal suffix.

The argument(s) of the higher reciprocal verb must still be (an) argument(s) of the lower verb:

(40)   * Susehp naka Piyel mili-kciciyu-tu-wok   eli Lehpit koti-tqon-at   Sokahs-ol.
        Susehp and   Piyel varied-know.TA-Recip-3P C L.   Fut-arrest-3Conj S.-Obv
        'Susehp and Piyel know about each other that Lehpit will arrest Sokahs.'

That is, it could not be that just in the case of reciprocalization the link between the raised object and the lower clause disappears.[14]

---

[13]In this example speakers also prefer to add the preverb *mili-*. I do not know if this is necessary with this particular verb.

[14]Reflexivization of the higher verb is not possible:

(i)   a.   * Nil n-kosiciy-us   eli koti Susehp tqon-it.
           1   1-know.TA-Refl C Fut S.   arrest-1ConjInv
           'I know about myself that Susehp will arrest me.'

      b.   Nil n-pehki-kosiciy-us   eli Susehp koti-tqon-it.
           1   1-thoroughly-know.TA-Refl C S.   Fut-arrest-1ConjInv
           'I know for sure that Susehp is going to arrest me.'

      c.   Nil n-pehki-kosiciy-us   eli Susehp koti-tqon-at   Piyel-ol.
           1   1-thoroughly-know.TA-Refl C S.   Fut-arrest-3Conj Piyel-Obv
           'I know for sure that Susehp is going to arrest Piyel.'

However, the reflexive morpheme is not just a reflexive morpheme. It also appears in various types of intransitives that do not have reflexive meanings. The raising verb with the "reflexive" suffix in (i), in particular, has a lexical meaning as 'know for sure' in (ib); in this use there is no necessary connection between the "reflexivized" argument and any argument position in the lower clause, as shown by (ic) (that is, it is no longer a raising to object verb). Hence it may not be surprising that reflexives cannot appear with raising to object: combining the "reflexive" suffix with one of these verbs idiosyncratically gives rise to a different type of

4.2 Japanese

Turning to Japanese, Tanaka (2001), for example, has argued that raising to object must be A-movement across a clause boundary, because it can feed A-movement in the higher clause. A-movement in Japanese is A-scrambling of the object over the subject.

4.2.1 A-Scrambling to Remedy Condition A

For example, an NP marked with accusative case can scramble across the matrix subject, and thereby bind an anaphor contained within it:

(41) Tanaka 2001, ex.5

    a. * Otagai-no   sensei-ga   **karera-o** [bakada to   ] omotteiru.
        each.other-Gen teacher-Nom **them-Acc**   fool   Comp   think.Prog

        'Each other$_1$'s teachers think of them$_1$ as fools.'

    b. **Karera-o** otagai-no   sensei-ga   [bakada to   ] omotteiru.
       them-Acc each.other-Gen teacher-Nom   fool   Comp   think.Prog

        'Them$_1$, each other$_1$'s teachers think of as fools.'

Without scrambling, 41 is a violation of Condition A: the anaphor is not bound.

Many speakers prefer a conjoined noun phrase over the plural pronoun *karera*, but in either case the movement permits binding:

(42)   a. * Otagai-no   sensei-ga   **Taro-to Hanako-o** [baka da to   ] omotteiru.
         each.other-Gen teacher-Nom **T.-and H.-Acc**   fool be Comp   think.Prog

         'Each other$_1$'s teachers think of Taroo and Hanako$_1$ as fools.'

      b. **Taro-to Hanako-o** otagai-no   sensei-ga   [baka da to   ] omotteiru.
         T.-and H.-Acc   each.other-Gen teacher-Nom   fool be Comp   think.Prog

         'Taroo and Hanako$_1$, each other$_1$'s teachers think of as fools.'

The fact that this scrambling permits binding of an anaphor indicates that it must be A-movement.

4.2.2 A-Scrambling: Scope and Variable Binding

A-movement is also evident in the availability of inverse scope and variable binding in the higher clause:

(43)   a. **Daremo-o**   dareka-ga   [baka da to   ] omotte ita.
         everyone-Acc someone-Nom   fool be Comp   thinking was

         'Everyone, someone thought was a fool.' (**ambiguous**)

      b. **Daremo-o**   soitu-no hahaoya-ga   [baka da to   ] omotte ita.
         everyone-Acc his-Gen mother-Nom   fool be Comp   thinking was

         'Everyone$_1$, his$_1$ mother thought was a fool.'

A-bar scrambling is known to be unable to create new scope and binding relations of this sort (Saito 1989, 1992).

---

interpretation. If this is correct, one might expect that some raising-to-object verbs will exist where the reflexive meaning can come through; these would be expected to occur in raising to object constructions without difficulty. I have so far not found any such verbs. (Reflexives are also impossible, but reciprocals possible, in Blackfoot, according to Frantz 1978.)

4.3 Conclusion

It appears from the above that raising to object in both Passamaquoddy and Japanese can feed A-movement in the higher clause. This means either that A-movement can cross a finite clause boundary, violating locality conditions on A-movement, or A-bar movement can feed A-movement, violating the ban on improper movement. However, the next section shows that movement does not in fact feed A-movement; just when A-movement takes place, all the arguments from Section 3 indicate that movement out of the lower clause does *not* take place.

5 Movement Does Not Feed A-Movement

We have seen arguments of two types: when long-distance agreement, either with or without movement, takes place, the NP involved must have come from the lower clause (if there is no movement it is visibly located in the lower clause); and long-distance agreement and presumably movement feed argument structure alternations, including A-movement, in the higher clause. Putting these two things together, we might conclude that raising to object is (or can be) an A-movement process (A-bar movement could not feed A-movement, by the ban on improper movement). This A-movement is, somehow, able to cross a clause boundary. Or, we might conclude that there really is no ban on improper movement, and A-bar movement across the clause boundary is able to feed A-movement.

However, neither conclusion is forced. The two phenomena are actually distinct: no arguments have shown that a raised NP that participates in argument structure alternations or A-movement in the higher clause must have come from the lower clause. (All we know so far is that there is necessarily an association between such an NP and an argument position in the lower clause.) In fact, when we combine the two types of arguments, we end up with a conflict: an NP that undergoes A-movement does not show the properties of movement listed above. The conclusion, I will argue, is that long-distance agreement can take place, crossing clause boundaries, possibly accompanied by A-bar movement to a clause-peripheral position, but movement cannot cross the clause boundary. When the argument must be part of the higher clause, as shown by A-movement, it did not start out in the lower clause.

5.1 Passamaquoddy

5.1.1 Inverse: Can Violate Islands

When the raised NP inverts over the subject in the Inverse, it turns out that the evidence for movement out of the lower clause disappears. In exactly this context the raised NP can come from a position inside a syntactic island, for instance an adjunct island:

(44) a. **N**-kosiciy-**oq** al nikuwoss 〖eli〗 psi=te wen uci-maceha-t [mesq
　　　1-know.TA-**Inv** Uncertain 1.mother C all=Emph someone from-leave-3Conj not.yet
　　　mace-ntu 　　　　] .
　　　start-sing.1ConjNeg

　　　'(I wonder if) my mother knows (about *me*) that everyone left [before *I* started singing].'

　　b. **Tihtiyas kosona Sapet** '-kosiciy-**uku**-l wikuwoss-ol 〖eli〗 psi=te wen macehe
　　　T. or S. 3-know.TA-Inv-Obv 3.mother-Obv C all=Emph someone leave.3
　　　[kisi-ntu-htit 　　　] .
　　　Perf-sing-3PConj

　　　'Her mother knows (about *Tihtiyas or Sapet*) that everyone left [after *they* started singing].'

Wh islands can also be violated:

(45)   **Petak** ma=te   '-kosiciy-**uku**-wiy-il   witapih-il |eli| nucitqonket nemiht-aq   [CP
        P.   Neg=Emph 3-know.TA-**Inv**-Neg-Obv 3.friend-Obv (C) policeman IC.see.TI-3Conj

        keqsey kisi-komutonato-k] .
        what   Perf-steal-3Conj

        'His friend doesn't know (about *Petak*) if the police saw [what *he* stole].'

Finally, complex NP islands can be violated in 46, but note here that the raised argument, *Petak*, is actually repeated within the island. This was not a production error, as I repeated it back to the informant, who assented and repeated it again:

(46)   **Petak** '-kosiciy-**uku**   witapihi |eli| Mali kis-ankuweht-aq   [NP nahsahqehtakon
        P.   3-know.TA-Inv.ObvP 3.friend.ObvP C   M.   Perf-sell.TI-3Conj   ring

        Petak mil-at-pon   ] .
        P.   give-3Conj-Pret

        'His friends know (about *Petak*) that Mary sold [the ring that *Petak* gave her].'

This example contrasts with 23 from above, repeated as 47, in which a resumptive pronoun did not salvage a CNPC violation:

(47)   ?? N-kosiciy-a-**k**   **Piyel naka Susehp** kis-ankuweht-uwon [NP atomupil-ol **nekomaw**
        1-know.TA-Dir-3P P.   and S.   Perf-sell-2Conj   car-InanP   3P

        mil-osk-opon-il   ] .
        give-2ConjInv-Pret-PartInanP

        'I know (about *Piyel and Susehp*) that you sold [the cars *they* gave you].'

Resumptive pronouns are not attested in Passamaquoddy. They certainly do not appear when island constraints are respected, and attempting to use overt pronouns when island constraints are violated does not mitigate the violation:

(48)   a.   * **Wen**₁ kisi-wisukilwaha-yin ['sami   *t*₁ ma=te   k-ciksota-ku-wi-n   ] ?
            who Perf-get.angry-2Conj because   Neg=Emph 2-listen.to-Inv-Neg-1P

            'Who₁ did you get mad because *t*₁ didn't listen to us (Incl)?'

    b.   * **Wen**₁ kisi-wisukilwaha-yin ['sami   **nekom**₁ ma=te   k-ciksota-ku-wi-n   ] ?
            who Perf-get.angry-2Conj because 3   Neg=Emph 2-listen.to-Inv-Neg-1P

            'Who₁ did you get mad because he₁ didn't listen to us (Incl)?'

    Given this, the fact that repeating the name inside the island is possible in 46, combined with the possibility of the island violation, suggests that the two positions are not related by movement when inversion has taken place in the higher clause. That is, there is no movement, but two distinct arguments.

    These data thus contrast with those given above for the Direct voice. In the Direct, island violations lead to ungrammaticality, indicating that movement is crucially (and unavoidably) involved. Just when A-movement in the higher clause raises the "raised" NP further, however, the NP is not related to the lower position by movement.

    Similarly, first and second persons when they occur as co-arguments give rise to alternations similar to the Inverse. In particular, a morpheme that occupies the same templatic position as the Direct or Inverse morpheme indicates which of the first and second persons is the subject and which the object. A natural hypothesis is that first and second person interaction is similar to the Inverse in involving A-movement. In raising to object, islands can be violated when the higher clause includes both first and second persons:

17

(49) a. **K**-piluwitaham-**ul** Mihku keti-maceha-t   ['sami   sakhip-huk-**ihin**   ] .
2-suspect-1/2   M.   IC.Fut-leave-3Conj   because bring-drive-2Conj
'I suspected (about *you*) that Mihku would leave [when *you* drove up].'   Adjunct Island

b. Kosiciy-**ul-pa**   [eli] Susehp kis-ankuweht-aq [$_{NP}$ atomupil mil-**eq**-pon   ] .
(2)-know.TA-1/2-2P C   S.   Perf-sell-3Conj   car   give-2PConj-Pret
'I know (about *you* (Pl.)) that Susehp sold [the car *you* (Pl.) gave him].'   CNPC

In some such cases, an overt pronoun must be repeated in the island, indicating again that the lower position is not related to the higher one by movement:

(50) a. Koti-ksociy-**ul-pa**   cipotu=te   'Tlitoli koti-naci-witka   [tehpu **kiluwaw Phil**
want-know.TA-1/2-2P maybe=Emph T.   Fut-go.do-dance.3   only   2P   P.
natsakiw-iyeq] .
watch-2PConj
'I want to know (about *you* (Pl.)) whether 'Tlitoli will go dancing [only if *you and Phil* go to a movie].'

b. Koti-ksociy-**ul-pa**   **kiluwaw Phil** cipotu=te   'Tlitoli koti-naci-witka   [tehpu
want-know.TA-1/2-2P 2P   P.   maybe=Emph T.   Fut-go.do-dance.3   only
*(kiluwaw) natsakiw-iyeq] .
2P   watch-2PConj
'I want to know (about *you and Phil*) whether Tlitoli will go dancing [only if *you* (Pl.) go to a movie].'

Without the resumptive pronoun in 50b, the sentence is ungrammatical. While I have no explanation for when resumptive pronouns are required and when they are not, the possibility of their appearance here (in contrast with simple wh-movement out of islands) indicates that there are two distinct arguments in these constructions.

Other matrix operations, such as reciprocalization, also lack the characteristics of movement.

5.1.2   Reciprocals: Can Violate Islands

We saw above that raising to object can apparently feed reciprocalization in the higher clause. However, when it does, raising can violate islands (here an adjunct island):

(51) **Susehp naka Piyel** mili-ksiciy-**utu**-wok   [eli] Mali maceha-t   [mesq
S.   and P.   varied-know.TA-**Recip**-3P C   M.   leave-3Conj   not.yet
mace-ntu-htihq   ] .
start-sing-3PConjNeg
'*Susehp and Piyel* know about *each other* that Mary left [before *they* started singing].'

Again, the conclusion is that movement out of the lower clause does not feed A-movement processes in the higher clause; when such take place, there is no movement.

5.2   Japanese

In Japanese, the arguments for movement out of the lower clause were the Proper Binding Condition and the dislocation of idiom chunks. Neither holds when A-movement takes place (idioms simply cannot undergo higher A-movement).

5.2.1 A-Movement Plus the PBC

If the raised NP *must* be in the higher clause in Japanese, by virtue of having A-scrambled to remedy a Condition A violation, for instance, the PBC violation induced by scrambling the finite clause remnant disappears:

(52) a. * [t_1 Baka da to   ] John-ga **Bill-o**$_1$ t_{CP} omotteiru.
                fool is Comp J.-Nom B.-Acc   think
                'That is a fool, John thinks of Bill.'

      b. [Baka da to   ] **Taroo-to Hanako-o** otagai-no   sensei-ga t_{CP} omotteiru.
               fool be Comp T.-and   H.-Acc   each.other-Gen teacher-Nom   think.Prog
               'That are fools, Taroo and Hanako, each other's teachers think of.'

(53) a. * [t_1 Furansugo-o hans-eru   to   ] Yamada-ga **Tanaka-o**$_1$ t_{CP} omotte ita.
                French-Acc speak-can.Pres Comp   Y.-Nom   T.-Acc   thinking was
                'Yamada thought that Tanaka could speak French.'

      b. **Taroo-to Hanako-o** otagai-no   sensei-ga   [furansugo-o hans-eru   to   ]
               T.-and   H.-Acc   each.other-Gen teacher-Nom   French-Acc speak-can.Pres Comp
               omotte ita.
               thinking was
               'Taroo and Hanako, each other's teachers think that can speak French.'

      c. [Furansugo-o hans-eru   to   ] **Taroo-to Hanako-o** otagai-no   sensei-ga
               French-Acc speak-can.Pres Comp T.-and   H.-Acc   each.other-Gen teacher-Nom
               t_{CP} omotte ita.
                    thinking was
               'That can speak French, Taroo and Hanako, each other's teachers think.'

In 52a, repeated from above, *Bill-o* has raised out of the lower clause; the lower clause has then been scrambled, inducing a violation of the PBC. However, when the lower subject undergoes A-scrambling in 52b, as shown by its binding the anaphor in the matrix subject, there is no PBC violation induced by scrambling the remnant clause. This means that the raised NP did not move out of the lower clause in 52b.

    The PBC violation also vanishes when A-scrambling for variable binding takes place:

(54) a. **Daremo-o**   soitu-no hahaoya-ga [baka da to   ] omotte ita.
             everyone-Acc his-Gen mother-Nom   fool be Comp   thinking was
             'Everyone$_1$, his$_1$ mother thought was a fool.'

      b. [Baka da to   ] **daremo-o**   soitu-no hahaoya-ga t_{CP} omotte ita.
             fool be Comp   everyone-Acc his-Gen mother-Nom   thinking was
             'That was a fool, everyone$_1$, his$_1$ mother thought.'

Significantly, simply scrambling the raised NP over the subject is not sufficient; a new binding relation must be established:

(55) ?* [t_1 Baka-da-to   ] **Hanako-o**$_1$ Taroo-ga t_{CP} omotteiru.
               fool-is-Comp H.-Acc   T.-Nom   think.Prog
           'As a fool, Hanako, Taroo thinks of.'

This means that only what is unambiguously A-movement—as indicated in Japanese by binding (and possibly scope in 43a)—does not involve raising out of the lower clause. Without binding, it appears to be the case that movement out of the lower clause is forced.

5.2.2 Resumptive Pronouns

We saw above that it is impossible to double the raised NP with a pronoun in the lower clause in Japanese, although this is possible with Control cases; example 32 is repeated from above:

(56) Kuno 1976, ex.67–68

    a. * Yamada wa **Tanaka$_1$ o** [**kare$_1$ ga** baka da to] omotte ita.
        Y.   Top T.   Acc he   Nom fool is Comp thinking was
        'Yamada thought of Tanaka that he was a fool.'   Raising

    b. ? Yamada wa **Tanaka$_1$ ni** [**kare$_1$ ga** sore o suru] koto o meizita.
        Y.   Top T.   Dat he   Nom it   Acc do   that   ordered
        'Yamada ordered Tanaka that he do it.'   Control

It turns out, however, that it *is* possible to have an overt pronoun just when the raised NP A-scrambles to bind into the matrix subject:[15]

(57) a. ?? Yamada-wa **Tanaka$_1$-o** [**kare$_1$-ga** baka da to] omotte ita.
        Y.-Top   T.-Acc   he-Nom fool is that thinking was
        'Yamada thought of Tanaka that he was a fool.'

    b. **Taroo-to Hanako-o** otagai-no   sensei-ga   [**karera-ga** baka da to   ] omotteiru.
        T.-and   H.-Acc   each.other-Gen teacher-Nom   they-Nom fool is Comp   think.Prog
        'Taroo and Hanako$_1$, each other$_1$'s teachers think of them$_1$ as fools.'

This possibility suggests that just when the raised NP undergoes A-movement in the higher clause, its position in the lower clause is occupied by *pro*, not trace. The possibility of repeating the argument in Passamaquoddy suggests the same for that language: exactly when A-movement occurs in the higher clause, the relevant NP is related to a pronoun (or even a full NP) and not to a movement trace in the lower clause.

Just scrambling the NP, without binding, does not improve the pronoun, meaning that only binding permits A-movement and no movement out of the lower clause:

(58) * **Tanaka$_1$-o** Yamada-wa [**kare$_1$-ga** baka da to] omotte ita.
        T.-Acc   Y.-Top   he-Nom fool is that thinking was
        'Yamada thought of Tanaka that he was a fool.'

The same facts hold of wh-phrases. Wh-phrases can undergo A-scrambling and bind a reciprocal; they can also bind a variable (with no WCO) in the higher clause, meaning that they can undergo A-movement:

(59) a. **Dare-to dare-o** otagai-no   sensei-ga   [baka da to] omotte-iru-no?
        who-and who-Acc each.other-Gen teacher-Nom   fool is C   thinking-is-Q
        'Who all$_1$ do each other$_1$'s teachers think of as fools?'

    b. **Dare-o** soitu-no okaasan-ga   [baka da to] omotte-iru-no?
        who-Acc he-Gen mother-Nom   fool is C   thinking-is-Q
        'Who$_1$ does his$_1$ mother think of as a fool?'

In just such a case it is possible to have an overt pronoun; without A-binding this is impossible:

(60) a. **Dare-o** soitu-no okaasan-ga   [**soitu-ga** baka da to] omotte-iru-no?
        who-Acc he-Gen mother-Nom   he-Nom fool is C   thinking-is-Q
        'Who$_1$ does his$_1$ mother think of as a fool?'

---

[15]My informants do not find 57a as ungrammatical as Kuno indicates for 56a, though there is still a sharp constrast with 57b.

b. * **Dare-o** Taroo-ga [**soitu-ga** baka da to] omotte-iru-no?
who-Acc T.-Nom   he-Nom fool is C   thinking-is-Q

'Who₁ does Taroo think of as a fool?'

This means that wh-phrases, too, can be linked to a pronoun in the lower clause just when they undergo A-movement in the higher clause; otherwise they must move out of a base position in the lower clause.

5.2.3 Idioms

One other piece of evidence comes from the scrambling of idiom chunks. As shown above, some idiom chunks may undergo raising to object:

(61) a. Taroo-ga **sono-seejika-no   kao-o**   (orokanimo) [hiroi to   ] omotta.
T.-Nom that-politician-Gen face-Acc (stupidly)   wide Comp thought

'Taroo (stupidly) thought that that politician was well-known.'

b. Taroo-ga **John-no ashi-o** [chi-ni   tsuiteinai   to   ] omotta.
T.-Nom J.-Gen   leg-Acc ground-to don't.reach Comp   thought

'Taroo thought that John was restless.'

c. Taroo-ga **John-no ketsu-o** [aoi   to   ] omotta (koto).
T.-Nom J.-Gen   hip-Acc blue Comp   thought (fact)

'Taroo thinks that John is inexperienced.'

The idiomatic NP can appear before a matrix adverb, as in 61a. But it cannot scramble to clause-initial position:

(62) a. ?? **Sono-seejika-no   kao-o**   Taroo-ga [hiroi to   ] omotta.
that-politician-Gen face-Acc T.-Nom   wide Comp   thought

'Taroo thought that that politician was well-known.'

b. ?? **John-no ashi-o** Taroo-ga [chi-ni   tsuiteinai   to   ] omotta.
J.-Gen   leg-Acc T.-Nom   ground-to don't.reach Comp   thought

'Taroo thought that John was restless.'

c. ?? **John-no ketsu-o** Taroo-ga [aoi   to   ] omotta (koto).
J.-Gen   hip-Acc T.-Nom   blue Comp   thought (fact)

'Taroo thinks that John is inexperienced.'

Idioms are independently known not to undergo long-distance scrambling in Japanese (Miyagawa 1997). The movement in 62 would, therefore, have to be local scrambling within the matrix clause—that is, A-movement. But we saw above that A-movement entails binding a pronoun in the lower clause, without movement. Idiom chunks, however, are incompatible with such binding; in order to be interpreted idiomatically, they must be generated in the lower clause and raised via movement. The sentences in 62, then, must involve long-distance scrambling, an operation unavailable to idiom chunks.

5.3 Conclusion

The same tests that show that raising to object is normally movement out of the lower clause show that it is not just when the raised NP undergoes A-movement in the higher clause. In such a case the NP is related to a pronoun in the lower clause, and not to a trace. The next section explores these findings in more detail. They seem to indicate that the problematic movement across the clause boundary in raising to object constructions does not actually take place.

6 A Theory of Raising to Object

The data given in the previous section—in particular, the resumptive pronoun data—suggest the following structure just when A-movement takes place:

(63) $[_{CP} \ldots NP_1 \; V{+}Agr_1 \; [_{XP} \; t_1 \; [_{CP} \; (WH) \; [_C \ldots \mathbf{pro}_1 \ldots] \,]\,]\,]$
                          A-mvmt

In this structure the NP that moves to a higher A-position is generated in some position to the left of the lower clause (labelled "XP" here), and related to a pronoun in argument position in the lower clause.

When the higher A-movement does not occur, movement out of the lower clause seems to be required:

(64) $[_{CP} \ldots V{+}Agr_1 \; [_{XP} \; NP_1 \; [_{CP} \; (WH) \; [_C \ldots t_1 \ldots] \,]\,]\,]$
                           movement

This movement can be followed by A-bar movement, but not A-movement. For instance, we saw in Passamaquoddy (in example 18c) that a raised NP could front all the way to the beginning of the matrix clause and still reconstruct to its base position in the lower clause:

(65)   [Cihpolakon kosona kuhas] n-wewitaham-a |eli| **skat** kisi-maton-ihq.
        eagle   or   hawk   1-remember.TA-Dir C   Neg Perf-fight-1ConjInvNeg
        'I remember that an eagle or a hawk didn't attack me.' (neither did)   Conjunctive

In Japanese, without binding fronting seemed to require movement out of the lower clause followed by A-bar movement; scrambling without binding did not repair a PBC violation, for example:

(66)   ?* [t_1 Baka-da-to   ] **Hanako-o**$_1$ Taroo-ga t_{CP} omotteiru.
           fool-is-Comp   H.-Acc   T.-Nom   think.Prog
        'As a fool, Hanako, Taroo thinks of.' (=55)

Now, why should this state of affairs hold in both Passamaquoddy and Japanese? Why would raising to object normally involve movement out of the lower clause, but permit base-generation in some higher position, resumed by a pronoun in the lower clause, just when A-movement takes place in the higher clause? An answer begins to form when we consider the nature of the movement out of the lower clause: it seems to be A-bar movement. Following that with A-movement would violate the ban on improper movement.

6.1 Movement is A-Bar Movement to the CP Edge

Movement out of the finite clause in raising to object appears to have the properties of A-bar movement: reconstruction, and the inability to create new binding relations. (It is also associated with some discourse effects, such as topicality or focus; if such discourse functions are carried by A-bar positions in clause-peripheral positions, this fact also suggests that the movement is an A-bar movement.)

6.1.1 Passamaquoddy

Part of the evidence for movement in Passamaquoddy came from reconstruction phenomena. An NP that raised to object could reconstruct for variable binding and to receive a conjunctive interpretation in the scope of negation. Reconstruction is generally taken to be a property of A-bar chains; however, A-reconstruction is also well-attested. Evidence that raising is *not* A-movement comes from the fact that overt raising out of the lower clause does not seem to be able to establish new binding possibilities. For instance, an object that raises cannot thereby bind into a subject that it crosses:[16]

---

[16]Raising does seem to be able to affect the scope of a quantifier over negation. However, the relative scope of quantifiers and negation also seems to be affected by word order variations in a simple clause, in a way that the scope of argument quantifiers is not.

(67) a. * *W-ikuwoss-ol* n-kisi-kat-a-ku-n   **psi=te**   **wen**.
          3-mother-Obv 1-Perf-hide-App-Inv-N all=Emph someone
          'His$_1$ mother hid everyone$_1$ from me.'

      b. * N-kosiciy-**a psi=te**   **wen-(il)**$_1$ ⟨tama⟩ *w-ikuwoss-ol* n-kisi-kat-a-ku-n t_1.
          1-know.TA all=Emph someone-Obv where 3-mother-Obv 1-Perf-hide-App-Inv-N
          'I know (about everyone$_1$) where his$_1$ mother hid t_1 from me.'

In 67a, we see that a direct object in a ditransitive construction may not bind a variable contained within the subject. In 67b, raising that direct object in the raising to object construction does not enable the binding, even though the raised quantifier now precedes (and probably c-commands) the subject. The sentence in 67b should be contrasted with the following, where the raised NP is a subject and is independently able to bind a variable in the lower object:

(68)   Ma=te   n-wewitaham-**a**-w   **psi=te**   **wen**$_1$ ⟨tama⟩ t_1 '-toli-kis-onuhmon
        Neg=Emph 1-remember-Dir-Neg all=Emph someone where   3-there-Perf-buy
        't-ahsosuwon.
        3-hat
        'I don't remember where everyone$_1$ bought his$_1$ hat.'

   Similarly, an object that is unable to bind into an adjunct to the lower clause may not by virtue of raising to object take scope over and bind into that adjunct. In Passamaquoddy, when pronominal variable binding fails due to a lack of c-command, the indefinite pronoun *wen* (homophonous with the wh-phrase meaning 'who') can be used to give the effect of binding (see Bruening 2001, ch.2):

(69) a. * Piyel naka Petak '-koti-komutonom-a-wa-l **psi=te**   **wen-il**   [qeni   *pro*
          P.   and P.   3-Fut-rob-Dir-3P-Obv   all=Emph someone-Obv   during
          macaha-t   ] .
          leave-3Conj
          'Piyel and Petak are going to rob everyone$_1$ while he$_1$ is away.'

      b. Piyel naka Petak '-koti-komutonom-a-wa-l **psi=te**   **wen-il**   [qeni   **wen**
          P.   and P.   3-Fut-rob-Dir-3P-Obv   all=Emph someone-Obv   during someone
          macaha-t   ] .
          leave-3Conj
          'Piyel and Petak are going to rob everyone$_1$ while someone$_1$ is away.'

Embedding the above example under a raising to object verb and raising *psi=te wen-il*, 'everyone', does not enable binding into the adjunct; the indefinite *wen* must still be used, rather than *pro*:

(70) a. * Nucitqonket al   '-kosiciy-**a-l**   **psi=te**   **wen-il**   ⟨eli⟩
          policeman   Uncertain 3-know.TA-Dir-Obv all=Emph someone-Obv C
          koti-komutonom-ahtit Piyel naka Petak [qeni   *pro* macaha-t   ] .
          Fut-rob-3PConj   P.   and P.   during   leave-3Conj
          '(I wonder if) the police know (about everyone$_1$) that Piyel and Petak are going to rob t_1 while he$_1$ is away.'

      b. Nucitqonket al   '-kosiciy-**a-l**   **psi=te**   **wen-il**   ⟨eli⟩
          policeman   Uncertain 3-know.TA-Dir-Obv all=Emph someone-Obv C
          koti-komutonom-ahtit Piyel naka Petak [qeni   **wen**   macaha-t   ] .
          Fut-rob-3PConj   P.   and P.   during someone leave-3Conj

'(I wonder if) the police know (about everyone$_1$) that Piyel and Petak are going to rob t_1 while someone$_1$ is away.'

That raising to object does not enable binding relations that were not available prior to raising indicates that raising to object is not A-movement, that is, it is A-bar movement.

Furthermore, it is possible to show that said A-bar movement is to a CP-peripheral position, and is not to a position within the higher clause at all. The first argument for this conclusion comes from word order considerations. If the raised NP were really raised to a position within the higher clause, say object position, it should be able to appear in any position in which an object can appear. However, this is not true. The raised NP can only be peripheral, that is it must follow all material belonging to the higher clause. For instance, it cannot come in between the higher verb and its subject, where VOS is normally a possible word order in a transitive sentence:

(71)   a.   '-Piluwitaham-**a-l**   *Wiphun* **Tihtiyas-ol** eli kisi-pakotuw-iht.
            3-suspect.TA-Dir-Obv W.   T.-Obv   C   Perf-lie.to-3ConjInv
            'Wiphun suspects that Tihtiyas lied to her.'

       b.   * '-Piluwitaham-**a-l**   **Tihtiyas-ol** *Wiphun* eli kisi-pakotuw-iht.
            3-suspect.TA-Dir-Obv T.-Obv   W.   C   Perf-lie.to-3ConjInv
            'Wiphun suspects that Tihtiyas lied to her.'

The raised NP can also appear initially: at the left edge of the higher clause, as in example 18b. However, this position is always available to long-distance scrambling (i.e., something like topicalization). Clause-internal positions are off-limits.

In addition, second-position clitics within the lower clause generally follow the raised NP, not whatever element follows it. This indicates that the raised NP is the first element of the lower clause, and is not within the higher clause at all:[17]

(72)   a.   N-kosiciy-a   Susehp **oc** eli monuwa-t nuhu   akom.
            1-know.TA-Dir S.   Fut C   buy-3Conj three.ObvP snowshoe.ObvP
            'I know that Susehp will buy three snowshoes.'

       b.   N-kosiciy-a   eli =**hc** Susehp monuwa-t nuhu   akom.
            1-know.TA-Dir C=Fut   S.   buy-3Conj three.ObvP snowshoe.ObvP
            'I know that Susehp will buy three snowshoes.'

       c.   N-kosiciy-a-k   nuhu   **oc** akom   eli Susehp monuwa-t.
            1-know.TA-Dir-3P three.ObvP Fut snowshoe.ObvP C   S.   buy-3Conj
            'I know that Susehp will buy three snowshoes.'

In 72a, the future clitic *oc* follows the raised NP *Susehp*, but in 72b, where no NP has raised, this clitic follows the complementizer *eli* (its phonological form changes, irrelevantly). In 72c, the clitic actually disrupts the first constituent (this is the usual pattern), appearing within the raised NP. In neither 72a nor 72c does the clitic follow the complementizer as in 72b. If the raised NP were part of the higher clause, it should be ignored for the placement of the clitic in the lower clause, giving the placement in 72b.

These facts indicate that raising to object is not actually raising to object: it is A-bar movement to a position at the left edge of but still within the lower clause.

---

[17]I do not include judgements of ungrammatical placement of these clitics, as informants will generally assent to any position. In production, however, they are very consistent in where the second-position clitics appear.

6.1.2 Japanese

Just as in Passamaquoddy, there is evidence to indicate that (adverbs notwithstanding) the raised NP does not actually raise into the higher clause in Japanese. This evidence comes from topic phrases, which are required to be at the left edge of a clause:

(73) a. Yamada-ga [*kono kurasu-de-wa* **zenin-o** baka-zya-nai-to] omotta.
       Y.-Nom   this class-in-Top all-Acc fool-be-Neg-Comp thought

       'Yamada thought that in the class all were not fools.'

   b. * Yamada-ga [**zenin-o** *kono kurasu-de-wa* baka-zya-nai-to] omotta.
       Y.-Nom   all-Acc this class-in-Top fool-be-Neg-Comp thought

       'Yamada thought that in the class all were not fools.'

In 73, the topic phrase *kono kurasu-de-wa* must be clause-initial, as in 73a; the subject is able to be marked with accusative case across this topic phrase. The accusative-case marked subject may not precede the topic phrase in 73b. This means that the former must be within the lower clause, even though it has received accusative case from the matrix verb. If it had raised to a position within the higher clause, it should be able to appear before the topic, which marks the left edge of the lower clause.

    The same point is made by the following examples, where 'summer' is the left-edge topic in the lower clause:

(74) a. Daremo-ga   [*natu-ga/wa*   [**biiru-ga** ichiban umai-to]] omotte iru.
       everyone-Nom summer-Nom/Top beer-Nom best tasty-Comp thinks is

       'Everyone thinks that it's during the summer that beer tastes the best.'

   b. Daremo-ga   [*natu-ga/??wa*   [**biiru-o** ichiban umai-to]] omotte iru.
       everyone-Nom summer-Nom/Top beer-Acc best tasty-Comp thinks is

       'Everyone thinks that it's during the summer that beer tastes the best.'

   c. ?? Daremo-ga **biiru-o** [*natu-ga*   [*t* ichiban umai-to]] omotte iru.
       everyone-Nom beer-Acc summer-Nom best tasty-Comp thinks is

       'Everyone thinks that it's during the summer that beer tastes the best.'

Under a raising to object verb, the lower subject can be either nominative (74a) or accusative (74b; for some reason the topic cannot be marked with -wa when the subject is accusative, but this is tangential). The example in 74c, where the accusative-marked subject raises to the left of the topic, is ungrammatical on a neutral reading. It is only grammatical if 'beer' is contrastively focussed. This is the same as in a matrix clause—in the following, 'beer' must also be contrastively focussed in order to be grammatical:

(75) Biiru-ga natu-ga/wa   ichiban umai.
       beer-Nom summer-Nom/Top best   tasty

       'It's during the summer that beer tastes the best.'

This means that raising to object cannot raise an NP over a topic, out of the lower clause, except to the extent that that is allowed within a matrix clause: to achieve a contrastive focus interpretation.[18] That is, there is

---

[18]The raised NP can scramble to the front of the matrix clause without being contrastively focussed, but this is just A-bar scrambling from the post-topic position:

(i) **Biiru-o** daremo-ga   [natu-ga   [*t* ichiban umai-to]] omotte iru.
     beer-Acc everyone-Nom summer-Nom best tasty-Comp thinks is

     'Everyone thinks that it's during the summer that beer tastes the best.'

no position outside the embedded clause that a raised NP moves to; there is only a clause-peripheral position within the lower clause (and the possibility of a peripheral focus position as in the matrix clause in 75):

(76) $[_{CP} \ldots \text{Verb} [_{Foc} (\text{NP}_1) [_{Top} \text{Topic} [_{CP} \text{NP}_1 [\ldots t_1]]]]]$

6.1.3 Improper Movement

If it is correct that movement out of the lower clause is A-bar movement to a clause-peripheral position, we have the beginning of an explanation for why it may not feed A-movement in the higher clause: A-bar movement in general may not feed A-movement. This is the commonly assumed ban on improper movement. In raising to object constructions, however, there is a twist, a way around the ban on improper movement. This is to generate the NP in a higher position, from which it can undergo A-movement.

6.2 Raising vs. Control?

Generating the NP in the higher clause is reminiscent of hypotheses concerning potential ambiguities between raising and Control analyses of certain syntactic constructions. For instance, Lasnik and Saito (1992) argue that raising to subject in English can optionally be Control rather than raising, but only if the NP is referential. They use this distinction to account for the following contrast:

(77) Lasnik and Saito 1992, 141
    a.   [How likely [PRO$_1$ to win]]$_2$ is John$_1$ t_2?
    b.   * [How likely [t_1 to be taken of John]]$_2$ is advantage$_1$ t_2?

In 77a, a referential NP like *John* can optionally be generated in the higher subject position, linked to PRO in the lower clause. Since there is no raising, it is possible to pied-pipe the lower clause in wh-movement without a Proper Binding Condition violation. In contrast, a non-referential NP like *advantage* in 77b may not control PRO; it must undergo raising. Therefore, pied-piping the remnant clause induces a Proper Binding Condition violation. (Compare *Advantage is likely to be taken of John*—the raising itself is grammatical.)

Such an ambiguity might be posited for the raising to object constructions under consideration. In the normal case raising to object is A-bar movement to the clause edge, as discussed above; but an NP can optionally be generated in the higher clause—in object position, say—and linked to PRO in the lower:

(78) [them each other's teachers think of t [$_{CP}$ PRO is a fool]]
                                          A-mvmt

Something would have to restrict this option to just the case of A-movement in the higher clause.

Support for such an analysis comes from the PBC contrasts discussed above for Japanese. As was shown in Section 3, raising to object contrasts with Control cases in the ability of the lower clause to scramble:

(79) Tanaka 2001, ex.34–35 (=29)
    a.   * $[_{CP}$ t_1 Baka da to   ] John-ga Bill-o$_1$ t_{CP} omotteiru.
                  fool is Comp J.-Nom B.-Acc   think
        'As a fool, John thinks of Bill.'
    b. $[_{CP}$ PRO gakkoo-ni iku yoo-ni   ] John-ga Bill-ni t_{CP} meizi-ta.
                  school-to go in.order.to J.-Nom B.-Dat   ordered
        'To go to school, John ordered Bill.'

But when the NP undergoes A-movement in the higher clause, the lower clause *is* able to scramble, just like a Control clause:

(80)　　[Baka da to　　] **Taroo-to Hanako-o** otagai-no　　sensei-ga　　t_{CP} omotteiru.
　　　　　fool be Comp　T.-and　H.-Acc　each.other-Gen teacher-Nom　　think.Prog
　　　　'That are fools, Taroo and Hanako, each other's teachers think of.' (=52b)

However, other phenomena distinguish raising to object, even with higher A-movement, from Control. In Japanese, for example, a clause with PRO can be questioned or clefted to the exclusion of the controller:

(81)　a.　John-ga Bill-ni [PRO gakkoo-ni iku yoo-ni　　] meizi-ta.
　　　　　J.-Nom B.-Dat　　　school-to go in.order.to　ordered
　　　　　'John ordered Bill to go to school.'

　　　b.　John-ga Bill-ni nani-o　　meizi-ta-no?
　　　　　J.-Nom B.-Dat what-Acc ordered-Q
　　　　　'What did John order Bill to do?'

　　　c.　John-ga Bill-ni meizita-no-wa　　　[PRO gakkoo-ni iku koto da] .
　　　　　J.-Nom B.-Dat ordered-Q-Nominal　　　school-to go fact is
　　　　　'What John ordered Bill is to go to school.'

But it is impossible to question or cleft the clausal complement to a raising to object verb to the exclusion of the raised NP:[19]

(82)　a.　Taroo-ga nani-o　　kangaete iru　no?
　　　　　T.-Nom　what-Acc think　　Prog Q
　　　　　'What does Taroo think?'

　　　b.　* Taroo-ga Tanaka-o nani-o　　kangaete iru　no?
　　　　　T.-Nom　T.-Acc　what-Acc think　　Prog Q
　　　　　'What does Taroo think of Tanaka?'

　　　c.　* Taroo-ga Tanaka-o doo　kangaete iru　no?
　　　　　T.-Nom　T.-Acc　how think　　Prog Q
　　　　　'What does Taroo think of Tanaka?'

(83)　a.　[Taroo-ga kangaete iru-no-wa　　] [Tanaka-ga baka da to　　] da.
　　　　　T.-Nom　think　　Prog-Q-Nominal　T.-Nom　fool is Comp　is
　　　　　'What Taroo thinks is that Tanaka is a fool.'

　　　b.　* [Taroo-ga Tanaka-o kangaete iru-no-wa　　] [baka da to　　] da.
　　　　　T.-Nom T.-Acc　think　　Prog-Q-Nominal　fool is Comp　is
　　　　　'What Taroo thinks of Tanaka is that is a fool.'

　　　c.　* [Tanaka-o Taroo-ga kangaete iru-no-wa　　] [baka da to　　] da.
　　　　　T.-Acc　T.-Nom　think　　Prog-Q-Nominal　fool is Comp　is
　　　　　'What Taroo thinks of Tanaka is that is a fool.'

　　　d.　* [Taroo-ga Tanaka-o kangaete iru-no-wa　　] [baka na koto] da.
　　　　　T.-Nom T.-Acc　think　　Prog-Q-Nominal　fool is fact　is
　　　　　'What Taroo thinks of Tanaka is that is a fool.'

As shown in the (a) examples above, the entire complement clause, *including* the subject (marked nominative), can be questioned or clefted; but the remnant clause excluding the subject—raised to object—cannot be.

---

[19]Cinque (1995) makes similar observations regarding pseudorelatives in Romance languages.

Questioning or clefting the clause is still impossible when the raised NP undergoes A-movement in the higher clause:

(84) ?? [Taroo to Hanako-o otagai-no   sensei-ga   kangaete iru   no-wa   ] [baka da to
          T.   and H.-Acc each.other-Gen teacher-Nom think   Prog Q-Nominal   fool is Comp
       ] da.
         is
         'What each other's teachers think of Taroo and Hanako is that are fools.'

This fact distinguishes raising to object plus A-scrambling from Control. In Control, the higher NP is not a constituent with the lower clause: the lower clause can be questioned or clefted to the exclusion of the controller. In raising to object, the raised NP evidently *is* a constituent with the lower clause, and cannot be excluded from operations that target it (even when it has moved further). We might suppose that the position where an NP that undergoes A-movement in the higher clause is generated is exactly the same position that a raised NP that moves out of the lower clause moves to; I label this a projection of CP here:

(85) a. $[_{CP} \ldots V+Agr_1 [_{CP} NP_1 [_C \ldots t_1 \ldots]]]$

A-bar mvmt

b. $[_{CP} \ldots NP_1 V+Agr_1 [_{CP} t_1 [_C \ldots \mathbf{pro}_1 \ldots]]]$

A-mvmt

If questioning and clefting target CP, the NP may not be excluded, whether it is moved to CP or generated there. (Movement need not target CP, as shown by the grammatical PBC violations above.)

Similar facts obtain in Passamaquoddy, leading to the same conclusion. When no A-movement operations have taken place in the higher clause, a raised NP and the CP it was extracted from act like a constituent. For example, it is impossible to relativize the CP to the exclusion of a raised NP:

(86) a. N-kosiciy-**a**   **Piyel** eli koluski-t.
          1-know.TA-Dir P.   C   lie-3Conj
          'I know that Piyel lies.'

b. * [Eli koluski-t] nit   kesiciy-uk   Piyel.
        C   lie-3Conj   that.Inan IC.know.TA-1Conj P.
        'That he lies, that's what I know about Piyel.'

Instead, either the TI form of the verb must be used (with no raising to object), or a *relative root* (essentially an applicative morpheme that increases the valency of the verb) must be added to the TA form:

(87) a. [Eli Piyel koluski-t] , nit   kesiciht-u.
          C   P.   lie-3Conj   that.Inan IC.know.**TI**-1Conj
          'That Piyel lies, that's what I know.'

b. [Eli koluski-t] nit   **eli**-ksiciy-uk   Piyel.
       C lie-3Conj   that.Inan IC.thus-know.TA-1Conj P.
       'That he lies, that's what I know about Piyel.'

The fact that the TI form of the verb does not require a relative root shows that one is not simply required in order to create a relative clause with the propositional CP as its head. As for the relative root case, the TA verb is most likely simply taking an NP complement (this is possible with all raising to object verbs), along with a CP as an oblique argument added by the relative root. In other words, the relative root case is a diffferent argument structure frame.

Similarly, the CP cannot be questioned to the exclusion of the raised NP, without adding a relative root:

(88) Tan-iyuhtol   nisonu-l **eli**-ksiciy-ot   Tihtiyas?
      WH-these.Inan two-InanP IC.thus-know.TA-2Conj T.
      'What two things do you know about Tihtiyas?'

As in Japanese, these facts continue to hold when the raised NP undergoes inversion (A-movement) in the higher clause:

(89) a. [Eli woleyuw-at   weyossis   ] nit **eli**-wewitaham-iht   wikuwoss-ol
          C   be.kind.to-3Conj animal.ObvP   that IC.thus-remember.TA-3ConjInv 3.mother-Obv
          Mali.
          M.
          'That she was kind to animals, that's what her mother remembers about Mary.'

      b. Yuhtol   nit nisonu-l   **eli**-kciciy-iht   Mali wikuwoss-ol.
          these.InanP that two-InanP IC.thus-know.TA-3ConjInv M.   3.mother-Obv
          'These are the two things her mother knows about Mary.'

This means that even in the Inverse, the NP is still a constituent with the lower CP. I infer from this that the complement of a raising to object verb is always just a proposition (a CP), even when an NP belonging semantically with the lower clause undergoes A-movement operations within the higher clause. That is, even when A-movement takes place in the higher clause, the higher verb does not license an NP object position; it only takes a CP complement.

The conclusion, then, is that the position where the "raised" NP is generated when it undergoes further A-movement is not part of the higher clause. As far as it is possible to tell at this point, this position is the same position that a moving NP from the lower clause targets. I am labelling this projection a specifier of CP:

(90) a. $[_{CP} \ldots \text{V+Agr}_1 \, [_{CP} \, \text{NP}_1 \, [_{C} \ldots t_1 \ldots] \,] \,]$
          A-bar mvmt

      b. $[_{CP} \ldots \text{NP}_1 \, \text{V+Agr}_1 \, [_{CP} \, t_1 \, [_{C} \ldots \textbf{pro}_1 \ldots] \,] \,]$
          A-mvmt

This means that the TA and TI forms of raising verbs in Passamaquoddy do not differ in subcategorization; that is, it is not the case that the TI form takes a CP complement and agrees with it as an inanimate, while the TA form takes both an NP and a CP complement. Instead, the two seem to be identical in taking only a CP complement. The sole difference seems to be that the TA form registers agreement with something at the left edge of its clausal complement, while the TI is simply a default (or agrees with the CP itself as an inanimate). Any raised NP, even when it undergoes A-movement in the higher clause, is not an argument of the higher clause.

The task now is to explain how the higher verb can agree with something at the left edge of its clausal complement, and how something can be generated there when it undergoes further A-movement into the higher clause. I suggest that these possibilities follow from Chomsky's (1998, 1999) recent *phase* and *Agree* theory of successive-cyclic movement and long-distance agreement, as well as from some simple assumptions about how feature checking works. The latter, moreover, will permit us to *explain* the ban on improper movement, not just use it as a filter on raising to object constructions.

6.3 A-Feature Checking

Let us start with the question of why A-movement in the higher clause is incompatible with movement out of the lower clause. I suggested that this followed from the ban on improper movement, given the evidence

that movement out of the lower clause is A-bar movement. However, in raising to object constructions base-generation is suddenly permitted to get around the ban on improper movement. That is, 91a is impossible, but the grammar permits 91b:

(91)   a.   * $[_{CP} \ldots NP_1 \ldots V{+}Agr_1 \; [_{CP} \; t_1 \; [_{CP} \; (WH) \; [_C \ldots t_1 \ldots] \,] \,] \,]$

          A-mvmt   A-bar

       b. $[_{CP} \ldots NP_1 \; V{+}Agr_1 \; [_{CP} \; t_1 \; [_{CP} \; (WH) \; [_C \ldots pro_1 \ldots] \,] \,] \,]$

          A-mvmt

The non-movement structure cannot be a freely available option, or there would never be any obediance to island constraints. Instead it can only be generated when the NP undergoes A-movement in the higher clause.

6.3.1   Agree

I suggest that the way to understand this is in terms of feature-checking theory (Chomsky 1993), making use of some notions from Chomsky (1998, 1999) and Pesetsky and Torrego (2001). Let us suppose, with Chomsky, that all movement is driven by the need to check uninterpretable features. In the case of A-movement, this is generally thought to be Case on NPs and uninterpretable ϕ features on functional heads. The latter, ϕ features, are interpretable on NPs, but not on functional heads such as T(ense); hence an NP must raise to a head such as T to check the latter's uninterpretable ϕ features. Correspondingly, NPs possess some sort of feature that is interpretable elsewhere but not on NPs; following Chomsky, I will call this Case.[20] Only NPs that possess unchecked Case features are syntactically active; that is, only they are visible to attraction by heads with uninterpretable features. An NP without Case features, or one whose Case features have been checked and deleted, is syntactically inert.

   Features are checked through an operation called Agree. Via this operation, a head with uninterpretable ϕ features probes within its c-command domain for an active NP with interpretable ϕ features. When one is found, Agree values the features on the functional head, resulting in morphological agreement (if the language permits it), and checks the Case feature of the matching NP. Agree may be optionally followed by movement of the Agreeing NP to a specifier of the functional head (see Chomsky 1998, 1999 for details; the exact mechanisms of movement will not be relevant here).

   I will refer to ϕ features of functional heads and Case features of NPs together as A-features. A-features contrast with wh-features, which drive A-bar movement to a [+wh] C, and other types of A-bar features (for example, focus features driving focus movement, or topic features driving topicalization).

6.3.2   Phases

Locality conditions on Agree (and movement) follow in Chomsky's theory from the hypothesis that the output of the syntax is sent to the interfaces (the conceptual-intentional interface and the perceptual-articulatory interface) not all at once, but in stages. Each such stage is termed a *phase*; CP and *v*P constitute the phases of the syntactic derivation, where CP is the highest projection of the clause, and *v*P is the level at which all arguments of the verb have been introduced, internal and external (on *v*P see Chomsky 1995, Kratzer 1996, Marantz 1997). Once a phase has been sent to the interfaces, its contents are no longer accessible to the syntactic derivation; it has essentially been changed from a syntactic representation into representations that are interpretable at the two interfaces.

---

[20]In Bruening (2001), I presented a theory of obviation and the person hierarchy in Passamaquoddy that linked it to syntactic licensing a la Case. The relevant feature there was [P(roximate)]. For purposes of simplicity, I will talk about A-feature checking here as Case, but everything here can be translated into the theory of Bruening (2001).

Successive cyclicity is forced by the *Phase Impenetrability Condition* (PIC, stated in 92), which is simply a restatement of the above: once a phase has been spelled out, its contents are no longer accessible to further syntactic derivation.

(92)   *The Phase Impenetrability Condition*
       In phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations. (Chomsky 2000 [1998], ex. 21)

However, material at the edge of the phase—the head of the highest projection (C and *v*) and its specifier(s)—*is* accessible, because it is not spelled out with the rest of the phase, but with the next higher phase. That is, material at the edge of *v*P is not spelled out with the *v*P phase, but with the higher CP phase; hence, material at the edge is accessible within the CP phase. Similarly, material at the edge of the CP phase (Spec-CP) is not spelled out with the complement of C, but with the higher *v*P phase. Hence, material at the edge of CP is available for Agree (and movement) in the higher clause.

It follows from the PIC that any constituent that must move to a higher phase for some syntactic or semantic reason—for instance, a wh-phrase that must move long-distance to achieve a matrix interpretation—must move to the edge of any containing phase in order to avoid being frozen in place, and be able to move further. The PIC, then, forces all long-distance movement to take place via at least Spec-CP (the edge of the CP phase) and Spec-*v*P (the edge of the *v*P phase); that is, the PIC forces successive cyclicity of movement. It also forces only local agreement (without movement)—a head H searching for an NP to Agree with will not be able to search beyond the edge of the next lower phase α:

$$*\text{Agree}$$
(93) $[_{\text{HP}}\ \text{H}\ldots[_{\alpha\text{P}}\ \text{NP}\ \alpha\ [_{\text{XP}}\ \text{NP}\ ]\ ]\ ]$
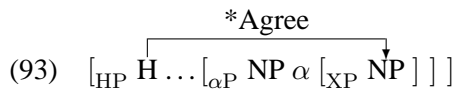
6.3.3   Delayed Deletion

When features are checked they are said to be deleted (perhaps literally). Suppose, however, that checked features are not deleted immediately but hang around until the next higher phase; thus, when they are checked they are "marked for deletion" (Pesetsky and Torrego 2001) but are still active syntactically (Chomsky 1999). As stated above, an NP is only visible to the operation Agree if it has an active—undeleted—Case feature. NPs will therefore remain syntactically active until the next higher phase after their Case feature has been checked, but no longer.

Now let us return to the raising to object structure that involves movement. NP_1 will be generated in the lower clause with an unchecked Case feature:

(94) $[_{\text{CP}}\ \text{C}^{[Abar]}\ [_{\text{TP}}\ \ldots\text{NP}_1{}^{[Case]}\ \ldots]\ ]$
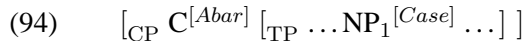
It will also have whatever A-bar feature it is that drives movement to CP (annotated on the head C as $\text{C}^{[Abar]}$). Now, the lower CP is a complete clause in itself; it can always appear unembedded, without the higher clause. Therefore, any A-features that can and must be checked in a simple (matrix) clause can and must be checked within this embedded CP as well. This means that NP_1 will have its Case feature, however it is valued, checked and marked for deletion before it ever raises to Spec-CP:

(95) $[_{\text{CP}}\ \ldots\text{V}\ [_{\text{CP}}\ \text{C}^{[Abar]}\ \ldots[_{\text{XP}}\ \text{NP}_1{}^{[\sqrt{Case}]}\ \text{X}^{[\phi]}\ \ldots t_1\ ]\ ]\ ]$
       A-mvmt
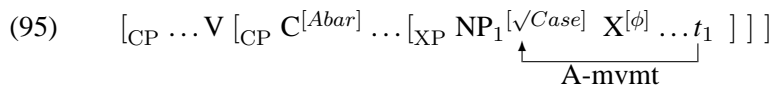
Whatever head normally checks the A-features of NP_1 will check its A-features on its path to CP; here I have labelled this head X. (A-movement itself is not necessary—both X's and NP_1's A-features can be checked simply by Agree.) The diagram collapses accusative and nominative Cases, where the former is checked by *v*, while the latter is only checked through A-movement to a higher head, call it H.

Even though checked off, the Case feature of NP_1 will still be active—marked for deletion but not actually deleted—until the next higher phase. That is, when NP_1 gets to CP it will still have an active Case feature. The checked Case feature will not be deleted until the next higher phase, vP within the higher clause:

(96) $[_{v\text{P}} \ldots \text{V} [_{\text{CP}} \text{NP}_1{}^{[\sqrt{Case}]} \text{C}^{[Abar]} \ldots [_{\text{XP}} t_1 \text{ X}^{[\phi]} \ldots t_1]]]$

A-bar mvmt   A-movement

Two factors make NP_1 visible to Agree in the higher clause: one, it is in the edge of the lower CP, and hence is visible by the PIC; and two, NP_1's Case feature has not yet been deleted, meaning that it is still syntactically active and therefore visible to Agree. In particular, the matrix verb can agree with NP_1, taking its values for the ϕ features its agreement morphology registers. Let us suppose that this is Agree between the head v and NP_1, which checks ϕ features of v:

Agree

(97) $[_{v\text{P}} \ v [_{\text{CP}} \text{NP}_1{}^{[\sqrt{Case}]} \text{C}^{[Abar]} \ldots [_{\text{XP}} t_1 \text{ X}^{[\phi]} \ldots t_1]]]$

A-bar mvmt   A-movement

This Agree relation is able to check the ϕ features of v, but v is unable to check the features of an NP. The matrix verb takes only a CP complement, as argued above, and hence is unable to check the features of an NP. This will be important for the base-generation case, to be discussed shortly.

Importantly, NP_1's Case feature *will* be deleted by the time we get to any head that would drive A-movement in the higher clause. In particular, let us return to the analysis of the Inverse from Section 4.1.1. There it was suggested that a head H drove A-movement of either the object or the subject to a higher A-position, if that NP was higher on the person hierarchy:[21]

Direct

(98) $[_{\text{HP}} \text{ H } [_{v\text{P}} \text{ Subject } [\text{ V } \text{Object}]]]$

Inverse

To make the link with Case concrete, let us suppose that first, second, and proximate third persons have nominative Case (i.e., they have the feature that the head H probes for), while obviative third persons and inanimates have accusative Case (they do not have the feature that H probes for, but instead Agree with v).[22]

Because the head H is able to attract the subject as well as the object, it must be higher than the subject's base position at vP. Hence, H is outside the vP phase. Therefore, in a raising to object structure, the Case feature of NP_1 moved to Spec-CP will be unavailable to the head H, having been deleted in the vP phase:[23]

*Agree

(99) $[_{\text{HP}} \text{ H } [_{v\text{P}} \ldots \text{V} [_{\text{CP}} \text{NP}_1 \text{ C} \ldots [_{\text{XP}} t_1 \text{ X} \ldots t_1]]]]$

---

[21] Again, actual movement is probably always optional, at least overtly.

[22] This is not compatible with Chomsky's account of Case, where structural cases are unvalued prior to Agree. It seems to be warranted by the facts of Passamaquoddy, however. See Bruening (2001, ch.2) for an analysis of the person hierarchy and obviation in terms similar to this Case account.

[23] One might wonder at this point about an embedded *object* raising to CP. If object agreement is Agree with v, as just suggested, an embedded object will have its Case checked within the lower vP phase, meaning that it should be deleted at the CP phase, and hence should be invisible to Agree with the higher v. This expectation is not forced, however. An object that is raising to CP will have to stop at vP, by the Phase Impenetrability Condition. Following the discussion in Section 6.6, this means that vP will have two features to check with the object: the A-feature that gives rise to object agreement, and whatever A-bar feature it is that drives movement to CP. The same operation of Agree with v will check both of these and drive movement to Spec-vP. Therefore the object will have its Case feature checked at the edge of the vP phase, which is spelled out with the higher phase, CP, and not with the vP phase. It follows that even an object's Case feature will still be present up to the matrix vP phase.

In Japanese, let us assume that the head an object A-scrambles to is T (Miyagawa 2001); this, like H in Passamaquoddy, is outside the *v*P phase. Hence any NP moved out of the lower clause will be inaccessible to A-scrambling in the higher clause in Japanese as well.

This is what rules out improper movement generally: A-features will usually be checked off in a lower phase, and deleted before they can be used again to check A-features in a higher phase. That is, the ban on improper movement follows simply from the way feature checking works.

6.3.4   Higher A-Movement

It follows that some other derivation must take place when H *requires* NP_1's ϕ features (the Inverse in Passamaquoddy, A-scrambling in Japanese). In just this case NP_1 can be generated in CP, resumed by pro_1 in the lower clause. The pronoun takes care of all A-feature-checking in the lower clause, while NP_1 has an active and unchecked Case feature that must be checked in the higher clause:

(100) $[_{HP}$ $NP_1^{[Case]}$ H $[_{vP}$ …V $[_{CP}$ t_1 C …$[_{XP}$ pro_1 X …t_1 $]$ $]$ $]$ $]$
                    A-mvmt   A-mvmt

NP_1 is able to satisfy C's A-bar features simply by being base-generated there, and it satisfies H's and its own A-features through movement to HP—the Inverse in Passamaquoddy, in which NP_1 crosses over the matrix subject and is able to bind into it.

Let us spell out this derivation more carefully, fleshing out the account of the Inverse. As stated above, we hypothesize that first, second, and proximate third persons have the feature the H probes for, call it nominative Case. Obviative third persons and inanimates have the feature that *v* probes for (call this accusative Case). In the Inverse, the object is the one sought by H, not the subject. This means that the subject must check its features against *v*. However, suppose that Chomsky (1998) is correct that Agree cannot hold between a head and its specifier; a head can only probe into its sister (its complement). This means that *v* cannot Agree with the subject in Spec-*v*P. If this is correct, an Inverse clause has to be slightly different from a Direct clause. In the Direct, the subject Agrees with and raises to H, while the object Agrees with *v*:

                 Agree   Agree
(101) $[_{HP}$ H $[_{vP}$ Subject *v* $[_{VP}$ Verb Object $]$ $]$ $]$

Suppose that in the Inverse, the logical object again Agrees with *v*, checking the features of *v*, but *v* cannot check the Case feature of the object. This will follow if *v* is defective in the Inverse, as Chomsky 1998 hypothesizes for passives and unaccusatives in English. Then, the object will have to Agree with and raise to H to check its Case feature. What about the subject? Suppose that it is licensed (its Case feature is checked) in a secondary Agree relation with H:

                 Agree2   Agree
(102) $[_{HP}$ H … $[_{vP}$ Subject *v* $[_{VP}$ Verb Object $]$ $]$ $]$ $]$
              Agree1+Move

In this derivation, defective *v* first Agrees with the obect, checking its ϕ features but not satisfying the Case feature of the object. H then probes for nominative Case, Agreeing with the object (and drawing it to its specifier). This operation then permits a second Agree relation to be established between H and the subject, checking the Case of the subject.

Returning to 100, the raising to object plus Inverse case, the higher head H cannot check its features against the matrix subject (it has the wrong Case feature). It has to Agree with the NP generated in the lower

Spec-CP.[24] The matrix subject is then licensed in a secondary Agree relation with H (suppose that this is only made possible by the first operation that checks the features of H).

This derivation would crash if H did not attract NP_1. NP_1's Case feature would remain unchecked, would be uninterpretable at the interfaces, and the derivation would not converge. Similarly, the ϕ features of H would remain unchecked, leading to crash. Thus it follows that NP_1 can only be generated in ZP when it can move further—to HP, in the Inverse (or to subject position in a reciprocal). That is, it is impossible for NP_1 to be generated with an unchecked Case feature with a higher Direct clause. In the Direct, H Agrees with the matrix subject, and with nothing else; there is no secondary Agree operation in the Direct. In a normal transitive clause, it is v that checks the Case of an object; but raising to object verbs are not normal transitives, as they only take CP complements.[25] A raising to object v therefore cannot check the Case feature of any NP.

It thus follows that base-generation is only permitted when the higher clause is an Inverse. Only in that situation may the Case feature of the base-generated NP be checked. (Assume that feature checking in Japanese A-scrambling works similarly.)

Suppose, however, that NP_1 could be generated without an active Case feature. This must be the case with a left-dislocated topic, for example, which seems to be generable in a left-peripheral position (left-dislocated NPs do not have to obey islands, for instance). Such a derivation would also fail under a raising to object verb, because an NP without a Case feature would be invisible to Agree. Only NPs with unchecked Case features are syntactically active. The higher verb would not be able to agree with NP_1 without an unchecked Case feature. This means that raising to object, unless it involves A-movement in the higher clause, must obey islands, because only an NP with an active Case feature can agree with a higher verb; and such an NP can only be licensed by higher A-movement. This is exactly the right result: islands can only be violated when something like the Inverse attracts the agreeing NP into the higher clause. Only in this case can an NP generated in CP with active A-features have those featurs checked.

To reiterate, NP_1, agreeing with the higher verb, can only be generated in CP when it undergoes A-movement in the higher clause. Otherwise it must move from within the lower CP to Spec-CP. This means that the properties of movement will hold in raising to object, *unless* the "raised" NP undergoes A-movement. This is exactly what was shown in the preceding sections. In the general case there is only one argument and one chain; but when A-movement takes place in the higher clause, there are two arguments: NP_1 generated in CP, and *pro*, coindexed with NP_1, in the lower clause.

In both cases, however, NP_1 forms part of the propositional complement of the matrix verb. This proposition can never be relativized or questioned to the exclusion of NP_1, even when NP_1 undergoes A-movement in the higher clause. This is because CP is the constituent that relativization and question-formation target, not CP minus the left-edge position.

6.4   Raising Topics in Japanese

So far I have just been assuming that base-generation plus binding of a pronoun in the lower clause is a possibility allowed by the grammar. While I will have nothing more insightful than that to add, support for the possibility in raising to object constructions can be found in Japanese. The argument is as follows: I have claimed that an NP can be base-generated at the left edge of CP under raising to object verbs. If we examine a type of element that *must* be generated at the left edge of CP, we find that it has the same properties as what was claimed to be an NP generated there. It follows that the claimed base-generation exists.

Japanese has a topic/focus construction, in which a topic or focus is base-generated at the edge of a clause. The topic/focus need not be an argument of that clause, as in 103a, meaning that it is simply a base-

---

[24]This Agree relation has to take place via movement of the NP to Spec-vP, by the PIC (unless defective v is not a phase); nothing in the account is affected by this complication.

[25]Clauses can be subjects, but only the logical subjects of Inverse verbs, which follows if clauses do not check the features of functional heads in the same way as NPs.

generated topic/focus. Such a topic/focus phrase can be marked with accusative case in raising to object (103b):

(103)　a.　**Tokyo-wa** sumi-nikui.
　　　　　Tokyo-Top live-hard

　　　　　'Tokyo is hard to live in.'

　　　b.　John-wa **Tokyo-o** sumi-nikui-to omotta.
　　　　　J.-Top　Tokyo-Acc live-hard-Comp thought

　　　　　'John thought that Tokyo is hard to live in.' (Marantz 1983, ex.31b)

This base-generated phrase turns out to have the properties of a "raised" NP that undergoes A-scrambling in the higher clause; that is, an NP that is hypothesized here to be base-generated in CP. The fact that they have the same properties supports the hypothesis that an NP that undergoes A-movement is base-generated in a clause-peripheral position, just like a topic/focus phrase.

For instance, there is no Proper Binding Condition violation when the lower clause is scrambled to the exclusion of the topic/focus:

(104)　[Sumi-nikui-to 　] John-wa Tokyo-o 　t_{CP} omotta.
　　　　 live-hard-Comp　J.-Top　Tokyo-Acc　　　thought

　　　　'John thought that Tokyo is hard to live in.'

Because the topic/focus is base-generated at the edge of the clause and did not move out of it, that clause can scramble without a PBC violation. In the same way, a "raised" NP that is base-generated in CP in order to be visible to higher A-movement never moved out of the lower clause, and also does not give rise to a PBC violation.

Just like the NP that is hypothesized to be base-generated in CP, a topic/focus phrase, which *must* be base-generated at a clause-peripheral position, can A-scramble to remedy a Condition A violation:

(105)　[Tokyo-to Kyoto-o]$_1$　otagai$_1$-no　　jyannin-ga　t_1 [sumi-nikui-to 　] omotta.
　　　　Tokyo-and Kyoto-Acc each.other-Gen resident-Nom　　live-hard-Comp　thought

　　　　'Tokyo and Kyoto$_1$, each other$_1$'s residents thought are hard to live in.'

The topic/focus construction bears a strong resemblance to the structure attributed to the base-generated version of raising to object. The analysis presented here accounts for the similarity: a topic/focus phrase, occurring as it does at the left-edge of the lower clause, can Agree with the higher verb and receive Case from it. In order to do so it must be generated with A-features; but we might suppose this to be independently possible (nothing would rule it out).

6.5　Long-Distance Agree

We saw above that movement to the edge of the complement clause is not required in Passamaquoddy in order for the matrix verb to agree with NP$_1$:

(106)　N-wewitaham-a-**k** [$_{CP}$ ma=te 　　nomiy-a-wiy-ik 　**mawsuwinuw-ok** Kehlis-k 　] .
　　　　1-remember-Dir-3P　　Neg=Emph see-Dir-Neg-Part3P person-3P　　　Calais-Loc

　　　　'I remember that I didn't see people in Calais.'

Potsdam and Polinsky (2001) argue that the A-bar movement version of raising to object is instantiated in raising to object in Tsez. They show that the A-bar movement involved is specifically to a topic position, as it necessarily creates a topic interpretation and is incompatible with focus (this is not true in Passamaquoddy).

As in Passamaquoddy, this movement need not take place overtly. When it does not, however, there is compelling evidence from scope interactions that movement must take place covertly; that is, Agree cannot see down into the next lower phase but only to its edge. This is expected on Chomsky's phase theory: Agree is subject to the same locality condition as movement, the Phase Impenetrability Condition. By the PIC, only an NP at the edge of the lower CP could be visible to Agree in the higher clause. We should ask, then, whether there is evidence for covert movement to CP in Passamaquoddy in cases of long-distance agreement.

Long-distance agreement does obey islands the same way overt raising does:

(107) Complex NP Constraint (=22)

    a.   Kosiciy-**ul**   kis-ankuweht-**uwon** [$_{NP}$ atomupil-ol Piyel naka Susehp
        know.TA-**1/2** Perf-sell-**2Conj**   car-InanP P.   and S.
        mil-osk-opon-il   ].
        give-2ConjInv-Pret-PartInanP
        'I know that you sold the cars Piyel and Susehp gave you.'

    b.   * N-kosiciy-**a-k**   kis-ankuweht-uwon [$_{NP}$ atomupil-ol **Piyel naka Susehp**
        1-know.TA-Dir-**3P** Perf-sell-2Conj   car-InanP P.   and S.
        mil-osk-opon-il   ].
        give-2ConjInv-Pret-PartInanP
        'I know (about *them*) that you sold the cars *Piyel and Susehp* gave you.'

    c.   * N-kosiciy-**a-k**   **Piyel naka Susehp**$_1$ kis-ankuweht-uwon [$_{NP}$ atomupil-ol t_1
        1-know.TA-Dir-3P P.   and S.   Perf-sell-2Conj   car-InanP
        mil-osk-opon-il   ].
        give-2ConjInv-Pret-PartInanP
        'I know (about *Piyel and Susehp*) that you sold the cars they gave you.'

Island sensitivity suggests that covert movement does take place in 107b. However, we expect phase boundaries to render islands impenetrable to Agree as well as to movement, so the fact that islands are respected does not necessarily tell us that covert movement takes place.

As we saw above, raising to object apparently does not affect scope in Passamaquoddy, so we cannot tell from scope interactions whether covert movement takes place. Variable binding does tell us, however, that if covert raising is necessary, it must be able to be undone again (i.e., it reconstructs). In the following examples, the NP agreeing long-distance with the matrix verb[26] contains a variable bound by a quantifier in the lower clause. If this NP were required to raise at LF, it would then have to reconstruct again, in order for variable binding to hold:

(108)   a.   N-kosiciy-**a-k**   [$_{CP}$ *psi=te*   *wen*   kisi-mil-uwe-t   **'t-akom**   ].
        1-know.TA-Dir-3P   all=Emph someone Perf-give-AI+O-3Conj 3-snowshoe.ObvP
        'I know that everyone$_1$ gave away his$_1$ snowshoes.'

    b.   N-kosiciy-**a-k**   [$_{CP}$ *ma=te*   *wen*   '-kisi-mil-uwa-w-on   **'t-akom**   ].
        1-know.TA-Dir-3P   Neg=Emph someone 3-Perf-give-AI+O-Neg-N 3-snowshoe.ObvP

        'I know that no one$_1$ gave away his$_1$ snowshoes.'

---

[26]Agreement for obviation is never absolute, but is determined locally. In 108a–b, the higher verb agrees with a *proximate* plural, while the NP it agrees with is marked *obviative* plural. However, first and second persons do not cause third persons to be marked obviative; in the higher clause, there is no other third person, so the NP from the lower clause agrees as though it were proximate.

There is nothing to stop such a derivation, however; A-bar features would drive the movement of the in-situ NP to Spec-CP, while interpretive mechanisms would force (or permit) reconstruction.

The theory, however, makes a strong claim about the locality constraints on Agree, leading to the prediction that covert movement to CP is *necessary* in raising to object. What we have seen in Passamaquoddy is consistent with that claim, provided that covert movement can reconstruct. Further investigation will be required to verify or falsify this claim.

6.6 WH-Questions in Passamaquoddy and Economy

In Passamaquoddy it is possible to extract a wh-phrase out of the complement of a raising to object verb, but in such a case the verb *must* agree with the wh-phrase that is extracted. This is unlike embedded questions, where we saw that some other element could move to a position to the left of the wh-phrase and agree with the matrix verb. (Branigan and Mackenzie 1999 find the same constraint in the related language Innu-Aimun.) For instance, in the questions in 109–110 the verb must agree with 'who', and *cannot* agree with any other argument:[27]

(109)   a.   **Wen**$_1$ kil piluwitaham-**ot** kisi-komutonom-uk t_1?
             who   2   suspect-2/3Conj Perf-rob-1Conj
             'Who do you suspect that I robbed?'

        b.   * Wen$_1$ kil piluwitaham-**iyin** kisi-komutonom-uk t_1?
             who   2   suspect-2/1Conj Perf-rob-1Conj
             'Who do you suspect (of *me*) that I robbed?'

(110)   a.   **Wen**$_1$ k-wewitaham-**a**   ap-sakiy-uk t_1?
             who   2-remember.TA-Dir go.and.back-see-1Conj
             'Who do you remember that I went to see?'

        b.   * Wen k-wewitaham-**i**   ap-sakiy-uk?
             who 2-remember.TA-2/1 go.and.back-see-1Conj
             'Who do you remember (about *me*) that I went to see?'

The analysis advocated here, based on feature-checking theory, has the tools to explain this restriction, if we simply add the notion of economy (which is independently necessary). To see how, let us construct the derivation of 109a–b up to the edge of the embedded clause. The wh-phrase must move to the edge of the CP phase in order to move further (the matrix clause is shown for ease of exposition but is not actually constructed yet in this derivation):

(111) $[_{\text{CP}}$ C$^{[wh]}$ ... $v^{[A]}$ $[_{\text{CP}}$ WH$_1$$^{[\surd A]}$ ... t_1 ... $]$ $]$

Like an NP that moves to CP, this wh-phrase has checked A-features that are marked for deletion but not yet deleted. Simply for the sake of argument, let us say that another NP raises to a second specifier of CP, above the wh-phrase:

(112) $[_{\text{CP}}$ C$^{[wh]}$ ... $v^{[A]}$ $[_{\text{CP}}$ NP$_2$$^{[\surd A]}$ $[_{\text{CP}}$ WH$_1$$^{[\surd A]}$ ... t_2 t_1 ... $]$ $]$ $]$

Both of these specifiers count as the edge of the phase, and will not be spelled out with the lower phase. They are both therefore equally visible to Agree in the higher clause, both being at the edge of the lower phase.

Now, there must also be some kind of feature to draw the wh-phrase to the edge of the *v*P phase, since it must move on to matrix CP (see Chomsky 1998); call this, like the feature on matrix C, [wh]:

---

[27]In 110, the Conjunct would be expected for the Independent inflection of 'remember.' I believe the sentence would still be ungrammatical if the verb were in its Conjunct form.

(113) $[_{CP}$ $C^{[wh]} \ldots v^{[A,wh]}$ $[_{CP}$ $NP_2^{[\surd A]}$ $[_{CP}$ $WH_1^{[\surd A]} \ldots t_2$ $t_1 \ldots]$ $]$ $]$

v now has two requirements: it must check A-features, and it must also check wh-features. In this configuration it could in principle check both features with the same NP, the wh-phrase; or with different NPs: the wh-feature with the wh-phrase, and the A-features with the raised NP. This is where the notion of economy comes in. Following Pesetsky and Torrego (2001), let us suppose that one instance of Agree, checking more than one feature, is more economical than multiple instances of Agree, each checking only one feature (cf. Chomsky's (1999) *Maximize Matching* principle). If this is true, then there is no way *v* could Agree with the raised NP here; economy dictates that it Agree just once, with the wh-phrase, which can check both of its features. The restriction that a matrix wh-phrase agree with the matrix verb follows.

This account makes an additional prediction. It should be impossible for raising to object to involve an unbounded dependency, whether or not islands intervene. That is, nothing rules out an NP doing successive-cyclic A-bar movement from a severely embedded position to the Spec-CP immediately under a raising to object verb, but by the time it gets there its A-features will have been deleted and it will be unable to trigger agreement with the higher verb. (I have no data indicating whether this is correct or not.) The same should hold of a matrix wh-question: by the time a doubly-embedded wh-phrase reaches the Spec-CP immediately beneath a matrix raising to object verb, it too will have lost its A-features. Therefore the matrix verb should be able to agree with something else, just when the wh-phrase came from a position at least one clause lower than the embedded clause. Again, I have no data bearing on this prediction.

6.7 Conclusion and Further Consequences

This paper began with the problem that raising to object constructions pose for the theory of movement: they either violate locality conditions on A-movement, or they violate the ban on improper movement. On closer inspection, however, they do neither. Raising across the clause boundary is impossible, except via A-bar movement. However, an NP can be generated in a peripheral position just when it can have its features checked in the higher clause, through A-movement into that clause. This lead to the appearance of A-movement across the clause boundary.

On this account, the ban on improper movement follows from the way feature checking works: A-features are normally checked within a finite clause and deleted before they can be used in a higher clause. However, they hang around just long enough for an Agree relation to be established between the matrix verb and a raised NP in Spec-CP.

One consequence of this account is that the A- versus A-bar distinction is not a property of positions but of movement for checking features. Spec-CP on this account is an A-position for base generation but an A-bar position for movement. This conclusion is compatible with Chomsky (1998), who hypothesizes that movement to check ϕ features is A-movement, and movement to check any other feature is A-bar movement. Underlying this statement is the idea that the A/A-bar distinction is one of feature checking, not of positions.

A second consequence of this account, not adequately explored here, is that one value for Case must be able to overwrite a previously assigned value. In Japanese, the raised NP must have received nominative Case in the lower clause, but on top of that it gets assigned accusative Case in Spec-CP. Furthermore, this Case assignment must be divorced from syntactic licensing: the higher verb takes only a CP complement, and does not license an object.[28] The flip side of Case assignment, agreement on the verb in Passamaquoddy, poses no problem: transitive verbs in Passamaquoddy have ϕ feature agreement, and must Agree with something. This is either the CP complement, default inanimate agreement, or the possibility of agreeing with an NP in Spec-CP (perfectly available to Agree in the theory of phases).

---

[28]Schütze (2001) hypothesizes that Case Stacking in Korean is not assignment of more than one Case, but the use of case markers as topic or focus markers. He suggests that this account be applied to raising to object constructions, such that a raised NP is marked accusative due to its marked discourse function. Such an account might be carried over to Japanese as well. Accusative case in raising to object would then be assigned by the higher verb, but would not be a reflex of syntactic licensing.

In exploring the similarities between Passamaquoddy and Japanese, I have ignored their differences. One was the fact that in Japanese only the subject (or a topic) can raise to object; in Passamaquoddy, any argument can. An issue I will leave open here is why the two languages differ in this respect. It may be linked to the different semantic roles of raising to object; in Passamaquoddy, raising an NP to object has the effect of topic or focus; any NP can be topicalized or focussed. In Japanese, on the other hand, raising to object only works with verbs of thinking and feeling; raising an NP to object makes the thought or feeling one about characteristics of the NP. It is much more natural for such an NP to be the subject of a predication (and this predication is limited to the stative type).

I also ignored the fact that NPs raised to Spec-CP could appear before matrix adverbs. I do not have much to say about this phenomenon here, except to assert that adverbs must not reliably diagnose constituency. One possibility is that they can be reordered with elements within the same phase at PF (Chomsky 1999). An NP in Spec-CP is spelled out with the higher *v*P phase, and could therefore be reordered with respect to *v*P adverbs.

Finally, the theory argued for here makes strong cross-linguistic predictions. Foremost among these is the claim that no language should have real raising to object out of a finite clause. That is, there should be no language where a raised NP simultaneously acts like it is in a matrix A-position, but also came out of the lower clause (as shown by diagnostics for movement). As far as I am aware, the languages discussed in the literature are all compatible with this prediction. A second prediction might stem from the two different structures hypothesized to underly raising to object. We might expect some languages to have only one of the two, for instance just A-bar movement to a clause edge. Tsez, as characterized in Potsdam and Polinsky (2001), seems to be of this type.

References

Barss, Andrew (1986), *Chains and Anaphoric Dependence: On Reconstruction and Its Implications*. Ph.D. thesis, Massachusetts Institute of Technology.

Beck, Sigrid (1996), "Quantified Structures as Barriers for LF Movement." *Natural Language Semantics* 4: 1–56.

Beck, Sigrid, and Shin-Sook Kim (1997), "On WH- and Operator Scope in Korean." *Journal of East Asian Linguistics* 6: 339–384.

Branigan, Phil, and Marguerite Mackenzie (1999), "Altruism, A-bar Movement and Object Agreement in Innu-aimun." Ms., Memorial University of Newfoundland.

Bruening, Benjamin (2001), *Syntax at the Edge: Cross-Clausal Phenomena and The Syntax of Passamaquoddy*. Ph.D. thesis, Massachusetts Institute of Technology. Distributed by MIT Working Papers in Linguistics, Cambridge, Mass.

Chomsky, Noam (1973), "Conditions on Transformations." In S. R. Anderson and P. Kiparsky, eds., *A Festschrift for Morris Halle*, New York: Holt, Reinhart and Winston, pp. 232–286. Reprinted in Chomsky 1977, *Essays on Form and Interpretation*, New York: North-Holland, pp. 81–160.

Chomsky, Noam (1993), "A Minimalist Program for Linguistic Theory." In Kenneth Hale and Samuel Jay Keyser, eds., *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, Cambridge, Mass.: MIT Press, pp. 1–52.

Chomsky, Noam (1995), *The Minimalist Program*. Cambridge, Mass.: MIT Press.

Chomsky, Noam (1998), *Minimalist Inquiries: The Framework*. No. 15 in MIT Occasional Papers in Linguistics, Cambridge, Mass.: MITWPL. Reprinted in Roger Martin, David Michaels, and Juan Uriagereka (eds., 2000), *Step by Step*, Cambridge, Mass.: MIT Press, 89–155.

Chomsky, Noam (1999), *Derivation by Phase*. No. 18 in MIT Occasional Papers in Linguistics, Cambridge, Mass.: MITWPL. Reprinted in Michael Kenstowicz (ed., 2001), *Ken Hale: A Life in Language*, Cambridge, Mass.: MIT Press, 1–52.

Cinque, Guglielmo (1995), "The Pseudo-Relative and ACC-*ing* Constructions After Verbs of Perception." In *Italian Syntax and Universal Grammar*, Cambridge: Cambridge University Press, pp. 244–275.

Fiengo, Robert (1977), "On Trace Theory." *Linguistic Inquiry* 8: 35–61.

Frantz, Donald G. (1978), "Copying from Complements in Blackfoot." In Eung-Do Cook and Jonathan Kaye, eds., *Linguistic Studies of Native Canada*, Vancouver: University of British Columbia Press, pp. 89–109.

Gabriel, Lorraine (1979), *Ehpit naka 'Puwin (The Woman and the Body)*. Indian Township, Maine: Wabnaki Bilingual Education Program. English transation by Robert M. Leavitt, edited by Wayne A. Newell.

Hiraiwa, Ken (2000), "Multiple Agree and the Defective Intervention Constraint in Japanese." In Lance Nathan, ed., *The Proceedings of An MIT-Harvard Joint Student Conference (HUMIT)*, Cambridge, Mass.: MITWPL/HWPiL, vol. x of *MIT Working Papers in Linguistics*, p. to appear.

Hong, Ki-Sun (1990), "Subject-to-Object Raising in Korean." In Katarzyna Dziwirek, Patrick Farrell, and Errapel Mejías-Bikandi, eds., *Grammatical Relations: A Cross-Theoretical Perspective*, Stanford: CSLI Publications, pp. 215–225.

Hornstein, Norbert (1984), *Logic as Grammar*. Cambridge, Mass.: MIT Press.

Jake, Janice, and David Odden (1979), "Raising in Kipsigis." *Studies in the Linguistic Sciences* 9: 131–155.

Kratzer, Angelika (1996), "Severing the External Argument from Its Verb." In John Rooryck and Laurie Zaring, eds., *Phrase Structure and the Lexicon*, Dordrecht: Kluwer, pp. 109–137.

Kuno, Susumu (1976), "Subject Raising." In Masayoshi Shibatani, ed., *Japanese Generative Grammar*, New York: Academic Press, vol. 5 of *Syntax and Semantics*, pp. 17–49.

Lasnik, Howard, and Mamoru Saito (1992), *Move α: Conditions on Its Application and Output*. Cambridge, Mass.: MIT Press.

Marantz, Alec (1983), "Raising and Category Types in Japanese." In Yukio Otsu *et al.*, eds., *Studies in Generative Grammar and Language Acquisition*, Tokyo: ?, pp. 29–47.

Marantz, Alec (1997), "No Escape from Syntax: Don't Try Morphological Analysis in the Privacy of Your Own Lexicon." In Alexis Dimitriadis *et al.*, eds., *Proceedings of the 21st Annual Penn Linguistics Colloquium*, no. 4:2 in Penn Working Papers in Linguistics, Philadelphia: University of Pennsylvania.

Massam, Diane (1985), *Case Theory and the Projection Principle*. Ph.D. thesis, Massachusetts Institute of Technology. Distributed by MIT Working Papers in Linguistics, Cambridge, Mass.

May, Robert (1979), "Must COMP-to-COMP Movement Be Stipulated?" *Linguistic Inquiry* 10: 719–725.

Mitchell, Lewis (1921/1976a), *Espons ('Raccoon')*. Indian Township, Maine: Wabnaki Bilingual Education Program. Edited and updated version of text in Prince (1921), "Passamaquoddy Texts," Volume X of the Publications of the American Ethnological Society.

Mitchell, Lewis (1921/1976b), *Koluskap naka 'Siwiyi/Oqim/Wocawson ('Koluskap and His Relatives/Loon/Wind')*. Indian Township, Maine: Wabnaki Bilingual Education Program. Edited and updated version of text in Prince (1921), "Passamaquoddy Texts," Volume X of the Publications of the American Ethnological Society.

Mitchell, Lewis (1921/1976c), *Koluskap Nekotok Skitkomiq ('When Koluskap Left the Earth')*. Indian Township, Maine: Wabnaki Bilingual Education Program. Edited and updated version of text in Prince (1921), "Passamaquoddy Texts," Volume X of the Publications of the American Ethnological Society.

Miyagawa, Shigeru (1997), "Against Optional Scrambling." *Linguistic Inquiry* 28: 1–25.

Miyagawa, Shigeru (2001), "The EPP, Scrambling, and *Wh*-in-Situ." In Michael Kenstowicz, ed., *Ken Hale: A Life in Language*, Cambridge, Mass.: MIT Press, pp. 293–338.

Moore, John (1998), "Turkish Copy-Raising and A-Chain Locality." *Natural Language and Linguistic Theory* 16: 149–189.

Pesetsky, David, and Esther Torrego (2001), "T-to-C Movement: Causes and Consquences." In Michael Kenstowicz, ed., *Ken Hale: A Life in Language*, Cambridge, Mass.: MIT Press, pp. 355–426.

Potsdam, Eric, and Maria Polinsky (1999), "Long-Distance Agreement in Tsez." In *Proceedings of WCCFL 18*, Somerville, Mass.: Cascadilla Press.

Potsdam, Eric, and Maria Polinsky (2001), "Long-Distance Agreement and Topic in Tsez." *Natural Language and Linguistic Theory* 19: 583–646.

Saito, Mamoru (1989), "Scrambling as Semantically Vacuous A-bar Movement." In Mark R. Baltin and Anthony S. Kroch, eds., *Alternative Conceptions of Phrase Structure*, Chicago: The University of Chicago Press, pp. 182–200.

Saito, Mamoru (1992), "Long Distance Scrambling in Japanese." *Journal of East Asian Linguistics* 1: 69–118.

Schütze, Carson T. (2001), "On Korean "Case Stacking": The Varied Functions of the Particles *ka* and *lul*." *The Linguistic Review* 18: 193–232.

Tanaka, Hidekazu (2001), "Raising to Object out of CP and Phase in Derivation." Ms., University of Minnesota.

Zidani-Eroğlu, Leyla (1997), "Exceptionally Case-Marked NPs as Matrix Objects." *Linguistic Inquiry* 28: 219–230.

Department of Linguistics
University of Delaware
Newark, DE 19716
bruening@udel.edu