

The phonology of adverb placement, Object Shift and V-2; the case of Danish 'MON'.

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1 Introduction

A prominent topic among researchers of Germanic languages in particular is the availability of main clause word order (verb second) in subordinate clauses and the conditions that license it.¹ The Danish illocutionary particle MON presents the opposite problem: When it appears sentence initially in main clauses, the sentence presents with subordinate clause word order, i.e., the verb does not appear in second position. I argue that this follows from an implicit main clause representing the particular illocutionary force associated with MON.

The paper takes the following form. First I examine the illocutionary properties of MON and show its similarity with German 'ob' described in Truckenbrodt 2006. I proceed to examine the syntax of MON (which differs totally from that of the complementizer 'ob'). I then propose an account in which both V-2 and the position of MON in the sentence are accounted for at the Articulatory-Perceptual Interface. I also propose a theory of speech acts which interacts with this interface.

2 Speech Acts

2.1 The illocutionary force of MON

Since the early days of performative theory, the syntactic embedding of clauses with illocutionary force and the constraints on such embedding has been a burning issue.

Wechsler 1991 renewed the interest in this issue by showing that there is a correlation in Germanic languages between V-2 and illocutionary force and that exactly those embedded clauses which allow V-2 also function performatively. Truckenbrodt 2006 is a recent addition to this discussion. He argues that the illocutionary force of V-2 is "correlated with the presence of a specification of the *addressee* in the meaning of a sentence type:

(1) *'S wants (from x)₁ (that it is common ground)₂ that/whether ...'* .

'S wants that it is common ground that/whether ...' ."

According to Truckenbrodt, the most palpable effect of the presence of the addressee (x) in (1) is that it presupposes that x controls whether the proposition is true. V-2 interrogatives are therefore predicted to presuppose that the addressee knows the true answer to the question.

Truckenbrodt tests this property of V-2 interrogatives by comparison with the non-V-2 interrogatives.² (2) shows that a V-2 question is infelicitous in a context in which it is made clear that addressee does not know the answer.

(2) Stefan: Ich hab seit Jahren nichts mehr von Peter gehört.

'I haven't heard from Peter in years.'

Heiner: Ich auch nicht.

'Me neither.'

Stefan: # Mag er immer noch kubanische Zigarren?

'Does he still like Cuban cigars?'

Heiner's first sentence in (2) makes it clear that he knows nothing about Peter. Stefan's question to him therefore violates the requirement on V-2 questions that the addressee (Heiner) control whether it becomes common ground whether Peter still likes Cuban cigars. Since this requirement is not fulfilled, the question is infelicitous.

Since non V-2 questions do not have this requirement the sequence in (3) is unproblematic.

(3) Stefan: Ich hab seit Jahren nichts mehr von Peter gehört.

'I haven't heard from Peter in years.'

Heiner: Ich auch nicht.

'Me neither.'

Stefan: Ob er immer noch kubanische Zigarren mag?

Lit.: *'Whether he still likes Cuban cigars?'*

Interpretation \approx *'I wonder whether he still likes Cuban cigars.'*

Here Stefan's non V-2 question with 'ob' does not presuppose that the hearer know the answer. Therefore the question is appropriate in the context given.

The distinction between (2) and (3) also holds in Danish:

(4) Mon Peter kommer?

mon Peter comes

Do you think Peter is coming?

(5) *Mon du kommer?

mon you come?

Do you think you're coming?

(6) Mon du når det?

mon you reach it?

Do you think you'll make it?

The difference between (4) and (5) is that the addressee is not assumed to know whether *Peter* is coming but is assumed to know whether s/he herself is coming.³ In view of the fact that the addressee cannot know for sure whether s/he will make it on time, the 'mon' question in (6) is fine. It follows that not only does the question with 'mon' not presuppose that the addressee knows the true answer to the question as do V-2 questions, this question type strictly requires that the addressee NOT know the answer.

2.2 Typing of Speech Acts

I follow Brandner 2004:1, who extends Cheng 's 1991 notion of typing to declaratives and argues "that V-2 is a strategy to specify a FORCE value in an explicit way" in languages which do not have typing particles. According to Brandner, V-2 languages mark every FORCE-value, including the declarative, (whereas in other languages the declarative is the default case). In such languages the verb moves because of the need for FORCE specification and the value is delivered by a subsequently moved constituent. If the moved constituent is a wh-phrase, the FORCE value will be interrogative; if a DP, it will be declarative. Brandner treats verb-initial structures as underspecified for FORCE. Their interpretation depends on intonation and discourse strategies. V-initial Yes-No

questions, get their illocutionary force by its characteristic intonation and not by syntactic means.

Brandner distinguishes languages that encode Force values with lexical means via the insertion of a relevant particle. It seems though that the Germanic languages can use both methods. When a particle is used, Force can be directly read off the particle. Brandner argues that the Force feature must have scope over all verbal projections. It follows that FORCE particles occur either at the left or at the right periphery of the clause.⁴ MON is indeed (usually) initial.

What, then, does MON type? The dictionary entry in Becker-Christensen 1995 describes MON as an interrogative adverb. According to Allan et al. 1995, MON expresses strong uncertainty or doubt by the person who poses the question. It is usually translated as *I wonder*, but this translation does not reflect the request for an answer associated with it.⁵ The closest translation is therefore *Do you think that X?* It seems, then the MON types a deliberative question.

MON can occur on its own as in (7):

(7) A: Det går nok!

It goes prt

It'll be OK

B: Mon?

Really?

B's answer expresses that he is uncertain about A's assertion.

3 Syntax

The adverbial particle MON occurs sentence initially with subordinate clause word order. In Danish, adverb position distinguishes main and subordinate clause word order. In main clauses adverbs follow the verb in second position, in subordinate clauses the adverb is positioned between the subject and the verb. The verb can therefore be seen not to be in second position. This is shown in

- (8) a Main Clause: S V Adv O
b Subordinate Clause: ... S Adv V O

In (9) the adverb follows the subjects and precedes the verb. The initial MON blocks V-2 and the sentence has the order of a subordinate clause as in (8)b.

- (9) Mon han *stadigvæk* ryger cigarer?
mon he still smokes cigars
Do you think he still smokes cigars?

Compare (9) to (10) and (11):

- (10) Ryger han *stadigvæk* cigarer?
smokes he still cigars
Does he still smoke cigars?
- (11) *Mon ryger han *stadigvæk* cigarer?

In the yes-no question in (10), inversion has raised the V to first position, but the position of the adverb is still that of main clauses if one assumes that inversion across an adverb is blocked.⁶

One explanation proposed for the lack of V-2 in MON questions is that little words including MON are base generated in C blocking V to C. (e.g., Vikner 1995, Bayer 2004). This solution would be an elegant one, if it weren't the case that Spec,C cannot be filled in the presence of MON. One would expect the occurrence of topics and wh-phrases in Spec,C preceding MON, but in fact this position must remain empty as shown in (12)a and b.

(12) a *Disse cigarer mon Peter ryger?

These cigars MON Peter smokes

b *Hvilke cigarer mon han ryger?

which cigars MON he smokes

(12)a could be explained away as a conflict between topicalization and questioning, yet (12)b should then be perfect, especially in view of (13) in which the subject is questioned and the sentence with MON is fine and (14) which is identical to (12)b except that MON occurs sentence finally:⁷

(13) Hvem (mon) kommer?

Who (MON) comes

Who (MON) is coming?

(14) Hvilke cigarer ryger han mon?

Which cigars smokes he (MON)

Which cigars does he smoke (MON)

The asymmetry between (12)b, (13) and (14) will be examined below in section 4.

Meanwhile, we can conclude that the lack of V-2 with MON remains unexplained.

3.1 V-2 in subordinate clauses -- Root phenomena

According to Hooper and Thompson 1973 root clauses can be embedded under verbs which enable their interpretation as main assertions. Such clauses have the syntax of main clauses including the possibility of topicalization and V-2. The existence of V-2 in embedded clauses is a problem for syntactic analysis. The following Swedish and English examples are from Wechsler 1991. Wechsler shows that embedded V-2 is optional in indirect assertions under verbs such as: *claim, report, assume, guess, imagine, believe*.

- (15) a Hugo påstod att [du aldrig *kommer* att läsa den här boken]
b Hugo claimed that [you never *will* read this book]
- (16) a Hugo påstod att [du *kommer* aldrig att läsa den här boken]
b Hugo claimed that [you *will* never read this book]

The examples in (15) have subordinate clause word order, those in (16) have V-2.

According to Wechsler roots and non-roots have different syntax: Roots are CPs, whereas non-roots are simple S. Another approach to distinguishing V-2 root complements from regular complements is to attach them in different syntactic positions (e.g., Reis 1997; McCloskey 2005; Meinunger 2006 and Truckenbrodt 2006).

We are now left with two opposite problems:

1. Accounting for V-2 in certain embedded clauses
2. Accounting for non-V-2 in direct MON-questions

Both questions relate to the relation between V-2 and illocutionary force: Embedded V-2 depends on whether the matrix verb allows the subordinate clause to have the force of the

main assertion of the sentence and the lack of V-2 order may have to do with the difference in illocutionary force between regular questions and MON questions.

3.2 Speech Act Theory and Syntax

Sigurðsson 2004 takes a somewhat radical position concerning the relationship between meaning and what is pronounced. According to Sigurðsson UG features are radically universal: they are common to all languages and so are not selected. Languages differ, however, in what is pronounced. As a result meaningful elements may not be pronounced and pronounced elements may be meaningless, i.e., languages demonstrate variability with respect to “meaningful silence” and “meaningless sounds.” Not only may features be silent in individual languages, there are also meaningful features that are silent in *all* languages. Sigurðsson introduces the *silence principle*:

- (17) Languages have meaningful silent features; any meaningful feature, ‘formal’ or not, may be non-prominent, hence silent.

According to Sigurðsson, any finite clause is computed in relation to a speech event, containing the speech participants (logophoric features Λ) and the time and location of speech (ST/L)

- (18) Speech Event ε {ST/L = Fin, $\{\Lambda_n, \Lambda_{n+1}, \dots\}$, ...}

That these speech event elements are part of language is uncontroversial.

But Sigurðsson argues that they belong to syntax since they have PF effects as illustrated in (19):

- (19)a **He** said to **me** that **he** loved **me**.
b **He** said to **me**: "**I** love **you**."

Subordinate clauses ((19)a) have a secondary, anaphoric speech event; its speech features inherit their values from preceding elements which may be 'silent'. In (19)b, the embedded Λ -features have 'shifted values': they are not identical with the silent matrix Λ -features but with the overt matrix arguments.

It follows, according to Sigurðsson , that silent speech event features *are* syntactically active, unless, of course, “we want to say that pronominal reference (and temporal reference) are not decided in syntax.” Sigurðsson assigns the speech event features an architecture along the lines of Rizzi 1997:

- (20) [_{CP} Λ_A ...Force .. Λ_P .. S_T .. S_L [_{IP} ..Pers .. T .. [_{VP} ..E_T .. θ ...

For Sigurðsson, the speech act features on the left periphery are silent.⁸

3.3 Extending the approach to embedded V-2

Assume that the types of verbs that allow embedded V-2 clauses (bridge verbs), are overt instantiations of Force and so the matrix of a V-2 complement is an overt instantiation of the 'performative' speech event features. V-2 embedded clauses and matrix clauses would then differ only in that the performative matrix in the former is pronounced whereas it is

silent in the latter. This would be a rather elegant way of unifying V-2 in main and subordinate clauses. (V^* represents the class of verbs under discussion.):

- (21)a (I V you) [Main clause, V-2]
b I V^* You [Subordinate clause, V-2]

But working out the syntax so as to get the correct word orders is anything but simple since the 'silent' matrix necessarily triggers raising of the V, but with the overt matrix, V-2 is optional and is restricted to the small class of bridge verbs. This may be sufficient reason to reject the analysis.

3.4 What about MON?

If Sigurðsson's idea is extended further to account for the subordinate word order in MON-questions, then these would have a silent performative matrix:

- (22)a (I ask you) [MON Main clause, no V-2]
b (I ask you) MON han kommer

Bayer 2004 discusses similar German root clauses with illocutionary force in which V-2 is suppressed. His examples, like the German example with 'ob' in (3), have a complementizer in C which blocks V-2. Bayer also suggests that the source of such sentences may be a sentence with an *elided matrix*. There are, however, a number of problems with this approach. First of all, MON is not a complementizer; it is an adverb.

Evidence that MON is indeed an adverb, and not a complementizer (as is clearly the case for ‘ob’ in German), is the fact that it triggers object shift as shown in (23).

(23)a Så Peter hende mon?

saw Peter her MON

Did Peter see her?

b Så Peter mon *hende/Susanne?

saw Peter MON her/Susan

Did Peter see her/Susan?

Object shift in Mainland Scandinavian applies only to pronouns which must precede adverbs. Full DPs, however, necessarily follow the adverb.

Second, ‘internal’ MON also occurs in embedded clauses:

(24) Gad vide om Peter mon kommer i morgen.

Like-to know if Peter MON comes tomorrow

Third, MON can occur sentence internally in questions as shown in above (12)b and (13) and also below in the direct yes-no question in (25). There is no significant difference in interpretation between (25) and the one with left peripheral MON in (26).

(25) Så Peter mon Mette?

saw Peter MON Mette

Did Peter see Mette (do you think)?

(26) Mon Peter så Mette?

MON Peter saw Mette

Did Peter see Mette (do you think)?

Note that the force of V-2, that the addressee controls the truth of the answer, conflicts with the interpretation of MON and is suppressed:

(27) *Så du mon Mette?

saw you mon Mette

Do you think you saw Mette?

As noted above in section 2.2, Brandner 2004 allows for typing either by V-2 or by a particle, but not by both. Under this view, non-initial MON does not function as a typing particle. This approach works, but predicts that sentences such as (27) should be good, since the force of the sentence should be that determined by V-2 and not by the presence of MON.

The idea of allowing both overt and silent performative matrices in the syntax, although initially promising, does not account for the full array of facts concerning V-2 and the distribution of MON.

3.5 Silent syntax: Turning Sigurðsson's idea on its head

In this section I pursue the opposite of Sigurðsson's idea, namely the availability of overt, pronounced elements which are inactive in Syntax.⁹

Mittwoch 1976:31-32 argues that performatives cannot function syntactically as a higher clause as proposed in Ross 1970. Instead, she suggests, their properties are akin to those of parentheticals, juxtaposed to the uttered sentence. And, according to Mittwoch 1977: 182, "parenthetical elements are not constituents of sentences to which they are attached." So, according to Mittwoch, performatives, like parentheticals, are inactive in syntax, what I call syntactically 'silent'. Where then are these 'invisible' parentheticals? I argue in Erteschik-Shir 2005 following Áfarli 1997 (and see also Áfarli this volume; Chomsky 2001; Bobaljik 2002, that adjuncts are not represented hierarchically in the syntactic tree but are rather merged on a separate plane. It is plausible, then, that parentheticals are also adjoined on a separate plane, and that they therefore do not interact with the core syntactic constituents of a sentence, i.e., they are inactive in syntax, or syntactically silent. The site of adjunction of adjuncts is the phrase they modify, in the case of parentheticals the maximal projection. According to this view performatives are invisible in syntax AND in phonology.

Before we discuss the repercussions of this approach, it is useful to examine the properties of overt parentheticals since those of silent ones should be analogous.

According to Reis 1995 and Bayer 2005 certain matrix clauses should be analyzed as parentheticals. Bayer shows that this explains the that-t effect:

(28) Wh-object

- a Who did John believe Susan will meet?
- b *Who ~~did John believe~~ Susan will meet?

(29) Wh-subject

- a Who did John believe will meet Susan?
- b Who ~~did John believe~~ will meet Susan?

(28) shows that the main clause material intervening between the wh-phrase and the subordinate clause cannot be left out, and so cannot be considered to be parenthetical when the object is extracted. Object extraction is therefore not predicted to depend on the presence or absence of an overt complementizer as is indeed the case. (29) shows that when the subject is extracted, it is possible to leave out the main clause, and therefore it can be analyzed as a parenthetical.

Embedded subjects extract in the absence of an overt complementizer in cases where the matrix functions parenthetically. As noted in Erteschik-Shir 1997:234, the complementizer is optional in English only with 'bridge' verbs. These are the verbs which make for natural matrix 'parentheticals' and the same verbs allow for subordinate V-2

The merger of adjuncts on a separate plane allows for the free linearization of adjuncts within the domain of the constituent to which they are attached modulo independent phonological processing and pronunciation constraints.¹⁰ The particular linearization patterns of adjuncts are language specific and depend among other things on their prosodic properties. Parentheticals form independent phonological phrases. It

follows that they can only be linearized in positions which allows for a prosodic break.

This is shown in (30) for English:

- (30)a I think Peter smokes cigars.
- b Peter, I think, smokes cigars.
- c Peter smokes cigars, I think.
- d *Peter smokes, I think, cigars.

The matrix of V-2 complements is adjoined in syntax and linearized in phonology.¹¹

We now have a reasonable explanation of embedded V-2: The matrix of V-2 subordinate clauses is analyzed as a parenthetical, adjoined to its clause in a separate dimension. The clause is therefore syntactically a matrix and V-2 word order follows. Linearization allows for the adjunct to be linearized as in (30)a, thus deriving a subordinate clause with main clause syntax.

3.6 Silent Phonology

Parenthetical performatives are analyzed in the same way. They are adjoined on a third plane. They are interpreted but remain unpronounced. They are in fact *phonologically silent*. To account for this option, I propose the following addition to Sigurðsson's

Silence principle:

- (31) Silence principle (addition): Meaningful elements can be *syntactically* silent or *phonologically* silent, but not both.

Remember that Sigurðsson's Silence principle refers to formal features as shown in (32) repeated from (17).

- (32) Languages have meaningful silent features; any meaningful feature, 'formal' or not, may be non-prominent, hence silent.

The view I take represents the relevant meaningful elements as well-formed parenthetical clauses adjoined in a third dimension. This allows for a unified approach to overt and implicit 'parentheticals' with similar meanings and properties. These clauses can account for the pronominal properties of the sentence as proposed by Sigurðsson and the choice of verb determines its force.

In order to implement this proposal it is necessary to investigate what determines the ultimate silence of these parentheticals which consist of a verb as well as subject and object pronouns. The first requirement is that the pronouns represent the speaker and the hearer (1st and 2nd person). The second is that the verb indicate little more than the force of the sentence (e.g., *say, think, ask*).

4 Back to MON

The question we set out to answer was why V-2 does not occur with initial MON. So far we have argued above that MON is an adverbial. If so, it is adjoined on a separate plane and linearized in the phonology. We have also shown that the interpretation of MON, *Do you think that...?*, indicates the force of the sentence, namely a question albeit one which lacks the presupposition that the hearer know the answer. Although this interpretation is constant over all occurrences of MON, we also have to explain the occurrence of internal MON with V-2.

Let us first examine initial MON and compare it to sentences with the matrix *gad vide om* (see (24) above) which has a similar interpretation as well as with the matrix *Do you think that*:

(33) Mon Peter kommer i morgen?

MON Peter comes tomorrow

Is Peter coming tomorrow?

(34) Tror du at Peter kommer i morgen.

think you that Peter comes tomorrow

Do you think that Peter is coming tomorrow?

(35) Gad vide om Peter kommer i morgen.

Like-to know if Peter comes tomorrow

In (33) MON performs the same function as does the matrix in (34) and the expression in (35). If we implement the idea that MON represents a silent matrix discussed in section 3.4 ((22)), together with the idea that the silent matrix is adjoined and linearized, we will get around the problems raised in that section. MON is silent in the syntax, hence does not trigger V-2, it is interpreted as a typing particle and pronounced in the phonology. MON thus behaves exactly like the matrices in (33) and (34), a good result.

Turning now to internal MON and its placement, as observed in section 3.4, internal MON behaves like an adverb and undergoes object shift. This was demonstrated in (23) repeated here:

- (36) a Så Peter hende mon?
 saw Peter her MON
Did Peter see her?
- b Så Peter mon *hende/Susanne?
 saw Peter MON her/Susan
Did Peter see her/Susan?

Internal MON thus behaves just like any other Danish adverb. Due to its interpretation, however, it occurs only with questions. What types the sentence as a question is either the intonation, in the case of yes-no questions (see section 2.4 above) or else it is the wh-element preceding the raised verb. MON does not function as a typing element in these cases. What MON adds here is the uncertainty associated with it, i.e., it removes the presupposition that the hearer know the answer.

MON also occurs in the embedded yes-no question (37) repeated from (24) above.

- (37) Gad vide om Peter (mon) kommer i morgen.
 Like-to know if Peter (MON) comes tomorrow

Here again its position is that of an adverb which (as mentioned in section 3) is placed between the subject and the verb in embedded clauses.¹²

Mon also occurs in adverbial positions in main clause questions:

- (38) Kommer Peter mon/ikke?
 comes Peter MON/not
Is Peter MON/not coming?

- (39) *Kommer mon/ikke Peter?
comes MON/not Peter

(38) and (39) show that MON occurs in the same position as the adverb *ikke*. From what we have seen so far we can conclude that MON either occurs sentence initially as a typing particle or else it occurs sentence internally in the same positions any other adverb would.¹³

In view of the fact that MON can function as a typing particle, typing sentences as uncertainty questions, and in view of the fact that it also occurs in yes/no question and wh-questions which are independently typed (by intonation and by the wh-element), the question arises as to whether MON can function as a typing particle in questions. It turns out that MON does not occur sentence initially in questions of either type:

- (40) *Mon kommer Peter?
MON comes Peter
MON is Peter coming?

- (41) *Mon hvem kommer?
MON who comes
MON who is coming?

This follows nicely if we assume that double typing is ruled out and that typing with MON is unnecessary when regular question typing is present. However, this leaves the following example unexplained:¹⁴

- (42) Hvem mon kommer?
who MON comes
Who MON is coming?

Note that MON is not in a possible adverb position here as shown by the ungrammaticality of (43):

- (43) *Hvem ikke kommer?
who not comes

The position of MON in (42) therefore requires an explanation: MON is not sentence initial as it is when it functions as a typing particle, neither is it in an internal adverb position. I propose that the wh-word *hvem* and MON invert for prosodic reasons: MON+hvem is ruled out as a prosodic constituent whereas hvem+ MON is not.

It is a property of adverbs in Danish that they cannot stand alone and must form a prosodic unit with some other element in the sentence as discussed at some length in Erteschik-Shir 2005. This fact lies at the basis of my explanation of object shift in Mainland Scandinavian. Interestingly the adverb can either be the host of prosodic incorporation or else it itself can prosodically incorporate in the other element. Object shift with MON illustrated in (44) (repeated from (23)) shows the incorporation of MON into a host (the host is capitalized):¹⁵

- (44)a Så PETER+mon Susanne?
 saw Peter MON Susanne
 Did Peter see MON Susanne?
- b Så PETER+hende+mon?
 saw Peter her MON
 Did Peter see her?

In (44)a MON incorporates into the subject, MON is prosodically weak whereas the subject is strong. In (44)b the subject is a pronoun and therefore it must incorporate in some host. Here MON incorporates into the unit formed by the subject and the incorporated pronoun.

In (45) with initial MON, there are two options depending on whether the subject is a pronoun or not. In (45)a, MON incorporates into the subject, but on the left. In (45)b MON plays the role of the host and the pronoun is prosodically weak as expected.

- (45) a mon+PETER ryger cigarer?
 b MON+han ryger cigarer?

With this in mind, let us reexamine the problematic (42) repeated here as (46) and compare it to the unacceptable order in (47):

- (46) Hvem mon kommer?
 who MON comes

Who MON is coming?

(47) *Mon hvem kommer?

MON who comes?

MON who is coming?

Since both *hvem* and MON function as typing elements, either one could be initial in the sentence and since both mark the sentence as a question there is no conflict between them. One possible explanation for why the wh-phrase must come first could be the fact that wh-phrases are much more frequent than MON as question marker and therefore are better for typing purposes. However, this would leave the following facts unexplained:

(48) Hvad MON han ryger?

what MON he smokes

What does he smoke?

(49) *Hvad MON ryger han?

what MON smokes he

(50) Hvad ryger han MON?

what smokes he MON

Which cigars MON does he smoke?

In (48) as in (46), MON inverts with the wh-phrase. But here we also have evidence that MON functions as an initial typing element, because V-2 is blocked as it is in all non-initial occurrences of MON. (49) shows that V-2 order is indeed unacceptable. (50) in turn shows that V-2 is required with internal MON. We can therefore conclude that (48)

is a bone fide case of initial MON that has inverted with the wh-phrase. Since this ordering could not be syntactically motivated, a phonological explanation must be sought. (49) provides further evidence that phonology is at stake:

- (51) ??Hvilke cigarer MON han ryger?
 Which cigars MON he smokes

(51) is identical to the grammatical (48) except for the fact that the wh-phrase in the former is complex. I propose that the reason for the reduced acceptability of (51) is that the complex wh-phrase does not provide a good host for the prosodic incorporation of MON. It seems that one requirement on the host of incorporation is that it is stressed and that the stress cannot occur too far away. Therefore contrastive stress on the noun preceding MON helps, whereas stress on the wh-element makes the sentence even worse:

- (52) a ?Hvilke CIGARER+mon han ryger?
 which cigars MON he smokes
 b ?*HVILKE cigarer+mon han ryger

Another argument for the prosodic basis for the placement of MON is illustrated in (53).

- (53) a ?Hvem MON er kommet?
 who MON is come
 Who MON has come?

b Hvem er MON kommet?

who is MON come

Who has MON come?

(53)a illustrates the case where initial typing MON inverts with a *wh*-element as in (48).

This is OK according to my informant, but (53)b in which MON is placed after the auxiliary in a ‘normal’ adverbial position is much better. This has to do with the prosodic properties of the auxiliary which must prosodically incorporate into a host just as MON must. The order of incorporation in (53)b is better because the auxiliary reduces phonologically and is pronounced like a clitic whereas MON does not. It retains lexical stress. The sequence in (53)b therefore adheres to the trochaic requirement to be discussed in the next section, whereas the one in (53)a does not.¹⁶

This section has argued that the placement of both typing MON and internal MON is determined by prosodic considerations. An explanation of the lack of V-2 with typing MON is still missing, however.

5 V-2 phonology

In Erteschik-Shir 2005b I argued that V-2 is a phonological operation which linearizes the matrix verb to the left edge of its phonological domain. There I adopted the traditional view that V-2 is topological, i.e., it has to do with linear order. I argued that the V-adjacent position is good for prominence since verbs are not normally focused and are therefore not accented. V-2 thus enables the phonological prominence of the initial typing element (*wh* for questions; topic DP for declaratives).

Stronger evidence that V-2 is phonologically motivated comes from Speyer 2005. According to Speyer, the verb-second constraint was lost in English in the course of the Middle English Period. During the same time frame the rate at which direct object noun phrases topicalize also declines.¹⁷

Speyer poses the question as to why the rate of topicalization should decline parallel to the loss of V-2? Speyer notes that topicalization is motivated by pragmatic reasons and that it is unlikely that the conditions of language usage change over time. The decline in topicalization is therefore surprising.

Speyer found that the decline of topicalization with full DP subjects is continual but the decline of topicalization with pronoun subjects is less pronounced and stops with the transition from Old English to Middle English Grammar. Since the decline affects pronoun-subjects and full noun phrase subjects differently, Speyer figures that prosody must be a factor. He makes the following comparison between topicalization in German and English:

- (54) a **Hans** hasst **Bohnen**. **Erbsen** hasst **Maria**.
 b **John** hates **beans**. **Peas**, **Mary** hates.

Topicalized elements are generally selected from a contextually evoked set and are therefore accented. This is the case in both languages. The German sentence (54)a is unobtrusive. The English sentence (53)b is awkward. It requires a little break between the two accents. This looks as if – at least in English – a weak element between two accents is compulsory. Speyer calls this requirement the ‘Trochaic Requirement’ (= TR). He

views inversion in German as a handy way to avoid violation of the TR. Modern English, since it has lost the V-2 constraint, no longer has this option. The loss of topicalization, according to Speyer, therefore follows naturally from the loss of V-2 since topicalization without V-2 violates the TR.

Although V-2 is grammaticized in the languages in which it occurs, its original motivation can therefore be seen as purely phonological. Let us assume that this story applies to Danish as well. Then there is no motivation for V-2 in sentences with typing particles since they are not accented and do not induce a violation of TR.

Grammaticalization of V-2 would therefore never be extended to such cases.

5.1 V-2 in Danish

According to Engberg-Pedersen et al. 2005 all old Scandinavian sentences present as V-

2. This is the case even in subordinate clauses.

- (55) Hvis du tager ikke hævn...
 If you take not revenge....
 If you don't take your revenge

In modern Danish this sentence would be ordered as in (56):

- (56) Hvis du ikke tager hævn...

As noted in section 3 above, the adverb in modern Danish follows the verb in main clauses, but precedes it in subordinate clauses. (55) shows that old Danish subordinate clauses present with main clause word order and that the adverb is consistently postverbal, an indication of V-2.

In modern Danish adverb position thus identifies the subject in main clauses since there the subject precedes the adverb:¹⁸

- (57) a Peter elsker ikke Mette. (Peter = subject)
b Peter elsker Mette ikke. (Mette= subject)

Such identification is useful in languages such as Danish which employ topicalization freely since without the adverb the DP V DP word order is ambiguous with the initial DP interpreted either as the subject or the object. In Old Scandinavian adverb placement was not needed since overt case marking was available in Old Scandinavian and therefore ambiguity did not occur in these cases. The placement of adverbs with respect to the verb must have developed into its current form together with the loss of case. A careful investigation of the history of Danish investigating these issues should shed more light on the function of V-2 in the language.

The identification of syntactic roles and illocutionary force together with other interpretive needs are now dependent solely on word order. This may lead to word order ‘conflicts’ in which one word order identifies the subject, and another the illocutionary force. At the same time word order is also constrained by prosodic forces. The interplay of linearization and prosody is accounted for at the syntax-phonology interface in which phonological factors such as sentence initial position as well as prosodic factors are expected to play a significant role.

6 Conclusion

My account of MON is therefore that it is adjoined to the sentence it modifies. It linearizes in first position as a typing particle. In the presence of a performative yes-no question (silent or overt), MON can not type as well. In this case it adverbially modifies the question and is linearized in the manner of weak adverbials. In the presence of a wh-

question, MON can optionally linearize in first position, in which case it inverts with the wh-element, if it is prosodically licensed in inverted position. MON can also linearize in any adverbial position in matrix and subordinate clauses whose typing is compatible with MON, i.e., they must be questions, and their interpretation must be compatible with the uncertainty associated with MON. MON does not trigger V-2 since V-2 is not prosodically motivated. Under this analysis V-2 is not seen as having illocutionary force. Illocutionary force is associated with performatives, typing particles or, in the case of yes-no questions, with intonation.

Linearization has been shown to be responsible for the placement not only of MON, but also of V-2 and overt performatives.

Notes

The research for this work was funded by the Israel Science Foundation Grant No. 1012/03. I thank Anita Mittwoch, Lisa Rochman and the audience of the ZAS 2006 Workshop *How to refer to one's own words: Performatives between grammar and pragmatics* for their helpful comments.

¹ See e.g. Meinunger 2005 and the references cited therein.

² I use V-2 as a way to refer to raised V word order, even if the verb is in fact sentence initial.

³ Although one cannot predict for sure whether one is going to make it on time, one can 'think' that one will since a person has some control over an event concerning oneself. This is not the case, however, for a third person.

⁴ Both cases are attested.

⁵ MON is a short version of 'monstro' which includes the verb 'tro' = *believe*. Like 'maybe', it can be seen as a main clause without a subject.

⁶ Traditional topological grammar positioned the verb in the second linear position. The first position (the German 'vorfeld') contains a variety of elements including topics, wh-elements, and may also be empty as in the case of yes-no questions. The initial position of the verb as in (10) is still considered to be V-2, but with an empty first position. This is also reflected in generative theories in which the position of the V is raised to the same position in yes-no questions, as it is in V-2 declaratives.

⁷ I return to non-initial occurrences of MON in section 4.

⁸ A, P, T, L refer to argument, participant, tense and location features, respectively.

⁹ This idea is inspired by the work of Anita Mittwoch on the syntax-speech act interface from the 1970s including Mittwoch 1979 not cited above.

¹⁰ Erteschik-Shir 2005 argues that this view of adjunct placement explains Scandinavian object shift. Scandinavian adverbs are necessarily linearized after unaccented object pronoun and before full DPs.

¹¹ According to Vikner 1995 languages differ as to whether embedded V-2 occurs with overt complementizers, I have nothing to say about why complementizers are allowed in sentences which are in fact analyzed as matrix clauses (see also Wechsler 1991).

¹² Note that MON cannot be inserted in any subordinate question:

(i) *Jeg ved ikke om Peter MON kommer i morgen.

I know not whether Peter MON comes tomorrow

Note that this matrix is incompatible with the uncertainty associated with MON since it asserts ‘not-knowing’.

¹³ Rochman this volume argues that the placement of floating quantifiers is sensitive to focus. When several positions for MON are available, the choice may also depend on focus properties of the sentence. Further research into this question is warranted.

¹⁴ MON does not occur in second position in yes-no questions:

i) *Kommer mon Peter?

¹⁵ The host has stronger stress than the incorporated element. Incorporation is similar to compounding in this respect. Note that the capitals refer to word stress, not focus stress.

¹⁶ See Rochman 2007 and Rochman in prep for similar facts about the placement of floating quantifiers in English.

¹⁷ Neither topicalization nor V-2 are entirely lost but remain on a low level of usage until today.

¹⁸ For details see Erteschik-Shir 2005a.