研究論文

A Syntactic Analysis of Redundant Negation in the '*that*-clause' in Middle English[i]

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1. Introduction

The purpose of this thesis is to clarify the structure of redundant negation observed in Middle English (henceforth, ME) and its mechanism of how it derived in terms of a syntactic analysis perspective. In addition, this thesis attempts to clarify issues which are not resolved in Furukawa (2023), which deals with redundant negation from a syntactic perspective. The redundant negation *ne* indicates the formal negation that does not contribute to the semantic or functional interpretation. Therefore, when a redundant negative element appears with other negative words in the same clause, they do not cancel out their meanings, but they represent a single negation together. Redundant negation was observed in Old English (henceforth, OE) and ME. This thesis focuses on redundant negation appearing in the *that*-clause[ii,iii] in ME.

The outline of this thesis is as follows: Section 2 overviews environments where the normal negation *ne* and redundant negation *ne* appears, and also reviews Wallage (2008) and Furukawa (2023). Wallage (2008) deals syntactically with the redundant negation *ne*, and Furukawa (2023) points out Wallage's theoretical problems and proposes an analysis to address these problems. However, as pointed out later, there still seem to be problems with Furukawa's analysis. Section 3 proposes an alternative analysis which could solves the problems pointed out in Section 2. Specifically, based on Fillmore's (1963) Negative-raising and McCawley's (1968) Lexical decomposition, this thesis proposes a syntactic analysis that can solve the Wallage's problems. In addition, it is shown that this analysis can adequately deal with sentences in which there is no negation in the main clause but redundant negation appears in the complement clause. In Furukawa (2023), there is only brief discussion of this type of sentence, and it is also problematic for the analysis proposed by Furukawa. Section 4 is a conclusion of this thesis.

2. Previous Studies

This section outlines the usage of the negative marker *ne*. The negation *ne* can be regarded as having the following uses: redundant negation which has no such interpretation. This is overviewed in Section 2.1. Also, Section 2.2 reviews Wallage

(2008), one of the previous studies in ME, and Furukawa (2023), which critically reviews Wallage's (2008) analysis, identifying remaining problems in Furukawa's (2023) alternative analysis.

2.1. Redundant Negation

This section outlines redundant negation appearing in the *that*-clause. Redundant negative words make no contribution to the negative meaning semantically nor functionally. According to Mitchell (1985) and Wallage (2008, 2017), redundant negation was observed in the OE and early ME periods, and some redundant negative words appear in the complement clauses of particular verbs such as *deny, forbid, prohibit, neglect,* and so forth, as shown in (1).

(1)   Now sithen he deffendeth   that man sholde nat yeven to his brother
       Now since   he forbids   that man should not give   to his brother
       ne to his freend te   might of his body
       nor to his friend the might of his body
       'Now, since he forbids man to give his brother or friend power over his body.'
                                                    (Chaucer, Melibee 1756) (Wallage (2005: 180))

In the sentence (1) from late ME, the main verb is *forbid*, and there is no negative element in the main clause. The redundant negation *nat* is in the complement clause, not contributing to the negative semantic interpretation.

Besides *nat*, *ne* was also used as redundant negation in these periods, as shown in (2).

(2)   ne   doute the nat that alle   things ne   ben   don aright
       NEG   doute you not that all   things NEG   are   don rightfully
       'Do not doubt that all things are done rightfully.'
                                              (Chaucer's Boethius IV P5: 49) (cf. Wallage (2008: 671))

The sentence (2), which is also from late ME, has the negative elements both in the main clause, *nat*, and in complement clause of *doute*, *ne*.[iv] The negation *ne* in the complement clause is a redundant negative so that it does not contribute to the negative semantic interpretation. On the other hand, *nat* in the main clause is an ordinary negative marker. Hence, in (2), *nat* in the main clause and *ne* in the complement clause do not cancel out the meaning of each other to form a double negation, but they represent a single negation. This thesis focuses on redundant negation appearing in the *that*-clause, as observed in (1) and (2). The next section reviews Wallage (2008) and Furukawa's (2023) analysis based on Wallage (2008).

2.3 Wallage (2008) and Furukawa (2023)

Wallage (2008) attempts to give an explanation to the configuration including redundant negation from morphosyntactic perspective using syntactic features. Wallage, adopting the Rowlett's (1998) and Chomsky's (2000) frameworks, assumes that what contributes to the negative semantic interpretation is the [iNeg] feature[v] of negative markers. Also, adopting the Chomsky's (2000) claim that there is a formal feature to cause a syntactic operation without contributing the semantic interpretation, Wallage assumes the formal uninterpretable feature [uNeg], which does not contribute to the negative semantic interpretation. It is also claimed by Wallage that the [uNeg] feature is involved in the development of negation system. According to Chomsky, all uninterpretable features are unvalued and they have to receive a value from the corresponding interpretable feature via the Agree operation. After the valuation of the uninterpretable features, they must be deleted before transferred to the LF[vi] interface, which requires interpretable structures. If a structure with undeleted uninterpretable features is transferred to LF, uninterpretable features will cause the derivation to crash.
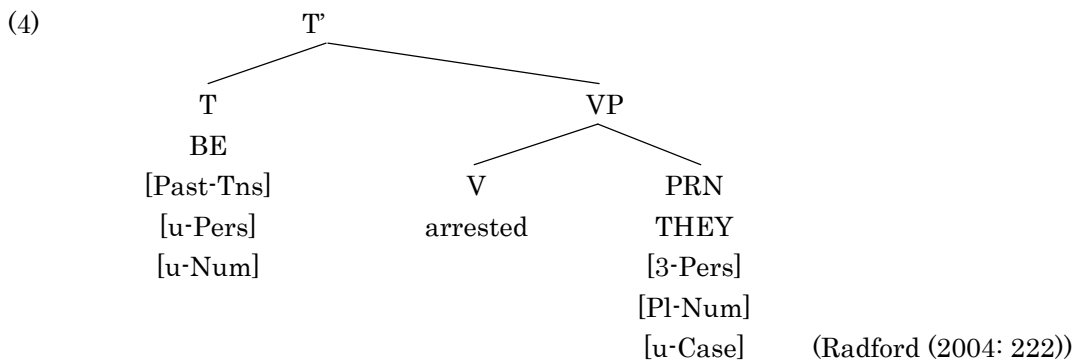
Wallage adopts the probe-goal model of Agree as first set out in Chomsky (2000). Here, let us take the Speaker B's utterance in the conversation (3) as an example to look specifically at the Agree operation and the associated valuation and deletion of uninterpretable features.

(3)   Speaker A: What happened to the protesters?
       Speaker B: They are arrested.   (Radford (2004: 221))

In (3), the pronoun *They* spoken by the Speaker B indicates *the protesters* spoken by the Speaker A. *They* is used to refer to third-person plural nouns, so it has the interpretable features of third person [3-Pers] and plural number [Pl-Num], as shown in (4).

(4)

```
                           T'
              _____/  _____
             T                            VP
            BE                    _____/  _____
         [Past-Tns]              V                  PRN
          [u-Pers]            arrested              THEY
          [u-Num]                                 [3-Pers]
                                                  [Pl-Num]
                                                  [u-Case]      (Radford (2004: 222))
```

The derivation of *They were arrested* spoken by the Speaker B is as follows. The

pronoun *THEY* is base-generated in the complement of the passive verb *arrested*, and *THEY* is merged with *arrested* and then forms the VP *arrested THEY*. Next, the VP *arrested THEY* merges with the tense auxiliary *BE* verb to form the T' *BE arrested THEY*. *THEY* has the interpretable features [3-Pers] and [Pl-Num], and it has the uninterpretable feature [u-Case]. *BE* in T has the interpretable feature [Past-Tns] and the uninterpretable features [u-Pers] and [u-Num]. In (4), *BE* with the uninterpretable features serves as a probe, and finds *THEY* with the interpretable features, [i-Pers] and [i-Num], as the goal for it.[vii]
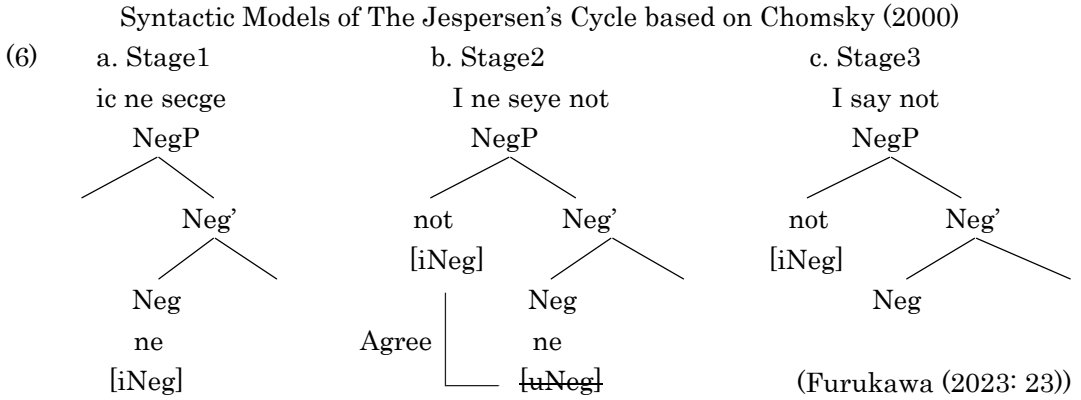
Regarding the agreement relation in this structure, it is assumed that there is a c-command relation between a probe and a goal. C-command is a structural relation between two constituents. When one says that one constituent X c-commands another constituent Y, it means that X is no lower than Y in the structure. Hence, in the structure (5), T c-commands VP, V, and PRN.

(5)

(cf. Radford (2004: 223))
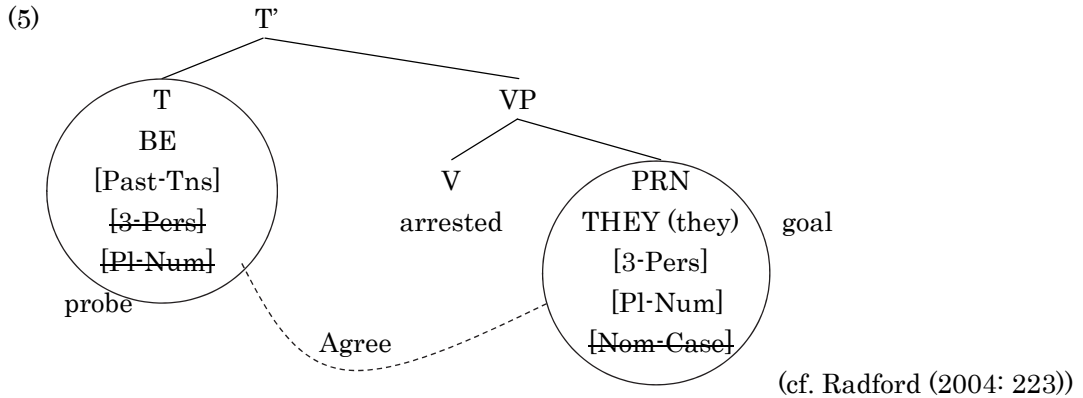
In (5), *BE* has the interpretable features for persons and numbers, [i-Pers] and [i-Num], and is positioned in the higher place working as a probe. *BE* searches in its domain of c-command and find *THEY* with the interpretable features as a goal. Then *BE* as the probe enters into the agreement relation with *THEY* as the goal. The uninterpretable features have to be deleted before they are transferred to the LF, because uninterpretable materials should not be sent to the LF where the interpretation takes place. Therefore, after the values of the interpretable features [3-Pers], [Pl-Num] and [Nom-Case] are copied onto the uninterpretable features [u-Pers], [u-Num] and [u-Case], the uninterpretable features are deleted. In (5), the Feature Deletion is indicated by the strikethrough.
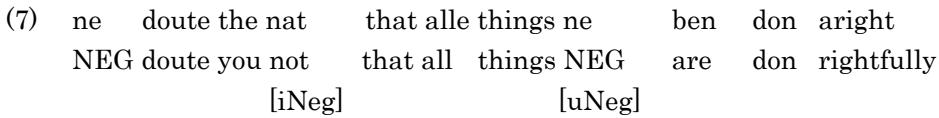
Wallage, applying the agree system of probe-goal proposed by Chomsky to negations, assumes that there are two types of negations: the [iNeg] feature which contributes to the negative interpretation and the [uNeg] feature which does not contribute to the negative interpretation. Wallage claims the Jespersen Cycle's development of the negation as illustrated in (6), which is summarized by Furukawa
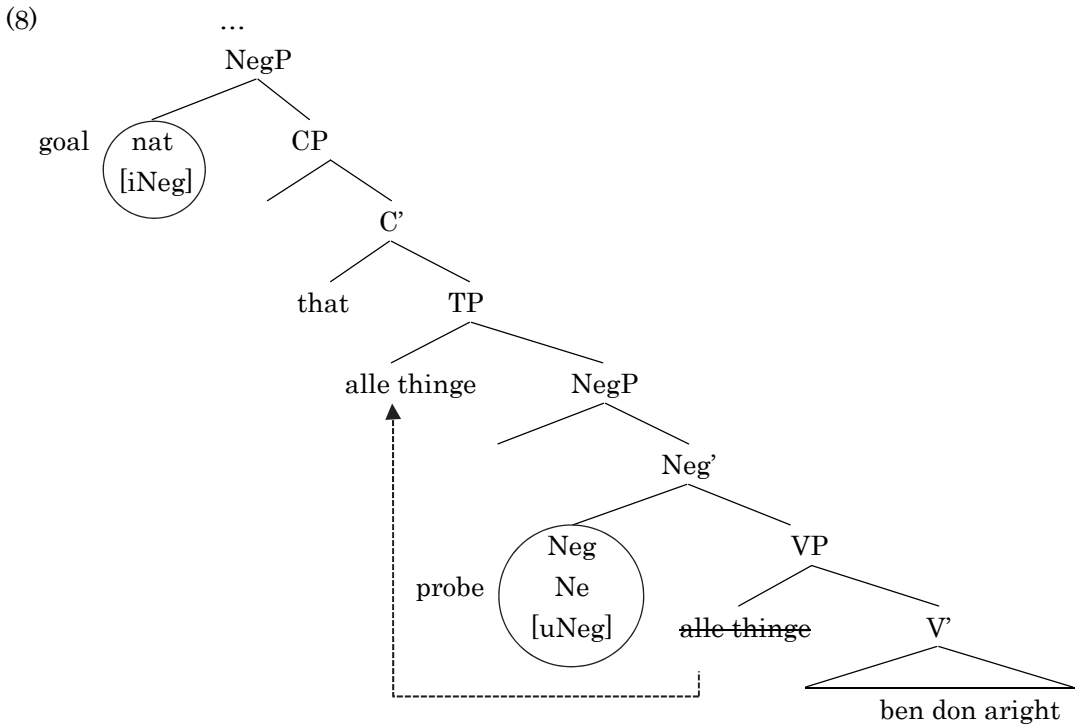
(2023).

Syntactic Models of The Jespersen's Cycle based on Chomsky (2000)

(6)   a. Stage1   b. Stage2   c. Stage3

ic ne secge   I ne seye not   I say not

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      NegP                              NegP                              NegP
        \                              /    \                            /    \
        Neg'                        not      Neg'                      not      Neg'
        /  \                       [iNeg]    /  \                     [iNeg]     /  \
      Neg                                  Neg                                 Neg
       ne                          Agree    ne
      [iNeg]                                [uNeg]
```

Agree (in 6b connects *not* [iNeg] to *ne* [uNeg])

(Furukawa (2023: 23))

(6) represents the developmental process of Jespersen Cycle of negation from Stage 1 to Stage 3 by using tree diagram. In Stage1, *ne,* which has the [iNeg] feature contributing to the negative interpretation, alone represents a sentence negation. *ne* occupies the head position of NegP, while nothing in the specifier of NegP. Next, in Stage 2 of the ME period, two negative elements may cooccur, and such a negative sentence is regarded as Negative concord. Negative concord is a phenomenon where there are more than one negative elements in one sentence do not cancel out each negative element but express a single negative meaning in one sentence. In (6b), the two negative elements appear, *not* with the [iNeg] feature in the specifier position of NegP which contributes to the negative interpretation and *ne* with the [uNeg] feature in the head position of NegP which does not contribute the negative interpretation. According to Wallage, the use of two negatives in Stage 2 is due to the change in the feature that *ne* carries. That is, in Stage 1, *ne* had the interpretable [iNeg] feature and contributed to semantic interpretation on its own, but in Stage 2, the feature carried by *ne* changed from [iNeg] to [uNeg]. Therefore, the new negation *not* with [iNeg], which contributes to the semantic interpretation, was introduced. In addition, the newly introduced the [iNeg] feature of *not* provide a value assignment to the [uNeg] feature of *ne* and hence, the [uNeg] feature is deleted in the syntactic component before transferred to the LF. In the Stage 3 in (6c), *ne* in the head of Neg has been completely disappeared, and *not* alone comes to represent a negative semantic interpretation.

Adopting the agreement system observed above, Wallage attempts to explain how to license redundant negation *ne*. The example (2) with redundant negation in ME we observed above is repeated as (7).

(7)   ne   doute the nat   that alle things ne   ben   don   aright
      NEG doute you not   that all   things NEG   are   don   rightfully
                  [iNeg]   [uNeg]

The example of (7) has the negation *nat* in the main clause and the redundant negation *ne* in the complement clause. Wallage assumes that this redundant negation *ne* has the [uNeg] feature. He insists that the [uNeg] feature is deleted when the [uNeg] feature agrees with the [iNeg] feature which the negation *nat* in the main clause has.

However, according to Furukawa (2023), there seem to be two theoretical problems in Wallage's (2008) analysis. The first problem pointed out is the direction of probing. As stated above, a probe searches a goal in its c-command domain, which means that the goal has to be structurally lower than the probe. Taking an example of c-command, the structure (5) shows that *BE* as a probe is higher position than *THEY* as a goal. However in (7), which has the structure as shown in (8), *ne* as a probe within the complement clause of *doute* is located in the lower position than that of *nat* as a goal, so *ne* cannot find its matching goal *nat* in its c-command domain.[viii]

(8)

Furukawa (2023) indicates that in the structure (8), the probe and goal cannot enter into the agreement relation, and hence the uninterpretable feature [uNeg] of *ne* cannot be deleted, which leads to the derivation crash when it is transferred to LF. In order to solve this problem, Wallage (2008) adapts the Zeijlstra's (2004) agreement system, and assumes that all of the features in the same syntactic domain can have an agreement relation together. However, as pointed out by Furukawa (2023), Wallage's assumption seems to be *ad hoc*; as for the feature agreement for redundant negation observed in (7), the question remains whether such a backward searching would be admitted.

The second problem indicated by Furukawa (2023) is about the feature with the redundant *ne* before the late ME period, as is shown in (9).

(9)   Jesus hire þo   for-bed   þat   heo attryne <u>ne</u> sceolde his bond   ne   his fet
       Jesus her then forbade that   she touch   ne ought   his hands nor   his feet
       'then Jesus forbade her to touch his hands or his feet'
                               (ca. 1275 Passion 581 in OE Misc: 53) (cf. Wallage (2008: 665))

In the sentence (9), the underlined redundant *ne* appears within the complement clause of the main verb *forbid*, though there is no negation in the main clause. In ME, it was possible for the redundant *ne* to appear even though there were no negative words in the main clause. Based on the Wallage's analysis, this type of redundant *ne* is thought to have the [uNeg] feature since it does not contribute to the semantic interpretation. Thus, the [uNeg] feature of the redundant *ne* is supposed to enter into the agreement relation with the corresponding [iNeg] feature and it has to be deleted before transferred to LF. However, as is shown in the example (9), there is no word with the [iNeg] feature to agree with the [uNeg] feature, so that the [uNeg] feature remains undeleted. Hence, in Wallage's analysis, there seems to be the problem described here regarding the feature of the redundant *ne* when there is no negation in the main clause. Even if it is assumed that the redundant *ne* has the [iNeg] feature which need not enter into the agreement, there will be a different problem: *ne* with the [iNeg] feature does contribute to negative semantic interpretation, which results in a different semantic interpretation of the sentence than the original one.

    In order to address the problems with Wallage's analysis, Furukawa (2023) suggests that *forbid* can be divided into *allow* and *not* in the semantic interpretation in sentences such as (9), where the negation does not appear in the main clause but the redundant negation appears in the complement clause. However, it seems that some unclear and not well-discussed issues remain in the Furukawa's (2023) analysis. First, Furukawa (2023) does not explicitly state on what theoretical framework *forbid* can be divided into *allow* and *not*. Instead of an assumption, it is necessary to provide theoretical support that *forbid* can be decomposed. Another problem is that Furukawa claims that the base-generated negation *not* in the specifier of NegP of the complement clause moves to the head of VP of the main clause to form *allow* + *not*, but such a movement from specifier to head is highly problematic. This is because in the generative framework, movement from specifier to head is strictly restricted. It seems that some explanation is needed on this point as well. Furthermore, there is very little discussion of sentences like (9), where there is no negation in main clause but redundant negation in the subordinate clause, and it is not clearly explained how this type of sentence is derived, using a tree diagram. In the next section, the analysis of Furukawa (2023) will be modified to propose a new analysis that resolves these two

issues. Also, how sentences like (9) are derived structurally will be made clear using a tree diagram.
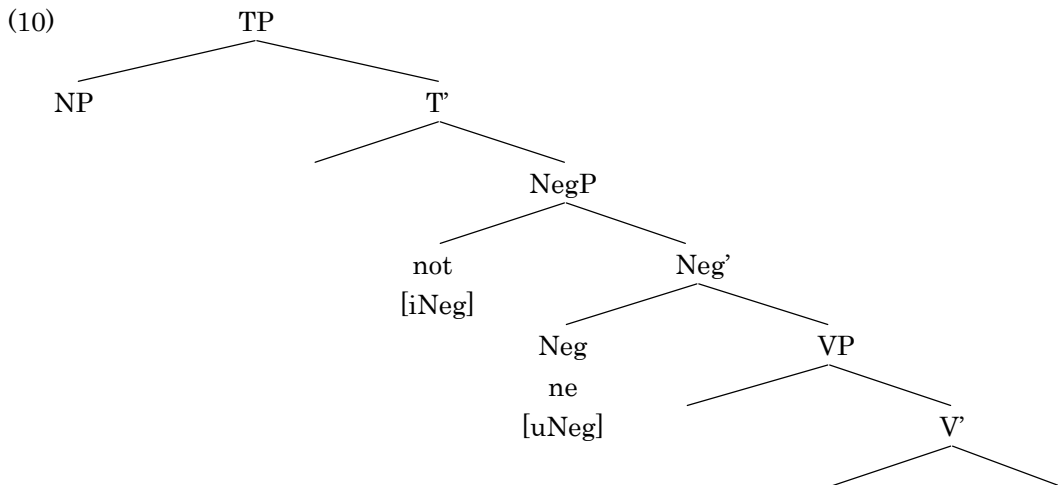
3. Proposal

This section proposes the syntactic analysis based on the theoretical framework of the following (a)-(c) to solve the Wallage's (2008) and Furukawa's (2023) problems pointed out in the previous section. Based on Furuakwa (2023), the following (a) and (b) are assumed. In addition, this paper further adopts the lexical decomposition proposed by McCawley in (c) as theoretical support.

(a) a clause structure including negation based on Frisch (1997),[ix] Zeijlstra (2004), and Wallage (2008)
(b) the Neg-raising analysis proposed by Fillmore (1963)
(c) the analysis of lexical decomposition by McCawley (1968)

As for (a), following Frisch (1997), Zeijlstra (2004), and Wallage (2008), it is assumed that the negative configuration has NegP between TP and VP, and *ne* appears in the head of Neg and *not* appears in the specifier of NegP as shown in (10).

(10)

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                    TP
           ┌─────────┴─────────┐
          NP                   T'
                        ┌───────┴───────┐
                              NegP
                     ┌─────────┴─────────┐
                    not                 Neg'
                   [iNeg]          ┌──────┴──────┐
                                  Neg            VP
                                  ne        ┌─────┴─────┐
                                 [uNeg]                V'
                                                  ┌─────┴─────┐
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Also, it is assumed based on Rowlett (1998) and Wallage (2008) that the negative semantic interpretation is represented by the [iNeg] feature which either *ne* or *not* has, and the negative feature with *ne* has changed in the ME period. As the Jespersen's negative cycle shown in (6), when *ne* alone in the head of NegP represents negation as in (6a), *ne* has the [iNeg] feature. However, the [iNeg] feature of *ne* changed into the [uNeg] feature in the beginning of the ME period, and at the same time *not* with the [iNeg] feature in the specifier of NegP was introduced, resulting in the sentence of Negative concord, such as *I ne seye not* in (6b). The [uNeg] feature of *ne* agrees with

the [iNeg] feature of *not* by Spec-head agreement relation, and then the [uNeg] feature is deleted. Finally, *ne* disappeared, and *not* alone represents the negation as shown in (6c).

With regard to (b), this paper adopts the syntactic theory of Neg-raising, first proposed by Fillmore (1963). According to Fillmore and Edelstein (2020), Neg-raising is the transformation of negation *not* from the complement of the verb to the main clause. Specifically, in the following (11) and (12), *not* within the complement clause of thinking and guessing verbs such as *think* and *want* may move to the main clause.

(11)   a. I think that he will not come.
       b. I do not think that he will come.
(12)   a. I want him not to come.
       b. I do not want him to come.   (Fillmore (1963: 220))

The structure of (11b) is derived by raising *not* in the complement clause to the main clause as illustrated in (13).

(13)
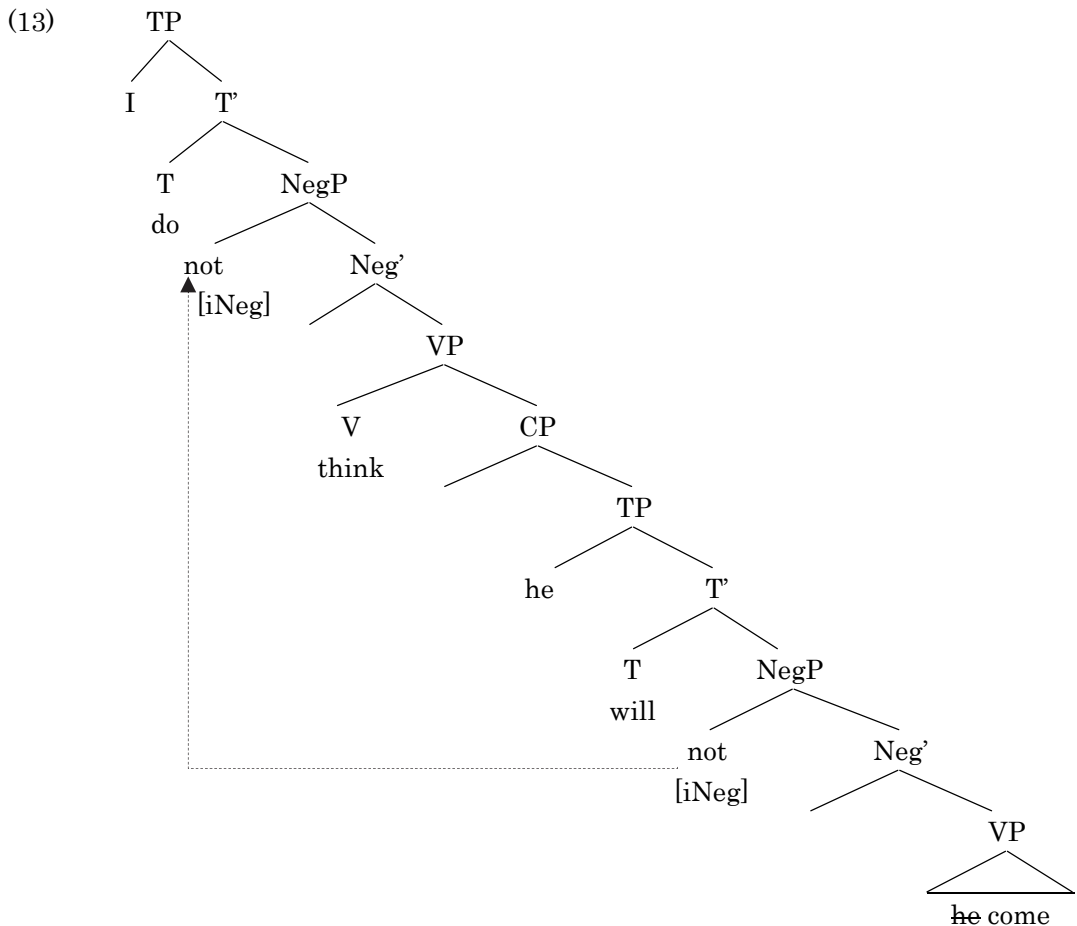
In the structure of (13), the negation *not* is base-generated in the specifier of NegP in the complement clause. *not* has the [iNeg] feature with the negative semantic interpretation and thus negates its content of the complement clause. Then, by the operation of Negative-raising, *not* moves up to the specifier of NegP in the main clause, leaving its copy, *not*, in the original position. Though *not* with the [iNeg] feature moves up to the main clause, it negates the content of the complement clause.

Regarding (c), adopting the lexical decomposition by McCawley (1968), which is based on the generative semantics, this paper assumes that *forbid* can be lexically divided into *allow* and *not*. According to McCawley, the interpretation of a sentence can be made by grouping multiple semantic representations together in the deep structure. For example, the verb *kill* can be resolved into components as "cause to die," and *die* is also semantically complex, meaning "become not alive." These components, together with the actor x and patient y of *kill*, provide the following representation.

(14)

(McCawley (1968: 73))
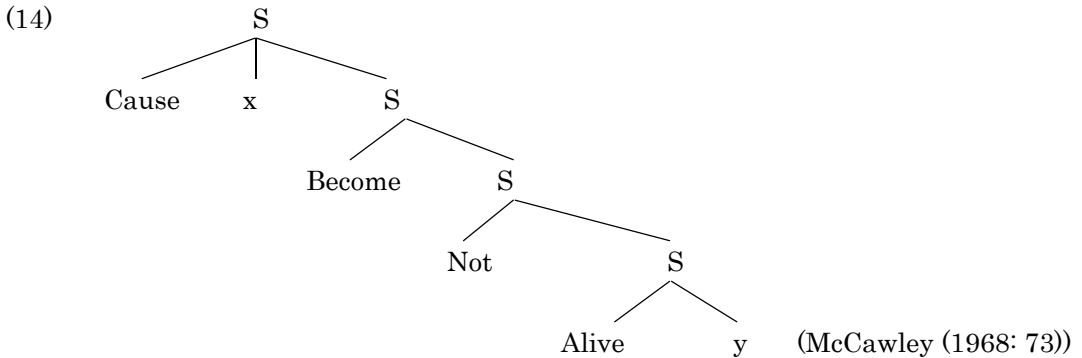
In (14), the predicates *Cause, Become, Not* and *Alive* need to get grouped into one unit before *kill* is inserted into this structure. First, *Alive* moves to the position of *Not*, forming *Not + Alive*. Next, *Not Alive* moves up to the position of *Become* to form *Become + Not + Alive*. These series of movements result in the following structure (15).
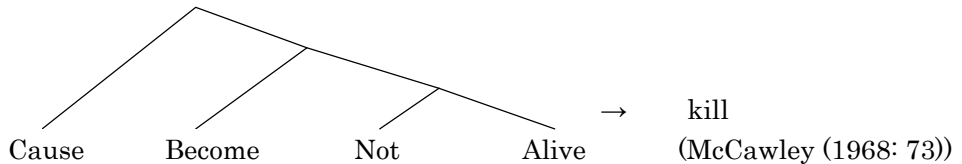
(15)

(McCawley (1968: 73))
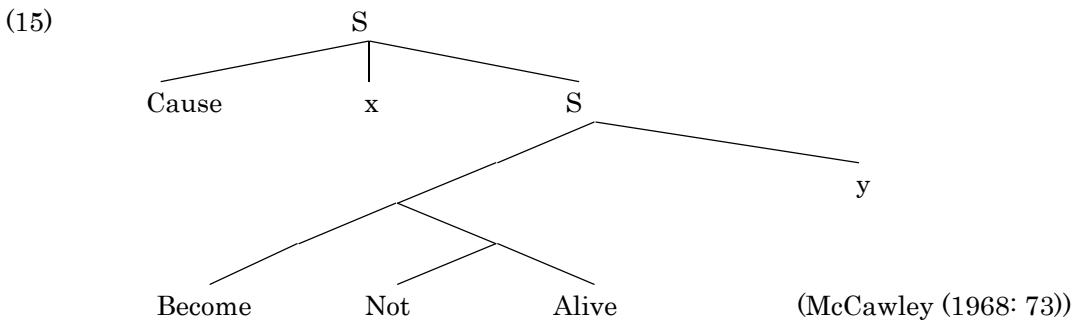
When lexical insertion takes place in the structure (17), *Become + Not + Alive* in the tree diagram (15) becomes *die*, obtaining the semantic structure *y dies*. As for the actor

x and patient y in (15), x stands for the active person who causes the event, and y stands for the entity affected by the event. In (15), x causes the event of y *dies*, so the semantic structure here comes to gain the structure such as *cause y to die*.

Moreover, when *Become + Not + Alive* moves up to the place of *Cause* and these four words are combined into one unit, the resulting structure represents as *kill*.[x]

(16)

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                    /\
                   /  \
                  /   /\
                 /   /  \
                /   /   /\
               /   /   /  \
          Cause  Become Not  Alive    →    kill
                                       (McCawley (1968: 73))
```

Likewise, this thesis follows McCawley's lexical decomposition and assumes that *forbid* can be divided into *allow* and *not* as observed in (9).

Based on Fillmore's Neg-raising and McCawley's lexical decomposition, let us consider the derivation of the sentence (9), which is repeated here as (17).

(17) Jesus hire þo   for-bed   þat   heo attryne <u>ne</u>   sceolde his bond
      Jesus her then forbade   that she touch NEG   ought   his hands
      ne his fet
      nor his feet
      'then Jesus forbade her to touch his hands or his feet'

As observed above, the sentence (17) has the redundant negation *ne* in the complement clause, but does not have any negative word in the main clause. The structure of the sentence (17) is assumed to be as in (18).[xi] In the following discussion, it is assumed that Agree is accomplished by the Spec-head relation in order to avoid Wallage's (2008) problem of backward probing.

(18)
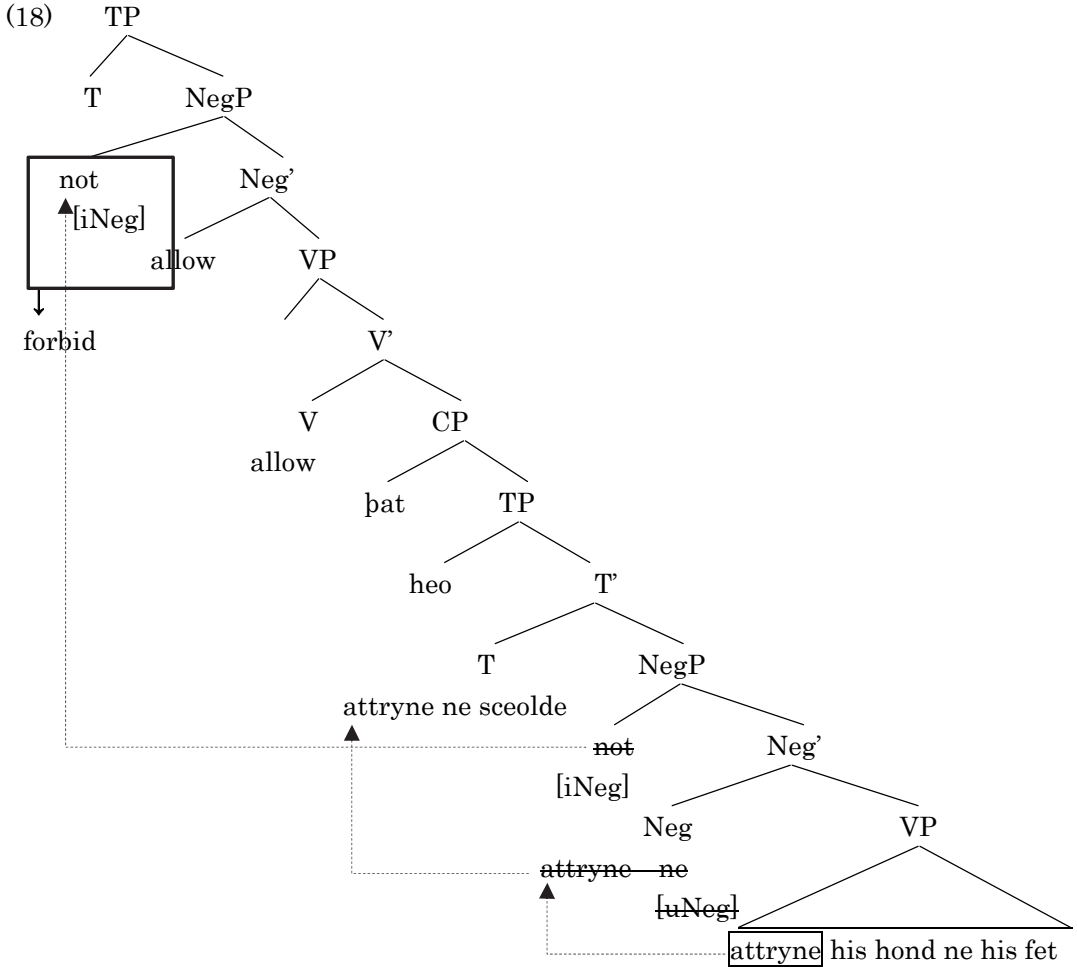
The verb *forbid* is considered to be divided into the two lexical compositions, *allow* and *not*, which are base-generated in the head of VP in the main clause and in the specifier of NegP in the complement clause, respectively. The redundant negation *ne* is base-generated in the head of NegP in the complement clause. *not* in the complement clause has the [iNeg] feature, which contributes to negative semantic interpretation while the redundant negation *ne* with the [uNeg] feature do not contribute to the interpretation. The derivation of the structure (18) proceeds as follows. First, *not* and *ne* in NegP in the complement clause enter into the Spec-head agreement relation. The uninterpretable feature [uNeg] of *ne* gains its value and is deleted before being sent to LF. *attryne* in the head of VP in the complement clause moves to the head of NegP to merge with *ne*, forming the complex head *attryne ne*. Then, the complex *attryne ne* moves up to the head of the T to adjoin to the left side of *sceolde*. Also, *not* in the complement clause moves to the specifier of NegP in the main clause by Neg-raising. Finally, *allow*, which is base-generated in the head of VP in the main clause, moves to the head of NegP, so that *allow* and *not* are located in the same NegP domain. *allow*

and *not* are spelled out as the single word *forbid* in PF.[xii]

In derivation (18), Wallage's (2008) problems pointed out in the previous section can be avoided as follows. As for the problem of backward probing, it does not occur in (18) since the agreement relation is achieved by Spec-head relation within NegP. The other problem of Wallage's analysis also does not occur in the analysis here. That is, it was unclear in Wallage's analysis how the [uNeg] feature of the redundant negation is valued and deleted in sentences such as (17), where there is no negation other than the redundant negation. As mentioned above, if the [uNeg] feature is not valued and left undeleted, it makes the derivation crash. In the derivation observed in (18), the [uNeg] feature of the redundant negation *ne* is successfully valued by the [iNeg] feature of *not*, which consists of *forbid*, and is deleted. Thus, the analysis proposed in this thesis neatly deals with the problems of Wallage's analysis. In addition, in the structure in (18), the negation *not* is analyzed as moving from the specifier of NegP in the complement clause to the specifier of NegP in the main clause. This specifier to specifier movement is canonical in the generative framework and is not as problematic as the specifier to head movement in Furukawa (2023).

4. Conclusion

This thesis has dealt with a syntactic analysis of redundant negation in *that*-clause in ME. First, Wallage (2008), a previous study dealing with redundant negation, has been outlined and its theoretical problems pointed out by Furukawa (2023) were observed. Also, the issues of Furukawa's (2023) analysis were pointed out. Then, to solve these problems, adding to Fillmore's (1963) Negative-raising, this paper has introduced McCawley's (1968) lexical decomposition. The syntactic structure and derivation of the redundant negation in ME has been proposed, and it has been shown that Wallage's (2008) and Furukawa's (2023) problems can be neatly solved.[xiii]

References

Chomsky, Noam (2000) "Minimalist Inquiries: The Framework," *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 89-155, MIT Press, Cambridge, MA.

Edelstein, Elspeth (2020) *English Syntax: A Minimalist Account of Structure and Variation*, Edinburgh University Press, Edinburgh.

Fillmore, Charles J. (1963) "The Position of Embedding Transformations in a Grammar," *Word*, 19, 208-231.

Frisch, Stefan (1997) "The Change in Negation in Middle English: a NEGP Licensing Account," *Lingua*, 101(1-2), 21-64.

Furukawa, Masaya (2023) "Chu Eigo no Bunhitei no Hattatsu ni kannsuru Ichikousatsu" [A Study of the Development of Sentential Negation in Middle English], *The JASEC bulletin*, *32*(1), 19-33, Tokyo.

Huddleston, Rodney and Geoffrey K. Pullum (2002) *The Cambridge Grammar of the English Language*, Cambridge University Press, Cambridge.

McCawley, James David (1968) "Lexical Insertion in a Transformational Grammar without Deep Structure," *CLS* 4, 71-80.

Mitchell, Bruce (1985) *Old English Syntax,* Clarendon Press, Oxford.

Radford, Andrew (2004) *English Syntax: An Introduction*, Cambridge University Press, Cambridge.

Rowlett, Paul (1998) *Sentential Negation in French*, Oxford University Press, Oxford.

Wallage, Phillip (2005) *Negation in Early English: Parametric Variation and Grammatical Competition*, Ph.D. dissertation, University of York.

Wallage, Phillip (2008) "Jespersen's Cycle in Middle English: Parametric Variation and Grammatical Competition," *Lingua*, 118(5), 643-674.

Wallage, Phillip (2017) *Negation in Early English: Grammatical and Functional Change*, Cambridge University Press, Cambridge.

Zeijlstra, Hedzer Hugo (2004) *Sentential Negation and Negative Concord*, Ph.D. dissertation, Universiteit van Amsterdam.

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[i] Earlier version of this thesis is presented in the second Language, Communication, and Culture Forum held on February 24, 2024, at Kwansei Gakuin University.

[ii] This thesis does not focus on the pattern of *wh*-clause and non-finite form in their complement clause. To collect their data for redundant negation's appearing in the clause, using historical corpora is required in order to collect the detail data, which is further study.

[iii] There are also examples where no redundant negation appears in the *that*-clause.

[iv] In (2), *ne* at the beginning of the sentence in the main clause is redundant negation. This *ne* has the same formal feature [uNeg] as *ne* in the complement clause which does not contribute to the negative semantic meaning. Since this thesis focuses on *nat* with [iNeg] feature contributing to the negative semantic interpretation in the main clause and *ne* in the complement clause, *ne* in the main clause is not discussed.

[v] Among the features assumed in the generative framework are formal features, in addition to those that contribute to semantic and phonetic meaning. There are two types of formal features, interpretable and uninterpretable, and it is assumed that the derivation of syntactic structure proceeds through the Agree operation between interpretable and uninterpretable formal features. Such formal features include the interpretable negative feature, [iNeg], and uninterpretable negative feature, [uNeg]. For the Agree operation, refer to the remainder of this section.

[vi] LF (Logical Form) is a semantically interpretable representation, which connects language faculty with the external system where the interpretation takes place. In addition to LF related to semantic interpretation, there is also PF (Phonetic Form) which is related to phonology. LF and PF are referred to as interface since they mediate between language faculty and the external system.

[vii] In (4), the reason why *BE* and *THEY* become capital letters is that they have the features with no value and therefore, their forms have not fixed yet. For instance, provided that the [u-Case] in *THEY* is given the value of the Nominative case as [Nom-Case], *THEY* would be spelled out as the nominative form *they* in PF.

[viii] In (8), the derivation of *ne doute the* in the main clause is omitted since it is irrelevant to the main discussion.

[ix] Frisch (1997) considers TP within the configuration as AgrP.

[x] In addition, in grouping each word, the predicate-raising is arbitrary, so the configuration in

the following tree diagram is derivable.

Become   Not   Alive   y   McCawley (1968: 74))
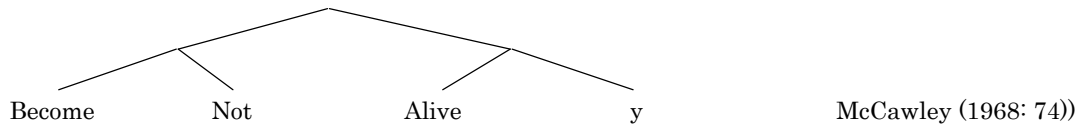
In the tree diagram above, *y* moves to *Alive*, forming the meaning of *y is live* in the same way as (14), and *Not* moves to *Become*, forming *Not Become*. In this structure, the meaning of *y is not alive* is obtained, and at the same time, since *y becomes not alive*, the meaning of *y die* is also obtained.

[xi] In (18), the derivation 'Jesus hire þo' is unrelated to the main discussion here so it is omitted.

[xii] The question remains as to how *not* in the specifier of NegP and *allow* in the head of NegP are combined and spelled out as *forbid* in PF. This is an issue for future work.

[xiii] The study in this paper may help to clarify certain types of redundant negation, such as negative concord, which is often observed in non-standard English communication. According to Huddleston and Pullum (2002), in Cockney and African American Vernacular English, negations such as *no*, *no one*, *nothing* are used in the negative clauses where standard English has *any*, *anymore*, *anything*, as shown in (i).

(i) a. He didn't say <u>nothin'</u>.
      'He didn't say anything.'
    b. Nobody here didn't point no gun at <u>nobody</u>.
      'Nobody here didn't point any gun at anybody.'   (Huddleston and Pullum (2002: 846))

In examples (i), the negative words *nothing* and *nobody* are included in addition to the negation *not*, but these negatives do not cancel out each other in their meanings to create a double-negative interpretation, but the two together represent a single negative meaning. On the other hand, in such sentences in standard English, *nothing* and *nobody* must be *anything* and *anybody*, respectively. The analysis in this paper may be applicable to such colloquial expressions containing a certain redundant negation. We leave it open for future study.