VERBAL MORPHOLOGY
AND ITS SYNTACTIC REFLEXES

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Morphology-Driven Syntax: A Theory of V-to-I Raising and Pro-Drop,
by Bernhard Wolfgang Rohrbacher, John Benjamins, Amsterdam,

Keywords: V-to-I raising, verbal morphology, pro-drop, transitive expletive constructions

1. Introduction

The book under review is a revision of Bernhard Wolfgang Rohrbacher’s dissertation submitted to the University of Massachusetts at Amherst in 1994. It is an attempt to develop a theory of V-to-I raising in minimalist syntax, and the theory, constructed by closely studying V-to-I raising in Germanic VO languages, has far-reaching consequences: V-to-I raising in Romance languages, pro-drop, and transitive expletive constructions also come under its scope.

In this article, I will summarize Rohrbacher’s main proposals and investigate their consequences for the diachronic data of English. This review article is organized as follows. Section 2 will introduce Rohrbacher’s explanations of V-to-I raising (henceforth, V-to-I), pro-drop, and transitive expletive constructions (henceforth, TECs). Section 3 will apply some aspects of Rohrbacher’s theory to Old English, Middle

* I am grateful to Hideto Hirose, Kenji Yoshida, and two anonymous EL reviewers for comments and suggestions on earlier versions of this paper. Of course, all remaining inadequacies are my own.

1 I will use the term V-to-I raising to refer to both V-to-Infl movement and V-to-AgrS0 movement.
English and Early Modern English (henceforth, OE, ME, and EModE, respectively). Section 4 will be a conclusion.

2. Theoretical Background and Proposals

This section will provide an overview of Rohrbacher's theoretical assumptions and proposals. He adopts the framework of Principles and Parameters Theory (Chomsky (1995: Chapter 1)).

2.1. Morphology-Driven Syntax and Minimally Distinctive Marking

2.1.1. Rohrbacher's Approach and Theoretical Formulation

A number of linguists have argued that word order differences between languages like Icelandic and languages like English can be explained by positing overt verb movement to a functional projection above VP. Conforming to this tradition, Chomsky (1992) proposes that languages with such verb movement have a strong V feature in Infl, which requires finite verbs to overtly move there. In contrast, languages without such verb movement do not have a strong V feature in Infl. Notice that this proposal encounters two difficulties. First, it would end up being a theoretical restatement of a problem if feature strength does not receive an independent support. Second, it seems implausible that a child would set the relevant parameter on the basis of phonetically null elements.

These two shortcomings give Rohrbacher (henceforth R) a point of departure. He assumes that "all syntactic parameters are set exclusively on the basis of the concrete (i.e. phonetically perceptible) content of functional categories (R: 7)." He calls this approach "Morphology-Driven Syntax." It contrasts with Chomsky (1992), in which feature strength is not phonetically realized.

Careful examination of inflectional paradigms in Germanic VO languages has led R to conclude that the person agreement morphology is crucial to V-to-I.
The Paradigm-Verb Raising Correlate
A language has V to I raising if and only if in at least one number of one tense of regular verb paradigm(s), the person features [1st] and [2nd] are both distinctively marked.3

(R: 116)

If the paradigm of regular verbs is such that the first person form and the second person form are unique, then it has minimally distinctive marking (henceforth, MDM).

The Paradigm-Verb Raising Correlate is supplemented by (2).

(2) The first person form and the second person form must both be distinct from the infinitive form(s). (cf. R: 116-117)

Without (2), it would be predicted that EModE had MDM and V-to-I: in EModE, the second person form was distinct, but the infinitive form and the first person form were the same.

As it is stated, the Paradigm-Verb Raising Correlate is a generalization, so we must address the question of why it obtains. R makes the following assumptions to explain why a particular marking of person agreement triggers V-to-I.

(3) a. Infl is referential if and only if it has the specification of person.4

b. Infl has the specification of person if and only if in at least one number of one tense of regular verb paradigm(s), the person features [1st] and [2nd] are both distinctively marked.5

3 Inflectional forms of a verb must be analyzable into the stem and affixes in order for the verb to be a regular verb. Incidentally, the generalization in (1) contrasts the first and second person forms with the third person form. This division has cross-linguistic support. See R (114-122) and the references cited there for details.

4 (3a) is a modified version of Rizzi’s condition on referential pro. See Rizzi (1986: 543). His formulation requires number specification in addition to person specification.

5 The assumptions (3a–c) give much importance to person features. According to R, they are syntactically significant because they explicitly indicate the reference of the subject even when the subject is phonetically null. Concretely speaking, person features reveal whether the NP functioning as the subject of a sentence refers to the speaker(s), the hearer(s), or someone else. In comparison, gender features and number features are not as informative as person features. The grammatical gender does not always match the natural gender of the referent, and number features only reveal the number of individuals denoted by the subject.
c. The members of the referential categories are listed in the lexicon.

d. Lasnik's filter

A morphologically realized affix must be realized as a syntactic dependent at Surface Structure.

\[ ((a)-(c) \text{ R: 129-130, (d) Lasnik (1981) cited in R: 153) } \]

It should be noted that (3c) requires infinitival affixes of V-to-I languages to be listed in the lexicon.

Let us now see how R’s set of proposals explains V-to-I. Infl in V-to-I languages is referential (see (3a, b)) and is listed in the lexicon (see (3c)). V-to-I occurs to support lexically listed Infl (see (3d)). Consider (4).

\[
\text{(4) } [\text{IP Subject } [\text{S V-i-agreement affix [VP ... t_i]]}]^6
\]

Suppose that Infl is split into AgrS\(^0\) and T\(^0\) and each of them heads its own projection (see, among others, Pollock (1989)). R stipulates that abstract tense features occupy T\(^0\) and agreement features are in AgrS\(^0\).

\[
\text{(5) } [\text{AgrSP Subject } [\text{AgrS' V-i-agreement affix [TP [S T\(^0\) [VP ... t_i]]]]]}
\]

He regards the tense features in T\(^0\) as essential to the interpretation of clauses at LF. Therefore TP is universally present (cf. R: 136).

It is important to note that MDM is not only a property of an inflectional paradigm in a language, but also a property of that language. If a language has MDM, then a verb whose paradigm does not possess MDM also moves to AgrS\(^0\).

If a language does not have MDM, then it follows from (3a–c) that agreement affixes are not listed in the lexicon. Consequently, AgrSP is not projected, and finite clauses are TPs. In this type of language, finite verbs remain in situ at S-Structure, possibly due to a principle like Procrastinate (Chomsky (1995)), and covert raising to T\(^0\) takes place to check their features. If V-in-situ languages have some agreement affixes, they are introduced at PF and do not affect syntactic operations.

2.1.2. Germanic VO Languages

Let us see how R’s theory treats Germanic VO languages. (6) and

\[ 6 \text{ Here and henceforth, I will omit nodes and traces that are irrelevant to the discussion.} \]
(7) are paradigms for present indicative.7

(6) a. Yiddish loyf-n ‘run’          b. Icelandic kast-a ‘throw’

<table>
<thead>
<tr>
<th>sg.</th>
<th>pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st loyf</td>
<td>loyf-n</td>
</tr>
<tr>
<td>2nd loyf-st</td>
<td>loyf-t</td>
</tr>
<tr>
<td>3rd loyf-t</td>
<td>loyf-n</td>
</tr>
</tbody>
</table>

(7) a. Swedish smaka ‘taste’          b. Faroese nevna ‘name’

<table>
<thead>
<tr>
<th>sg.</th>
<th>pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st smaka-r</td>
<td>smaka-r</td>
</tr>
<tr>
<td>2nd smaka-r</td>
<td>smaka-r</td>
</tr>
<tr>
<td>3rd smaka-r</td>
<td>smaka-r</td>
</tr>
</tbody>
</table>

1st loyf loyf-n kasta kost-üm
1st loyf-st loyf-t kasta-r kast-ið
1st loyf-t loyf-n kasta-r kasta

(7) a. Swedish smaka ‘taste’          b. Faroese nevna ‘name’

<table>
<thead>
<tr>
<th>sg.</th>
<th>pl.</th>
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</thead>
<tbody>
<tr>
<td>1st smaka-r</td>
<td>smaka-r</td>
</tr>
<tr>
<td>2nd smaka-r</td>
<td>smaka-r</td>
</tr>
<tr>
<td>3rd smaka-r</td>
<td>smaka-r</td>
</tr>
</tbody>
</table>

1st smaka-r smaka-r nevn-i nevn-a
2nd smaka-r smaka-r nevn-ir nevn-a
3rd smaka-r smaka-r nevn-ir nevn-a

(cf. R: 122–123)

(8) a. ðað var gott að Jón keypti ekki bókina. (Icelandic)

‘It was good that J. bought not book-the.’

b. Avrom bedoyert az Max shikt nit avek dem briv.

‘Abraham regrets that Max doesn’t mail the letter.’

(9) a. Jag beklagar att jag aldrig träffade henne. (Swedish)

‘I regret that I never met her.’

b. Har voru nógv fólk, eg ikki kendi. (Faroese)

‘There were many people I didn’t know.’ (R: 17–18)

We can see in (6a, b) that in Yiddish, MDM is present in singular, and in Icelandic, it is present in plural. These two languages have V-to-I, as expected (cf. (8a, b)). In contrast, as (7a, b) and (9a, b) show, Swedish and Faroese do not have either MDM or V-to-I.8

2.1.3. Romance Languages

The theory based on MDM covers the four Romance languages that R investigates. Let us begin with Italian. It has MDM in singular

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7 Unless otherwise noted, I will present paradigms for present indicative henceforth in this paper.

8 It should be pointed out that the generalization in (1) is not valid if we assume that verb-second necessarily involves V-to-I.
and plural.

(10) Italian \textit{parl-a\textsuperscript{9}-re} ‘to speak’

\begin{tabular}{ll}
  sg. & pl. \\
  1st & parl-o parl-iamo \\
  2nd & parl-i parl-a-te \\
  3rd & parl-a parl-a-no \\
\end{tabular}

(cf. R: 206)

Following Belleti (1994), R assumes that in Italian, negative polarity items such as \textit{più} ‘anymore,’ \textit{ancora} ‘yet,’ and \textit{mai} ‘ever’ are in \([\text{Spec, NegP}]\). He also assumes that \text{AgrSP} dominates \text{NegP}, which in turn dominates \text{TP}. Thus, we conclude that \text{V-to-I} occurs in Italian. See (11b).

(11) a. Gianni non scrive mai un lavoro e poi lo pubblica.

\begin{tabular}{l}
  G. not writes ever a work and then it publishes \\
  ‘Gianni doesn’t ever write a work and then publish it.’
\end{tabular}

(R: 207)

b. [\text{AgrSP} Gianni non\textsubscript{i} scrive\textsubscript{k-T\textsubscript{o}} \[\text{NegP mai t\textsubscript{j} \[\text{TP t\textsubscript{j} \[\text{VP t\textsubscript{k} un lavor\textsubscript{o}]\]}}]]]

We turn now to the two varieties of Portuguese. European Portuguese patterns with Italian: it has \text{MDM} and \text{V-to-I}. In contrast, Brazilian Portuguese does not have either of them.

(12) a. European Portuguese \textit{compr-ar} ‘to sell’

\begin{tabular}{ll}
  sg. & pl. \\
  1st & compr-o compr-amos \\
  2nd & compr-as compr-am \\
  3rd & compr-a compr-am \\
\end{tabular}

b. Brazilian Portuguese \textit{fal-ar} ‘to speak’

\begin{tabular}{ll}
  sg. & pl. \\
  1st & fal-o fal-a \\
  2nd & fal-a fal-am \\
  3rd & fal-a fal-am \\
\end{tabular}

(cf. R: 222)

According to R, the crucial diagnostics for \text{V-to-I} in Portuguese is the distribution of null objects: in European Portuguese, null objects are not permitted inside islands, whereas their counterparts in Brazilian

\footnote{This vowel serves only to distinguish the conjugation class that the verb belongs to.}
Portuguese are grammatical inside islands.¹⁰

French poses a problem. The phonetic forms in the French regular paradigm indicate that the language does not have MDM, yet V-to-I occurs. (We follow Pollock (1989) in assuming that pas 'not' occupies [Spec, NegP] in (13c).)

(13) a. French mang-er ‘to eat’¹¹

<table>
<thead>
<tr>
<th></th>
<th>sg.</th>
<th>pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>mang-e [-(\cdot)]</td>
<td>mang-e [-(\cdot)], mang-ons [-(\tilde{\alpha})]</td>
</tr>
<tr>
<td>2nd</td>
<td>mang-es [-(\cdot)]</td>
<td>mang-ez [-e]</td>
</tr>
<tr>
<td>3rd</td>
<td>mang-es [-(\cdot)]</td>
<td>mang-ent [-(\cdot)] (R: 217)</td>
</tr>
</tbody>
</table>

b. Marie n’aime pas Jean.
M. NEG-likes not John.
‘Mary doesn’t like John.’ (R: 214)

c. [AgrSP Marie [AgrS’ n’aime, [NegP pas [Neg’ [TP [VP ti Jean]]]]]]

To solve this problem, R proposes that atonic pronouns (henceforth, clitics¹²) are realizations of agreement features. As we see in (14), subject clitics minimally distinctively mark both the first person and the second person. Thus they trigger V-to-I in French finite clauses.

(14) sg.          pl.
|   |   |   |
| 1st | je | on (nous) |
| 2nd | tu | vous |
| 3rd | il (m.) elle (f.) | ils (m.) elles (f.) (cf. R: 218) |

This proposal is not tenable if they are infrequent. It appears that this is not the case. The use of subject clitics is quite common: according to R, “clitics are found in almost 95% of all finite clauses (R: 219).” They are used even when another NP (or pronoun) serves as the subject of the sentence (clitic doubling).

Under this view of subject clitics, two phenomena are explained in a

¹⁰ See R (227–234) for details.
¹¹ The symbols in the pairs of square brackets show the pronunciation of agreement affixes.
¹² Subject clitics appear immediately to the left of the finite verbs. Their forms are different from tonic pronouns like moi ‘me.’

(i) Jean il mange.
J. 3SG eats (R: 218)
natural way. First, the absence of V-to-I in French infinitives can be attributed to the absence of subject clitics in infinitival clauses (cf. R: 220). Second, in child French, subject clitics and V-to-I seem related to each other.

Table 2.1: Age of first pronoun use

<table>
<thead>
<tr>
<th></th>
<th>Philippe</th>
<th>Grégoire</th>
<th>Nathalie</th>
<th>Daniel</th>
</tr>
</thead>
<tbody>
<tr>
<td>il(s)</td>
<td>2–1-3</td>
<td>1–9–2</td>
<td>1–10–2</td>
<td>1–8–1</td>
</tr>
<tr>
<td>elle(s)</td>
<td>2–1-3</td>
<td>1–10–10</td>
<td>2–2–2</td>
<td>1–8–1</td>
</tr>
<tr>
<td>je</td>
<td>2–1-3</td>
<td>1–10–10</td>
<td>2–2–2</td>
<td>1–8–1</td>
</tr>
<tr>
<td>on</td>
<td>2–1-3</td>
<td>1–10–10</td>
<td>2–2–2</td>
<td>1–8–3</td>
</tr>
<tr>
<td>tu</td>
<td>2–1-3</td>
<td>2–1–3</td>
<td>not in evidence by 2–2–2</td>
<td>not in evidence by 1–11–1</td>
</tr>
</tbody>
</table>

(Pierce (1992: 83))

As is clear in the table above, subject clitics in French are acquired early. If V-to-I is acquired around the time when subject clitics are acquired, it can be argued that there is a close relation between the two phenomena.

13 The numbers in the table indicate the children's age. They are in the form of year-month-week.

Clitic doubling is not observed in child French, but there is a bit of evidence showing that the subject pronouns in Table 2.1 have different properties from tonic pronouns (“strong pronouns” in Pierce's (1992) terms). First, strong pronouns like moi ‘me’ can occur post-verbally, whereas clitic pronouns do not. # shows that the structure is not attested in child French.

(i) a. bois peu moi.
   drink little me
   b. # et veux je
      and want I

Second, moi can be used in nonfinite sentences as well as in finite sentences.

(ii) moi dessiner la mer
    me draw(-finite) the sea (i, ii. Ibid.: 94–96)

These two properties seem to indicate that clitics in child French are equivalent to clitics in adult French, indeed.
We can see from Table 2.2 that at least two of the children seem to have the knowledge of V-to-I when they have the knowledge of subject clitics. If subject clitics in child French manifest agreement features, the findings above support the view that MDM in subject clitics triggers V-to-I in child French. Note that the other two (Nathalie and Daniel) have not acquired the second person singular clitic *tu* but they seem to have the knowledge of V-to-I. It might be the case that the second person is minimally distinctively marked by a phonetically null affix.

2.1.4. A Problem

MDM is not without a problem. In order to determine whether a language has MDM, a child would have to check inflectional paradigms of all the tenses. It is unlikely that primary linguistic data include paradigms for all the tenses, as Vikner (1997: 202) points out. For instance, it is implausible that primary linguistic data of French would include past subjunctive forms. Although this issue is important, I will not pursue it any further here.

2.2. Pro-drop

Languages with MDM generally allow *pro*-drop. This correlation is captured by the following principle.

(15) The Principle of Economy of Projection

A projection XP is licensed only if its specifier [Spec, XP] or its head X has phonological content. (R: 246)

If a language has MDM, AgrSP is projected and an agreement affix is in its head. Since AgrS° has phonological content, (15) allows the
specifier of AgrSP to be phonologically empty. In contrast, languages without MDM do not project AgrSP. Since T⁰ is phonologically empty (see 2.1.1), [Spec, TP] must have phonological content.

Thus far, no distinction has been made between expletive pro and referential pro. The following contrast in Icelandic calls for such distinction.

   dance-3SG
   ‘S/he dances.’

   b. Í gær var dansað á skipinu.
   yesterday was danced on ship-the
   ‘Yesterday, there was dancing on the ship.’ (R: 250)

(16a–b) show that Icelandic permits only expletive pro. A separate condition for referential pro is needed to accommodate the contrast in (16). R adopts the identification condition of Jaeggli and Hyams (1988).

(17) AGR can identify an empty category as (thematic) pro iff the category containing AGR Case-governs the empty category. (Jaeggli and Hyams (1988: 245)¹⁴)

R adopts Platzack and Holmberg’s (1989) Case-assignment condition for the V2 structure: in V2 clauses, C assigns nominative Case to the subject (or its trace) in [Spec, AgrSP] if the tense operator [+F] in C is lexicalized.

¹⁴ Since R adopts Platzack and Holmberg’s (1989) condition on Case assignment in the V2 structure, the identification condition in (17) may as well be modified as in (i).

(i) AGR can identify an empty category as (thematic) pro iff the category containing AGR assigns nominative Case to the empty category.

Jaeggli and Hyams do not split Infl into Agr and T. In this article, I will assume that “the category containing AGR” is Agr⁰.
In (18), C is lexicalized by V-to-C movement, and pro is Case-marked. The content of pro, however, is not identified. AGR and the tense operator are in the different nodes.

V-in-situ languages, such as Swedish, do not allow expletive pro or referential pro, as expected.

   dance-PRES
   ‘S/he danced.’

   b. Iägr dansades *(det) på skeppet.
   yesterday was-danced it on ship-the
   ‘Yesterday, there was dancing on the ship.’
3. R’s Theory and the History of English

Let us now turn to diachronic facts of English and test R’s theory outlined in Section 2. The discussion will proceed in the following manner. In 3.1, I will briefly sketch the history of English inflectional morphology. After that, six topics will be discussed: the development of V-to-I in finite clauses, the development of do-support, and the development of auxiliaries (subsection 3.2); V-to-I in infinitival clauses (subsection 3.3); TECs (subsection 3.4); and pro-drop (subsection 3.5).

3.1. Inflectional Morphology in the History of English

In OE and ME, weak verbs of Class I had MDM: the first person form and the second person form were both minimally distinctively marked in singular.

(21) a. OE *fremen*, *frem-menne* ‘perform’

<table>
<thead>
<tr>
<th></th>
<th>sg.</th>
<th>pl.</th>
</tr>
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<tbody>
<tr>
<td>1st</td>
<td>frem-me</td>
<td>frem-ep</td>
</tr>
<tr>
<td>2nd</td>
<td>frem-est</td>
<td>frem-ep</td>
</tr>
<tr>
<td>3rd</td>
<td>frem-ep</td>
<td>frem-ep</td>
</tr>
</tbody>
</table>

(Sweet and Davis (1953: 33-34))

b. ME *dem-en* ‘deem’

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<thead>
<tr>
<th></th>
<th>sg.</th>
<th>pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>dem-e</td>
<td>dem-ep</td>
</tr>
<tr>
<td>2nd</td>
<td>dem-est</td>
<td>dem-ep</td>
</tr>
<tr>
<td>3rd</td>
<td>dem-ep</td>
<td>dem-ep</td>
</tr>
</tbody>
</table>

(Nakao (1972: 169))

The first person singular ending -e of ME disappeared by 1500, and the first person form became identical to the infinitive. In other words, EModE was deprived of MDM.

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15 The analysis of TECs in 2.3 is essentially that of Bobaljik and Jonas (1996). Facts about Faroese have been simplified in the present discussion. As noted in Bobaljik and Jonas (1996: 229), a dialect of Faroese allows TEC. This dialect also has V-to-I.

(i) Venjarin harmast um, at dreinginir komu ikki til venjingina.
    the.coach regrets that the.boys came not to the.practice.

‘The coach regrets that the boys didn’t come to practice.’ (Ibid.: 229)
(22) EModE  \textit{cast}  \\
\begin{tabular}{ll}
sg. & pl. \\
1st & cast \\
2nd & cast-est \\
3rd & cast-eth \\
\end{tabular}  \\
(Araki and Ukaji (1984: 196–197))

3.2. The Development of V-to-I in Finite Clauses

3.2.1. Relative Order of Negative Adverb and Finite Verb

Before we proceed, two additional assumptions will be introduced. First, R assumes for ME and EModE that finite clauses were head-initial IPs, and that a negative adverb \textit{never} was at the left periphery of VP.\textsuperscript{16}

\begin{equation}
\text{[IP Subject } [r I^0 [v_p \textit{never} [v' V ...]]]]
\end{equation}

If the finite verb moves to I\(^0\), we will have V-never order. If it stays in situ, the order never-V will result. Following Kroch (1989), R further assumes that in ME, stylistic fronting occurred at about 16\% of the time. Stylistic fronting moves certain adverbs to the left of I\(^0\), creating an apparent adverb-V order.\textsuperscript{17}

\begin{equation}
\text{[IP Subject } [r \textit{never}-V_j I^0 [v_p t_i [v' t_j ...]]]]
\end{equation}

With these assumptions in mind, let us move on to the analysis of the data.

As we saw in 3.1, MDM disappeared from English by 1500. Therefore, R’s theory predicts that the relative order changed from V-never to never-V in the beginning of the 16th century. It also predicts that the change is rapid. The lack of MDM must have had immediate influence on the grammar of the succeeding generation.

These predictions seem to be borne out. Regarding the first prediction, Kroch’s (1989) view lends support to it. Kroch argues on the basis of Ellegård’s (1953) data that the loss of V-to-I in English took place in 1550–1575. If he is right, his view will provide support for R’s theory.

The second prediction is also verified. The change from V-never to never-V was indeed rapid.

\textsuperscript{16} Most of the discussion in section 3.2 will not hinge on the use of IP instead of AgrSP and TP, except when we analyze data containing sentential negation \textit{not} in Margaret Paston’s correspondences.

\textsuperscript{17} See Johannes (1991) for details of Stylistic Fronting.
The data in the table above demonstrate that the word order shift accelerated in the beginning of the 16th century and was almost completed by the end of the same century.

Having established that R’s theory is compatible with the fact that the word order quickly changed from V-never to never-V in the 16th century, we now examine two other aspects of R’s theory. They are as follows:

(25) a. V-in-situ is not possible if the regular agreement paradigm has MDM.

b. V-to-I is not possible if the regular agreement paradigm does not have MDM.

Since Lasnik’s filter makes V-to-I obligatory in languages with MDM, V-in-situ with MDM is not possible. Conversely, R theory restricts the cause of V-to-I to MDM, and therefore V-to-I without MDM is not an option in R’s theory.

Let us begin with (25a). (25a) seems problematic in light of the fact that never-V order was possible before the loss of MDM. In the period 1425–1475, V-in-situ accounts for about 23% of all the sentences with never. Although the percentage is not high, V-in-situ was at-

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Table 3.1: The rise of never\(^\text{Main verb}\)\(^{18}\)

<table>
<thead>
<tr>
<th></th>
<th>all S w/never</th>
<th>S w/never(^\text{Main Verb})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>raw</td>
</tr>
<tr>
<td>1425–1475</td>
<td></td>
<td>154</td>
</tr>
<tr>
<td>1475–1500</td>
<td></td>
<td>186</td>
</tr>
<tr>
<td>1500–1525</td>
<td></td>
<td>109</td>
</tr>
<tr>
<td>1525–1535</td>
<td></td>
<td>170</td>
</tr>
<tr>
<td>1535–1550</td>
<td></td>
<td>152</td>
</tr>
<tr>
<td>1550–1575</td>
<td></td>
<td>88</td>
</tr>
<tr>
<td>1575–1600</td>
<td></td>
<td>163</td>
</tr>
</tbody>
</table>

(R: 160)

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\(^{18}\) The letter “n” in the table stands for the number of occurrences. Cases of adverbial adjunction to I\(^0\) are excluded from adjusted figures.
tested. Since R's theory does not allow V-in-situ in the presence of MDM, it cannot deal with the onset of the change when never-V and V-never order were both possible.

Next, let us move on to (25b). To determine whether it holds good, it seems appropriate to concentrate on one speaker and see if (s)he showed consistency with respect to MDM and V-to-I. Paston Letters (henceforth, PL) gives us a fitting opportunity: many of the letters were written in the latter half of the 15th century, when the grammar of English was changing. Out of the collection of letters in Davis (1971, 1976), we will focus on Margaret Paston's letters.19

(26) is an inflectional paradigm of regular verbs constructed from Margaret Paston's correspondences.

(26) a. Infinitive: trust, trost

<table>
<thead>
<tr>
<th></th>
<th>sg.</th>
<th>pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st, 2nd</td>
<td>trost-(e)</td>
<td>trost</td>
</tr>
<tr>
<td>3rd</td>
<td>trost-yth</td>
<td>trost</td>
</tr>
</tbody>
</table>

b. Infinitive: depart

indicative past, all forms, depart-yd depart-yd

(after Sonoda (1997: 1229))

In the present tense, the first and second person forms were identical in both singular and plural. In the past tense, all forms were the same. So the first person and the second person were not minimally distinctively marked in either the present tense or the past tense. This observation directs us to conclude that MDM was absent from Margaret Paston's grammar.

The absence of MDM is linked to the absence of V-to-I in R's theory, but the data in Sonoda (1997) show that this prediction is not borne out. He reports that out of a total of 72 instances with never, 68 instances show V-never order. For the remaining four instances, the order was never-V, which can be attributed to adverbial adjunction to I0.

(27) a. ... that he never recevyd penny therof yet (PL 190/046)

... that he never received penny of it yet (Sonoda (1997: 1232))20

19 Margaret's letters cover the period of ca.1441–1480, her last document in Davis (1971, 1976) being a copy of her will.

20 The numbers before the slash stands for the letter number of Davis (1971, 1976), and the numbers after the slash represents the line of the letter.
b. ... [IP he [I never-received [VP t] [V t peny therof yet..]]]

The distribution of not seems to strengthen the view that V-to-I was operative in Margaret Paston’s grammar. There are 492 tokens of not in total, and all of them can be interpreted as sentence negation. 436 instances have V-not order and none not-V order. If we assume that not was in NegP in late ME, and that AgrSP dominates NegP, which in turn dominates TP (cf. Frisch (1997)), then the order V-not signifies that the finite verb moved to AgrS0. In sum, V-to-I was the rule for Margaret Paston’s correspondences. This is a serious counterexample to R’s theory, for V-to-I takes place in the absence of MDM.

V-to-I in the absence of MDM is not an isolated phenomenon. A brief look at other languages (and dialects) gives us some more examples. (28a) is taken from Middle Scots and (28b) is from Kronoby Swedish (R: 120, 169). These are also counterexamples to his proposal, as R himself notes.

(28) a. ... quhen he trespassit nocht.
    when he trespassed not
    (Roberts (1993) cited in R: 169)

b. He va bra et an tsöfft int boothsen.
    it was good that he bought not book-the (R: 118)

The Northern Dialect of ME also had V-to-I despite the lack of MDM. Consider (29a, b).

(29) a. The Northern Dialect of ME
    sg. pl.
    1st dem-e dem-es
    2nd dem-es dem-es
    3rd deme-es dem-es (Nakao (1972: 157))

b. þe barnis þat ere yunge þat vnderstandis noht what
    the children that are young that understand not what
    paine fallis til cursing ...
    punishment falls to cursing
    (The Rule of St. Benet 23.101)
    (Kroch, Taylor, and Ringe (1995: 20))

Residual V-to-I in EModE is problematic for R’s theory, since MDM was not present in EModE.

(30) Nay, yet depart not so. (Shakespeare, Richard II, I. ii. 63)
    (Schäufele (1993) cited in R: 167)

R puts forward an explanation for residual V-to-I in EModE: he con-
tends that it is a result of "direct observation of word order patterns (R: 168)," which was not due to UG. Even though this might turn out to be correct, independent confirmation of this contention will be necessary.

In Mesolectal Louisiana Creole, which was derived from French, V-to-I is not dependent on MDM.

(31) a. Mo pa mőzhe.
I not eat (long form)
'I do not eat.'

b. Mo mőzh pa.
I eat (short form) not (Roberts (1999: 306))

V-to-I takes place if the verb is in the long form, and V-in-situ results if it is in the short form. Although V-to-I is not dependent on MDM, it is still sensitive to some aspects of verbal morphology.

The data above seem to indicate that MDM is a necessary, but not a sufficient, condition for V-to-I, as argued in Roberts (1999).

3.2.2. The Development of Do-support

The frequency of do-support increased to greatest degree in the period 1475–1575 (cf. R: 166–167). The word order rapidly changed from V-never to never-V during the same period. R regards the coincidence of these developments as evidence for the view that the development of do-support was "a reflex of the loss of V-to-I" (R: 163), but a cautionary note is in order: the absence of V-to-I does not always lead to the development of periphrastic auxiliaries. Other V-in-situ languages such as Norwegian and Swedish do not make use of a system equivalent to do-support. As R himself notes, "English-specific factors" (R: 201) that led to the development of do-support will have to be discovered.

Before concluding this subsection, I would like to note an unresolved issue. It is not clear to us how the loss of V-to-I and the rise of do-support are theoretically related. As pointed out by R, V-to-I is driven by MDM, but do-support is not, given that T0 is phonologically empty. The relation of these two independent grammatical systems remains to be discovered.

3.2.3. The Development of Auxiliaries

OE was a language with MDM, and therefore all the verbs in OE moved to AgrS0. This means that irregular verbs including pre-modals
moved to AgrS\(^0\). The lack of MDM, however, led to the reanalysis of pre-modals: they were excluded from the category of verb and reanalyzed as a functional category, namely Mood\(^0\). MoodP is dominated by TP and dominates VP. See (R: 187–188).

R contends that this reanalysis started in OE and was completed in the beginning of EModE. Why was the reanalysis such a prolonged process? R’s explanation is as follows: OE was an OV language with V-final VP. The V-final structure made it impossible to tell whether V-to-I took place because V\(^0\) and I\(^0\) were adjacent and V-to-I was string-vacuous. In ME, when V2 constraint was lost and the underlying word order became SVO, the position of negation (or certain adverbs) presented clear evidence for V-to-I. R argues that this state of affairs in ME accelerated the reanalysis. I investigated the distribution of often and always in the Diachronic Part of the Helsinki Corpus and found that R’s theory is supported by facts.

Table 3.2: The relative order of often, always and relevant elements in the Diachronic Part of the Helsinki Corpus\(^{21}\)

<table>
<thead>
<tr>
<th></th>
<th>aux adverb (V)</th>
<th>adverb aux (V)</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1150–1250</td>
<td>8</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>1250–1350</td>
<td>9</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>1350–1420</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>1420–1500</td>
<td>10</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>1500–1570</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>1570–1640</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>1640–1710</td>
<td>32</td>
<td>0</td>
<td>32</td>
</tr>
</tbody>
</table>

Table 3.2 shows that after 1500, auxiliaries were obligatorily in M\(^0\) and stylistic fronting with auxiliaries seems to have disappeared. In short, the reanalysis was completed in the beginning of EModE.

Almost the same explanation applies to the histories of have and be. These verbs had an irregular paradigm in OE and ME: their inflectional forms were not analyzable into the stem and affixes. Therefore they

\(^{21}\) The term “aux” in the Table 3.2 stands for modal auxiliaries, be (as the passive auxiliary), and have (as the perfective auxiliary).
were removed from the category of verb, and came to be base-generated in the head of Aspectual Phrase, which is located between TP and VP (cf. R: 194).

Morphological characteristics play the crucial role in the explanation above, but it is clear that other properties (such as meaning) of the pre-modals cannot be ignored. Otherwise, any irregular verbs of OE and ME could have been excluded from the category V and reanalyzed as a new category.

3.3. Infinitival Raising

In Chapter 5 of his book, R discusses infinitival movement in Romance languages. He examines infinitival movement in Italian, French, European Portuguese and Brazilian Portuguese. I will outline R’s analysis of infinitival raising in 3.3.1 and point out a problem in 3.3.2.

3.3.1. MDM and Infinitives

In 2.1.1, we saw that infinitives played an important role in the definition of MDM. The first person form and the second person form must both be distinct from the third person form and the infinitive in order for MDM to obtain. If the regular paradigm of a language meets this definition, then the language will have agreement affixes listed in the lexicon. Notice that infinitival affixes of the language are also listed in the lexicon and inserted into AgrS0. This means that Italian and European Portuguese are expected to move infinitives to AgrS0, and that French and Brazilian Portuguese will not move infinitives to AgrS0. (Recall that French does not have MDM in its regular paradigm. V-to-I in French is due to subject clitics. See 2.1.3.)

(32) Gianni ha deciso di non tornare mai. (Italian)
G. has decided to not return ever.
‘John has decided not to come back.’
(R: 211)

(33) a. A Ana espera ver-te esta tarde.
the A. wants to-see-you this afternoon.
‘Ana wants to see you this afternoon.’
(European Portuguese)

b. Ela quer me ver. (Brazilian Portuguese)
she wants me to-see
‘She wants to see me.’
((a), (b) R: 240)
In (32), the infinitive functioning as the complement of a control verb occurs to the left of *mai*. If *mai* is located in [Spec, NegP] as in finite clauses, then (32) demonstrates that Italian infinitives move to AgrS. Evidence for infinitival movement in European Portuguese comes from the position of an object clitic in the infinitive clause. European Portuguese and Italian display enclisis. If enclisis is characteristic of a language which moves infinitives to AgrS, then (33a, b) can be taken as evidence for the view that European Portuguese has infinitival V-to-I and Brazilian Portuguese does not.

In R's theory, infinitives themselves do not have to have inflectional affixes that are minimally distinctively marked. This does not mean, however, that infinitives are never minimally distinctively marked: European Portuguese has inflected infinitive, whose paradigm has MDM.

(34) Inflected infinitive in European Portuguese

<table>
<thead>
<tr>
<th></th>
<th>sg.</th>
<th>pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>comer+∅</td>
<td>comer+mos</td>
</tr>
<tr>
<td>2nd</td>
<td>comer+es</td>
<td>comer+des</td>
</tr>
<tr>
<td>3rd</td>
<td>comer+∅</td>
<td>comer+em</td>
</tr>
</tbody>
</table>

(Raposio (1987: 86))

3.3.2. Infinitival Raising in ME

Let us turn our attention to ME. As we saw in 3.1, ME regular paradigm had MDM. Therefore, V-to-I is predicted to take place in ME infinitives. We will examine the placement of negation in negative infinitives to determine whether ME had infinitival movement to AgrS.

Three variations of word order were observed in ME negative infinitives: *to V not*, *not to V*, and *to not V*.

(35) a. to sorow noght for hys syn as he sulde do

(Rolle's Form of Living 99.260)

to sorrow not for his sin as he should do

(Han (1999: 8))

b. þat sche wuld vwche-save nowth to labowre azens
that she would promise not to labour against
3w in þis matere tyl ðe kom hom (PL 128/12–13)
you in this matter till you come home

(Miyashita (2000))
c. It is good for to not ete fleisch, and for to no drynke
   it is good not to eat flesh and to not drink wyn,
   (1382 Wyclif Rom. xiv. 21, OED)
   wine, (Miyashita (2000))

If we assume that not is at the left periphery of VP (or in [Spec,
   NegP]), to V not order indicates that the infinitive moves to AgrS0,
   as desired. To not V order, however, indicates that the infinitive did
   not move to AgrS0, contrary to the prediction of R’s theory. Notice also
   that the infinitival movement to AgrS0 is optional in ME, given that to
   V not and to not V were both possible. This optionality also needs to
   be explained.

3.4. TECs in Late ME

ME had MDM, and as expected from the discussion in 2.3, TECs
   were available in ME. They were first attested in the fourteenth cen-
   tury. The constructions had been in use for about two centuries and
   fell into disuse during the sixteenth century (cf. Tanaka (2000)).

Notice that R’s theory is capable of capturing the relation between
   TECs and the availability of AgrSP: TECs became obsolete in the 16th
   century, shortly after the time when English was deprived of AgrSP
   due to the loss of MDM.

The dependence of TECs on MDM is observed in Margaret Paston’s
   letters. In section 3.2.1, we saw that MDM was not existent in her let-
   ters. In R’s theory, this means that Margaret Paston’s English did not
   allow TECs. At first glance, this prediction is refuted.

   (36) a. There wull noman gewe so myche for them
       there will no man give so much for them
       (PL 209/12)
       (Ingham (2000: 23))

 b. ther wol no man by yt a gret.
    there will no man buy it agreat
    (PL 221/20)
    (Kishida (1997))

There is evidence suggesting that sentences in (36) are not genuine in-
   stances of TECs, however. Ingham (2000: 20) reports that logical sub-
   jects of Late ME TECs were mostly negative in their meaning. If this
   is correct, movement of logical subjects out of VP should rather be
   taken as movement of negated NP to [Spec, NegP].

   (37) [TP There [t' auxiliary [NegP logical subject [Neg' Neg0 [VP
       .........]]]]]

It should be stressed that (37) does not contain AgrSP and thus is com-
patible with the absence of MDM in Margaret Paston’s letters.

In R’s theory, lack of MDM leads to the impossibility of TECs, and we can consider the language of Margaret Paston’s letters as evidence for the theory.

3.5. Pro-drop

OE and ME seem to have permitted both expletive pro and referential pro. (38a, b) are from OE, and (39a, b) are ME examples. In what follows, the position of a null subject is indicated by φ.

(38) a. Siþann φ wæs hiera þeaw þæt hie ælce geare afterwards was their custom that they every year ymbe twelf monad tosomne ferdon, 7 þer þonne after twelve months together went, and there then bearna striendon.

beget children (Or 46, 8–10)
‘Afterwards, it was their custom to come together after twelve months every year and to beget children there.’

b. þa sæt he æt beode, φ næfde þa æt honda hwaer φ

Then sat he at table, not-had then at hand where that brought gift keep should (Bede, 156, 27–8)
‘Then he sat at table, he had nothing at hand where he should keep the proferred gift.’

((a), (b) Ono and Nakao (1980: 306))

(39) a. rouþe φ was and pite for to see þe ... furie of his pity (it) was and pity to see that fury of his peynes (Lydg TB iv 717)
pains

b. so much water þei wepten þat φ made the forseyd so much water they weeped so that made the forsaid lake lake (Mandev 131, 25)

((a), (b) Nakao (1972: 189))

If a language has MDM, then its agreement affixes are lexically listed and have phonological content. Therefore, [Spec, AgrSP] can remain phonologically empty (see (15)) and expletive pro-drop is expected to be possible in those languages. This prediction is verified by (38a) and (39a).

Recall that referential pro must be both licensed and identified. If the identification condition adopted by R is correct, only those lan-
guages where the nominative Case assigner and the agreement are in
the same node will allow referential pro. In other words, the identi-
fication condition requires either that the agreement be on a com-
plementizer or that AgrS\(\text{S}\) have both agreement and the capability to
assign nominative Case. OE satisfied neither of these requirements.
OE did not have complementizer agreement and OE was a V2 lan-
guage where nominative Case was assigned by C\(\text{C}\), not by AgrS\(\text{S}\).
Thus, (39b) seems to be a counterexample to R’s system.\(^2\)

Almost the same conclusion applies to ME. ME had MDM, and
R’s theory correctly predicts that ME allowed expletive pro-drop. The
status of referential pro-drop in ME is not clear. If we adopt the
standard assumption that ME is not a V2 language, the fact that it per-
mitted referential pro-drop means that it had either complementizer
agreement or AgrS\(\text{S}\) that assigned nominative Case. Not having the
necessary data to test this prediction, I will leave this matter for future
research.

In concluding this subsection, I would like to note that the investiga-
tion of pro-drop in OE and ME here is cursory, and awaits more thor-
ough research.

4. Conclusion

I have critically examined R’s theory by applying it to the facts in the
history of English. It has turned out that R’s theory makes correct de-
scription about the general course of the development of the syntactic
phenomena studied in this article, but it is not quite successful when we
observe individual cases. For instance, it failed to correctly describe
the language of Margaret Paston with respect to V-to-I. This problem
is serious, for the lack of MDM in Margaret Paston’s letter led to V-to-
I on one hand, and to the absence of TEC on the other. We have
also seen that R’s attempt to restrict the trigger of V-to-I to MDM
failed: V-to-I is possible without MDM. R’s explanation of the histo-
ries of do-support and auxiliaries are mostly descriptive.

\(^2\) Although Kemenade (1997: 336) observes that OE did not allow referential
pro-drop, (38b) arguably involves referential pro-drop. Notice also that (38b) con-
tains a null subject in a subordinate clause. Generally, pragmatically motivated
dropping of subject pronouns is not permitted in subordinate clauses.
The treatment of TEC and pro-drop is more successful than that of V-to-I. R’s theory correctly predicts the absence of TEC in Margaret Paston’s correspondences. As for pro-drop, the availability of expletive pro-drop in OE and ME follows from R’s theory, although facts about referential pro-drop seem to call for modification of R’s system.

It is true that R’s theory is in need of sharpening, but at the same time, the theory is quite intriguing in that it reduces seemingly diverse syntactic phenomena to a simple and tangible property of verbs. It also correctly handles V-to-I and pro-drop in many languages. These merits appear to indicate that R’s approach is on the right track.

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