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# ON PSEUDOPASSIVES AND THE CASE ASSIGNMENT OF P[*]

## 1   INTRODUCTION

In an active transitive sentence, the external argument is the subject, and the internal argument appears as the object, as in (1).


(1)    John kissed Mary.


On the other hand, in a passive sentence, the internal argument becomes the subject, and the external argument appears with the preposition *by* as an adjunct phrase.   In addition, the passive morpheme is attached to the verb in passives, as illustrated in (2).


(2)    Mary was kissed by John.


Thus, passivization seems to be a simple phenomenon in which the internal argument becomes the subject of a sentence.

At this point, we cannot tell whether passivization is a lexical operation or a syntactic one.   However, the subject of a passive sentence is not always the internal argument.   The subject in (3b) is not the internal argument but is rather a part of the internal argument, i.e. the infinitival clause *there to be a strange man in this room*, as in the active sentence (3a).


(3)    a.    John believes there to be a strange man in this room.

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  b.  There is believed to be a strange man in this room (by John).

This can be verified by the fact that *there* itself cannot be the internal argument of the verb *believe*, as illustrated below:

  (4)  * John believes there.

The embedded subject of the infinitival complement is thought to be raised to the object position of the matrix clause (see Lasnik 1999), and it then moves to the subject position.   Accordingly, passivization is a syntactic operation where the element in the complement position is raised to the subject position.

    Why, then, does such a movement occur?   The driving force of this movement has been considered to be the Case of the complement.   In the passive, the verb loses the ability to assign Case to its complement.   This causes the complement to be raised to the subject position, where it is assigned nominative Case.

    However, there are some passive sentences where accusative Case is assigned in Japanese, some dialects of English, Ukrainian, and Norwegian.   How can we explain the driving force of the movement in these cases?   In Honda (2012), I prove that accusative Case is assigned in passives, and I propose a structure of the passive that is almost the same as the structure of the active.   The structure that I propose can explain the acceptability of the passivized idioms as well as the derivation of passive sentences where accusative Case appears.   In this paper, I adopt the structure of passive constructions in Honda (2012).

    In addition, the subject of a passive sentence is not limited to a verb's internal argument or to the element in the verb's complement position.   The following illustrates the case in point:

  (5)  a.  John talked to Mary.
       b.  Mary$_i$ was talked to $t_i$ (by John).

    Passive sentences of this kind are called "pseudopassives."   It is said that pseudopassives can be found only in a certain number of languages such as English. A preposition *per se* assigns Case to its complement, and the Case of the preposition seems to remain under passivization.   Thus, it is a mystery why the complement of the preposition *Mary* can be passivized, as in (5b).

    In addition to pseudopassives, all kinds of phenomena that move the complement of a preposition leaving the preposition behind are called "preposition stranding (P-stranding)."   The following example corresponds to another type of P-stranding:

  (6)  a.  Who$_i$ did you talk to $t_i$?
       b. *[What time]$_i$ did John arrive at $t_i$?

If we adopt Abels' (2003) term, (6a) is an instance of P-stranding under Ā-movement,

whereas (5b) is an instance of P-stranding under A-movement, i.e. the pseudopassive.

Within early Government and Binding theory, if we assumed that S and PP are bounding nodes, we could explain the unacceptability of (6b). The *wh*-element would have to cross both PP and S before moving to COMP, which violates Subjacency. This proposal, however, is problematic because it cannot account for the grammaticality of (6a). Thus, we must find a way to explain the grammaticality of (6a) and the ungrammaticality of (6b) simultaneously.

In order to treat P-stranding under A- and Ā-movement, as in (5b) and (6a), respectively, as a licit operation, Hornstein and Weinberg (1981) (henceforth, H&W) assume a universal filter of the form in (7) and a syntactic rule called "Reanalysis," as in (8).

(7)  \* $[_{NP}$ e_{oblique}$]$
(8)  V → V\* (where V c-commands all elements in V\*)

According to their proposal, the filter shown in (7) states that noun phrases with no lexical material (e.g. traces) that are marked oblique by the Case-marking conventions are to be ruled out as ungrammatical. The Case-marking rules which they adopt are listed in (9).

(9)  a.  NP is marked [+nominative] if it is governed by tense, i.e., if it is marked the subject of a tensed sentence.
     b.  NP is marked [+objective] if it is governed by V.
     c.  NP is marked [+oblique] if it is governed by P.
     d.  *Wh*-NPs are assigned the Case of the closest trace which bears their index and which is in a possible Case position. Both the *wh*-element and the relevant trace are marked with Case.

Furthermore, (8) states that in the domain of VP, a V and any set of contiguous elements to its right can form a complex V. Note that it is necessary for the element that is to be reanalyzed into a complex VP to be not only linearly adjacent but also c-commanded by V. Since the PP in (6b) is not c-commanded by V, as shown in (10), Reanalysis does not occur and the trace in (6b) remains [+oblique].

(10)

```
                         S
          ┌──────────────┼──────────────┐
         NP             VP              PP
          │              │         ┌─────┴─────┐
        John          arrived      P          NP
                                   │           │
                                   at       what time
```
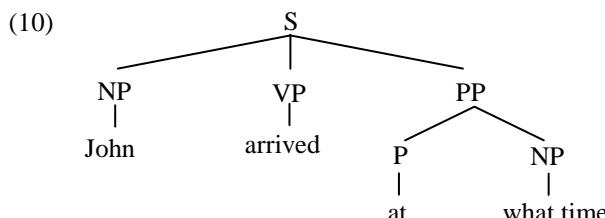
Thus, (6b) is ruled out by the filter (7).

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On the other hand, the PP in (6a) is c-commanded by V, as in (11), which makes it possible for the string *talk to* to become a complex verb, and the trace in (6a) is assigned objective Case; hence, no violation of (7).

(11)

```
              S
         ┌────┴────┐
        NP         VP
         │      ┌───┴────┐
        you     V        PP
                │     ┌───┴───┐
              talked  P       NP
                      │       │
                      to      who
```
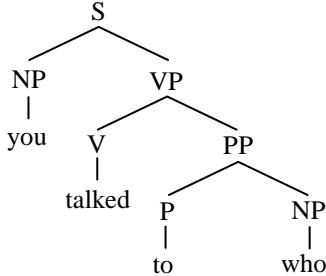
Furthermore, H&W's proposal also accounts for the derivation of the pseudopassive, as in (5b), repeated below as (12).

(12)   Mary$_i$ was talked to $t_i$ (by John).                    (= 5b)

Since the PP in (12) is within the c-command domain of V, the string *talk to* can be reanalyzed as a complex verb.   Consequently, the Case assigner to *Mary* is not the preposition *to* but the complex verb *talk to*.   Now *Mary* becomes the internal argument of the complex verb.   In passive constructions, a verb loses its Case assigning property, and the internal argument of the verb agrees with T and is raised to SPEC-T, being assigned nominative Case.   In the derivation of (12), the complex verb *talk to* cannot assign accusative Case to its internal argument *Mary*, and it thus agrees with T and is raised to SPEC-T.   This is why the once complement of the preposition can be passivized in (12).

According to the rule in (8), prepositions that are not c-commanded by V cannot be reanalyzed into a complex verb.   Since pseudopassive sentences are derived via Reanalysis,   (13a) is not a possible pseudopassive sentence, where the PP is not in the c-command domain of V, as illustrated in (13b).

(13)   a.  *Tuesday was departed on by Bill.
                          (Culicover and Jackendoff 2005: 207)

b.

```
                  S
      ┌───────────┼───────────┐
     NP          VP           PP
      │           │       ┌────┴────┐
     Bill      departed   P         NP
                          │         │
                          on      Tuesday
```
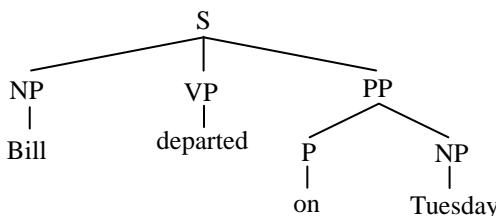
According to H&W, the combination of (7) and (8), however, does not suffice to predict the grammaticality of pseudopassives.  The condition on P-stranding under A-movement is more rigid than that on P-stranding under Ā-movement, as illustrated in (14).

(14)  a. *The table$_i$ was put the mouse on $t_i$.
      b.  What table$_i$ did Harry put the mouse on $t_i$?          (H&W: 65)

H&W claim that the reanalyzed word in the case of pseudopassives must be a possible semantic word.  Although *talk to* in (12) is a possible semantic word, *put the mouse on* is not; hence, the deviance of (14a).  Such a restriction is irrelevant to P-stranding under Ā-movement, as in (14b).

Indeed H&W's analysis accounts for P-stranding phenomena elegantly, but there are some counterexamples (Baltin and Postal (1996), Inada (1981), among others), which show that prepositions are not reanalyzed into complex verbs but still remain independent of verbs in P-stranding sentences.

The aim of this paper is to account for the derivation of the pseudopassive without resorting to Reanalysis.   In addition, I will explain P-stranding under Ā-movement in the same vein.

The organization of this paper is as follows.  In section 2, I introduce the distinction between pseudopassives and peculiar passives, which look as if they had the same syntactic structure as pseudopassives but are derived in a quite different way. In section 3, I point out some problems in H&W's analysis.   In section 4, I discuss how prepositions assign Case to their complements and how pseudopassive sentences are derived.   Section 5 demonstrates that the proposed analysis can adequately explain the derivation of pseudopassives.   In section 6, I discuss P-stranding under Ā-movement.   In section 7, I explain why some languages do not allow P-stranding. Section 8 presents the conclusion of this paper.

## 2   Pseudopassives and Peculiar Passives

### 2.1. Takami (1992)

Takami (1992) claims that H&W's notion that the reanalyzed word in the pseudopassive must be a possible semantic word is untenable, pointing out the examples in (15).

(15)  a.   This river should not be swum in.
      b.   This brand-new fountain pen has never been written with.
                                                    (Takami 1992: 101)

H&W consider that the meanings of strings of words that are semantic words are noncompositional. However, it is obvious that the meanings of the strings *swim in* and *write with* are compositional.

Considering these examples, Takami offers a comprehensive explanation to pseudopassives with the condition, as in (16).

(16)   Characterization Condition for Pseudo-Passives:
A pseudo-passive sentence is acceptable if the subject is characterized by the rest of the sentence; namely, if the sentence as a whole serves as a characterization of the subject. Otherwise, it is found unacceptable, or marginal at best. (Takami 1992: 126)

According to his analysis, the sentences in (15) inform us that the river is dangerous to swim in and that the fountain pen has never been used by anyone. Consequently, (15a) and (15b) characterize the subjects *this river* and *this brand-new fountain pen*, and both are acceptable pseudopassive sentences.

A similar kind of analysis can be found in Culicover and Jackendoff (2005). They state that prepositional passives seem generally possible when the verb and preposition together denote the (surface) subject's proper function, taking up the examples in (17).

(17)   a.   This bed has been slept in/*under.
b.   The sofa has been sat on/*beside.
(Culicover and Jackendoff 2005: 208)

However, Takami himself points out that the Characterization Condition cannot account for the pseudopassive sentences in (18) because none of the subjects are characterized by the rest of the sentences:

(18)   a.   This question will be dealt with later in the book.
b.   I was spoken to by a stranger.
c.   Mike was laughed at by Mary. (Takami 1992: 136)

Takami claims that the acceptability of these sentences should be explained by Kuno's (1989) Semantic Condition for Passivization in English, which accounts for the acceptability of single-verb passive sentences. This suggests that there are at least two kinds of pseudopassives; One shows an idiosyncratic property to pseudopassives, and the other shares the same property as single-verb passives.

Furthermore, even if Takami's analysis is correct, it is still a mystery how pseudopassive sentences are syntactically derived. It remains unsolved how to attract the complement of prepositions that has been assigned Case to SPEC-T before the agreement with T if Reanalysis does not occur.

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*2.2. Kageyama and Ura (2002)*

Kageyama and Ura (2002) (henceforth, K&U) define the three terms "prepositional passive," "pseudopassive," and "peculiar passive," making a distinction between pseudopassives and peculiar passives, which are both subsumed under the superficial nomenclature of prepositional passive.

According to their distinction, PPs in pseudopassives are governed by the passivized verbs and reanalyzed with the verbs, but PPs in peculiar passives are adjuncts, as in (19), where Reanalysis is not triggered.

(19)   This spoon has been eaten with.                           (K&U: 183)

This distinction tells us that the examples that H&W present are all pseudopassives, while the counterexamples to H&W that Takami (1992) takes up are peculiar passives.

Note that the combination of verbs and adjunct prepositions does not freely generate peculiar passive sentences; otherwise, (13a), repeated here as (20), would be acceptable.

(20) * Tuesday was departed on by Bill.

Then, what is the difference between (19) and (20)?

K&U claim that the difference between pseudopassives and peculiar passives is that the predicate in the former express a stage-level (or particular) predication while that in the latter represent an individual-level (or characterizing) predication.  It is the individual-level status that is the essential ingredient of the peculiar passive formation.

The next question is when individual-level predications are expressed. According to their analysis, one case is when the present perfect aspect is involved, as in the well-formed peculiar passive (19).   Note that if we change the present perfect into the simple past tense, the resulting sentence is unacceptable, as illustrated in (21).[1]

(21) * This spoon was being eaten with.                         (K&U.: 185)

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[1] One might claim that there exist some peculiar passives that do not express individual-level predications.  However, it is dubious that those examples are really acceptable.  The sentence in (i) illustrates the case in point:
  (i) (*)This building was walked in front of by the Japanese Emperor last month. (Takami 1992: 108)
  Takami treats this example as an acceptable sentence, but K&U conclude this to be unacceptable or, at the very best, highly marginal, based on their informants judgment. substituted for *l* K&U claim that the sentence can be salvaged if an adverb with quantificational force such as *always* or *often* is *ast month*.
  (ii) a.    This building is always walked in front of by the Japanese Emperor.
      b.    This building was often walked in front of by the Japanese Emperor.          (K&U: 186)
  The examples in (ii) increase in acceptability because the adverbs *always* and *often*, acting as unselective quantifiers, can prompt the individual-level interpretation of the predicate they modify.

The other case is when peculiar passives appear with the modal auxiliaries like *can* and *should*, as in (22).

(22) a. This violin can be played any sonatas on.
b. This pub should not be smoked hash in. (K&U.: 188)

These modals only imply possibilities and probabilities instead of entailing the actual occurrence of the events expressed in the propositions, which makes the sentences express individual-level predications.

As regards the syntactic structure of peculiar passives, K&U suggest (23) as the structure of (19).

(23) This spoon$_k$ has been [eaten [with *pro*$_k$]] (ibid.: 192)

They argue that the subject of the peculiar passive is base-generated in SPEC-Infl and controls a phonologically null element, i.e. *pro*, which is the complement of a preposition. Moreover, based on K&U's analysis, Ura (2005) proposes that the syntactic derivation of peculiar passives is as follows in (24).

(24) ⌐predication⌐
[$_{IP}$ Subj [$_{vP}$ *pro*$_k$ [$_{vP}$ V-pass Obj [$_{PP}$ P *t*$_k$ ]]]]
└──── Ā-movement ────┘

(Ura 2005: 285)
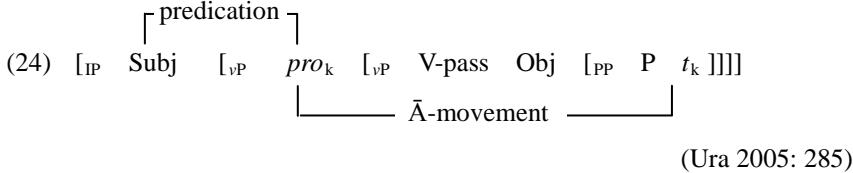
In (24), *pro* Ā-moves to the edge of *v*P, which generates a derived predicate. The subject of the peculiar passive is assigned the theta-role by this derived predicate.

In summary, peculiar passives are quite different from pseudopassives, regardless of their surface similarities. Only the complements of the prepositions that are also complements of verbs can be the subject of pseudopassives. Most prepositional passive sentences that have been regarded as the counterexamples to H&W are peculiar passives and are not really counterexamples. Thus, we must present only pseudopassive sentences as counterexamples to H&W. In the next section, I will analyze such examples.

3   AGAINST REANALYSIS

In this section, I will present some pseudopassives that are unable to be explained if we assume Reanalysis.

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*3.1. Baltin and Postal (1996)*

Baltin and Postal (1996) show (25)–(28) as the counterexamples to Reanalysis:

(25)  a.  I discussed $t_1$ with Lorenzo − [the problems he was having with deliveries]$_1$.
      b.  *I argued with $t_2$ about such problems − [the drivers' union leader]$_2$.
                                                    (Baltin and Postal 1996: 129)
(26)  a.  Frank called Sandra and Arthur ___ Louise.
      b.  Frank talked to Sandra and Arthur ___ *(to) Sally.          (ibid.)
(27)  a.  Frank called Sandra more often than Arthur did ___ Louise.
      b.  Frank talked to Sandra more often than Arthur did ___ *(to) Louise.
                                                                      (ibid.)
(28)  a.  The bridge was flown (both) over and under.
      b.  Communism was talked, argued, and fought about.      (ibid.: 130)

It is known that the complement of verbs can undergo heavy DP (NP) shift, as in (25a). In contrast, (25b) shows that the complement of prepositions cannot undergo heavy DP shift. Since (29) is acceptable, the string *argue with* must be a possible predicate and function as a complex verb.

(29) ? John was argued with.                          (Drummond 2011: 174)

If *argue with* were reanalyzed as a complex verb, we could not explain why (25b) is unacceptable.

   The asymmetry in (26) is also problematic to Reanalysis approaches. Although a verb can be deleted under gapping, it is impossible for the preposition to be deleted independently of its object, as in (26b). If the preposition were reanalyzed with the verb, it could be deleted contrary to fact. The same phenomenon can be found in the ellipsis associated with comparatives like (27). Again, the preposition cannot be deleted independently of its complement in the pseudopassive.

   The examples in (28) also indicate that the preposition apparently behaves as an independent element.

   The above examples can be accounted for only if the prepositions remain independent of the verbs. In this respect, we can claim that Reanalysis approaches are untenable.

*3.2. Inada (1981)*

Inada (1981) shows some examples that cannot be accounted for if we assume Reanalysis, and points out some problems with H&W's analysis.

First, Inada claims that it is obscure when and where Reanalysis is applied in the derivation of sentences such as (30c).[2]

(30)  a.  John talked to Harry about Christianity.
      b.  Harry$_i$ was talked to $t_i$ about Christianity.
      c.  What$_j$ was Harry$_i$ talked to $t_i$ about $t_j$?          (Inada 1981: 124)

Since (30b) is a well-formed pseudopassive sentence, the string *talk to* must be reanalyzed into a complex verb in (30c), but, at the same time, the string *talk to* $t_i$ *about* must be reanalyzed; otherwise, the trace $t_j$ is assigned oblique Case, which violates the filter (7), which I repeat as (31).

(31) * [$_{NP}$ e$_{oblique}$]

Moreover, if the string *talk to* $t_i$ *about* is reanalyzed, it is dubious that *Harry* can be raised from the complex verb.

Second, Inada points out a problem with (31).   If Reanalysis does not occur, the complement of a preposition cannot undergo Ā-movement because of the filter in (31). He takes up the following as counterexamples to this notion:

(32)  a.  Who are$_i$ you $t_i$ suspicious of?
      b.  What was$_j$ the teacher $t_j$ concerned with?
      c.  Which client was$_k$ the lawyer $t_k$ uncertain about?  (Inada 1981: 125)

Since Reanalysis is an operation through which a verb and material that is right adjacent to it become a new complex verb, the verb must be a member of the reanalyzed elements.   The acceptability of (32) shows that Reanalysis has occurred in the sentences.   Nevertheless, the verb *be* is moved out of the complex verb under Subject-Auxiliary Inversion.   Accordingly, the sentences in (32) would be incorrectly filtered out by (31), if H&W's analysis were correct.

Third, Inada points out that H&W's analysis cannot predict the following contrast:

(33)  a.  John insisted on your being here on time.          (Inada 1981: 127)
      b.  *John insisted on that you be here on time.                (ibid.)
      c.  John insisted that you be here on time.        (Rosenbaum 1967: 83)
      d.  That you be here on time was insisted on by John.
                                                                    (ibid.)
      e.  *That you be here on time was insisted by John.          (ibid.)

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[2]  H&W claim that sentences like (30c) are not fully acceptable, but see Inada (1981: fn. 8).

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Since the well-formed passive sentence is (33d) not (33e), the string *insist on* must be reanalyzed into a complex verb. However, the complex verb cannot take a *that*-clause in the active, as in (33b). On the contrary, the single verb *insist* can take a *that*-clause in the active, as in (33c), although its passive counterpart is unacceptable, as shown in (33e). This shows the V-P string does not constitute a syntactic unit at any grammatical level, and this intriguing contrast casts doubt on the existence of the Reanalysis rule.

In summary, it is tough to assume that a verb and a preposition are reanalyzed into a complex verb in P-stranding under A- and Ā-movement. Alternatively, it is plausible to assume that prepositions still remain independent elements throughout the derivation of P-stranding under A- and Ā-movement sentences. The problem is how to extract the complement of prepositions without counting on Reanalysis.

## 4  PROPOSAL

As we have seen above, it is necessary to find the way to derive P-stranding sentences without resorting to Reanalysis. In the derivation of pseudopassives, it is unclear why the complement of a preposition is not assigned Case by the preposition but agrees with T. In the next subsection, I propose a new Case assignment system of prepositions.

### 4.1. The Case Assignment of Prepositions

In the Minimalist Program framework (Chomsky 2008 and others), it is assumed that structural Case is assigned to DP when the DP agrees with an Agree-feature. Chomsky (2008) proposes that only phase heads, such as C or $v^*$, have such a feature. Moreover, he suggests that T inherits an Agree-feature from C, while V inherits one from $v^*$. Then, what agrees with T is raised to SPEC-T and assigned nominative Case, and what agrees with V is raised to SPEC-V and assigned accusative Case.

How do prepositions assign Case to their complements? I assume that unlike C or $v^*$, P does not have any Agree-features, although it can assign Case to its complement. There is not such a phase head that transmits its Agree-feature to P. In addition, I assume that P itself is not a phase head at least in the languages that allow pseudopassives because the complement of P could not be extracted, as in pseudopassive sentences, if PP were a phase.[3] Moreover, if Chomsky's analysis is on the right track, the DP that is assigned Case and what inherits the Agree-feature from a phase head must be in the Spec-Head relation. Such configurations cannot be assumed between P and its complement. Thus, P assigns Case to its complement in

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[3] As we will see in section 7, I assume that in languages that disallow P-stranding, PPs are phases, adopting Drummond, Hornstein and Lasnik (2010).

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a quite different way from C or $v*$.[4]

Taking this into consideration, I propose that P assigns Case to its complement according to the rules in (34).[5]

(34)  a.  The DP that is adjacent to P at Spell-Out is incorporated into the P.
      b.  P assigns oblique Case to DP if the DP is incorporated into the P.

I assume that P does not agree with its complement, but that DP is assigned Case by incorporation into P.  Only the adjacency between P and its complement is required so that the P can assign Case.  Thus, P does not assign Case to DP when the DP is not adjacent to the P.  I will show some evidence that supports this unusual Case assignment in section 7.

### 4.2. Deriving the Passive

Honda (2012) proposes that both active transitive sentences and passive sentences are derived from the following base structure in (35).

(35)  $[_{v*P}$ EA $[v*$ $[_{VoiceP}$ Voice $[_{VP}$ V IA]]]]
      EA = external argument, IA = internal argument

In (35), the functional head Voice is assumed above VP, which determines whether the sentence is active or passive.  The Voice of actives is -Ø, which is a phonetically null element, but the Voice of passives is the passive morpheme -*en*.  To support this claim, I propose the conditions in (36).

(36)  a.  $v*$ merges DP iff $v*$ selects -Ø.
      b.  $v*$ merges IMP and is assigned an EPP-feature iff $v*$ selects -*en*.

According to Matsuoka (2003), $v*$ is assigned an EPP-feature in the passive, and I adopt his proposal.  I propose that IA in (35) is raised to SPEC-$v*$ above EA in passives.  Moreover, EA is DP in actives but it is *IMP* in passives, which is a phonetically null element.

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[4] One might argue that P assigns inherent Case to its complement.  Inherent Case assignment does not require the Spec-Head relation.  However, if P assigned inherent Case to its complement, the pseudopassive would be impossible because T cannot agree with the element that has already been assigned Case.

[5] Incorporation is usually an operation where a head moves to another head.  I assume this incorporation as a kind of movement that makes the P and the DP a constituent, since the string *on it* in (i) can be deleted, which does not seem to be a constituent, as we will see below.

(i)  John insisted ~~on it~~ that you be here on time.

Accordingly, the syntactic structures of (37a) and (38a) correspond to (37b) and (38b), respectively.

(37)  a.  John talked to Mary.
      b.

```
                    v*P
                  ／    ＼
              DP₁        v*
               |       ／    ＼
             John    v*       VoiceP
                            ／    ＼
                        Voice      VP
                          |      ／   ＼
                         -Ø     V       PP
                                |     ／   ＼
                              talk   P      DP₂
                                     |       |
                                     to     Mary
```

(38)  a.  Mary was talked to.
      b.

```
                        v*P
                      ／    ＼
                  DP₂        v*′
                   |       ／    ＼
                 Mary    IMP      v*′
                                ／    ＼
                             v*       VoiceP
                                    ／    ＼
                                Voice      VP
                                  |      ／   ＼
                                 -en    V       PP
                                        |     ／   ＼
                                      talk   P      DP₂
                                             |       |
                                             to     t_Mary
```
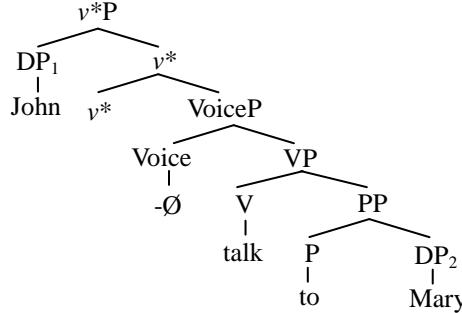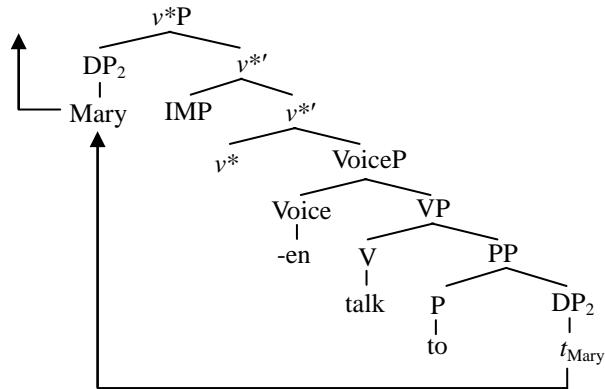
In both (37b) and (38b), V adjoins to Voice, and that V-Voice complex adjoins to $v^*$. In addition, I propose that V agrees with a phonetically null element, i.e. a cognate object, because unergative verbs can take cognate objects as complements.[6,7]

In (37b), the PP *to Mary* is in the $v^*$P phase domain. If we adopt Hiraiwa's (2005) Multiple Agree, *Mary* is accessible to V, which inherits an Agree feature from $v^*$, and thus it is possible for V to agree with *Mary*. However, since *Mary* in (37b) is adjacent to the preposition *to*, it is incorporated into *to* and assigned oblique Case by *to*.[8]

---

[6] According to Fujita and Matsumoto (2005), unergative verbs take cognate objects as complements, as shown in (i).

(i)     [$_{v*P}$ DP [$_{v*'}$ $v^*$ [$_{VP}$ V CO]]]

Thus, the precise base-structure for (37) and (38) is as follows in (ii):

(ii)    [$_{v*P}$ John [$_{v*'}$ $v^*$ [$_{VoiceP}$ Voice [$_{VP}$ [$_{V'}$ V CO] [$_{PP}$ to Mary]]]]]

[7] According to Omuro (2005), *talk* can take a cognate object.

[8] This means that there remains a possibility that *Mary* in (37b) is assigned Case by V if it leaves the

On the other hand, *Mary* in (38b) is raised to SPEC-*v*\* by the condition in (36b), and it then agrees with T, assigned nominative Case.   This operation does not violate the Phase-Impenetrability Condition (PIC), as in (39), because PP is not a phase and the complement of P is accessible to *v*\*.

(39)   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: 108)

Note that *Mary* is not adjacent to the preposition *to* in (38b).   Therefore, *Mary* is not assigned Case by *to*, and T can assign nominative Case to it.

### 4.3. Non-Existent Pseudopassives

Chomsky (2004) argues that adjunction is different from simple merge in that the former forms an ordered pair.   When α adjoins to β, α attaches to β on a separate plane, with β retaining all its properties on the "primary plane," the simple structure. This indicates that adjuncts are invisible to the operation in the primary plane.   Thus, an adjunct is not in the search domain of the probe.

H&W claim that sentences like (13a), repeated here as (40), are ungrammatical because the PP is not in the c-command domain of the verb, where Reanalysis cannot occur.

(40) * Tuesday was departed on by Bill.

However, if we adopt Chomsky's (2004) analysis, we find that Reanalysis is irrelevant to the ungrammaticality of (40).   We can conclude that *Tuesday* is not accessible to any probes outside the PP.   Therefore, the complement of an adjunct PP cannot be the subject of the pseudopassive, and there is no need to resort to Reanalysis.[9]

complement position of P before Spell-Out.   I will present some evidence that supports this possibility in section 7.

[9] Yukio Oba points out to me that there are some exceptional examples where *wh*-phrases are extracted from adjunct PPs, as shown in (i).

(i) a.   What did you do it for?
　　 b.   Who did you go with?

As Sano (1983) observes, even the extraction from temporal PPs, which H&W consider to be impossible, is possible if the PPs are perceived to have some relevance to what is described in the rest of the VP.   See (ii).

(ii) a.   What day will he fly to Paris on?
　　 b.   What time does John go to class at?
　　 c.   Which vacation did John visit his aunt in?　　　　　　　(Sano 1983: 108)

It may be possible to assume that these PPs are not adjuncts, but it is difficult to determine whether

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Furthermore, the proposal here does not require the notion "possible semantic words," which is assumed only for P-stranding under A-movement.

(41) a. *The table was put the mouse on.                    (= 14a)
     b. *John was talked to Harry about.              (H&W: 65)

The ungrammaticality of the sentences in (41) is ascribed to the violation of the Minimal Link Condition, described in (42).

(42)   Minimal Link Condition
       K attracts α only if there is no β, β closer to K than α, such that K attracts
       β.                                          (Chomsky 1995: 311)

As illustrated in (43), what is closer to the probe $v*$ is not *the table* but *the mouse*, as the latter asymmetrically c-commands the former.
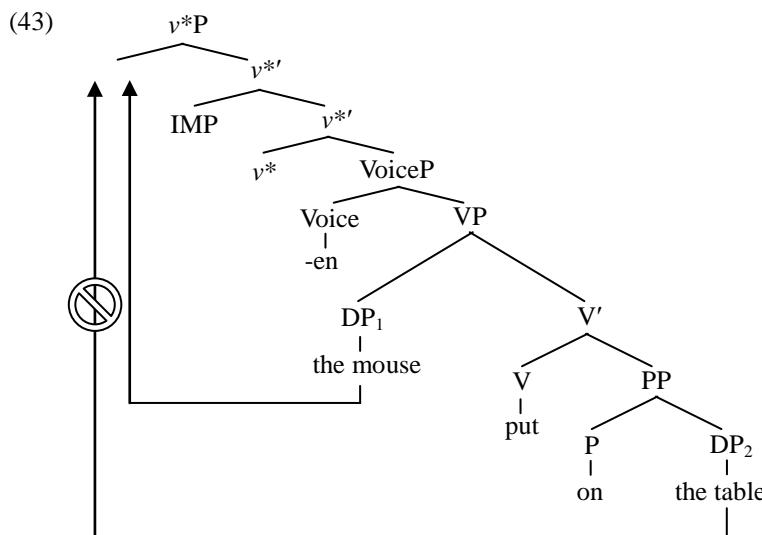


Thus, (44b) is derived as the passive counterpart to (44a).[10]

---

they are adjuncts or not because the diagnostic to distinguish adjuncts from complements is the extraction of *wh*-phrases.   I leave these exceptions for future research.

[10] I assume that *advantage* in the idiom *take advantage of* can be either DP or NP.   I suggest that *advantage* in (i) is NP.

(i)     John was taken advantage of.

According to Fujita and Matsumoto (2005), NP is incorporated into V, and it does not intervene between $v*$ and the complement of the preposition *of*.   This is why passive sentences like (i) are possible.   On the other hand, *advantage* in (ii) is not an NP but a DP; thus, it is raised to the subject position.

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(44) a. We put the mouse on the table.
   b. The mouse was put on the table.

The same analysis can be applied to (41b), which is unacceptable because *Harry* is closer than *John* to $v^*$, as in (45).[11]

(45)
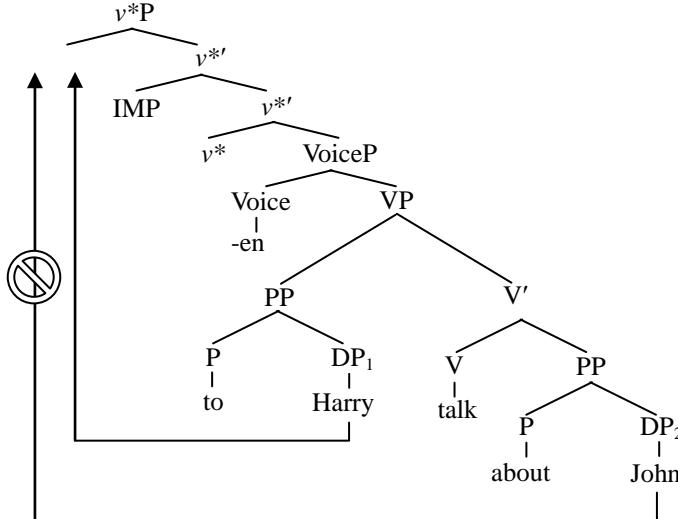


*Harry* intervenes between $v^*$ and *John*.   This is why (41b) is ungrammatical.

## 4.4. Languages that Do Not Allow Pseudopassives

Abels (2003) proposes that the phase nature of P is subject to parameterization, and that Ps are phase heads in the languages that disallow P-stranding.[12]   I adopt Abels'

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(ii)   Advantage was taken of John.
[11]   In a strict sense, it may be doubtful whether Harry is closer than John because the former does not c-command the latter.   However, based on (i) and (ii), we can assume that the preposition *to* is invisible to c-commanding.
(i) a.   Mary talked to Bill about himself on Tuesday.
   b. * Mary talked about Bill to himself on Tuesday.                   (Drummond 2008: 1)
(ii) a.   I talked to John and Bill about themselves/each other.
   b. ??I talked about John and Bill to themselves/each other.         (Jackendoff 1990: 431)
In this paper, I tentatively assume that *Harry* c-commands *John* in (45).
[12]   Abels (2003) proposes that P is a phase head for a quite different reason, and his analysis is irrelevant to the PIC.   If P is a phase, any *wh*-phrase extracted from PP must move through SPEC-P. He claims that this movement violates an anti-locality condition on movement, which roughly corresponds to a condition that prohibits the complement of a phase head from moving through the specifier of the phase head.

proposal, and I suggest that the PIC accounts for why pseudopassivization is impossible in some languages. In the languages where PPs are phases, the complement of P is not accessible to probes outside the PP. Thus, the complement of P is inaccessible to $v*$, as illustrated in (46).[13]

(46)

```
        v*P
       /   \
           v*'
          /   \
       IMP    v*'
             /   \
           v*    VoiceP
                /     \
            Voice      VP
              |       /  \
            -en      V    PP    ⌒ inaccessible domain
                        /   \
                       P     DP
```

inaccessible domain
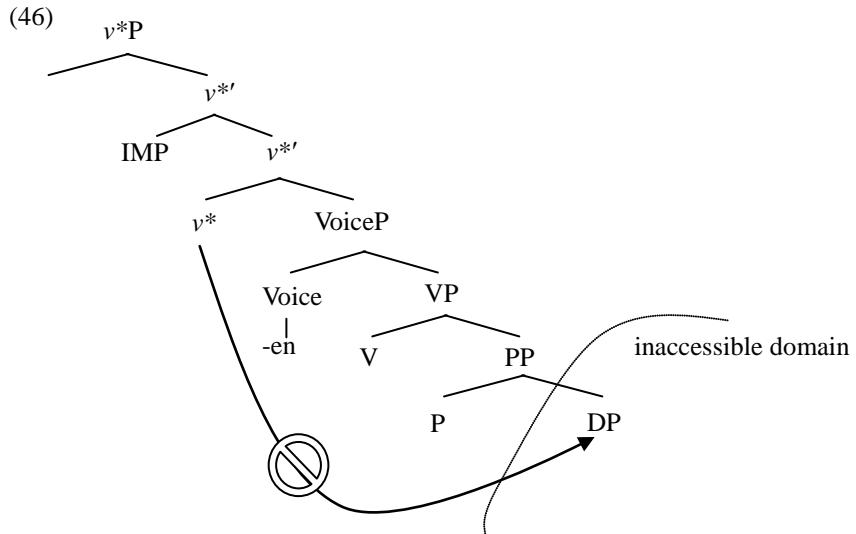
It is essential for the EPP-feature on $v*$ to agree with the complement of P so as to derive pseudopassives, but this agreement is impossible due to the PIC. In such languages, the complement of P is always adjacent to the P and is assigned oblique Case. Accordingly, pseudopassive sentences are never derived if PPs are phases.

In contrast, in the languages where PPs are not phases, the complement of P is accessible to $v*$. Thus, pseudopassivization is possible in such languages.


5   SOME CONSEQUENCES


As I have proposed in section 4, P is not reanalyzed into a complex verb in pseudopassives. Rather, P remains independent of V throughout the derivation of pseudopassives. This proposal can account for the facts we saw in section 3.

Consider (25), which I repeat here as (47).

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[13] I assume that P does not have an EPP-feature for A-movement.

(47) a. I discussed $t_1$ with Lorenzo − [the problems he was having with deliveries]$_1$.

    b. *I argued with $t_2$ about such problems − [the drivers' union leader]$_2$.

                                                 (= 25)

It is known that the complement of a verb can undergo heavy DP shift while that of a preposition cannot. If Reanalysis does not occur between *argue* and *with* in (47b), it is natural that (47b) is not acceptable.

    Second, gapping in pseudopassives also receives a natural explanation.

(48) a. Frank called Sandra and Arthur ___ Louise.

    b. Frank talked to Sandra and Arthur ___ *(to) Sally.       (= 26)

According to Johnson (2009), gapping sentences are derived by across-the-board raising of the verb to a SPEC-Pred, as in (49).

(49) a. Some will eat beans and others rice.

    b.
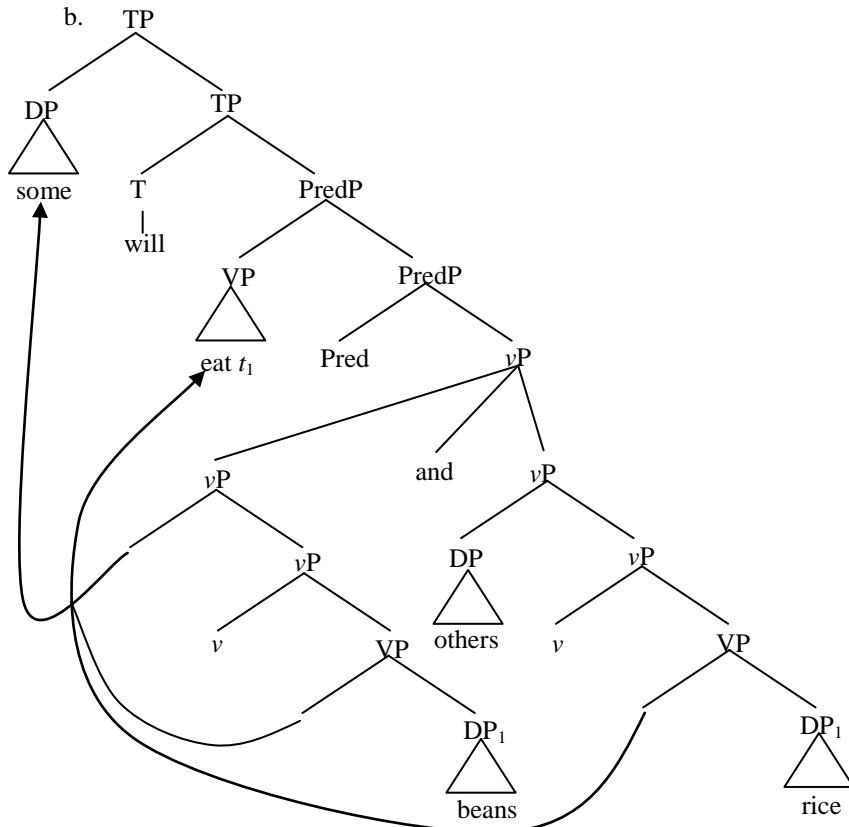


(Johnson 2009: 307)

Based on Johnson's proposal, I suggest (50) as the structure of (48b).

(50)
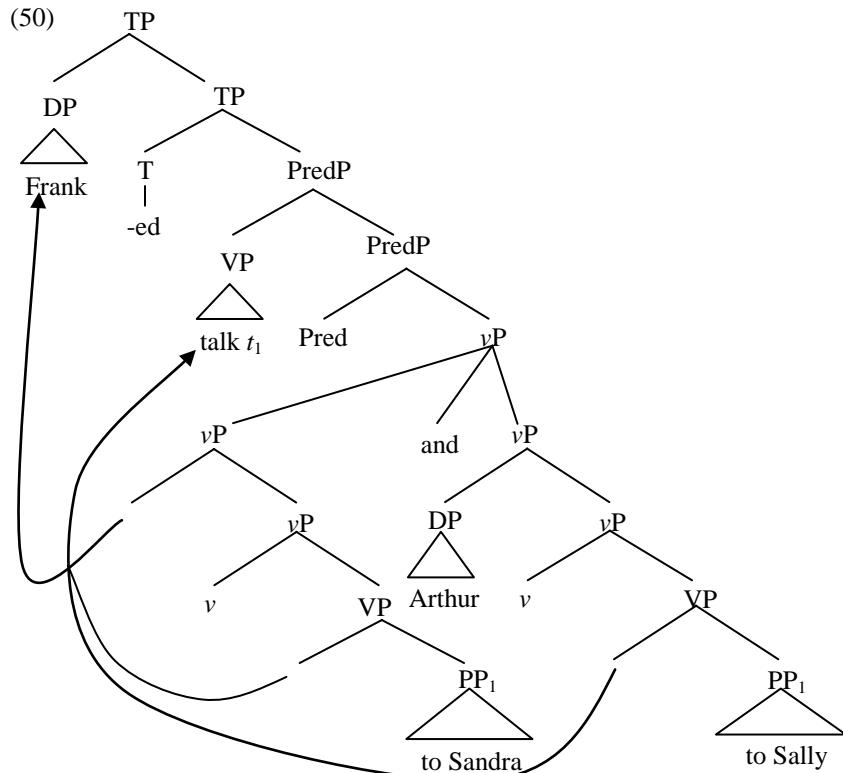


Since P is not reanalyzed with V under the present proposal and there is no such a constituent as [V + P], the string *talk to* cannot be raised. Instead, only the single verb *talk* can be raised to SPEC-Pred. Thus, the P must appear in (48b).

Third, (51) shows examples where comparative subdeletion and pseudogapping have occurred simultaneously.

(51)  a.  Frank called Sandra more often than Arthur did ⎯⎯ Louise.
      b.  Frank talked to Sandra more often than Arthur did ⎯⎯ *(to) Louise.
                                                        (= 27)

Comparative subdeletion is caused by deletion of Deg(ree)P.[14]  On the other hand, how pseudogapping occurs is controversial.

   In Johnson (2009), pseudogapping constructions are assumed to result from VP-ellipsis, with the remnant having moved out of the VP by heavy DP shift.

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[14]  See Yoshimoto (2008).

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However, there is some evidence that contradicts this analysis.

Lasnik (2003) argues that in the Double Object Construction, only the first object can be the remnant of pseudogapping, as shown in (52).

(52)  a. ?John gave Bill a lot of money, and Mary will ~~give~~ Susan ~~a lot of money~~.
  b. *John gave Bill a lot of money, and Mary will ~~give Bill~~ a lot of advice.

<div align="right">(Lasnik 2003: 57)</div>

However, as Lasnik points out, it is only the second object that can freely undergo heavy DP shift, as shown in (53).

(53)  a. *John gave *t* a lot of money the fund for the preservation of VOS languages.
  b. John gave Bill *t* yesterday more money than he had ever seen.

<div align="right">(ibid.)</div>

This fact indicates that the remnant of pseudogapping does not undergo heavy DP shift. Alternatively, Lasnik suggests that pseudogapping is caused by VP-ellipsis by assuming overt raising of accusative DP to SPEC-$Agr_O$. This proposal can account for why *prove guilty*, which is not a constituent, can be elided in (54a).

(54)  a. The DA proved Jones guilty and Assistant DA will ~~prove~~ Smith ~~guilty~~.
  b.



<div align="right">(Lasnik 2003: 57)</div>
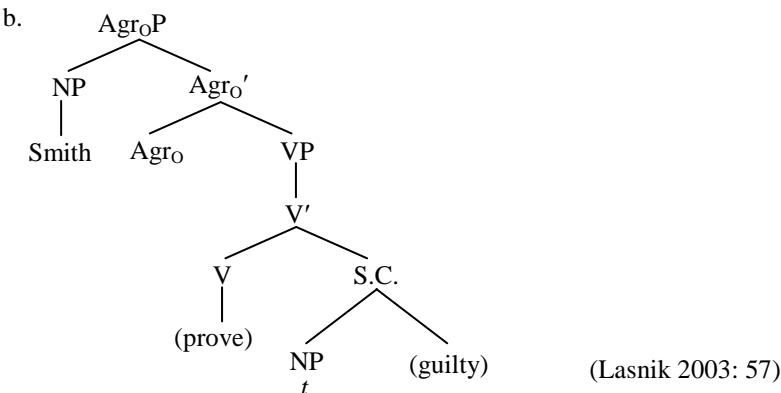
After raising of *Smith* to SPEC-$Agr_O$, the VP is elided in (54b). Moreover, Lasnik claims that in (55b), deletion of $VP_1$ results in classic VP-ellipsis, which corresponds to (56a), whereas that of $VP_2$ results in pseudogapping, as in (56b).

(55)  a. Mary will hire Susan.

b.

```
                AgrP₁
              /       \
          NP₁          Agr′
          Mary        /     \
                   Agr₁       TP
                           /      \
                          T        VP₁
                         will     /    \
                               NP₁      V′
                                t      /    \
                                     V₁       AgrP₂
                                            /       \
                                        NP₂          Agr′
                                       Susan        /     \
                                                Agr₂       VP₂
                                                            |
                                                            V′
                                                          /    \
                                                        V₂      NP₂
                                                       hire      t
```
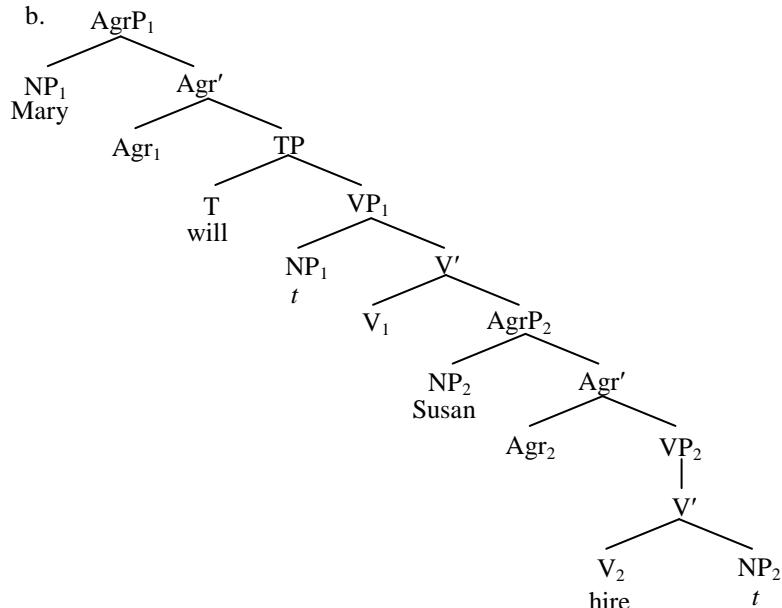
(Adapted from Lasnik 2003: 65)

(56)  a.  … Mary will.
      b.  … Mary will Susan.                    (Lasnik 2003: 66)

The problem is that our framework does not assume the projection of Agr so as to adopt Lasnik's analysis. However, Chomsky (2008) argues that accusative DP is raised to SPEC-V just as nominative DP is raised to SPEC-T, and I assume that this movement corresponds to the raising to SPEC-Agr$_O$ in Lasnik (2003). Thus, the pseudogapping sentence in (56b) is derived by deletion of V′ in (57).

(57)

```
                v*P
              /     \
          DP₁        v*′
          Mary      /    \
                  v*      VoiceP
                        /        \
                    Voice         VP
                                /    \
                            DP₂       V′
                           Susan     /   \
                                    V      DP₂
                                   hire     t
```
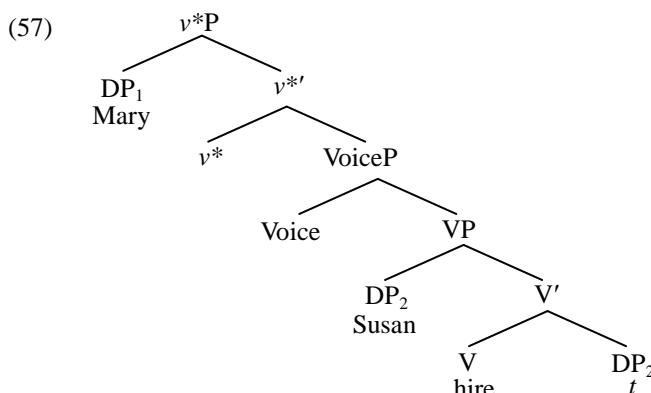
Then, why is the acceptable pseudopassive sentence is not (58b) but (58a)?

(58) a. Frank talked to Sandra more often than Arthur did to Louise.
     b. *Frank talked to Sandra more often than Arthur did Louise.

If the complement of P can undergo A-movement, as I assume in section 4, (58b) seems acceptable at first glance, since the structure of (58) would be as follows in (59):

(59)
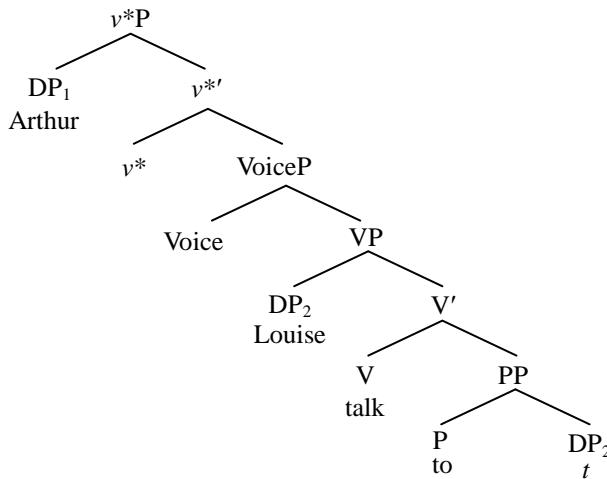


According to Fujita and Matsumoto (2005), however, unergative verbs take a phonetically null object as complement. This object can appear as a cognate object; otherwise, it is incorporated into V and is not pronounced. Adopting Fujita and Matsumoto's analysis, I suggest that unergative verbs are formed by the incorporation of N, and that the EPP-feature on V is satisfied by this incorporation.[15, 16]

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[15] This incorporation is originally assumed in Hale and Keyser (1991).

[16] Oba (2011) observes that unergative verbs take objects other than cognate objects, as in (i), and one might claim that the derivation in (60) is untenable.

(i)     All this time you've been **living a dream**, and now you've seen that dream in the flesh you torment yourself even more.     (Oba 2011: 106)

However, I assume that the verb *live* in (i) is a transitive verb, not an unergative verb, because cognate objects must appear with modifiers, as shown below in (ii).

(ii) a.  * John lived a life.
     b.    John lived a happy life.

Thus, (i) is irrelevant to Cognate Object Constructions. Oba also points out that cognate objects can be passivized, as in (iii), which seems to be a counterexample to (60).

(iii)     **All his life was lived** in the sight and sound of Mattie Silver, and he could no longer conceive of its being otherwise.     (Oba 2011: 98)

According to Fujita and Matsumoto (2005), however, cognate objects can be either DP or NP. DP cognate objects can be passivized, since they are assigned Case in the same way as the internal arguments of transitive verbs. On the other hand, NP cognate objects cannot be passivized because they are incorporated into V.

(60)

```
              VP
          ┌────┴────┐
          V          NP
      ┌───┴───┐       │
      N       V      t_i
      │
   laugh_i
```

(Hale and Keyser 1991: 56)
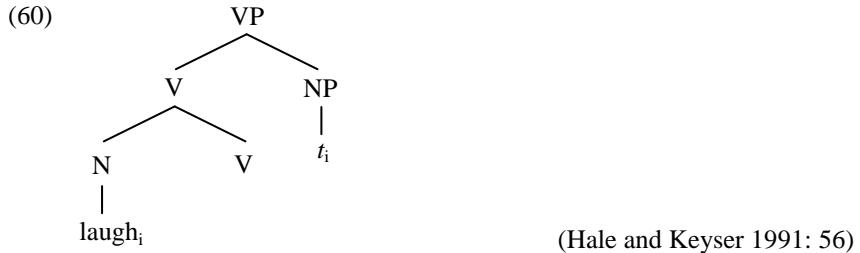
This suggestion is supported by the fact that nothing has moved to SPEC-V in the unergative construction, as in (61).

(61)  a.   John swam beside Bill.
      b. *Bill was swum beside by John.

The PP in (61) is adjunct, and *Bill* cannot be extracted.   Therefore, the derivation of (51b) is as follows in (62):[17]

(62)

```
                        v*P
                 ┌───────┴───────┐
               DP_1             v*′
                │          ┌─────┴─────┐
              Arthur      v*         VoiceP
                                ┌──────┴──────┐
                              Voice           VP
                                         ┌─────┴─────┐
                                        V′           PP
                                   ┌─────┴─────┐   ┌──┴──┐
                                   V          NP   P    DP_2
                               ┌───┴───┐       │   │     │
                               N       V      t_i  to  Louise
                               │
                            talk_i
```
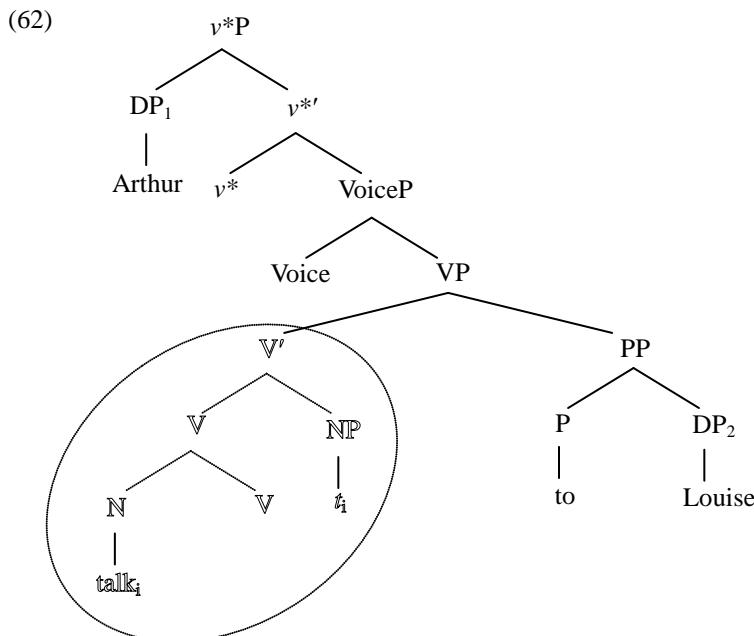
There is no deletion of the string V + P, and this is why the preposition *to* must appear

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[17]  However, I omit this incorporation hereafter in presenting the syntactic structure of unergative verbs for expository purposes.

in (51b).[18]

Fourth, if we dispense with Reanalysis, the conjunction of prepositions in pseudopassives has a natural explanation.

(63)  a.  The bridge was flown (both) over and under.
      b.  Communism was talked, argued, and fought about.        (= 28)

Fifth, it is no wonder that pseudopassivization and P-stranding under Ā-movement occur at the same time, as in (64c).

(64)  a.  John talked to Harry about Christianity.
      b.  $Harry_i$ was talked to $t_i$ about Christianity.
      c.  $What_j$ was $Harry_i$ talked to $t_i$ about $t_j$?        (= 30)

The two movements occur independently within our proposal, and the derivation of (64c) is as shown in (65):

---

[18]  The judgment on pseudogapping constructions is controversial.   Lasnik (2003) argues that there is a consistent correlation between pseudogapping and pseudopassive, as in (i).
   (i) a.    John spoke to Bill and Mary should Susan.
       b.   Bill was spoken to by John.
   (ii) a.   John talked about linguistics and Mary will philosophy.
        b.   Linguistics was talked about by John.
   (iii) a. *John swam beside Bill and Mary did Susan.
         b. *Bill was swum beside by John.
   (iv) a. *John stood near Bill and Mary should Susan.
        b. *Bill was stood near by John.                              (Lasnik 2003: 59)
   However, Drummond (2011) claims that most speakers he has asked find (vb) distinctly worse than (va).
   (v) a.    Frank called Sandra and Arthur did Louise.
       b. * Frank talked to Sandra and Arthur did Louise.       (Drummond 2011: 185)
   I tentatively rely on Drummond's judgment in this paper.

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(65)
$v$*P
DP$_2$  $v$*′
what$_j$  DP$_1$  $v$*′
Harry$_i$  IMP  $v$*′
$v$*  VoiceP
Voice  VP
-en
PP  V′
P  DP$_1$  V  PP
to  $t_i$  talk  P  DP$_2$
about  $t_j$
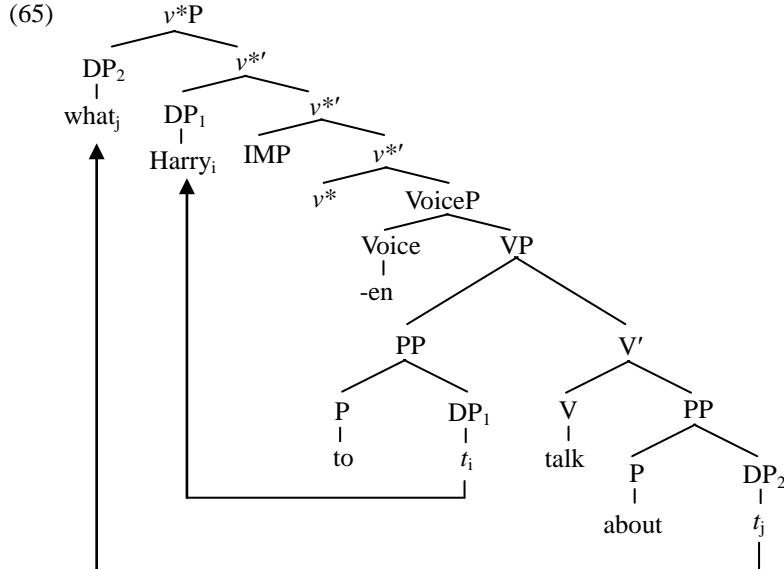
In Chomsky (2008), *wh*-elements are raised to outer SPEC-$v$*. The feature that attracts DP$_1$ is different from the one that attracts DP$_2$, and thus there is no violation of the MLC in (64c).

Sixth, if we abandon the filter in (7), the examples in (66) are thus no longer problematic.

(66)  a.  Who are$_i$ you $t_i$ suspicious of?
      b.  What was$_j$ the teacher $t_j$ concerned with?
      c.  Which client was$_k$ the lawyer $t_k$ uncertain about?  (= 32)

It is no problem to leave the trace that is governed by P. The PPs in (66) are all complements of adjectives. Accordingly, it is possible for the probe outside the PP to access the complement of P. I will explain the restriction on P-stranding under Ā-movement in detail in section 6.

Finally, I take up the following examples, where CP appears as a complement, which H&W's analysis cannot explain:

(67)  a.  John insisted on your being here on time.
      b.  *John insisted on that you be here on time.
      c.  John insisted that you be here on time.
      d.  That you be here on time was insisted on by John.
      e.  *That you be here on time was insisted by John.  (=33)

In the traditional grammar, it is assumed that the single verb *insist* takes a *that*-clause

as its complement, whereas the complex verb *insist on* takes a DP, but not vice versa. One might assume that the verb *insist* has two lexical entries, as shown in (68).

(68)  a.  [+          CP]
      b.  [+ ___ [on DP]]

However, this assumption seems redundant and unnecessary if we assume that (67c) is derived by deletion of the string *on it* in (69).[19]

(69)   John insisted ~~on it~~ that you be here on time.

There are some examples where the string P + *it* can be elided in English, such as in (70).

(70)  a.  I will see (to it) that everything is ready for your departure.
      b.  I can't swear (to it) that no one else has ever thought of this.

I assume that there exists a rule that the string P + *it* can be elided because *it* is incorporated into P as I have proposed in (34b), but that there is no rule that deletes either P or *it* independently.

The next question is how (69) is derived. According to Stroik (1996), the movement of the expletive *it* in (71a) is the same phenomenon as that of the ECM subject in (71b), i.e. the movement to SPEC-Agr$_O$.

(71)  a.  I should resent it$_i$ greatly [$t_i$ that you did not call]
      b.  I believe Sue$_i$ quite sincerely [$t_i$ to be the best candidate]

                                                              (Stroik 1996: 237)

He argues that the expletive *it* is base-generated at SPEC-C, demonstrating the sentences in (72)–(75).

(72)  a.  I just knew that Mary would fire John today.
      b.  I just knew it that Mary would fire John today.
(73)  a.  I just knew where Mary would fire John.
      b. *I just knew it where Mary would fire John.
(74)  a.  I discovered recently that Lou had been fired.
      b.  I discovered it recently that Lou had been fired.
(75)  a.  I discovered recently who had been fired.

---

[19] If the string *on it* is not elided, as in (i), it sounds a little awkward and redundant, but it is still acceptable.

(i)      ? John insisted on it that you be here on time.

b. *I discovered it recently who had been fired.

According to his analysis, the reason for the ungrammaticality of (73b) and (75b) is that both the expletive *it* and the *wh*-phrase occur in SPEC-C. In contrast, the expletive *it* can be compatible with *that*, which is a head.

Stroik proposes the following structure for (71a):[20]

(76) PredP

Pred — resent$_i$

Agr$_O$P — it$_j$ — Agr$_O$′

Agr$_O$ — $t_i$

VP

ADV — greatly

VP

V — $t_i$

CP — $t_j$ — that you did not call
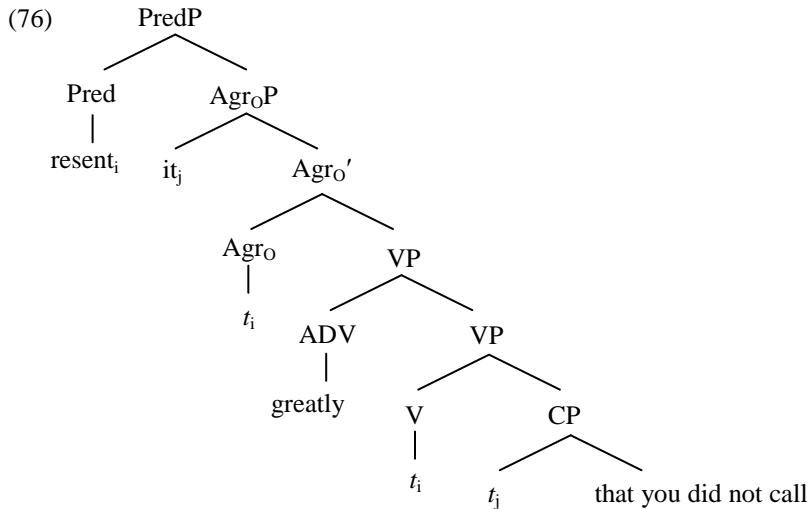
As I have mentioned, we do not assume Agr-projection. Thus, the movement to SPEC-Agr$_O$ corresponds to the movement to SPEC-V, as shown in (77).

(77) $v$*P

DP — I

$v$*′

$v$* — resent$_i$

VoiceP

Voice — $t_i$

VP — it$_j$ — V′

ADV — greatly

V′

V — $t_i$

CP — $t_j$ — that you did not call

---
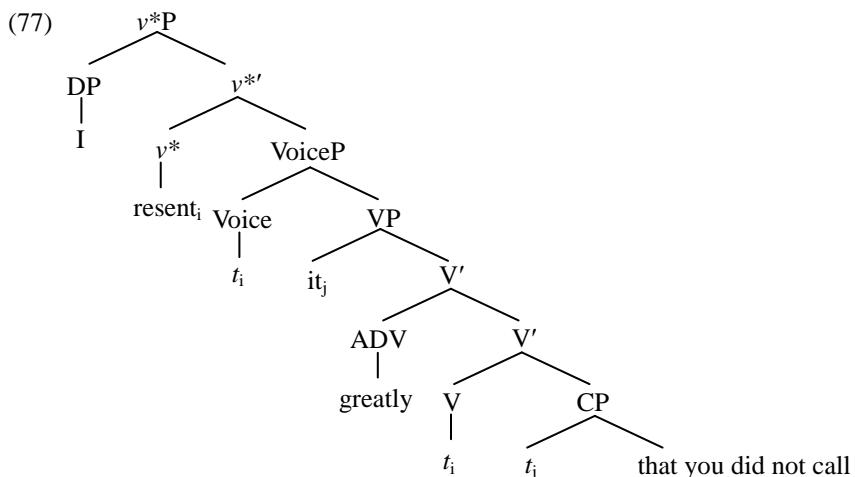
[20] Stroik assumes that V moves to Pred for the Verb-feature checking.

Accordingly, we can assume that the structure of (69) is (78).

(78)

[Tree diagram: v*P → DP (John), v*' → v* (insist_i), VoiceP → Voice (t_i), VP → V (t_i), PP → P (on), CP → it, that you be here on time]
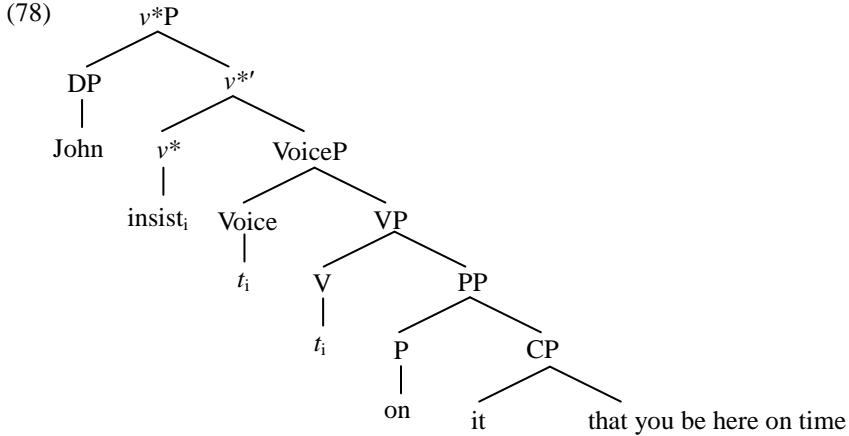
As I have mentioned, the complement of P does not move to SPEC-V, since the EPP-feature on V has already been satisfied by the incorporation of N into V.

Next, let us consider the derivation of (67d).  As we have observed, the expletive *it* is generated at SPEC-C.  This forces us to answer the question of why (79) is not acceptable, while (67d) is.

(79)  a.  *It that you be here on time was insisted on by John.
      b.

[Tree diagram: v*P → CP_j (it, that you be here on time), v*' → IMP, v*' → v* (insisted_i), VoiceP → Voice (t_i), VP → V (t_i), PP → P (on), CP (t_j)]
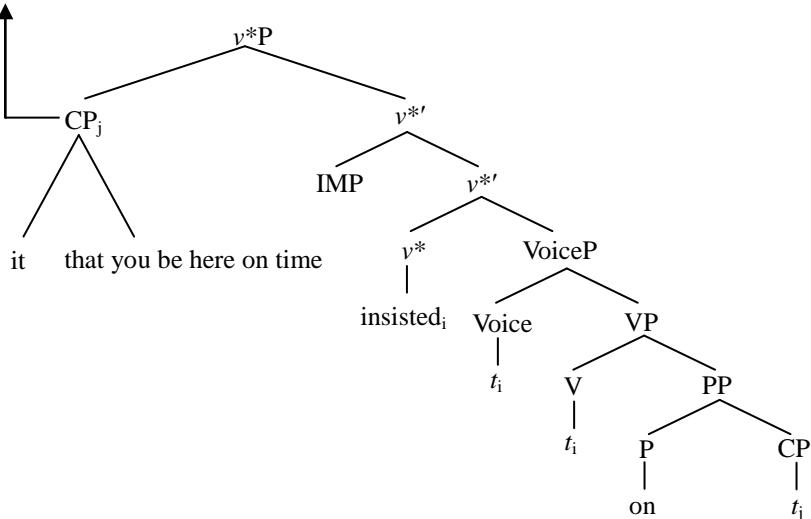
To solve this problem, I partially adopt Emonds' (1976) analysis and assume that CP

actually has the structure in (80).[21]


(80)   $[_{CP} \Delta [_{C'}$ that … $]]$


Emonds calls $\Delta$ in (80) an *empty node* and proposes that it is deleted or replaced by the expletive *it* through the derivation. Taking this into consideration, I propose (81).


(81)   $\Delta$ becomes *it* at Spell-Out if it is assigned Case; otherwise, it remains a phonetically null element.


Let us see how this proposal accounts for the ungrammaticality of (79). Now the structure of (69) corresponds to (82).


(82)

```
              v*P
            /     \
         DP        v*'
         |        /    \
       John     v*      VoiceP
                |      /      \
             insistᵢ  Voice    VP
                       |      /    \
                      tᵢ     V      PP
                             |     /   \
                            tᵢ    P     CP
                                  |    /    \
                                 on  Δ    that you be here on time
                                     ⇓
                                     it
```
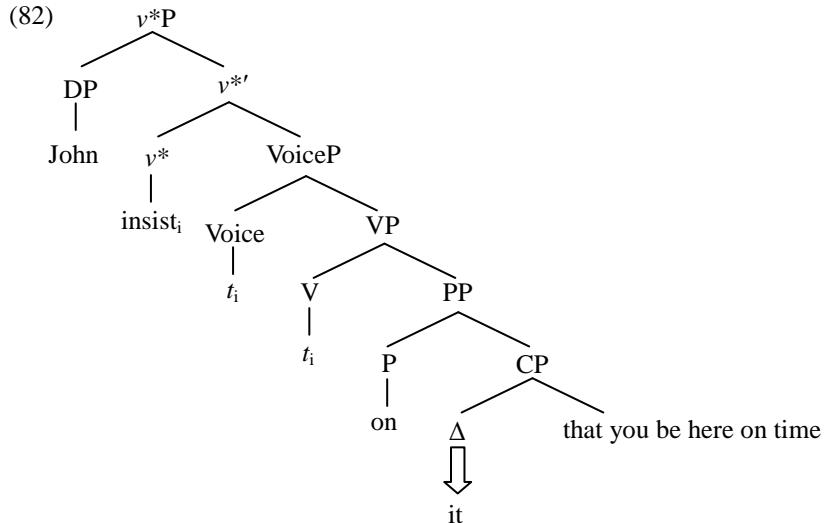
In (82), $\Delta$ is adjacent to the preposition *on*. Remember that DP is assigned Case by P when it is adjacent to the P, as I have proposed in (34), which I repeat here as (83).


(83)   a.   The DP that is adjacent to P at Spell-Out is incorporated into the P.
       b.   P assigns oblique Case to DP if the DP is incorporated into the P.

                                                                    (= 34)


Consequently, $\Delta$ is assigned Case and becomes *it* at Spell-Out. As I have proposed

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[21] I thank Yukio Oba for suggesting me this possibility.

above, the string *on it* can optionally be deleted.

   One might claim that this proposal is problematic because the complement CP cannot receive Case in the derivation in (82).   However, it is known that CP does not appear in a position of Case assignment, as shown in (84)–(85).


   (84)   a.   Mary said [e]$_i$ quietly [that she wanted to drive]$_i$
          b.   Paul mentioned [e]$_i$ to Bill [that his shirt was dirty]$_i$
          c.   John knew [e]$_i$ from experience [that the law was unfair]$_i$
   (85)   a.?*Mary said [that she wanted to drive] quietly
          b.?*Paul mentioned [that his shirt was dirty] to Bill
          c.?*John knew [that the law was unfair] from experience
                                                       (Stowell 1981: 161)


Stowell (1981) explains this fact by assuming *the Case-Resistance Principle* in (86).


   (86)   The Case-Resistance Principle (CRP)
          Case may not be assigned to a category bearing a Case-assigning feature.
                                                       (Stowell 1981: 146)


According to his analysis, since Tense assigns nominative Case, a Tensed clause cannot appear in the object position.   He argues that the CP objects move to the VP-adjoined position in (84), where Case is not assigned.

   However, this analysis faces an empirical problem.   If CP were actually moved to the VP-adjoined position, there would be no way to explain why it is possible to extract a *wh*-element from the embedded CP, as in (87).


   (87)   a.   What do you believe [that John bought]?
          b.   What did they think [that the burglar stole]?
                                            (Kuwabara and Matsuyama 2001: 25)


   Alternatively, if we assume that CP need not be assigned Case, we can conclude that the CPs in (84) stay in situ rather than move to the VP-adjoined position, as shown in (88).[22]

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   [22] I am not sure what satisfies the EPP requirement of V in (88).   On the other hand, if Δ is raised to SPEC-V, sentences like (i) are derived.
   (i)   I just knew it that Mary would fire John today.                     (= 72b)
   In (i), Δ agrees with V and is assigned Case, resulting in becoming *it*.   Thus, whether the expletive *it* appears in the complement position of V depends on the raising of Δ to SPEC-V.

(88)

```
                        v*P
                      /     \
                    DP       v*′
                    |       /    \
                   Paul   v*      VoiceP
                          |      /      \
                      mentioned_i       VP
                              Voice    /    \
                               |      PP     VP
                              t_i    /\     /   \
                                    /  \   V     CP
                                   /____\  |    /  \
                                  to Bill t_i  Δ   that his shirt was dirty
```
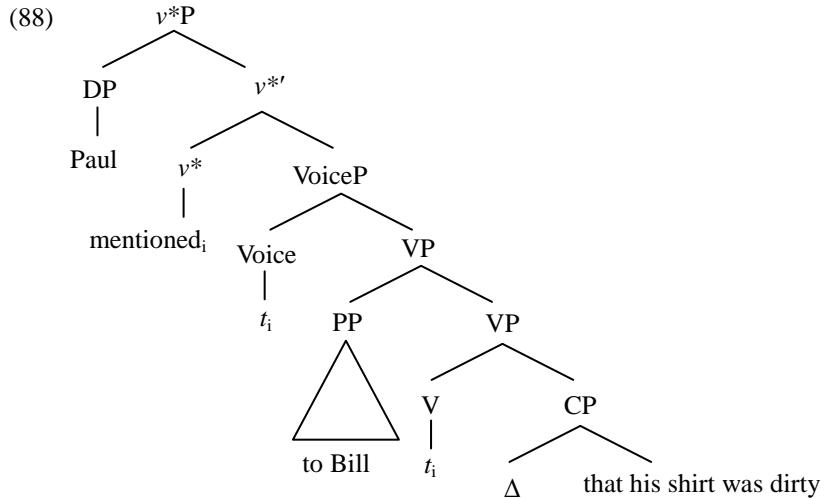
This assumption also accounts for the contrast in (89).

(89)   a.   John read the book quickly.
       b. *John read quickly the book.

The complement of V *the book* obligatorily moves to SPEC-V, as in (90), and thus, sentences such as (89b) are never generated.[23]

(90)

```
                      v*P
                    /     \
                  DP       v*′
                  |       /    \
                 John   v*      VoiceP
                        |      /      \
                      read_i  Voice    VP
                              |       /    \
                             t_i    DP      V′
                                    |      /   \
                               the book_j ADV    V′
                                          |     /  \
                                       quickly  V    DP
                                                |    |
                                               t_i  t_j
```

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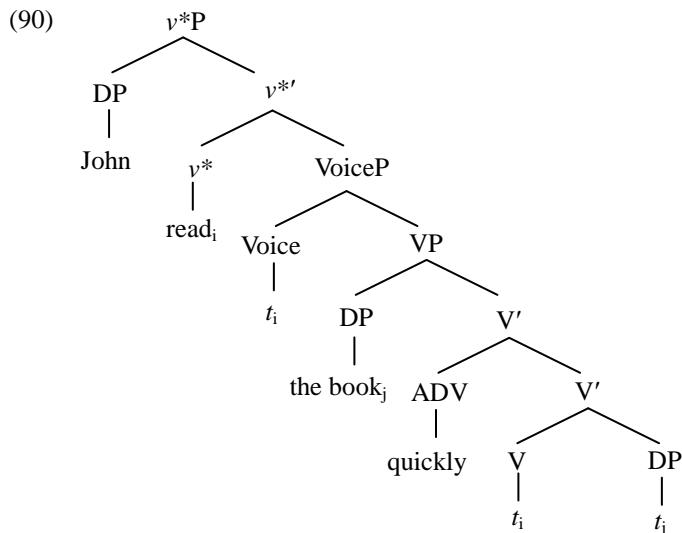
Accordingly, the proposal that CP need not be assigned Case is not problematic.

On the other hand, (67d), the passive counterpart to (69), is derived by the agreement between $v*$ and CP, as illustrated in (91).



(91)
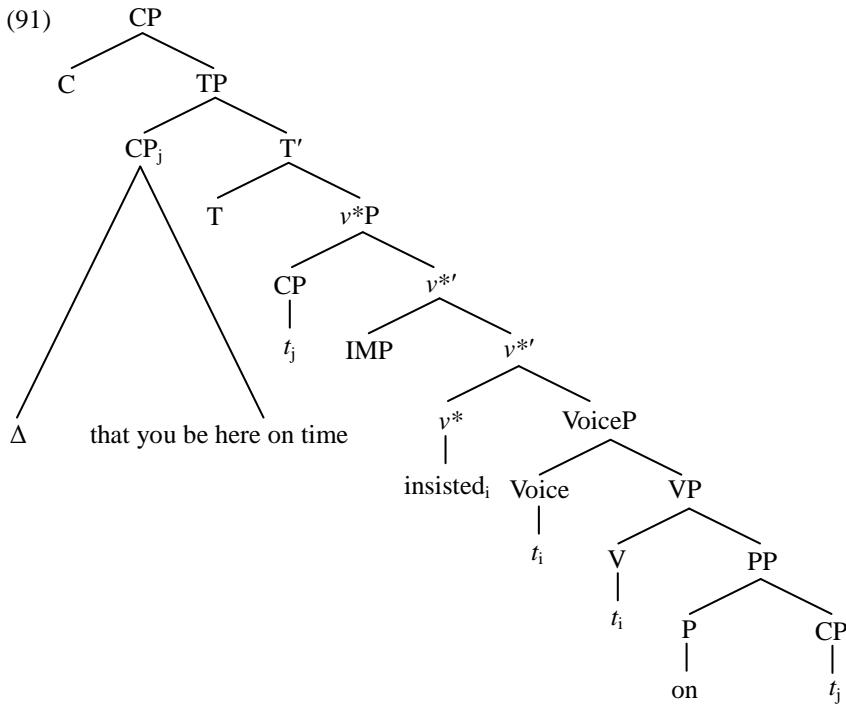
CP at SPEC-$v*$ then agrees with T.   I assume that CPs can appear in Case positions, although they need not be assigned Case.[24]   As a result, the CP is raised to SPEC-T and receives nominative Case.   Note that what agrees with T is not Δ but CP as a whole.   Δ *per se* does not agree with T, and it thus remains a phonetically null element.   This is why sentences such as (79a) are never generated.   In addition, the preposition *on* cannot be elided, as in (67e), since there is no such a string as P + *it* in the derivation in (91).

One might wonder whether $v*$ can agree with Δ instead of CP.   I assume that it is possible, and that a sentence like (92a) is derived if such an agreement occurs:[25]

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[24] This assumption is based on the fact that CPs can appear as subjects of matrix clauses as well as complements of adjectives.   Note that *of*-insertion is required if the complement of adjectives is DP, as in (i).

(i)     I am sure *(of) his recovery.

In contrast, CPs appear without *of*, which indicates that CPs do not require any Case value.

(ii)    I am sure (*of) that he will recover.

[25] This does not violate the PIC because Δ is at the edge of CP, i.e. SPEC-C.   Therefore, Δ is accessible to $v*$.

(92)  a.  It was insisted on that you be here on time by John.
　　　b.  *It was insisted that you be here on time by John.

In the derivation of (92a), Δ agrees with $v*$ and is raised to SPEC-$v*$.　Then, Δ agrees with T and is raised to SPEC-T, as illustrated in (93).

(93)

```
              CP
           /      \
          C        TP
                 /    \
               Δ_j     T′
               ⇓      /    \
               it    T      v*P
                          /     \
                        t_j      v*′
                               /     \
                             IMP      v*′
                                    /     \
                                  v*       VoiceP
                                   |      /      \
                              insisted_i Voice     VP
                                          |      /    \
                                         t_i    V      PP
                                                |    /    \
                                               t_i  P      CP
                                                    |    /    \
                                                   on  t_j    that …
```
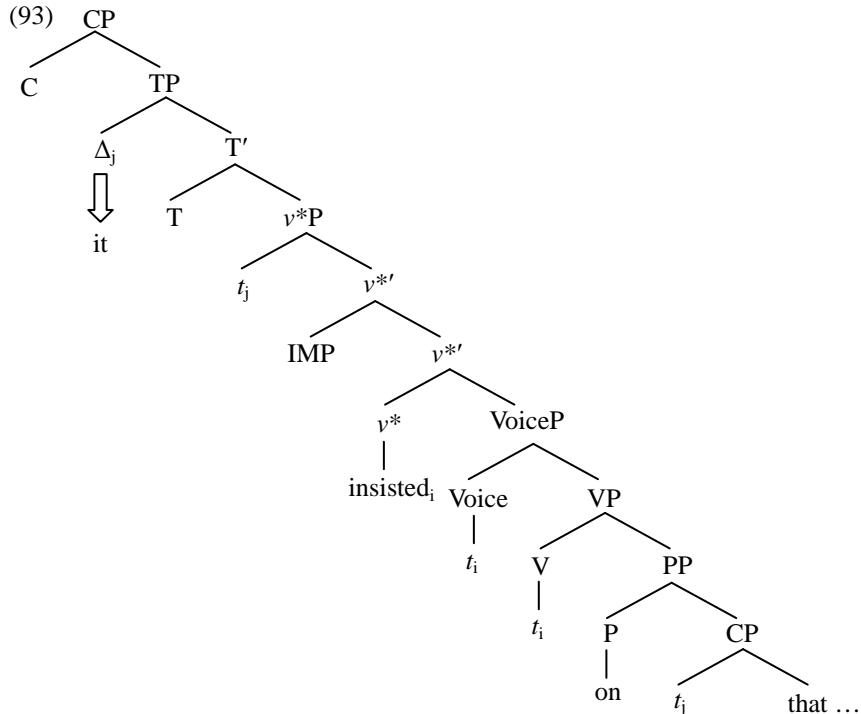
Consequently, Δ is assigned nominative Case and becomes *it* at Spell-Out.　Again, there is no such string as P + *it*; hence, the ungrammaticality of (92b), where the preposition *on* is elided independently.

　　This proposal contradicts CRP, since it prohibits CP from bearing nominative Case. The notion that CP cannot appear in the subject position is based on the examples in (94) that Koster (1978) points out:

(94)  a.  *Did that John showed up please you?
　　　b.  *What does that he will come prove?　　　　(Koster 1978: 53)

To accounts for these sentences, Koster assumes a phonologically zero NP in the subject position of the main sentence and argues that the CP subject is generated as a satellite sentence binding the NP.　This satellite is the sister of S′ and the daughter of

E (= expression). Since CP subject is not actually the subject of a sentence, Subject-Auxiliary Inversion is impossible.

However, as Delahunty (1983) points out, Koster's analysis faces some empirical problems such as (95).

(95)   Does that Fred lied to them bother all of the people who bought stock in his company?                               (Delahunty 1983: 387)

Although the subject in (95) is a CP, Subject-Auxiliary Inversion is possible. Delahunty claims that the unacceptability of (94) comes from the relative "weights" and prosody of their constituents. In (95), the subject is relatively lighter than the object, and this is why (95) is acceptable. This indicates that the CP can be the subject of a sentence. Therefore, as we have already seen, we do not have to maintain CRP, and the agreement between $v*$ and CP in the derivation of (67d) is not problematic.

## 6   ON P-STRANDING UNDER Ā-MOVEMENT

As we have observed in section 1, P-stranding under A-movement does not show the same distribution as P-stranding under Ā-Movement.

(96)   a. *The table$_i$ was put the mouse on $t_i$.
       b.   What table$_i$ did Harry put the mouse on $t_i$?                 (= 14)

The extraction sites are the complement position of P in both sentences, but these sentences undergo different kinds of movements, passivization in (96a) and *wh*-movement in (96b). H&W explain this asymmetry by the notion *semantic words*, but we have already abandoned this notion, Reanalysis and the filter in (7). Thus, these two kinds of movements should be treated as quite different phenomena. As discussed in 4.3, the ungrammaticality of (96a) is ascribed to the MLC. On the other hand, it seems to be possible to extract *wh*-elements from almost anywhere. One exception is the extraction from adjuncts.[26]

(97) * [What time]$_i$ did John arrive at $t_i$?                           (= 6b)

As I claimed in 4.3, adjuncts exist on a separate plane, and thus it is impossible to extract *wh*-phrases from adjuncts.

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[26] Of course, we can find some *wh*-movements that violate the MLC, as in (i).
(i)  a.   Who did John talk to about what?
     b.  * What did John talk to whom about?

ON PSEUDOPASSIVES AND THE CASE ASSIGNMENT OF P

The following is another example of the extraction from adjuncts:

(98) * Who did you speak to Harry yesterday about?  (H&W: 59)

The *about* PP is extraposed to the adjoined position, and (96) is an example of extraction from adjuncts; hence, the ungrammaticality of (96).

Accordingly, we can conclude that whether or not the extraction of a *wh*-phrase from PP is possible in English depends on whether the PP is adjunct or not, and that Reanalysis is irrelevant to this matter.

## 7   Languages That Disallow P-stranding

As we have already seen, English allows P-stranding under A-movement and Ā-movement.  English is a rare language in this respect, since both types of P-stranding are impossible in most languages.  Then, why do some languages disallow P-stranding?

Drummond, Hornstein and Lasnik (2010) assume that PPs are phases in all languages.  They propose that languages differ in whether or not PP has an "escape hatch," which is essential for intermediate movement to SPEC-P, and that P-stranding is possible only when such an escape hatch exists.

However, if their assumption that PPs are phases in all languages were correct, we could not account for the derivation of pseudopassives.  Passivization of the complement of P would always be blocked by the PIC.  Thus, at least in the languages where pseudopassivization is possible, PPs must be non-phases.

Then, I propose that in regard to the properties of P, there are three types of language.  These are shown in (99).

(99)   Three Types of Language

| Language Type | A | B | C |
|---|---|---|---|
| P-stranding under A-movement (Pseudopassive) | possible | impossible | impossible |
| P-stranding under Ā-movement | possible | possible | impossible |
| Phasehood of PP | non-phase | phase | phase |
| Escape Hatch | | available | not available |

English and the Scandinavian languages are classified as Type A, whereas Romance languages are Type C because they permit neither pseudopassivization nor P-stranding under Ā-movement.  Icelandic is a Type B language because it allows only P-stranding under Ā-movement.

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In Type A languages, the complement of P is accessible to the probe outside the PP. Thus, both pseudopassivization and P-stranding under Ā-movement are possible.

Type B languages do not allow pseudopassives because the complement of P is inaccessible to the outer probe due to the PIC. However, *wh*-phrases can be extracted via the escape hatch, i.e. SPEC-P. Consequently, *wh*-phrases move to SPEC-P first, and then they are attracted by the outer probe, e.g. *v\** or C.

In contrast, in Type C languages, PPs do not have this escape hatch. Therefore, they do not permit P-stranding under Ā-movement, let alone pseudopassivization.[27]

On the other hand, *wh*-movements with the pied-piping of PPs are possible in perhaps all languages. (100b) is a French counterpart to (100a), and French is a Type C language.

(100) a.  To whom did you speak?
     b.  À  qui  as-  tu  parlé?
        to  whom  have-2SG  you  spoken

This movement is caused by the percolation of the *wh*-feature to the PP. As a result, the PP has the *wh*-feature, and it is attracted by *v\**. In order to deal with this fact, I propose the hypothesis in (101).

(101) The percolation of the *wh*-feature to PP is optional.

Accordingly, if a *wh*-phrase is percolated to PP, *wh*-movement with pied-piping of PP occurs. If there is no such percolation, a sentence with P-stranding under Ā-movement is derived. These two possibilities coexist in Type A languages and Type B languages. In Type C languages, which lack the escape hatch, *wh*-movement always requires pied-piping of PP because P-stranding under Ā-movement inevitably violates the PIC to probe into the complement of P.

A question that arises now is how the Case value is assigned to the *wh*-phrase when P-stranding under Ā-movement occurs. Before answering this question, let us consider the contrasts in (102)–(103).

(102) a.  Who did you talk to?
     b.  Whom did you talk to?
(103) a. *To who did you talk?
     b.  To whom did you talk?

The grammaticality of (102) shows that either *who* or *whom* can appear as the complement of P, but only *whom* is allowed if the pied-piping of PP occurs. Thus, it is mysterious why only (103a) is ungrammatical. Both (102) and (103) are derived from the same structure, as in (104).

---

[27] Even in Type B or C languages, P does not have any Agree-feature, as I have proposed in 4.1. P just heads a phase in such languages.

(104)

```
                    v*P
                 ／     ＼
              DP          v*′
              |         ／   ＼
            John      v*       VoiceP
                      |       ／    ＼
                    talkᵢ   Voice     VP
                            |       ／  ＼
                           tᵢ      V      PP
                                   |    ／  ＼
                                  tᵢ   P      DP
                                       |      |
                                      to    who/whom
```
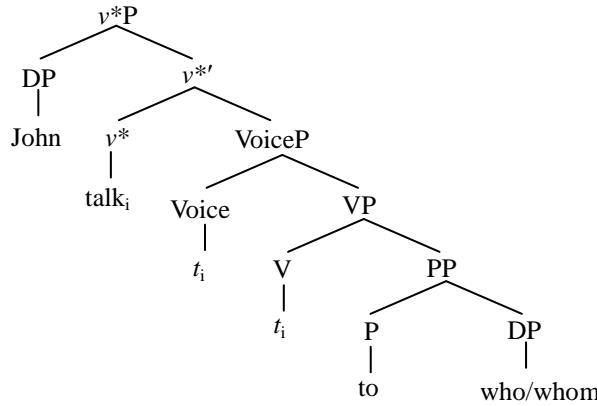
Remember that we have assumed the Case assignment of P as described in (105).


(105) a.  The DP that is adjacent to P at Spell-Out is incorporated into the P.
    b.  P assigns oblique Case to DP if the DP is incorporated into the P.

<div align="right">(= 34)</div>


Note that the complement of P in (104) is in the $v*P$ phase domain, where V c-commands the complement of P. As I have proposed, V, which inherits the Agree-feature of $v*$, agrees with a phonetically null cognate object. However, if the Multiple Agree of V occurs, there remains the possibility that the complement of P can also agree with V.[28] I suggest that a *wh*-phrase agrees with the Agree-feature on V and is assigned accusative Case when it strands P. If the percolation of the *wh*-phrase to PP does not occur, only the *wh*-phrase is raised to SPEC-$v*$, and thus it is not adjacent to P. Accordingly, the *wh*-phrases in (102) are unable to receive Case from P but are assigned accusative Case by V.[29] On the other hand, if the percolation of the *wh*-phrase to PP does occur, PP as a whole is raised to SPEC-$v*$, where the *wh*-phrase is incorporated into P and is assigned oblique Case. In this case, I assume that the Multiple Agree of V is not triggered or the accusative Case is "rewritten" as the oblique Case by the incorporation into P. This causes the pied-piping of PP. Therefore, the Case of *wh*-phrases in (103) is oblique Case.

To account for the asymmetry in (103), I propose the declension of *who* as shown in (106):


(106)　　The Declension of *who*

| Nominative Form | who |
|---|---|
| Accusative Form | who / whom |
| Oblique Form | whom |

---

[28] I assume that the Multiple Agree of V is optional because V can agree with at least one argument, i.e. a cognate object, without the agreement with the complement of P.

[29] The *wh*-phrase agrees with the Agree-feature on V and the edge-feature on $v*$ simultaneously.

In accusative form, *who* and *whom* coexist. In contrast, *whom* is the sole oblique form. This is why (103a) is ungrammatical because the Case of the *wh*-phrase must be oblique.[30] Moreover, the asymmetry in (103) supports the assumption in (105) about the Case assignment of P.

## 8 Conclusion

In this paper, I have demonstrated that P-stranding phenomena can be explained without resorting to Reanalysis, to which there are counterexamples. Additionally, we have seen that pseudopassive sentences are sometimes confused with peculiar passives in the literature, but the latter passive is not derived under A-movement. It is necessary to distinguish two types of prepositional passive in order to discuss the derivation of pseudopassives.

I have proposed that P assigns Case to DP in a different way from *v** or C. We have observed that this proposal can account for the counterexamples to H&W. In addition, this proposal correctly predicts the asymmetry in (103).

Following Stroik (1996) and Emonds (1976), I have suggested (80) and (81) so as to account for the pseudopassivization of complement CP.

Furthermore, I have suggested that there are at least three types of language with regard to the properties of P. This explains why some languages allow P-stranding but others do not, and why some languages permit both pseudopassivization and P-stranding under Ā-movement while others allow only the latter.

I have presented some evidence against Reanalysis and have accounted for P-stranding under the assumption about the Case assignment of P in (105).

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[30] One might claim that the unacceptability of (103a) is a phonological phenomenon, i.e., there is a rule that *whom* can be pronounced as *who* when it appears in the sentence-initial position. However, the complement *wh*-phrase of P is not at the sentence-initial position in (ia), it can be pronounced as *who*.

(i) a.  I know the man who/whom you spoke to yesterday.
    b.  I know the man to *who/whom you spoke yesterday.

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