In this paper I shall argue that *not* is neither a head nor a specifier of any maximal projection, but an adverbial modifier adjoining to I directly. The paper pursues this thesis from several points of view (VP ellipsis, HMC, I-to-C movement, and the strict adjacency of *not* to *do/to*), before briefly examining the historical changes of *not*. The examined data include negative subjunctive *that*-clauses (Section 2) and some archaic negative sentences (Section 3). By comparing various analyses of *not* and looking into the history of English negation, this paper defends the adverbial status of *not* in I against the dominant NegP hypothesis with *not* in its head. With a certain strategy, this status of adjoining *not* does not conflict with Potsdam's (1997) argument for VP ellipsis. Furthermore, Jespersen's (1917) historical cycle of negation can be naturally captured in the NegP-less clausal structure.

1. Introduction: Various Analyses

The syntax of sentential negation has been intensively studied in the Principles-and-Parameters (P&P) framework, and more recently, in the Minimalist Program (MP) (Chomsky (1995)), looking inside and immediately outside of the Inflectional (I) constituent. To state it simply, there are two competing streams of analysis of English *not*: as the head of a NegP, or as the specifier of a certain maximal projection.

*Not* as a head within a NegP was initially advocated by Pollock (1989) in order to block I lowering over *not*, which would result in the ungrammaticality of (1): unlike *never* in (2a), *not* has to be accompanied by the auxiliary *do*, as shown in (2b):

— 99 —
(1) *Charles not knows.
(2) a. Charles never knows.
   b. Charles does not know.

In accordance with the X’ theory of the P&P framework, the following analyses (single-bar level omitted) pursue the former possibility of not as the head of a NegP:

(3) Pollock (1989):

```
TP
   T
   NegP
       Neg
       AgrP
           not
           Agr
           VP
```

(4) Johnson (1990):

```
Per (son) P
   Neg
   Num (ber) P
       not
       Num
       VP
```

(5) Ouhalla (1990):

```
AgrP
   Agr
   TP
       T
       Asp (ect) P
           Neg
           NegP
               not
               VP
```

(6) Iatridou (1990):

```
TP
   T
   NegP
       not
       VP
```
An Analysis and History of Sentential *Not*

(7) Zanuttini (1991):

\[
\begin{align*}
\text{AgrP} & \\
\text{Agr} & \text{NegP-1 (sentential)} \\
\text{Neg} & \text{TP} \\
\quad & -'t/\text{not} \\
\quad & \text{T} \quad \text{NegP-2} \\
\quad & \quad \text{Neg} \quad \text{VP} \\
\quad & \quad \quad \\
\quad & \quad \quad \text{not}
\end{align*}
\]


\[
\begin{align*}
\text{IP} & \\
\text{Agr} & \text{FP} \\
\text{F} & \text{NegP} \\
\quad & \text{not} \quad \text{Agr} \\
\quad & \text{Agr} \quad \text{VP}
\end{align*}
\]

In (9), Laka (1994) locates sentential *not*, adverbial *so*, and an emphatic affirmative element in one and the same head, and names its maximal projection \( \Sigma P \):

(9) Laka (1994):

\[
\begin{align*}
\text{TP} & \\
\text{T} & \Sigma P \\
\quad & \text{Σ} \quad \text{A (spect) P} \\
\quad & \quad \text{not/so/Aff} \quad \text{A} \quad \text{VP}
\end{align*}
\]

(10) Cinque (1999):

\[
\begin{align*}
\text{TP} & \\
\text{T} & \text{NegP} \\
\quad & \text{Neg} \quad \text{Asp}_{\text{perP}} \\
\quad & \quad \text{Asp} \quad \text{Asp}_{\text{progP}} \\
\quad & \quad \quad \text{VoiceP} \\
\quad & \quad \quad \text{Voice} \quad \text{VP}
\end{align*}
\]

The analysis of *not* as a head projecting its own maximal phrase NegP is currently so widely accepted that some introductory books on
Madoka Murakami

syntax, such as Ouhalla (1999), even present it as the standard view.

On the other hand, the following illustrate the latter possibility of *not* being the spec of an XP, commonly the spec of NegP:

(11) Rizzi (1990):

\[
\text{TP} \quad \text{AgrP} \\
\quad \text{Agr} \quad \text{TP} \\
\quad \text{NegP} \quad \text{T'} \\
\quad \quad \text{not} \quad \text{T} \quad \text{VP}
\]

(12) Belletti (1990):

\[
\text{TP} \quad \text{AgrP} \\
\quad \text{Agr} \quad \text{NegP} \\
\quad \text{Spec} \quad \text{Neg'} \\
\quad \quad \text{not} \quad \text{Neg} \quad \text{TP} \\
\quad \quad \quad \emptyset \quad \text{T} \quad \text{VP}
\]

(13) Ernst (1992; 2002):

\[
\text{TP} \quad \text{AUXP} \\
\quad \text{T} \quad \text{AdvP} \quad \text{Aux'} \\
\quad \quad \text{not} \quad \text{Aux} \quad \text{VP}
\]

(14) Nomura (2003):

\[
\text{TP} \quad \text{NegP} \\
\quad \text{T} \quad \text{Spec} \quad \text{Neg'} \\
\quad \quad \text{not} \quad \text{[NE]} \quad \text{M(odal)P} \\
\quad \quad \quad \text{M} \quad \text{VP}
\]

The view of *not* as a specifier is favored if one assumes that the application of V-to-I (or to any functional head) movement strictly observes the Head Movement Constraint (HMC):

(15) **HMC**: Movement of a zero-level category X is restricted to the position of a head Y that governs the maximal
projection XP, where Y $\theta$-governs or L-marks XP if Y is not C. (cf. Chomsky (1986: 71))

Roberts (1992) combines the two types of analysis by positioning *not* and its contracted form *-n’t* in spec and head respectively, so that V raising can obey the HMC in the case of *not*, while *-n’t* may attach onto a V on the path of its movement:

(16) Roberts (1992):

```
   AgrP
   /    \
  /      \    
Agr     NegP
        /    \
Spec    Neg'
       /     \  
   not  Neg   TP
      /     \  
     -n’t   T   VP
```

There are some other works, which belong to neither group. Baker (1991), for instance, argues that *not* should modify the Agr category at its single-bar level.


```
   TP
  /    \
T       AgrP
      /     \
     /       \
Adv     Agr'
      /     \
   not  Agr   VP
```

---

103
From the perspective of Head-driven Phrase Structure Grammar (HPSG), Kim (2000) argues that not can act as either a VP modifier as in (18a), or a complement of the preceding finite auxiliary as in (18b) by virtue of his conversion lexical rule:

(18) Kim (2000):

\[
\begin{align*}
\text{a.} & \quad \text{VP} \\
& \quad \text{V} [+\text{AUX}] \quad \text{VP} \\
& \quad \text{Adv} \quad \text{VP [base]} \\
& \quad \text{not}
\end{align*}
\]

\[
\begin{align*}
\text{b.} & \quad \text{VP} \\
& \quad \text{V} [+\text{AUX}] \quad \text{Adv} \\
& \quad \text{not} \\
& \quad \text{VP}
\end{align*}
\]

On the basis of Radford (1988), Murakami (1992, 1995, 1998) has been arguing for a different version of the dual analysis of not as an I or VP modifier, depending on whether its scope of negation is a sentence or verb phrase:

(19)

The purpose of this article is to defend this analysis of not a little further, and to account for the development of not from a historical
point of view. The next section will develop this analysis, while Section 3 will explain the historical change of *not* without recourse to the NegP hypothesis.

2. Whether NegP or Not


2.1.1. VP-Ellipsis

Potsdam (1996; 1997) argues for the status of *not* as a head, thereby locating his analysis among (3) to (10) above, but from a particular point of view. Based on his dissertation on the English imperative, Potsdam (1997) discusses the more specific topic of *not* in subjunctive clauses. First of all, following Lobeck (1995), he takes the VP-Ellipsis (VPE) Licensing Condition to be "relatively uncontroversial" (Potsdam (1997 : 534)):

(20) VPE Licensing Condition: An elided VP must be the complement of a morphologically realized head.

VPE is a phenomenon in which a VP may be missing if the VP is identical to another VP in the discourse:

(21) a. I'll try the guacamole ice cream if I must ∅.

   b. No one else will support the candidate despite the fact that the mayor is ∅.

Assuming that modals and finite auxiliaries are located in the I position in sisterhood to VP, they are both heads and the VPE Licensing Condition is satisfied in (21), while the example in (22), with subject *Mary* in specifier position, is "correctly excluded because there is no overt licensing head" (Potsdam (1997 : 534)):

(22) *John didn't leave but Mary ∅.

In this respect, sentential *not* also behaves like a head, apparently licensing an ellipsis site:
Potsdam suspects, however, that the element responsible for licensing the null VP in (23) might not be the negative *not*, but a modal auxiliary or *do* that is obligatorily present in finite clauses. Before concluding that sentential *not* is a head, he thus goes on to investigate subjunctive complements in which there is no overt potential licenser in the I constituent.

2. 1. 2. Ellipsis in Subjunctive Clauses

It is true that there exists no visible or phonetic element in the I of the English subjunctive:

(24)  a. Charles demands that his wife \[i \varnothing \] not go out with some other guy.
     b. I insist that he \[i \varnothing \] not be so strict and \[i \varnothing \] overlook it in some cases.

Potsdam's subjunctive data are essentially the same as those cited in Murakami (1992); with respect to the auxiliary *do* as in (25), negation as in (26), and adverb placement as in (27), he points out the fact that neither V raising nor *do*-support takes place in subjunctive clauses:

(25)  a. *I insist that you *do* be careful.
     b. *Jack asks that we \{ *do not* \} cut down his beanstalk just yet. \{ \*don't \}

(26)  a. *I urge that Tom *be not* promoted because of his attitude.  
     \[cf. Tom was *not* promoted because of his attitude.\]
     b. ?It is imperative that the contestant have *not* seen the answers ahead of time.\[6\]
     \[cf. He has *not* seen the answers.\]
A. *It is recommended that you be normally approved by the committee first.

(cf. Participants are normally approved by the committee first.)

b. ?It is mandatory that everybody have certainly read at least the introduction.

(cf. Everybody had certainly read at least the introduction.)

Following Roberts (1985) and Lasnik (1999: 115) among others, Potsdam (1997: 535) concludes from these kinds of data “that subjunctive clauses have an IP whose head is a morphologically independent zero modal,” and refers to this null modal as $M_{subj}$, to the existence of which he attributes the lack of do-support and overt V raising.

Assuming the invisible $M_{subj}$ as a head and given the VPE Licensing Condition in (20), VPE does not occur in subjunctives. Consequently:

(28) a. *Kim needn’t be there but it is imperative that the other organizers $\varnothing$.

b. *Ted didn’t want to vacation in Hawaii but his agent suggested that he $\varnothing$.

c. *We think that Mary should present her case to the committee and we ask that Bill $\varnothing$ too.

Potsdam then observes the remarkable contrast between the examples in (28) and those in (29) with sentential negation:

(29) a. Kim needs to be there but it is better that the other organizers not $\varnothing$.

b. Ted hoped to vacation in Liberia but his agent recommended that he not $\varnothing$.

c. We think that Mary should present her case but we will
ask that Bill not ø.

d. A: Should I attend the meetings?
B: I suggest that you not ø.

After rejecting the possibility of not as an adjunct, Potsdam contends that the grammatical sentences in (29) can be accounted for if not is an overt head which licenses VPE. In accord with this claim, the structure for negative English subjunctives is depicted below (adapted from Potsdam (1998: 70)):

(30)

\[
\text{CP} \\
\text{C'} \\
\text{I} \\
\text{NegP} \\
\text{Neg'} \\
\text{Neg} \\
\text{not} \\
\text{V'} \\
\text{V} \\
\text{complement}
\]

In short:

"the only likely licenser for a null VP in negated subjunctive clauses is not. Given that it cannot be an adverb and that a null VP is required to be the complement of an overtly realized head,
we are led to the conclusion that *not* is this head, projecting to NegP." (Potsdam (1997 : 539))

2.2. *Not* as an I Modifier

2.2.1. Corroboration of the Present Analysis

The analysis of *not* as an I modifier has been examined in Murakami (1992, 1995). To illustrate once again:

(31)

Let us review the main points of Murakami (1995: §3) to reinforce the present analysis.

In the first place, I strictly adopt the HMC in the original sense of Rizzi (1990). To repeat:

\[(15) \text{HMC: Movement of a zero-level category } X \text{ is restricted to} \]
\[\text{the position of a head } Y \text{ that governs the maximal projection } X_P, \text{ where } Y \theta-\text{governs or L-marks } X_P \text{ if } Y \text{ is not C. (cf. Chomsky (1986: 71))}\]

Given this, a head $X$ must move to another head $Y$ without skipping any intervening head, so that head-to-head movement takes place step by step. In order to derive the sentence in (32), for instance, *not* must not be a head on the path of verb movement, since, if it were a head,
it should block the raising of *was* over *not*.

(32) Diana [\(i\) was] not \([v\ t\ )\] happy.

Lasnik (1999: 108) defends the status of *not* as a head by suggesting two possibilities:

“The first… possibility, along the lines of Roberts (1993; 1994), is that Neg and V are heads of different sorts (A’ vs. A) and that relativized minimality is even more relativized than in the original proposal of Rizzi (1990). If a head only blocks movement of a head of the same type, Neg would then not block movement of V. The second possibility is that Neg is not a head, but a modifier.”

In this argument, however, let us reject the former possibility, and adopt the latter possibility. Because Roberts (1994: 217) admits himself that this may “not seem to be a natural extension of the A/A’-distinction and also… this distinction is theoretically unclear even for maximal projections”, I maintain the standard assumption that the A/A’ distinction does not apply to heads, which means that all heads are of the same type for the purpose of relativized minimality. As a result, V raising will be blocked by any intervening head.

Second, treating *not* as an I modifier makes it on a par with its contracted form *n’t* since they are both engaged in sentential negation in syntax and semantics alike. The contracted negation *n’t* should be analyzed in the same way as its non-contracted counterpart *not*, especially if we take into account the following piece of evidence:

(33) a. Could not the President ratify the treaty?
    b. Couldn’t the President ratify the treaty?

Questions like (33a) are possible even if they are undoubtedly rare, and both the interrogatives in (33) are analyzed as realizations of ordinary I-to-C movement.
(34)  

a. [c Could not] the President [t] ratify the treaty?

b. [t Couldn't] the President [t] ratify the treaty?

Unless we admit that the full form not, as well as the contracted -n't, is a part of I, it will be cumbersome to derive such inverted questions as (34a).²

Third, the strict adjacency of the auxiliary do to the sentential negative not can be properly captured under this analysis. Observe the difference in behavior between modals and do (as pointed out in Battistella (1987)):

(35)  

a. Rich people will often not contribute to charity.


(36)  

a. The couple may therefore not understand each other.

b. *The couple does therefore not understand each other.

Unlike modals, the auxiliary do must be attached to not with no other word intervening:

(37)  

a. Rich people often do not contribute to charity.

b. Rich people do not often contribute to charity.

(38)  

a. The couple therefore does not understand each other.

b. The couple does not therefore understand each other.

Keeping this phenomenon in mind, Murakami (1995) proposed that when I is not strong enough to attract a V, the auxiliary do, base-generated under I with its inherent Tense, should introduce not in its immediately subsequent position, that is to say, the auxiliary do should very locally select the sentential negative not — more locally than in the case of head-complement relationship:
Contrastively, modals do not have to select *not* in the (latter part of) I position, hence the instances of *not* in (35a) and (36a) above are VP adverbs. Although the relation between the auxiliary *do* and sentential *not* should be explored in more detail, suffice it to say here that *do* is more directly connected with I and more closely related to *not* than modals, so that they may constitute a quasi-amalgamated form in the I position.

Fourth, let us briefly examine the case for nonfinite clauses. *Not* may precede or follow the infinitival *to* although the word order *not to* is considered more standard:

(40)  a. John told Mary not to take the medicine.
     b. ?John told Mary to not take the medicine.

(41)  a. John told Mary not to be lenient.
     b. ?John told Mary to not be lenient.
It follows from (40) – (41) that sentential *not* may either pre- or post-modify the I category in nonfinite clauses. Thus, the structure for (41) is (42), in which no movement is involved:

(42)

Some consequences follow from this I construction. As in the case of *do not*, no adverb can be sandwiched between either *not to* or *to not*:

(43)  

a. *John told Mary not often to take the medicine.  
b. *John told Mary to often not take the medicine.

(44)  

a. *John told Mary not often to be lenient.  
b. *John told Mary to often not be lenient.

The analysis proposed in (42) seems to embody the common characteristics of all the instances of *not* – finite or nonfinite, before or after *to* – as an I modifier which conveys the meaning of sentential negation.

Finally, however, I have to deal with Potsdam’s (1997) subjunctive data and explore the possibility of the status of *not* as an I modifier in the next subsection.
2.2.2. Ellipsis in Subjunctive Clauses

For the sake of this discussion, I agree with Potsdam’s VPE Licensing Condition in (20).

(20) VPE Licensing Condition: An elided VP must be the complement of a morphologically realized head.

In fact, Potsdam (1998: 77) refines the condition to this extent:

(45) Licensing Condition on VPE (final version): An elided VP must be c-commanded by an overt, non-affixal inflectional head within the same s-projection.\(^{10}\)

It is true that no adverbials, rather than a subject in specifier position, can be stranded in front of a missing VP under the Licensing Condition(s). The following examples confirm this point: \(^{11}\)

(46) Have you ever been to Shangri-La?
   a. Yes, I have.
   b. *Yes, I have certainly.
   c. Yes, I certainly have.

(47) a. *No, I have never.
   b. No, I never have.

(48) a. *No, I haven’t.
   b. No, I have not.
   c. *No, I not have.

The sentences in (47) and (48) clearly show that adverbs such as *certainly* and *never* must not be stranded but be nested between subject and head I. Auxiliaries and *not* can, but stranded adverbs cannot function as a head that licenses a null VP.

Back to the subjunctive examples in (28) and (29) which show a striking contrast, they pattern similarly to the examples in (47) through (49) with indicative clauses.
An Analysis and History of Sentential Not

(50)  a. *Kim needn't be there but it is imperative that the other organizers
      \{ absolutely \ø.

      b. *Ted didn't want to vacation in Hawaii but his agent suggested that he
      \{ \ø.
      \{ certainly \ø.

      c. *We think that Mary should present her case to the committee and we ask that Bill
      \{ \ø definitely \ø}
      \{ *never \ø.

(51)  a. Kim needs to be there but it is better that the other organizers
      \{ *never \ø.

      b. Ted hoped to vacation in Liberia but his agent recommended that he
      \{ not \ø.
      \{ *never \ø.

      c. We think that Mary should present her case but we will ask that Bill
      \{ not \ø.
      \{ *never \ø.

      d. A : Should I attend the meetings?
      B : I suggest that you
      \{ not \ø.
      \{ *never \ø.

Here Potsdam's (1997) analysis of not as a head, hence a NegP, seems to work with no problem, since not alone is able to salvage the examples in (51) above.

Let us take (51b) as an instance and look into its structure of IP more closely. The adverbial never can modify either IP or VP, adjoining to I' or VP respectively:

—115—
One can never tell which *never is involved here. But either way, the that-complement is excluded by the VPE Licensing Condition(s): neither the adverb never nor the invisible I head can license the subsequent vacant site. Without any discussion in this paper, the subjunctive I is represented as [+Agr], which corresponds to a null modal with no phonetic form. 12

Sentential not, by contrast, is an adjunct which directly modifies the head I. Retaining this analysis in subjunctives as well, the relevant part of (51b) should be depicted as follows:
In this structure, *not* as a modifier might look stranded before a null VP, so that it may not satisfy the VPE Licensing Condition(s).

Notice here, however, that there are two layers of the head I in structure (53): Agr per se and the combination of Agr and *not*. The former or the lower I, namely Agr alone, is invisible or non-overt, but I would like to suggest that the latter, or the circled I, namely Agr plus *not*, is visible and overt because of the existence of *not*. This means that the complex I is partially filled, and this partial fulfillment is sufficient for the head to be seen as morphologically realized; sentential *not* is not a head itself but a part of the upper I, making this partly filled I count as an overt head in subjunctive clauses (see Nomura (2003) for a different solution).

Let us examine the refined version of the VPE Licensing Condition in (45):

(45) Licensing Condition on VPE (final version): An elided VP must be c-commanded by an overt, non-affixal inflectional head within the same s-projection.
In structure (53), (i) the elided VP (= *vacation in Liberia*) is c-commanded by the complex I, (ii) the I is overt due to the appearance of *not*, (iii) *not* is non-affixal unless it is contracted into *-n’t* which never happens in subjunctives (*cf. Zwicky & Pullum* (1983)), and (iv) the I is, of course, an inflectional head which shares the s-projection CP in common with the VP. Thus the VPE Licensing Condition(s) can be satisfied, even if we assume this analysis of *not* as an I modifier.¹³ Unlike any other adverb, sentential *not* can therefore render the subjunctive I to null VP complementization in ellipsis.

3. **The Historical Development of Not**

3.1. **Jespersen's (1917) Cycle in the Format of NegP**

It is generally admitted that the syntactic change of negation across languages exhibits the following four stages historically, as described for the first time by Jespersen (1917), and summarized by Fischer et al. (2000: 305):

(54) i. Negation is expressed by one negative marker.

ii. Negation is expressed by a negative marker in combination with a negative adverb or noun phrase.

iii. The second element in Stage (ii) takes on the function of expressing negation by itself; the original negative marker becomes optional.

iv. The original negative marker becomes extinct.

To illustrate each stage with examples (borrowed from Fischer et al. (2000)):

(55) i. *He ne andwyrdæ ðam wife æt fruman*  

he not answered the woman at first

(*ÆCHom* II, 8. 68. 45)

ii. *Ne sæde na ure Drihten þæt he mid cynehelme*  

not said not our Lord that he with diadem

— 118 —
An Analysis and History of Sentential Not

iii. Yet ne wolde he nat answere sodeynly
    yet not wanted he not answer suddenly
    (Chaucer Melibee 1032/2222)

iv. Thou attend'st not. (Shakespeare The Tempest I. ii. 87)

Based on van Kemenade (1998), Fischer et al. (2000: ch. 9) adopt the NegP hypothesis (with not in its head). They explain the above cyclic change of sentential negation as follows.

(56)

```
        NegP
           |   
          /    
         Spec  Neg'
              |    |
               na  Neg
                   |
                    ne
```

Assuming that all main verbs raised in the period of Old English (OE, c. 800–1100), Fischer et al. maintain that ne becomes a proclitic on V when V has moved up to Neg, to form the complex ne+V (which may raise further) (Stage (i)). Later in OE, a supporting negative adverb na appeared in the specifier of NegP as in (56), while ne was still used (Stage (ii)). In the period of Middle English (ME, c. 1100–1500), na had a variety of spellings such as noht, nauht, nawht, etc., still occupying the spec of NegP, and ne gradually became optional (Stage (iii)). By the end of ME, the frequency of ne further dropped and completely disappeared (Stage (iv)), and not (originally na) shifted from the specifier to the vacated head position of NegP. Fischer et al. regard this history of negation as a pure case of morphosyntactic change (cf. Murakami (2002); see Mizoguchi (2006) for a similar stance).
3.2. An Analysis of the Historical Change of *Not* without Assuming a NegP

This section demonstrates the historical explanation of *not* by employing (not NegP but) the analysis of *not* as an I modifier. First of all, based on the evidence of amalgamated forms of *ne* + finite verb (*nis* from *ne*+*is*, *nolde* from *ne*+*wolde*, etc.), I suggest that *ne* is base-generated under V, on which it is proclitic from the beginning (Stage (i)). Therefore it always raises together with V. Next, the location in which *na* arises as negative reinforcement is the now familiar post-position of I (Stage (ii)).

(57)

```
  I'
  / \  / \
 /   \   \  
I   Neg   V  
   na     ne+V
```

Both *na* (or any variant of *na*) and *ne* remained in the same positions respectively throughout OE and ME, until *ne* became optional (Stage (iii)), and eventually obsolete (Stage (iv)).

Here is the sample derivation of the OE negative (55 ii) and ME negative (55 iii):
(58)

In (58a), the upper I complex *ne sæde na* moved from I to C, coming in front of its subject. (In the NegP system, the specifier *na* would be required to raise independently of *ne sæde* under some other mechanism.) On the other hand, *ne wolde* in the lower I moved to C separately from *nat* in (58b), leaving it behind the subject. The two layers of I can thus accommodate any archaic word order or movement in negative sentences by maintaining *not* as an I postmodifier, without recourse to NegP at all.

4. Conclusion

We have thus far seen that sentential *not* counts as an I modifier for several reasons: HMC, the possibility of I-to-C movement with *not*, and the strict adjacency of *not* to *do/to*. As for the fact that *not* behaves differently from other adverbs with respect to VP ellipsis, I have evaded the conflict with Potsdam's (1997) claim about *not* in subjunctive complements. I have further defended my analysis of *not* by giving an account of Jespersen's (1917) historical development of...
negation without assuming the NegP hypothesis. However conservative it may seem, sentential not remains within I itself, in contrast to any multiple projection of functional categories.

From a general point of view, adverbials may adjoin to all three levels of categorial projections — either XP, single-bar X, or X°.15

\[(59)\]

\[\text{a. } \text{XP} \quad \text{b. } \text{X'} \quad \text{c. } \text{X'}\]
\[
\text{Adv} \quad \text{XP} \quad \text{Adv} \quad \text{X'} \quad \text{X} \quad \text{X} \quad \text{Adv}
\]

Spec X' X X Adv

Structures in (59a) and (59b) represent familiar modifications by VP adverbs and I' adverbs respectively. The case for not, namely (59c), may look unfamiliar,16 but considering the discussion in this paper, there seems no adequate reason why this construction should be banned or eliminated.

NOTES

* I am grateful to my colleagues Andrew Jones and Christopher Walmsley, and three anonymous reviewers from the editorial board for their critical reading of earlier versions of this article. Thanks are also due to Professor Akira Baba and the other audience at the 20th meeting of the Modern English Association in May, 2003. In its 22nd conference of May 2005, Prof. Baba kindly integrated my research of not into his symposium on adverbs, with the co-speaker Junji Hamamatsu. This paper was partially presented at both of the meetings. Needless to say, all remaining inadequacies are entirely my own.

1. Rizzi (1996: 74) follows Belletti (1990) in saying that NegP is “an intermediate projection between the Agr Phrase and the Tense Phrase”. The latter analysis of (12) was also adopted by Haegeman (1994: 600), but Haegeman (1995) is actually identical to Roberts (1992) in that she places not in spec and -n't in head of NegP as in (16). Rizzi (personal communication,
2. The analyses of (11) and (13) are ambiguous in that they both seem to attempt to assign not the roles of a head as well as a specifier.
3. Assuming that there is no AgrP as discussed in Murakami (1992), the structure in (17) is implausible from the beginning.
4. In his more recent introductory book, Radford (1997: 115) takes “the assumption that (sentential) not is contained within VP,” which seems to occupy the spec of VP in his diagram, although he adopts the VP internal subject hypothesis where the spec of VP is occupied by the subject. In his current introductory book, however, Radford (2004: § 5.7) argues for NegP as the standard analysis, considering some historical data in favor of Fischer et al. (2000).
5. The identity can be ‘sloppy’ as in (21b). See Lasnik (1999) for this matter.
6. Referring to Johnson (1988), Potsdam (1997: fn. 4) admits that the perfective have may raise exceptionally in subjunctives and that examples like (26b) and (27b) are acceptable for some speakers: “One interpretation of the data is that have is higher in the structure than be in comparable examples.”
7. An anonymous reviewer pointed out that (33a) could be derived through head adjunction by having the modal adjoin to Neg. However, the present analysis does not admit any other functional head than I and C. Modal auxiliaries therefore may not originate below not, but they must be base-generated under I, hence this derivation is excluded.
8. The auxiliary *do* should be base-generated rather than inserted later in its derivation (see Murakami (1993)).

9. Even if *not* and *to* are strictly adjacent to each other, the examples in (i) may not sound very acceptable; for some reason, *often* is preferred in the end-position as in (ii):

   (i)    a. ??John told Mary not to often take the medicine.
         b. ??John told Mary to not often take the medicine.

   (ii)   a. John told Mary not to take the medicine often.
         b. ?John told Mary to not take the medicine often.

10. Potsdam (1998: 74–75) defines *s-projection* as follows:

    “The s(ematic)-projection of a head, ... is an extended path along
    which the head's descriptive content is passed on. That is, in the typical
    case it will be a category-projection plus any functional c-projections
    that dominate it. The maximal c[sic]-projection of V° is CP, that of I°, CP
    as well.”

11. There is no controversy about (49). But some speakers may seem to accept
    (47b) and (48a), perhaps with stress on the adverbial.

12. Murakami (1992: ch. 2) argued that this feature matrix might be
    structurally the same as that of the inflected infinitive in Portuguese
    (Raposo (1987)).

13. When the upper I is fully filled with an auxiliary and *not* as in (23) repeated
    here, we can say that the VPE Condition is redundantly satisfied; a modal
    alone or *not* alone could have been enough to be realized as a head.

   (i) Mary wants to go to the fashion show but her husband might *not* ə.

   (ii) Some of the guests tried the appetizers but most did *not* ə.

14. Two anonymous reviewers questioned the position of *na/nat* in post-I.
    One of them doubts that *na* can be equated with *not* in present-day English.
    The other is skeptical of the status of *ne sæde na* as a single head. It is
    sufficient here, however, that the present paper has given an alternative
    solution for Fischer et al. (2000), and the remaining problems should be dealt
    with in further research.

15. All three bar-levels are retained here for expository purposes although I
    would not deny the possibility of bare phrase structure (Chomsky (1995: — 124 —)
249). It does not matter whether Adv may attach from the left or right direction.

16. Adverbials other than not may qualify the X° level.

(i) I looked \textit{up} a dictionary.

(ii) I was foolish \textit{enough} to think so.

The participle \textit{up} in (i) seems to modify the V \textit{looked} to become the phrasal V \textit{looked up} which takes a direct object as its complement. Likewise, the adverbial \textit{enough} seems to postmodify \textit{foolish} at the A level, so that the A complex \textit{foolish enough} takes a to-infinitival complement.

Two anonymous reviewers urged me to give more corroborating evidence of X° adverbs, especially those adjoining to a functional category. I tentatively suggest the following:

\begin{itemize}
  \item [\textbf{I-adverb}:] (iii) I would \textit{rather} (not) go.
  \item [\textbf{I-adverb}:] (iv) I had \textit{better} (not) go.
  \item [\textbf{C-adverb}:] (v) \textit{If and only} if my mother were alive, \dots
  \item [\textbf{C-adverb}:] (vi) It was \textit{not} until it started to rain that I realized I had lost my umbrella.
  \item [\textbf{C-adverb}:] (vi) \textit{Just as} you like \dots
\end{itemize}

But these suggestions are provisional, so further research is necessary in this fundamental issue.

\section*{REFERENCES}


Madoka Murakami

_Linguistic Review_ 9-2, 109-144.

—126—


Madoka Murakami


(Jissen Women's University)

[murakami-madoka@jissen.ac.jp]

[Received September 15, 2006]