Verb Movement in Germanic Languages

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1. Introduction

This paper offers a solution of V (Verb) movement for English and other Germanic languages on the basis of morphological features deriving from verbal inflections. In Chomsky's (1995; 2001) Minimalist Program, I will discuss the peculiarity of English verbal behavior, including these two 'idiosyncratic' constructions: the subjunctive and the imperative.

The claim is that, contrary to widely held belief (*e.g.,* Vikner (1997), Rohrbacher (1999) among others), the diachronic change of V movement should not be attributed to any version of the impoverishment of agreement morphology, but to the demise of mood morphology which started in the period of Middle English (ME, c.1100-1500) as contended in Murakami (1992). I will pursue this argument by referring to some historical evidence in English and looking into Germanic languages such as Icelandic, German, Dutch, and Danish.

2. V movement in English

2.1 V features

V features are essentially based on verbal morphology. Table 1 illustrates a verb paradigm of regular inflection in Old English (OE, c.700-1100), adapted from Mitchell and Robinson (2007: 46):

Table 1. Weak Inflection of the Old English Verb: *fremman* 'do'

		Indicative	Subjunctive	Imperative
Present				
1st Sg	*ic*	fremme	fremm**e**	
2nd Sg	*þu*	fremest	fremm**e**	freme
3rd Sg	*he*	fremeþ	fremm**e**	
1st Pl	*we*	fremmaþ	fremm**en**	
2nd Pl	*ge*	fremmaþ	fremm**en**	fremmaþ
3rd Pl	*hi(e)*	fremmaþ	fremm**en**	
Past				
1st Sg	*ic*	frem**ed**e	frem**ed**e	
2nd Sg	*þu*	frem**ed**est	frem**ed**e	
3rd Sg	*he*	frem**ed**e	frem**ed**e	
1st Pl	*we*	frem**ed**on	frem**ed**en	
2nd Pl	*ge*	frem**ed**on	frem**ed**en	
3rd Pl	*hi(e)*	frem**ed**on	frem**ed**en	

This paradigm demonstrates that the past morpheme is *ed*, that the subjunctive morpheme is *e*, and that the second singular forms for indicative, subjunctive, and imperative are distinct from each other (*fremest, fremme,* and *freme* respectively). There was thus a positive V feature 'Mood' (M) in OE. In addition to T (Tense) and Agr (Agreement), OE finite verbs carried [+M], the value of which can be either indicative, subjunctive, or imperative. The V feature matrices for OE must have been as follows:

Table 2. V Features for Earlier English

	T	Agr	M
Indicative	+	+	+
Subjunctive	+	+	+
Imperative	+	+	+

In the period of ME, however, subjunctive morphology was lost due to phonological change. The verbal inflections which encoded the subjunctive or indicative distinction no longer existed in later ME (Traugott (1972: 148-149)). As a matter of course, what followed the loss of mood morphology was the loss of Mood as a positive V feature, yielding the hypothetical system represented in Table 3:

Table 3. Hypothetical Stage in the History of English V Features

	T	Agr	M
Indicative	+	+	–
Subjunctive	+	+	–
Imperative	+	+	–

*I do not assume that this stage actually existed, but rather that the features in Table 2 and those in Table 4 overlapped for a considerable time, covering the period of Early Modern English (EModE, c. 1500-1700).

English could never have maintained three different moods at this stage of identical feature matrices. With the demise of Mood, what had to happen was a reaction to conserve the mood distinction – namely, the change of feature matrices for the subjunctive and imperative, as depicted in Table 4:

Table 4. V Features for Present-Day English

	T	Agr	M
Indicative	+	+	–
Subjunctive	–	+	–
Imperative	+	–	–

Put differently, the V feature specifications underwent this change for the three moods respectively, as shown below:

Table 5. V Feature Reinterpretation in English History

Indicative: [+Tense, +Agr, +Mood] ⟶ [+Tense, +Agr, –Mood]

Subjunctive: [+Tense, +Agr, +Mood] ⟶ [–Tense, +Agr, –Mood]

Imperative: [+Tense, +Agr, +Mood] ⟶ [+Tense, –Agr, –Mood]

The motivation for this feature reduction is that syntax compensated for the disappearance of mood morphology at the expense of finiteness in the subjunctive and imperative.[1] By making the subjunctive [–T] and the imperative [–Agr], it became possible to distinguish them from each other and from the indicative. I will argue for the specifications of their respective V features for the following four reasons.

Firstly, there is no tense concord in subjunctives; a subjunctive *that*-clause never undergoes sequence of tenses when embedded in its preceding main clause in the past tense:

(1) a.　　I demanded that he leave/*left.

　　b.　　The chairperson decreed that the meeting be/*were adjourned.

Even the past subjunctive *were* cannot be employed in this context as in (1b). This lack of tense concord confirms the absence of Tense in English subjunctives.

Secondly, the crucial criterion for either positive or negative Tense is *do*-support: by definition, [+T]

allows *do* to be inserted, while [–T] prohibits it because the auxiliary *do* is a dummy tense carrier. In other words, it is Tense and nothing else that the auxiliary *do* actually has to support. Thus, indicatives and imperatives can accommodate *do*, while subjunctives and infinitives cannot do so:

(2) a.　　Indicative:　I did pass the exam.

　　b.　　Subjunctive:　I demand that he (*do) leave.

　　c.　　Imperative:　Do come to our new house.

　　d.　　Infinitive:　　You make me (*do) feel happy.

　　　　Thirdly, the claim that imperatives are tensed with no Agr can be supported by somewhat peculiar constructions, in which the imperative *do* never inflects for agreement even in the presence of an overt subject like third person singular one or archaic *thou* (Shakespearean examples are borrowed from Ukaji (1978: 79, 89)):

(3) a.　　Everybody do/*does sit down.

　　b.　　Don't/*Doesn't anybody touch this wet paint.

　　c.　　Now do/*dost thou watch, for I can stay no longer.

　　　　　　　　　　　　　　　　　　　　　– Shakespeare (1591: I.iv.18) *King Henry VI*

　　d.　　Do/*Dost not thou, when thou art king, hang a thief.

　　　　　　　　　　　　　　　　　　　　　– Shakespeare (1597: I.ii.69) *King Henry IV*

Contrary to the commonly held view, imperatives are not tenseless, but tensed for present, and this Tense may check off the nominative case of its subject. In Chomsky's (2001: 3-6) discussion, case checking is also a process of feature checking where a category with uninterpretable features called a Probe checks them against the same interpretable features of another category called a Goal during the operation Agree. A Probe with uninterpretable features looks down in the c-commanding relationship for a Goal with interpretable features, and gets the uninterpretable features checked, valued and deleted.

　　　　Fourthly, given that (not Agr but) Tense is an independent case checker as deduced from the imperatives in (3), the subjunctive Agr is responsible for its nominative subject in the absence of Tense. Following Raposo (1987), who discussed nominative Case assignment in European Portuguese (EP) inflected infinitives, Agr is arguably a dependent case checker which must be activated by another head under head-to-head adjacency. I maintain here that nominative case in the English subjunctive is analogous to that in the EP inflected infinitive, the I of which visibly consists of [–T, +Agr] with agreement morphology but no tense. In both the constructions, the C position that introduces an English subjunctive or an EP agreeing infinitive must be filled with something overt – *that* in English or raised V in EP – in order to activate Agr:

(4)　　　I asked [c that/*ø] he take the medicine.

(5) a.　　*O Manel pensa [c ø] os amigos　[I ter+em]　levado o livro.

　　　　　the Manel thinks　　　his friends　have+Agr　taken the book

　　b.　　O Manel　pensa　[c ter+em]　os amigos [I *t*] levado o livro.

　　　　　the Manel thinks have+Agr　his friends　　　taken the book

　　　　　'Manel thinks his friends have taken the book.'

Raposo (1987) proposed that nominative Case in the EP inflected infinitive (5b) should be assigned as follows with *terem* in C:

Case assignment

(6)　　O Manel pensa [CP[C ter+Agr] [IP os amigos [I *t*] levado o livro]].

Case-marking
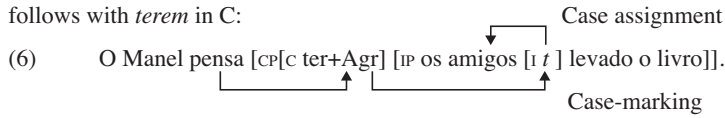
In much the same manner, Agr activation in the English subjunctive is as follows with *that* in C (updated from Government and Binding theory to Minimalist Program):

Agree

(7)　　I asked [CP[C that] [IP he [I +Agr] take the medicine]].

head-to-head activation
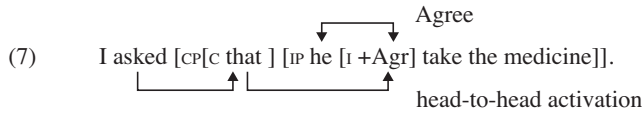
If *that* is missing in (7), the empty C breaks the head-to-head chain of Agr activation. This system of nominative case checking theoretically explains why *that* in subjunctives is not so readily omitted as *that* in indicatives in present-day English.[2]

To summarize, I therefore assume these feature matrices for the three English moods in present-day English: [+T, +Agr] for the indicative, [–T, +Agr] for the subjunctive, and [+T, –Agr] for the imperative. Recall here that [+T, +Agr, +M] characterizes the OE finite clause. The number of positive V features – whether one, two, or three – must have something to do with V movement.[3]

2.2　V raising as feature raising

V movement has been much discussed in the split I hypothesis originally advocated by Pollock (1989), but the subjunctive and imperative constructions have seldom been considered for any version of the hypothesis, except Pollock (1997), for instance. The difference of V movement among the English moods, however, can be explained by the feature-oriented principle of language in the single I system as stated in Table 6. As I pointed out in Murakami (1992), the dichotomy of V features – either strong or weak – does not work; instead there must be three degrees of strength involved in V movement. I therefore propose the following hypothesis on the strength of I, thereby insisting that the number of positive V features is literally to be counted with respect to V movement:
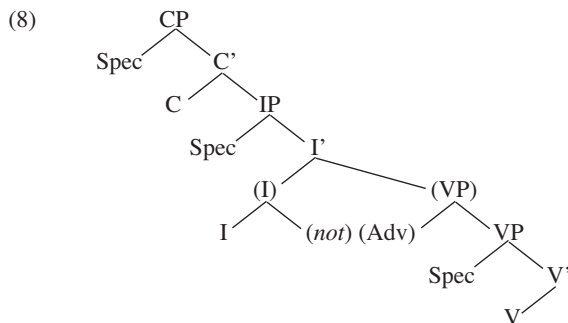
Table 6. Strength of Features

T	Agr	M	# of +	
+	+	+	3	All Vs raise in older English
+	+		2	Only *be* and perfective *have* raise in English
	+		1	No Vs raise in English subjunctives
+			1	No Vs raise in English imperatives

The description given above concerns overt syntax from SATISFY through SPELL-OUT in Chomsky's (1995) terminology. I assume that these three features are specified on V in the lexicon from the beginning, and then checked off against I through V movement. Following Chomsky's (1995: 264) notions of "generalized pied-piping," Roberts (1998) refines V raising as Move F or feature raising. By the operation of Move F, it is not V per

se but V features that raise and check themselves against I, pied-piping V when they are strong enough to attract it. If they are weak, only features invisibly raise in syntax before SPELL-OUT, leaving V behind.

This concept of feature raising seems to comply with the Chomskyan Probe-Goal relationship adequately. Taking the lexicalist view in which a fully inflected form appears under V, its V features should be interpretable as a Goal with overt, concrete suffixes of tense, mood, and agreement. On the other hand, I is a bundle of abstract, uninterpretable features, which serves as a Probe looking down for the corresponding Goal that is c-commanded by the Probe. Thus in V-to-I movement, uninterpretable I features may 'probe' for the corresponding interpretable V features in order to check themselves against the identical features in their c-commanding relationship from head to head. Unless the both features 'match,' the derivation will crash, resulting in ungrammaticality (Chomsky (1995; 2001)). Let us adopt this concept of Roberts (1998) here along with Chomsky (2001).

We assume the following clausal structure with the non-split, unitary I system for English (as for the position of *not*, see Murakami (2007)):

(8)

```
              CP
            /    \
        Spec      C'
                /    \
              C       IP
                    /    \
                 Spec     I'
                        /    \
                     (I)      (VP)
                    /   \    /    \
                   I  (not)(Adv)   VP
                                  /   \
                               Spec    V'
                                       |
                                       V
```

Below are concrete examples of derivation. No main verbs raise in English with two positive features:

(9) a.　*John loves always Mary.

　　b.　John [I +T, +Agr] [VP always loves(+T, +Agr) Mary].
　　　　　　　　　　　　　　　　　　　　　　　　Match

The auxiliary *do* should be base-generated, checking features simultaneously, rather than being inserted later (Murakami (1993)):

(10)　　John [I does(+T, +Agr)] not love Mary.
　　　　　　　　↑　Match w/ *do*-support

With two plus features, strong enough for auxiliaries, *be* moves overtly in indicatives:

(11)　　You [I are(+T, +Agr)] not [V *t*] lenient.
　　　　　　　　　　　　　　　　Match w/ V raising

On the other hand, even *be* cannot raise to the weaker I with only one plus feature in either subjunctives or imperatives:
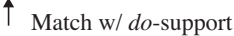
(12) a.　I insist that you not be lenient.

　　b.　*I insist that you be not lenient. (obsolete)

(13) a.　Do not be lenient.

　　b.　*Be not lenient. (obsolete)

Subjunctive derivation does not allow *do* in its untensed I, hence [+Agr] raises covertly:

(14)　　　I insist that you [ᵢ +Agr] not [ᵥₚ be(+Agr) lenient].

　　　　　　　　　　　⌐————————————┘ Match

In the affirmative, an imperative may optionally employ *do* in its tensed I, while in the negative, it must always do so checking the [+T] feature at the same time as base-generation:

(15) a.　　[ᵢ +Tense]　[ᵥₚ Be(+Tense) lenient].

　　　(*Do*)　↑↑————————————┘ Match

　　b.　　[ᵢ Do(+Tense)] not [ᵥₚ be lenient].

　　　　　　↑ Match w/ *do*-support

　　　　Looking back to historical English, the facts of V movement indicate that not only *be* and perfective *have* but also main verbs unexceptionally moved from V to I in earlier English.

Figure.　Two Ways of V Movement in English History
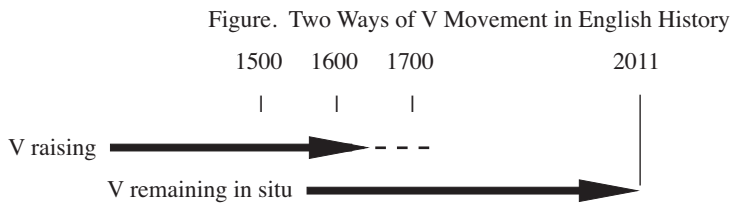
The figure above (adapted from Nakano (1994: 311)) shows the time frame of obsolete and current word orders. Whether indicative, subjunctive, or imperative, all Vs used to raise in the past, with strong features [+T, +Agr, +M]. More importantly, old and new constructions occurred simultaneously in EModE (Ukaji (1978: 79), Nakano (1994: 306-307)):

(16) a.　　Indicative:　How *didst* thou escape?　How *camest* thou hither?

　　　　　　　　　　　　　　　　　　　　　　　　– Shakespeare (1611: II.ii.123) *The Tempest*

　　b.　　Imperative:　*Speak* not, *reply* not, *do* not answer me;

　　　　　　　　　　　　　　　　　　　　　　　　– Shakespeare (1594: III.v.164) *Romeo and Juliet*

Any version of Agr parameterization as to whether V raises or not (*e.g.,* Rohrbacher (1994), Vikner (1997)) will have difficulty in explaining this overlap. Such a problem does not arise in my theory, given that the reductions of features discussed in §2.1 took place gradually, allowing variations from verb to verb, from mood to mood, and from dialect to dialect.

3.　V movement in other Germanic languages

3.1　*All Vs raise: Icelandic and German*

V raising has been much discussed in terms of the strength of Agr(P), originally by Pollock (1989). However, the fact that other languages than English retain mood morphology seems more crucial here.

　　　　Consider Icelandic in the first place. It is an SVO language "with a rich case-marking system in which the word order is nevertheless determined to a large extent by syntactic facts, a combination that is typologically

rather rare." (Maling and Zaenen (1990: xv)) The Icelandic verbal paradigm is illustrated below. The arrangement looks exactly like that of OE (*cf.* Table 1). Although past subjunctive forms are identical to past indicative forms in the regular inflection, there is a stem vowel change in the strong subjunctive inflection of Icelandic (Yokoyama (1990: 80)). Note also that in the present second singular row, the three verb forms are distinct from one another (*i.e., borðar, borðir,* and *borðu*): there exists Mood on the Icelandic finite verb:

Table 7. Weak Inflection of the Icelandic Verb: *borða* 'eat'

		Indicative	Subjunctive	Imperative
Present				
1st Sg	*ég*	borða	borði	
2nd Sg	*þú*	borðar	borðir	borðu
3rd Sg	*hann/hún*	borðar	borði	
1st Pl	*við*	borðum	borðum	
2nd Pl	*þið*	borðið	borðið	borðið
3rd Pl	*þeir/þær*	borða	borði	
Past				
1st Sg	*ég*	borðaði	borðaði	
2nd Sg	*þú*	borðaðir	borðaðir	
3rd Sg	*hann/hún*	borðaði	borðaði	
1st Pl	*við*	borðuðum	borðuðum	
2nd Pl	*þið*	borðuðuð	borðuðuð	
3rd Pl	*þeir/þær*	borðuðu	borðuðu	

*Adapted from Yokoyama (1990: 44-45, 74).

Icelandic main verbs thus move from V to I (and then to C) (Rögnvaldsson and Thráinsson (1990), Sigurðsson (1990), Vikner (1995; 1997), Rohrbacher (1999), Thráinsson (2007)):

(17) a.　Indicative:　Jón [ı borðar]　　ekki [v *t*] tómata.

　　　　　　　　　John　eat+T+Agr+M　not　　　tomatoes

　　　　　　　　　'John does not eat tomatoes.'

　　 b.　　　　　　*Jón ekki borðar　　tómata.

　　　　　　　　　　　not　eat+T+Agr+M

(18) a.　Subjunctive: Jón segir að hann　[ı borði]　　ekki [v *t*] tómata.

　　　　　　　　　John says that he eat+T+Agr+M　not　　　tomatoes

　　　　　　　　　'John says that he does not eat tomatoes.'

　　 b.　　　　　　*Jón segir að hann　ekki　borði　　tómata.

　　　　　　　　　　　　　not　eat+T+Agr+M

(19) a.　Imperative:　[ɪ Borðu]　　　ekki　[v *t*] tómata.

　　　　　　　　　　eat+T+Agr+M　not　　　　tomatoes

　　　　　　　　　　'Don't eat tomatoes.'

　　b.　　　　　　　*Ekki　borðu　　tómata.

　　　　　　　　　　not　eat+T+Agr+M

According to Thráinsson (2007: 37-40, 79-87), *ekki* 'not' is one of the best indicators of the left VP periphery among all adverbs. It does not project NegP, but an AdvP adjoining to VP.

　　　　Interestingly, Icelandic subjunctives are so highly productive that there are many minimal pairs conveying the speaker's contrastive attitudes toward factuality (Thráinsson (2007: 400-401)):

(20) a.　Maria vissi [að þú *komst*　　heim].

　　　　Mary knew that you came.IND home

　　　　'Mary knew that you came home.'

　　b.　Maria vissi [að þú　*kæmir*　　heim].

　　　　Mary knew that you came.SBJ home

　　　　'Mary knew that you would come home.'

(21) a.　Ég heyri　[að þú *ert*　　danskur].

　　　　I　hear　that you are.IND Danish

　　　　'I hear that you are Danish.'

　　b.　Ég heyri　[að þú　*sért*　　danskur].

　　　　I　hear　that you be.SBJ　Danish

　　　　'I am told that you are Danish.'

This is a phenomenon which most of the Germanic languages no longer retain.

　　　　Verb Second (V2) word order, typical of Germanic languages except English, as a consequence of V-to-I-to-C movement, is possible in all embedded declarative clauses in Icelandic (Vikner (1995: 138-140)). In these clauses he accommodates a topicalized item in another spec/CP position, by employing 'CP-recursion':

(22)　　Það var óvænt,　　[c að] [CP Þessa bók　　[c skyldi] [IP Helgi [ɪ *t*] oft [v *t*] hafa lesið]].

　　　　It　was unexpected that　　this　book　　should　Helgi　　often　　have read

Since V-to-I movement is a prerequisite for I-to-C movement, this phenomenon is also a piece of evidence that V features are strong in general in Icelandic (*cf*. Thráinsson (2007: 40-45)).
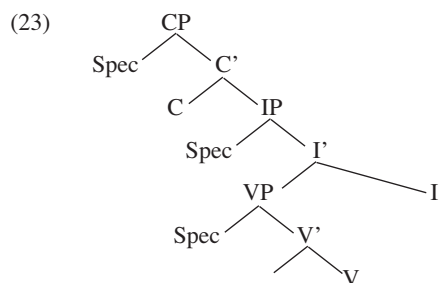
　　　　Let us consider German next. The German verbal paradigm also looks much the same as that of OE (*cf*. Table 1), especially in that they share the subjunctive morpheme *e*:

Table 8. Weak Inflection of the German Verb: *sagen* 'say'

		Indicative	Subjunctive	Imperative
Present				
1st Sg	*ich*	sage	sag**e**	
2nd Sg	*du*	sagst	sag**est**	sag[e]
3rd Sg	*er/sie*	sagt	sag**e**	
1st Pl	*wir*	sagen	sag**en**	
2nd Pl	*ihr*	sagt	sag**et**	sagt
3rd Pl	*sie*	sagen	sag**en**	
2nd Honor	*Sie*	sagen	sag**en**	sagen
Past				
1st Sg	*ich*	sag**te**	sag**te**	
2nd Sg	*du*	sag**test**	sag**test**	
3rd Sg	*er/sie*	sag**te**	sag**te**	
1st Pl	*wir*	sag**ten**	sag**ten**	
2nd Pl	*ihr*	sag**ten**	sag**tet**	
3rd Pl	*sie*	sag**ten**	sag**ten**	
2nd Honor	*Sie*	sag**ten**	sag**ten**	

With the past morpheme *te*, the past indicative and subjunctive forms are identical since *te* + *e* becomes *te*, but stem vowels of the past subjunctive undergo umlaut in strong inflection. The German finite verb is positively specified for Mood, as well as Tense and Agr.

We have so far employed the head-initial clause structure depicted in (8) for SVO languages. Although there is a strong argument for a similarly head-initial structure for SOV languages such as German and Dutch (Zwart (1997a; 1997b)), we refrain here from adopting it, because it seems to me that whether VP and IP are head-initial or head-final does not matter as far as V raising is concerned (although it does matter if Object Shift is concerned). Hence let us traditionally assume like below that VP and IP are head-final in German and Dutch:[4]

(23)

```
          CP
        /    \
     Spec     C'
            /    \
           C      IP
                /    \
             Spec     I'
                    /    \
                  VP       I
                /    \
             Spec     V'
                    /    \
                         V
```

Since the German finite verb carries [+T, +Agr, +M], V is thereby attracted to I (and then to C) in all three moods:

(24) a.　Indicative:　　[c Sagte]　　　　er so [v *t*] [ɪ *t*] ?　(interrogative)

　　　　　　　　　　　　say+T+Agr+M he so

　　　　　　　　　　　　'Did he say so ?'

　　　b.　Subjunctive:　Sie fragte ihn, ob sie　so [v *t*] [ɪ sagten].

　　　　　　　　　　　　she asked him if they so　　say+T+Agr+M

　　　　　　　　　　　　'She asked him if they said so.'

　　　c.　Imperative:　　[c Sagen]　　　Sie so [v *t*] [ɪ *t*] !

　　　　　　　　　　　　say+T+Agr+M　you so

　　　　　　　　　　　　'Say so.'

In embedded clauses like (24b), V does not move over anything and remains in I, resulting in no evidence of overt movement. Yet German verbs are supposed to raise invariously due to the ability for V to move up to C. For more examples, finite main verbs in German can occupy the C position in front of a subject in the V2 phenomenon (Hawkins (1985: 171)):

(25) a.　Wann sah Bill den Film?

　　　　When saw Bill the film

　　　　'When did Bill see the film?'

　　　b.　Nie　　sah ich so etwas　in meinem Leben.

　　　　Never saw I so something in my　　life

　　　　'Never have I seen such a thing in my life.'

　　　c.　Er fuhr sehr schnell, und so fuhr ich auch.

　　　　He rode very fast,　　and so rode I also

　　　　'He drove very fast, and I did so, too.'

3.2　*Whether Agr or Mood: Dutch*

I have thus far argued for my hypothesis based on the number of features including [+M], but the following, which seems to be an improvement on Rohrbacher (1994), is a different argument advocated by Vikner (1997: 207):

(26)　　An SVO-language has V^0-to-I^0 movement if and only if person morphology is found in all tenses.

This may explain the situations for English (of which there is no person agreement in the past tense), Icelandic, and German.

　　　As pointed out by Sprouse (1998: 58), however, his theory in (26) seems to fail in Dutch; Dutch verbs behave exactly like German verbs when there is no person morphology in the Dutch past tense (ignoring the case for the second honorific *u*, which Vikner (1997) must discount, as he does for any irregular forms). He seems to avoid this problem by applying his theory to SVO languages exclusively. We will overlook this restriction, however, assuming that the more languages a linguistic theory can explain, the better it is. Below is a regular verb paradigm in Dutch:

Table 9. Weak Inflection of the Dutch Verb: *werken* 'work'

		Indicative	Subjunctive	Imperative
Present				
1st Sg	*ik*	werk		
2nd Sg	*jij*	werkt		werk
3rd Sg	*hij*	werkt	werk**e**	
1st Pl	*wij*	werken		
2nd Pl	*jullie*	werken		werk[t]
3rd Pl	*zij*	werken		
2nd Honor	*u*	werkt		werkt
Past				
1st Sg	*ik*	werk**te**		
2nd Sg	*jij*	werk**te**		
3rd Sg	*hij*	werk**te**		
1st Pl	*wij*	werk**ten**		
2nd Pl	*jullie*	werk**ten**		
3rd Pl	*zij*	werk**ten**		
2nd Honor	*u*	werk**te**		

*Thanks to Olga Fischer for helping arrange this table.

According to Shioya (1979: 137-139), the use of Dutch present subjunctives is limited to literary expressions in the third person singular, and the past subjunctive is no longer used except *ware 'were'*. But in Table 9, the only subjunctive form *werke* and the imperative forms *werk/werk[t]* differ from their corresponding indicative forms respectively, and the point here is that all finite Vs with [+T, +Agr, +M] move from V to I, and then to C in all Dutch moods:

(27) a.　Indicative:　[c Werken]　　zij hard [v *t*] [ɪ *t*] ? (interrogative)

　　　　　　　　　　work+T+Agr+M they hard

　　　　　　　　　　'Do they work hard?'

　　b.　Subjunctive: Ik hoop dat men hard [v *t*] [ɪ werke]. (archaic)

　　　　　　　　　　I hope that man hard　　work+T+Agr+M

　　　　　　　　　　'I wish men would work hard.'

　　c.　Imperative:　[c Werkt]　　u hard [v *t*] [ɪ *t*] !

　　　　　　　　　　work+T+Agr+M you hard

　　　　　　　　　　'Work hard.'

The Dutch examples in (27) pattern exactly like the German examples in (24), when Dutch agreement morphology is poor with respect to the possibility of V movement if we adopt Vikner's (1997) theory in (26). V2 word order is also observed in Dutch main clauses (Zwart (1997b: 253-255), Rohrbacher (1999: 12-13)):

(28) a.　Jan leest　waarschijnlijk het boek.

　　　　John reads　probably　　 the book

　　　　'John probably reads the book.'

　　 b.　Het boek leest Jan　waarschijnlijk.

　　　　the book reads John probably

3.3　*The case for Danish*

Danish is an SVO language with very little agreement morphology, for which Vikner (1995; 1997) discusses that no Danish verbs raise from V to I independently due to the lack of person agreement morphology. Indeed, while there is a little agreement for Danish adjectives, there is no agreement at all for present-day Danish verbs (Jin (1978), Okada *et al*. (1984)):

Table 10.　Weak Inflection of the DanishVerb: *elske* 'love'

		Indicative	Subjunctive	Imperative
Present				
1st Sg	*jeg*	elsk**er**		
2nd Sg	*du*	elsk**er**		elsk
3rd Sg	*han/hun*	elsk**er**	elske	
1st Pl	*vi*	elsk**er**		
2nd Pl	*i*	elsk**er**		elsk
3rd Pl	*de*	elsk**er**		
2nd Honor	*De*	elsk**er**		elsk
Past				
1st Sg	*jeg*	elsk**ede**		
2nd Sg	*du*	elsk**ede**		
3rd Sg	*han/hun*	elsk**ede**		
1st Pl	*vi*	elsk**ede**		
2nd Pl	*i*	elsk**ede**		
3rd Pl	*de*	elsk**ede**		
2nd Honor	*De*	elsk**ede**		

*Adapted from Okada *et al*. (1984: 102).

Table 10 shows that the present tense morpheme is *[e]r*, that the past tense morpheme is *[e]de*, and that the root with *e* dropped from the infinitive form is used for the imperative. According to Okada *et al*. (1984: 117-118), the Danish subjunctive, whose form is the same as the infinitive, is restricted to the present tense with a third person singular subject, and its usage is mostly limited to fixed expressions (similarly to the situation in Dutch), so we would not deal with it here any further. The point is that the imperative form is obviously distinct from the present

indicative form, thus the Danish finite verb is specified for Mood as well as for Tense. But there is no specification for Agr in Danish, since even irregular verbs such as *være* 'be' or *have* 'have' never inflect for agreement.

However, although there is no Agr in Danish, there seems to be another V feature involving Voice, because the medio-passive morpheme *s* is integrated into Danish verbal inflection (besides the passive complex *blive* 'get' followed by a past participle). Here is a pair of active and medio-passive sentences in Danish (Okada *et al.* (1984: 116)):

(29) a.   Peter elsk-e   Clara.

Peter love-PRS.ACT Clara

'Peter loves Clara.'

   b.   Clara elsk-e-s   af Peter.

Clara love-PRS-PSSV by Peter

'Clara is loved by Peter.'

Indeed, Danish verbs in this voice inflect for past tense and imperative mood as well (Okada *et al.* (1984: 114)):

Table 11. Medio-Passive Inflection of the DanishVerb: *elske* 'love'

			Indicative	Imperative
Present				
	1st Sg	*jeg*	elske**s**	
	2nd Sg	*du*	elske**s**	elsk**s**
	3rd Sg	*han/hun*	elske**s**	
	1st Pl	*vi*	elske**s**	
	2nd Pl	*i*	elske**s**	elsk**s**
	3rd Pl	*de*	elske**s**	
	2nd Honor	*De*	elske**s**	elsk**s**
Past				
	1st Sg	*jeg*	elskede**s**	
	2nd Sg	*du*	elskede**s**	
	3rd Sg	*han/hun*	elskede**s**	
	1st Pl	*vi*	elskede**s**	
	2nd Pl	*i*	elskede**s**	
	3rd Pl	*de*	elskede**s**	
	2nd Honor	*De*	elskede**s**	

The Danish finite verb, then, must be specified for Voice (Vc), the value of which is active or medio-passive, hence its V features are [+T, +M, +Vc].

In the interrogative, Danish *være* 'be' or a main verb comes before its subject, and in the negative, either is followed by the negative adverb *ikke* 'not' (Jin (1978: 40, 56)):

(30) a.　Er　　　Danmark et stort land?

　　　　　be.PRS Danmark a big　land

　　　　　'Is Denmark a big country?'

　　b.　Nej, Danmark er ikke et stort land.

　　　　　No　Denmark is　not　a big　country

(31) a.　Hvad men-er　　du　　　med det?

　　　　　what mean-PRS you.SG with that

　　　　　'What do you mean by that?'

　　b.　Han komm-er　ikke.

　　　　　He come-PRS　not

　　　　　'He does not come.'

Other medial adverbs behave the same as *ikke*, and crucially, whether indicative or imperative, all Danish main verbs raise over them, because of the three positive V features:

(32) a.　Indicative: Peter [ɪ elsker]　　　　ikke/virkelig [v *t*] Clara.

　　　　　　　　　　　Peter　loves+T+M+Vc not / really　　　Clara

　　　　　　　　　　　'Peter never/really loves Clara.'

　　b.　Imperative: [c Elsk]　　　　du [ɪ *t*] ikke/virkelig [v *t*] Clara.

　　　　　　　　　　　love+T+M+Vc you　　not / really　　　Clara

　　　　　　　　　　　'Don't love Clara. /　Love Clara truly.'

As is exemplified by (32b), a second person pronoun may appear after the imperative verb. Furthermore, Danish main clauses illustrate V2 word order (Okada *et al*. (1984: 151-154)):

(33) a.　Den kjole har　jeg da　haft længe.

　　　　　this dress have I　then　had long

　　　　　'I have had this dress for so long.'

　　b.　Langsom kom　　　han sig　igen.

　　　　　slowly　come.PST he　self again

　　　　　'Slowly he came back to himself.'

　　c.　Allerede i går　　sendte　han kufferten　med toget.

　　　　　already yesterday send.PST he　suitcase.the with train

　　　　　'He already sent the suitcase by train yesterday.'

I would therefore like to conclude here that all finite verbs with strong features raise from V to I (and then to C) in Danish.

　　　　So far, there seems to be no problem in main clauses, but in Danish, there are so called 'bridge' verbs and 'non-bridge' verbs which introduce subordinate clauses differently (Vikner (1995: 71-72)). 'Bridge' verbs such as *håbe* 'hope', *påstå* 'claim', etc., take CP complements which behave as if they were main clauses with respect to word order. Here is a subordinate V2 example embedded by a 'bridge' verb, analyzed as 'CP-recursion' just like (22) above in Icelandic:

(34)   Watson påstod [CP at [CP disse penge [C havde] [IP Moriarty [I t] [v t] stjålet]]].

          Watson claimed   that   this   money   had   Moriarty   stolen

          'Watson claimed that Moriarty had stolen this money.'

'Non-bridge' verbs do not allow V2 complements:

(35)   ??Holmes beviste [CP at [CP disse penge [C havde] [IP Moriarty [I t] [v t] stjålet]]].

          Holmes   proved that   this   money   had   Moriarty   stolen

          'Holmes proved that Moriarty had stolen this money.'

        What Vikner (1995: 142-147) wants to insist here is that Danish finite verbs never move but remain in V in complement clauses embedded by 'non-bridge' verbs, due to the poor person morphology.

(36) a.   *Jeg spurgte hvorfor Peter [I havde] ikke/ofte [v t]   læst den.

     b.   Jeg spurgte hvorfor Peter   ikke/ofte [v havde] læst den.

          I   asked   why   Peter [had]   not/often [had]   read it

Compare the Danish pair in (36) with the Icelandic pair in (37), which patterns the opposite in grammaticality:

(37) a.   Ég spurði af hverju Pétur [I hafði] ekki/oft [v t]   lesið hana.

     b.   *Ég spurði af hverju Pétur   ekki/oft [v hafði] lesið hana.

          I   asked   why   Peter [had]   not/often [had]   read it

Okada *et al*. (1984: 156-157) also observe that medial adverbs are placed after a subject and before a finite verb in Danish subordinate clauses:

(38) a.   Jeg håber virkelig, (at) han *snart* kommer.

          I   hope really,   (that) he   soon comes

          'I really hope he comes soon.'

     b.   Jeg har købt en bog igen,   som   jeg *allerede* har læst.[5]

          I have bought a book again, which I   already   have read.

          'I bought a book again, which I had already read.'

     c.   Hvis du *ikke* sknder dig,   kommer du for sent to toget.

          if   you not hurry self,   come you too late for train

          'If you don't hurry up, you'll be late for the train.'

Since even auxiliaries cannot move over an adverb, Danish subordinate clauses pattern exactly like English sub-junctives. This is problematic for my theory, because all finite verbs with three positive V features are supposed to be strong enough to raise, whether in main or subordinate clauses. On the part of Vikner (1997), he has yet to explain why Danish finite verbs may raise but may not stop in I in main clauses, always moving up to C.[6]

4.   Conclusion

As far as we have investigated these five Germanic languages in this article, it seems that my feature-based hypothesis as discussed in §2 can explain V movement more appropriately than Agr-related theories. The table below summarizes what we have observed:

Table 12. Strength of Features (Revised)

T	Agr	M	Vc	# of +	
+		+	+	3	All Vs raise in Danish main clauses
+	+	+		3	All Vs raise in Icelandic*, German, and Dutch
+	+			2	Only *be* and perfective *have* raise in English
	+			1	No Vs raise in English subjunctives
+				1	No Vs raise in English imperatives

*The so-called middle construction with the morpheme *-st*, similar to the Danish medio-passive, exists in Icelandic (Thráinsson (2007)). We will not address it, assuming that the four positive features [+T, +Agr, +M, +Vc] do not undermine this theory.

As for the distribution of V2 (in main clauses), as evidence of all V raising, the following table, adapted from Rohrbacher (1999: 19) summarizes the state of facts:

Table 13. V2 in Matrix Declaratives

	Subject First		Topic First	
	V2	Other	V2	Other
Icelandic	✓	*	✓	*
Danish	✓	*	✓	*
German	✓	*	✓	*
Dutch	✓	*	✓	*
English	*	✓	*/ ✓	✓ /*

English is often considered to be a residual V2 language, in which V2 may take place with auxiliaries in inverted interrogation and negation:

(39) a.　What kind of movies *did* Mary like?

　　 b.　Under no circumstances *would* she watch artsy movies.

The conclusion drawn by Murakami (1992; 2003) has been reached here again with the Danish main clause data adding further support. As mentioned in the last part of the previous section, however, the Danish language remains a serious problem for Vikner (1997) and Murakami (2003) alike, though differently.

Acknowledgments

Notes

1. Although the English subjunctive and imperative had been traditionally considered finite, the finiteness for them has been placed in doubt many times (*e.g.,* Chiba (1987: §3.10)). This argument is an attempt to provide an answer for the state of matters in English finiteness.

2. Murakami (2000) statistically confirmed by looking into the Helsinki Corpus that, when the word order *be not* was employed like (i) in earlier English, the V features were [+T, +Agr, +M] and *that* was liberally dropped in subjunctives because nominative features were checked without the help of *that*.

    (i) Pray God he *be* not angry.   – Shakespeare (1613: II.ii.63) *King Henry VIII*

3. I received this radical criticism given by an anonymous reviewer: "The featural specification[s] for subjunctive and imperative in English are complete stipulations: if anything, the choice of the bare verb form marks mood in English. With all forms being entirely identical in the subjunctive, it is highly counter-intuitive to argue for a positive AGR feature. In the imperative, there is just no alternation in tense marking, so, again, assuming a positive specification for this feature does not follow from anything." Another reviewer mentioned that languages could simply lose distinctions without 'reacting'. He or she further went on saying that although Dutch and Danish had lost the subjunctive morphology as English had, they had not reacted by taking the same procedures as English had. However, what I can insist is that there is still mood morphology in Dutch and Danish respectively, based on the fact that imperatives are distinct from indicatives in the two languages. Although I admit that there is no longer productive subjunctive in either Dutch and Danish, V still raises in both the languages due to the strong features.

4. See Pintzuk (1999) for the historical change of phrase structures in the period of OE. We support her argument in this article.

5. An anonymous reviewer pointed out that the Danish relative clause in (38b) could be translated into Dutch in the same word order:

    (i) ... een boek dat ik reeds heb gelezen
          a book that I already have read

    But the head-final order, which we are assuming here as the base, is grammatical, too (Olaf Koeneman, p.c.):

    (ii) ... een boek dat ik reeds gelezen heb
          a book that I already read   have

    So the problem is how to derive (i) from (ii) here. I suspect that the past participle *gelezen* can be extraposed to the end of the sentence, but I will not address it in any more detail.

6. This is what Vikner (1995: 147) seems to mean by saying "finite verbs in Danish ... like finite main verbs in English, may not undergo independent V^0-to-I^0 movement." Under my analysis, however, they do raise from V to I, as exemplified from (30) to (33).

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