

Towards a Unified Representation of English and Norwegian Auxiliaries¹

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1. Introduction

Superficially, the auxiliary systems of Norwegian and English seem to be rather different, but in this paper I will attempt to show that these cross-linguistic differences are not due to the auxiliaries *per se*, but rather due to intervening factors which affect the systems for representing the auxiliaries. In other words, Norwegian and English auxiliaries appear to be highly similar once these other factors have been accounted for.

The focus for the discussion in this paper is the syntactic representation of the auxiliary systems in English and Norwegian from a Principles and Parameters perspective. Auxiliary representation is interrelated with many other syntactic phenomena, and thus the treatment of auxiliaries may affect how other phenomena are approached. For instance, the question of how to analyse adverbial elements and the structural representation of negation may potentially be seen in close correlation with the syntax of auxiliaries. By means of the Principles and Parameters Theory, it is possible to account accurately for the auxiliary systems in the two languages, and on that basis outline which properties they share and which they do not share.

The remainder of this paper is organized as follows: Section 2 outlines some of the characteristics of English and Norwegian

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auxiliaries. Section 3 provides a structural representation of auxiliaries that applies to both languages. Section 4 presents a discussion of the role of negation in relation to auxiliaries, and section 5 addresses auxiliaries with reference to the Head Movement Constraint.

2. A descriptive account of English and Norwegian auxiliaries

In this section I will briefly describe some salient properties of English and Norwegian auxiliaries with particular focus on the so-called NICE properties of English auxiliaries.

Although auxiliaries are often discussed as a single class, a distinction should be made between *primary* and *secondary*, or modal, auxiliaries. According to Palmer (1987) *be*, *have* and *do* constitute the group of primary auxiliaries in English, and *will*, *shall*, *can*, *may*, *must*, *ought*, *dare* and *need* constitute the group of modal auxiliaries. Faarlund, Lie and Vannebo (1997) list *vere*, *ha* and *bli* as the primary auxiliaries in Norwegian, whereas *ville*, *skulle*, *kunne*, *måtte*, *burde*, *lyte* (in Nynorsk) constitute the group referred to as secondary auxiliaries – or modals.²

NICE properties

As pointed out above, auxiliary properties are probably not universal, and therefore the characteristics of auxiliaries often vary between languages. According to Palmer (1987), English is

² Note that according to Palmer (1987) *dare* and *need* are more problematic auxiliaries since, in terms of the NICE properties, they have some forms that have auxiliary features and others that have lexical features. The distribution of the auxiliary forms is defective. In relation to negation and inversion they clearly appear to be auxiliaries: Not only are these verbs used in negation and inversion, but they also share the property of modal auxiliaries in not having an *-s* suffix in present tense third person singular. There are no such forms as **needsn't* or **daresn't*. This observation has resulted in these verbs being referred to as *marginal* auxiliaries. Faarlund, Lie and Vannebo (1997) list *tore* and *få* as having the same status in Norwegian.

characterized by what Huddleston (1976) denotes the NICE properties. These properties refer to English auxiliaries occurring with *negation*, *inversion*, *code* and *emphatic affirmation*.³ In what follows, I will briefly outline the NICE properties of English auxiliaries and relate these to Norwegian data. For a thorough account of the NICE properties, confer Palmer (1987: 14-26).

Negation

Negation refers to the characteristic of English whereby auxiliaries have distinct negative forms with the negation (*not*) undergoing cliticization to form negative auxiliaries such as *isn't*, *haven't* and *shouldn't*. In English this is a property unique to auxiliaries.⁴ Lexical verbs cannot form negatives in the same manner, as seen in (1a) and, as Palmer points out, it is not even possible for the negation *not* to follow the main verb, as seen in (1b):

(1)

- a. *I liken't sea lions.
- b. *I like not sea lions.
- c. I don't like sea lions.

(1c) shows that in order to have negation of a lexical verb, and still have a grammatically acceptable sentence, the appropriate form of the 'dummy' auxiliary *do* has to be inserted. This process is known as *do*-support; an issue I will address in more detail below.

As far as Norwegian is concerned, cliticization of the negation is not unique to auxiliaries. In Norwegian, auxiliaries and lexical verbs

³ Palmer (1988) points out that auxiliary verbs need to be distinguished from what are usually referred to as catenatives, which include such verbs as *want*, *seem* and *keep*. These verbs share many properties with auxiliaries in their relationships with other verbs, but the catenatives do not hold the NICE properties.

⁴ According to Palmer, *may* provides a slight problem. There is no negative form **mayn't*, only *may not*. *Mightn't* occurs marginally with speakers of American English. Yet, although *may* does not occur with a negative form, it satisfies the other tests with regards to the NICE properties, and it has the characteristics of modals.

alike are acceptable with a cliticized negation, and therefore this cannot be seen as an auxiliary marker in Norwegian in the same manner as in English. However, this cliticization property is not manifested in written standard Norwegian, but it is frequent in spoken Norwegian. (*Han kan'ke spise fisk; han ser'ke på TV.*)

Inversion

The second of the NICE properties is inversion of the auxiliary and the subject in certain types of constructions. The most common type of construction where this occurs is in interrogative sentences, such as (2a). Subject-auxiliary inversion is also found in certain types of conditional adverbial clauses, such as (2b), and with some adverbs (expressing negative meaning) that are in initial position, as in (2c):

(2)

- a. Is the clown coming?
- b. Had I known about the appetite of seals, I'd never have shared my lunch.
- c. Seldom had they seen such an animal.

As with negation, *do*-support takes place in these types of constructions when an auxiliary is not available (3b), since lexical verbs cannot undergo this kind of inversion in English (3a).⁵

(3)

- a. *Comes the clown?
- b. Does the clown come?

Again, inversion cannot be seen as an auxiliary property in Norwegian. Rather, it is a process that takes place with both lexical

⁵ There is also a different type of inversion in English which does not require an auxiliary verb. This construction is often referred to as *locative* inversion. In this stylistically marked construction, the initial element in most cases is a locative adverbial followed by a simple main verb and a subject DP at the end (e.g. *Down came a blackbird.*) See Hauge (1996) for an account.

and auxiliary verbs. Thus, we have inversion in question formation both with auxiliaries (4a) and with lexical verbs (4b):

(4)

a. Har klovnen kommet?

'Has the clown come?'

b. Kom klovnen?

came clown-the

'Did the clown come?'

That Norwegian allows inversion of lexical verbs as well as auxiliaries can be accounted for by the notion of verb movement. Verb movement implies movement of the finite verb to a position to the left of the subject. Norwegian has obligatory movement of any finite verb, whereas English only allows movement of finite auxiliaries. Thus, Norwegian interrogative clauses allow both lexical verbs and auxiliaries in the initial position. Additionally, as can be seen from the examples below in (5), the initial element of a declarative clause in Norwegian need not be of any particular type in order to cause inversion of subject and verb:

(5)

a. Heldigvis kom klovnen.

fortunately came clown-the

'Fortunately, the clown came.'

b. I går knuste klovnen to tallerkener.

yesterday broke clown-the two plates

'Yesterday the clown broke two plates'

Code

The third NICE characteristic of an auxiliary is code, referring to sentences in which a full verb is subsequently picked up by an auxiliary, in a similar manner to a noun being picked up by a

pronoun. This is often the case in constructions containing ‘... *and so*’. Examples of this are found in (6):

(6)

- a. I can swim, and so can the sea lions.
- b. I like fish, and so do they.

Again, *do*-support takes place when no auxiliary is available, as in the example in (6b). Following Haegeman & Guéron (1999) in their discussion of VP layers, it is natural to assume that the reference of *so* in (6b) is the VP *like fish*, and since the VP is represented by a nominal, the insertion of *do* is needed in order for the sentence to have a verb. The code characteristic also applies to Norwegian auxiliaries, as the examples in (7) show:

(7)

- a. Jeg *kan* svømme, og det *kan* sjøløvene også.

I can swim, and that can sea-lions-the also

‘I can swim, and so can the sea lions.’

- b. Jeg liker fisk, og det *gjør* de også.

I like fish, and that do they also

‘I like fish and so do they’

Interestingly, the same mechanisms apply in Norwegian and English in these types of constructions, i.e. Norwegian also applies *do*-insertion (by means of *gjøre*), as we see in (7b). If there is no auxiliary in the first clause, *gjøre* is inserted in the required position of the second clause.

Emphatic affirmation

The last NICE property is emphatic affirmation, where stress is on the auxiliary. In English there can be stress on any verbal form for focus purposes. What is particular about stress on the auxiliary is that it is used for emphatic affirmation of a doubtful statement or denial of a negative statement, as we can see in (8) below.

(8)

a. I *can* come. (You are wrong to think that I cannot come!)

b. We *did* see them. (You thought we did not see them!)

Norwegian appears to have the possibility of emphatic affirmation with all verbs – both lexical verbs and auxiliaries, and affirmation of a doubtful statement is unproblematic with lexical verbs.

As this account of auxiliaries shows, English and Norwegian auxiliaries cannot be said to have the same properties. In many cases, the difference seems to be related to *do*-support in English. *Do*-support clearly plays a structurally central role in English, whereas its Norwegian equivalent only plays a marginal role. Before we proceed to a discussion of the syntactic representation of auxiliaries, I will briefly address *do*-support in more detail.

Do-support

Do does not occur if there is another auxiliary present. The insertion of *do* is an operation that takes place when a verb is required in a certain position and the lexical verb cannot be in that position. As Palmer (1987) points out, *do* is a special type of auxiliary in that it is semantically empty and therefore only appears when grammatical rules of English require an auxiliary. Since English lexical verbs do not move from their original position, *do*-support must take place if a verb is required in another position, as we saw in relation to some of the NICE properties above. Thus, *do*-support has often been described as a last resort – a final attempt to save the sentence from being judged as unacceptable. I will come back to the structural representation of *do*-support below.

In the brief outline above, *do*-support plays a significant role in the representation of auxiliary constructions in English, whereas the Norwegian equivalent ‘*gjøre*-support’ cannot be said to play an equally central part. This distinction can be accounted for in a fairly straightforward manner: since Norwegian lexical verbs are allowed to move out of their original position, no operation such as *do*-support is called for. Thus, the cases in which ‘*gjøre*-support’ is called for in

Norwegian are much more rare. One such case though is topicalization of a VP:

(9)

Spise fisk med kniv og gaffel gjør jeg aldri.
eat fish with knife and fork do I never
'Eat fish with knife and fork I never do.'

Because the VP has been topicalized, the verb cannot fill the obligatory position in the Norwegian sentence, and the insertion of *gjøre* is provoked as a result.

3. Syntactic representation of auxiliaries

English and Norwegian are closely related languages that share many structural properties. For instance, they are both typologically classified as SVO languages. Yet, they differ in that Norwegian is a language with obligatory verb movement of both lexical verbs and auxiliaries, as mentioned briefly above, in contrast to English, which only allows movement of auxiliaries.⁶ In order to account for this difference, generative grammar relies on the view that clausal structures have both lexical and functional projections. The functional projections are considered to be hierarchically above the lexical projections, where the functional projections are seen as carrying features that the lexical items need. As far as verbs are concerned, they need to combine with the appropriate verbal features (tense and agreement) of the relevant functional projection (IP). This combination of lexical items and functional features can be accounted for in different ways, for instance by means of verb movement; a view I will provisionally adopt. These ideas are

⁶ More specifically, Norwegian is classified as a verb second language (V2). V2 can be seen as a special instance of verb movement, which implies that the finite verb in any declarative clause must be the second element of the clause. This causes the verb to move further up in the hierarchy from I (where it has received its inflectional features) to the head position (C) of the topmost functional projection (CP). I will not discuss movement from I to C in this paper.

outlined in detail for example in Haegeman (1994), Haegeman & Guéron (1999) and Lasnik (2000).

Returning more specifically to the difference between English and Norwegian with respect to verb movement, this would be analysed within the Principle and Parameters framework as Norwegian requiring any finite verb to move from its original VP-internal position to I in order to combine with its relevant functional features. In English, on the other hand, only auxiliaries move to I, while lexical verbs remain *in situ* (Vikner 1995).

Have and be

A structural feature of any auxiliary, be it Norwegian or English, is that it takes a verbal complement. In more traditional literature (e.g. Quirk et al. 1985) one or several auxiliaries and the lexical verb are seen as constituting one complex verb phrase (VP), where the lexical verb is the head of the VP. Within the Principles and Parameters Theory complex verb forms have been viewed differently. The auxiliaries *have* and *be* are each considered to head their own VP, where they take another VP (another auxiliary or the lexical verb) as their complement. Additionally, more specifically related to the Principles and Parameters Theory, auxiliaries are generally regarded as distinct from lexical verbs in that they do not assign theta roles or Case.⁷

Modals

Modals have been viewed as occupying a structural position different from the position occupied by the auxiliaries *have* and *be*. Chomsky (1981) suggests that modals are instances of I, so in a sense he sees modals in opposition to tense, and since modals only have finite forms in English, they are considered to be inserted directly under I. In other words, Chomsky proposes that modality is an alternative to tense, and thus modals cannot be analysed

⁷ Note, however, that some linguists consider root modals to assign an external theta role. Confer Eide (2002: 106) for a brief overview.

as VPs. Lasnik (2000) takes a different view. He argues that modals express tense relationships in addition to mood – an argument he partly bases on the examples in (10) and (11) (from Lasnik 2000: 138):

(10)

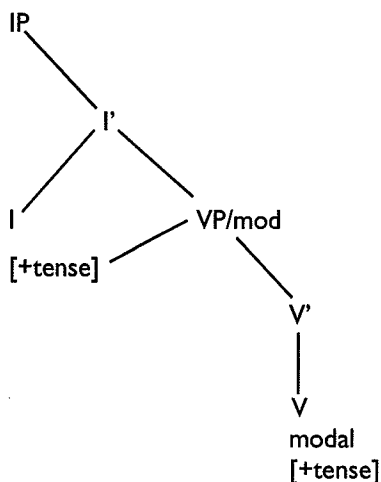
- a. John *says* he *can* swim.
- b. John *said* he *could* swim.

(11)

- a. John *says* he *is* happy.
- b. John *said* he *was* happy.

In the examples above Lasnik argues that (10) expresses the same time relationship as (11). If modality does not express tense, there is no way of explaining the parallel tense relationship in the two examples, according to Lasnik. It is, however, evident that the picture is less black and white than described above. A present tense lexical verb in the main clause does not automatically result in a present tense modal in the embedded clause. Further, the semantic interpretation of any modal auxiliary is usually predominantly focused on its modality. Still, it is normally assumed that modals in English are inherently tensed, if for no other reason because they can only appear as the first verb in a sequence of verbs. In order to account for this, one could do as suggested by Chomsky (1981) and insert them directly under I. However, I will follow Lasnik (2000) and regard them as heading individual VPs. One way of accounting for their potential temporal reading is to give the tense marking a duality, as illustrated in (12). The modals themselves may be regarded as being inherently tensed, yet this tense is in a sense ‘frozen’ or ‘archaic’. That is to say, English modals are marked as [+tense], but for this to be activated in order to provide a temporal interpretation of the modals, they must also receive ‘dynamic’ tense from I. When the tense on the modal corresponds with the tense on its surroundings, the temporal reading prevails.

(12)



If we look at Norwegian, we find further support for Lasnik's view that modals originate as heads of VPs. We know that English modals only appear in finite forms, whereas Norwegian modals also have non-finite forms (infinitive and past participle). Additionally, English only allows one modal auxiliary in each clause, whereas modal auxiliaries can co-occur in Norwegian, as the examples below show:

(13)

- a. Du skal kunne temme løver nå.
 you shall canINF tame lions now
 'You should be able to tame lions now.'
- b. Han burde ville mate tigrene i dag.
 he should willINF feed tigers-the to day
 'He should want to feed the tigers today.'

This discrepancy may of course be explained as a result of there only being finite modals in English, and only one finite verb is acceptable in each clause. Additionally, it follows from this that Norwegian modals may follow *have* as participles:

(14)

- a. Du skulle ha kunnet temme løver nå.

you should have canPASTP tame lions now

'You should have been able to tame lions now.'

b. Han burde ha villet mate tigrene i dag

he should have willPASTP feed tigers-the to day

'He should have wanted to feed the tigers today.'

In other words, since Norwegian modals appear in finite and non-finite forms, they cannot appear directly under I since non-finite verb forms are unacceptable in this position.

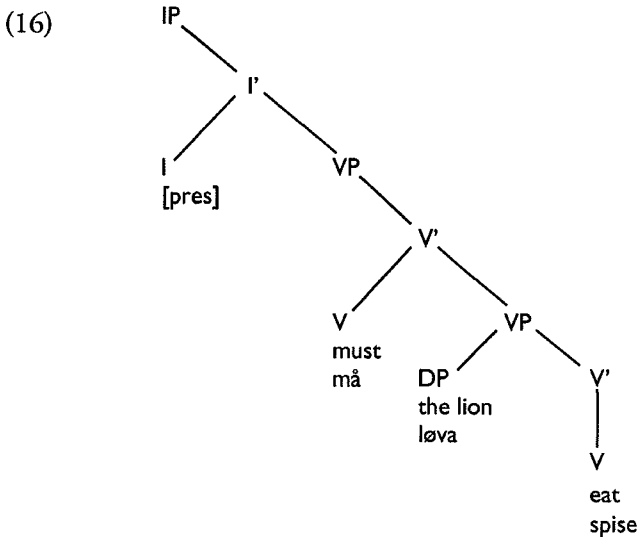
Phrase-structural representation of auxiliaries

In conformity with the view that modals also originate as heads of VPs, it is possible to present a unified representation of auxiliaries, which applies to both Norwegian and English, as illustrated by the underlying representation in (16), based on the English example in (15a) and its Norwegian equivalent in (15b):

(15)

a. The lion must eat.

b. Løva må spise.

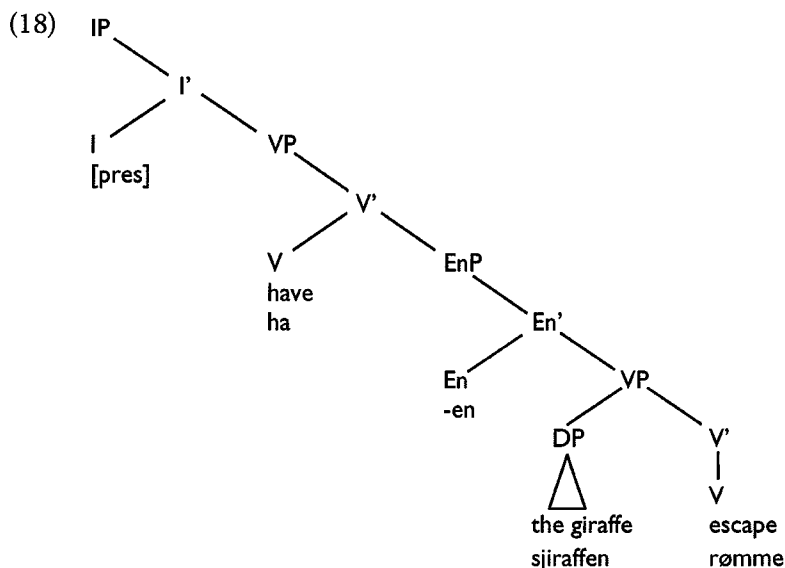


As we can see from the structure above, and as Lasnik (2000) points out, we could say that modals resemble I in that they take a VP as their complement, rather than saying that modals are instances of I. Aspectual verb forms, such as those in (17) are given a similar treatment by Lasnik:

(17)

- a. The giraffe has escaped.
- b. Sjiraffen har rømt.

Here the participle affix is considered to head its own phrase, which Lasnik calls EnP, and it is the complement of *have*. Thus, the close connection between the auxiliary *have* and the participle can be expressed as a selectional property – *have* selects EnP as its complement. The tree structure in (18) shows the point of departure that eventually results in (17):



Have amalgamates with [pres] to make the auxiliary finite, yielding *has*, *-en* amalgamates with *escape* yielding *escaped*, and the DP in the specifier position of VP needs to move to [Spec, IP] via [Spec, EnP]

and [Spec, VP] in order to receive Case.⁸ Also, if a clause contains several auxiliaries, these are successively stacked up, where each auxiliary takes a new VP as its complement.⁹

Under the analysis presented here, we see that the basic phrase-structural representation of Norwegian and English auxiliaries appears to be identical. Thus, despite the descriptive outline of the auxiliary properties in section 1, we see that it is not the auxiliary representation in the two languages that causes the different patterns. Additionally, this conforms to the assumption that Norwegian as well as English auxiliaries are considered to undergo movement to I in order to receive inflectional properties. However, the picture gets more blurred in connection with negation.

4. *The nature of negation*

The question of how to represent negation structurally in English and Norwegian raises some interesting issues. Consider the examples below:

(19)

- a. *The clown came not.
- b. *The clown came never.
- c. *The clown not came.
- d. The clown never came.
- e. The clown did not come.

⁸ In the same manner as the past participle heads its own phrase, the progressive form in English heads an *IngP*, and thereby the close relationship between the auxiliary *be* and the progressive is established. *Be* selects an *IngP* as its complement, parallel to the way *have* selects the *EnP*. In consistency with this, a similar representation with respect to the infinitive can be suggested for the Norwegian data in (14) repeated below:

Du skulle ha kunnet temme løver nå.

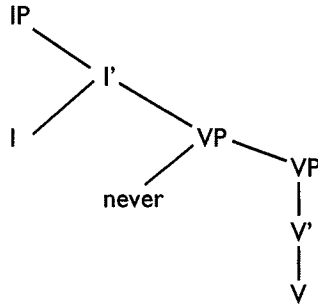
Han burde ha villet mate tigrene i dag.

In these examples the finite auxiliary selects the bare infinitive *ha*, which in turn selects a participle complement. One might suggest that the infinitive heads its own maximal projection *InfP*, selected by the preceding verb, and that the *InfP* selects a VP headed by *ha* as its complement. The head of the *InfP* itself is empty since the infinitive is bare.

⁹ I consider *EnP* and *IngP* to be some kind of 'verbal' phrases too since they are selected by and thus complements of verbs, and they also select VPs as their complements.

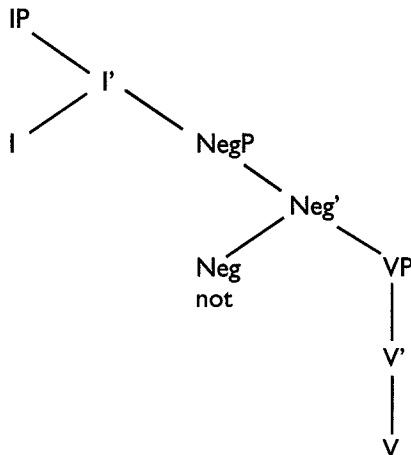
Adverbials such as *never* in (19b) are generally assumed to originate in an adjoined position between the highest VP and IP, as shown in (20):

(20)



If we assume a similar position for *not*, the ungrammaticality of (19a) and (19b) can easily be explained: English lexical verbs never move from their original position; they always remain *in situ*. The verb in (19a) and (19b) has clearly moved further up in the hierarchy than the adjoined adverbial since they appear linearly to the left. However, the examples in (19c) and (19d) are harder to explain from this point of view. Given that the lexical verb must remain in a position lower than the adverbial, both (19c) and (19d) should be grammatically acceptable. However, this is not the case. Only the sentence with the ‘proper’ adverb *never* in this position is grammatical. On the basis of these observations – the different behaviour of adverbs and *not* – Pollock (1989) suggests that *not* heads its own maximal Negation Projection (NegP) – as the configuration in (21) shows:

(21)



Affix Hopping vs. government

In order to explain the relevance of NegP for the account of (19c) and (19d) above, the issue of how the lexical verbs in English sentences receive the tense and agreement features in I must be raised. Lasnik (2000) invokes the notion of *Affix Hopping*, and he takes the same view on this phenomenon as Chomsky (1957) presents. The idea is that the inflectional affix that originates in I must somehow amalgamate with the lexical verb since movement is ruled out – as the data in (19a) and (19b) showed. Affix Hopping implies that the affix in I is lowered down on the lexical verb, yielding the correct form of the verb. According to Lasnik (2000), there must be linear adjacency between I and the verb in V. In (19c) the intervening *not* would block the lowering. From this we would, however, also expect (19d) to be ungrammatical, but this is clearly not the case.

Another, and, in my opinion, more fruitful way of accounting for the amalgamation of the affix and the lexical verb is by means of the notion of *government*. Although Chomsky has dismissed the idea of government, government represents a manner of accounting for this phenomenon that is more in line with the general theoretical assumptions – as downwards movement is normally considered an unfortunate operation. Government involves a hierarchical relationship between I and the lexical verb, where I by means of its higher position, given certain conditions,¹⁰ has the possibility of transferring the abstract inflectional features to the verb. The notion of government accounts in a more theoretically coherent manner for the amalgamation of the I features and the lexical verb in English in the sense that it better captures the abstractness of the process. The amalgamation of I and the lexical verb should not be seen as a literal process, a notion which I think government conveys better. Also, as mentioned above, government does away with downward movement.

Returning to the question as to how (19c) is ungrammatical and (19d) is not, we see that the lexical verb in the former cannot

¹⁰ A governs a node B iff A m-commands B; no maximal projection intervenes between A and B and A is a head. (Trask 1993: 120)

receive its inflectional features since NegP intervenes between I and the verb, and the verb is thus not governed. (19d) is, however, acceptable because the adverb *never* is adjoined and does not constitute an intervening projection that blocks government. As a result, I governs the verb and can receive its inflectional features.

In Norwegian the situation appears to be slightly different. Consider the examples in (22):

(22)

- a. Klovnene kom ikke.
clown-the came not
'The clown did not come.'
- b. Klovnene kom aldri.
clown-the came never
'The clown never came.'

Norwegian lexical verbs move from their original position due to the requirement in Norwegian that the finite verb must move from its original VP-internal position. The grammaticality of both the sentences in (22) should indicate that the verb in both cases has undergone movement from V to I. However, there are certain constraints on movement, and once we have investigated those, we will see that (22a) and (22b) may not be entirely parallel structural representations.

Head Movement Constraint

Travis (1984) formulated the *Head Movement Constraint* (HMC) based on the observation that movement of any element cannot skip a position on its way to where it is moving. Therefore, if a position that is a landing site for an element is occupied, movement is ruled out. Although referred to as the Head Movement Constraint,¹¹ it is

¹¹ There are various versions of the HMC. Rizzi (1990) characterizes the constraints on heads and specifiers movement as *Relativized Minimality*. That is to say, if an item is going to move, it has to move to the next appropriate position up. *Minimality* refers to the item

not to say that it only applies to heads. If something moves from specifier position, it has to move to the next specifier position up. If it moves from head position, it moves to the head position immediately to the left, that is further up in the hierarchy.¹²

Returning to the Norwegian data in (22), we see that we meet some difficulties regarding *ikke* in (22). If we assume that *ikke* heads NegP in Norwegian, it is hard to explain why *kom* can move to I and not violate the HMC. Since the head position of NegP is a relevant landing site for the verb, but this position is already filled by *not*, (22a) seems to have violated the HMC. Yet, it is a perfectly acceptable Norwegian sentence. This apparent violation of the HMC can be accounted for simply by assuming that in Norwegian negation is adjoined rather than heading its own maximal projection, and thereby not violating the HMC (Holmberg & Platzack 1995). In other words, negation in Norwegian behaves like an ordinary adverbial and has the representation presented for adverbials in (20).

We can now return to English and the example (19e), here repeated as (23):

(23)

The clown did not come.

In this example *do*-support has taken place, and on the basis of the discussion above, it is now possible to explain the phenomenon in some more detail: The lexical verb in English cannot move out of its original position. It is a position in which it appears to be sedimented. The

moving in a minimal way, and it is *relativized* because where the element lands depends on its properties. In other words, if it is a head, it moves up to the next head position; if it is an XP, it moves up to the next XP position. An XP can cross over a head, but not over a specifier. A head can cross over a specifier, but not over a head. In other words, Travis's HMC becomes a special case of Rizzi's Relativized Minimality

¹² Formally, the distinction is made between A-movement and A'-movement: A-movement (argument movement) denotes movement of a constituent from one argument position to another, whereas A'-movement denotes movement to non-argument positions. For example, movement to [Spec, CP] is non-argument movement since elements that are not arguments, e.g. complementizers such as *whether* or *that* or a *wh*-operator, can occupy the position.

presence of negation, represented by NegP, prevents the amalgamation of the features in I with V since V is not governed by I. Thus, as a last resort *do* is inserted directly under I in order to rescue the sentence. The inflectional features thereby amalgamate with *do*, resulting in a grammatical sentence. *Do*-support is an operation that takes place to make sure that the lexical verb receives its inflectional features. This happens in relation to question formation when there is no lexical verb present, as we saw in (3), here repeated as (24):

(24)

- a. *Comes the clown?
- b. Does the clown come?

In interrogative clauses the finite verb moves further up to the front position. Again, the lexical verb is not available for movement, and the structure requires that a verb occupies the initial position. As a last resort *do* is inserted directly under I in order to fulfil the requirements of question formation.¹³

5. English auxiliaries and the Head Movement Constraint

One issue that has not been addressed so far is the role of the HMC in relation to auxiliaries. Given the approach taken in this paper with regards to structural representation of auxiliaries, we have not yet been able to account for the grammaticality of a negated sentence containing an auxiliary. In the discussion so far we have concluded that the HMC blocks movement past NegP. Yet, sentences such as (25) are grammatically acceptable, and here it is the auxiliary that appears to have moved.

(25)

- a. The elephant has not performed yet.

¹³ Note that the verb ultimately moves to C in question formation.

b. The tiger could not become a star.

Based on our previous assumptions, the auxiliaries have clearly moved past NegP, which is an obvious violation of the HMC. The sentences in (25) are nevertheless grammatical. To this problem there does not seem to exist a simple explanation.

One view of this issue involves the notion of *excorporation* (Roberts 1991). Excorporation is "...an operation in which a head which is adjoined to another head, is detached from the head to which it is adjoined, and moved elsewhere" (Radford 1997: 506). The general idea is that the auxiliaries in (25) have moved stepwise to I via Neg, and the auxiliary and the negation have somehow amalgamated. Then this amalgamated element has moved further up in the hierarchy to receive its inflectional features. In those cases where *not* does not undergo cliticization, one might suggest that only the auxiliary moves to I – after having landed in Neg. That English has distinct negative forms of auxiliaries (one of the NICE properties) indicates that this might be a way of accounting for this phenomenon.¹⁴

Another explanation that in some respects better accounts for this is based on an idea put forward in e.g. Pollock (1989) in relation to the discussion of NegP, namely that the negation is in the specifier of NegP rather than in the head position. If that is the case, the head position is available as a landing site for the auxiliary, and no breach of the HMC occurs when the auxiliary moves, and since the auxiliary will not be governed by I because of the intervening NegP, the auxiliary is forced to move in order to receive its inflectional features. The analysis of *do*-support also fits in with this picture. When no auxiliary is present, the lexical verb cannot receive its inflectional features in the base position because the government relation is blocked by NegP. Thus, the last resort for the clause to make it grammatically acceptable is *do*-insertion.

¹⁴ Rizzi (1990) argues in the spirit of Pollock (1989) that NegP does not represent a relevant intervention when it comes to movement from V and I. This represents Relativized Minimality wherein locality plays an important role and NegP appears to be irrelevant within the local domain in question.

6. Conclusion

In this paper I have attempted to show that the auxiliary systems in Norwegian and English appear as identical in most respects. This implies that much of the diversion often related to the distributional pattern of Norwegian and English auxiliaries is caused by other syntactic factors associated with auxiliary representation. There seem to be three factors that are particularly influential in accounting for the differences in the auxiliary representation. First, the parametric variation in Norwegian and English with respect to verb movement is significant. That Norwegian requires all finite verbs to move has impact on the behaviour of auxiliaries in Norwegian. Second, the inert nature of English lexical verbs makes the picture even more complex. Last, the different nature of negation in the two languages also affects the auxiliary distribution. That negation is considered to be a constituent of a functional projection in English, whereas it is analysed as being in an adjoined position in Norwegian, plays an important part in the syntactic makeup of the sentence. However, once these factors have been identified, it is possible to outline a basic architecture for auxiliaries that is applicable for both Norwegian and English, first and foremost by regarding auxiliaries (both primary and modal) in both languages as heading a distinct VP. Further support for this idea comes from the similar processes that act in connection with *do*-support. In other words, once the architecture is decided upon, the auxiliaries in their own capacity have shown literally identical behaviour.

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References

- Chomsky, N. 1957. *Syntactic Structures*. The Hague: Mouton.
- Chomsky, N. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Eide, K. M. 2002. *Norwegian Modals*. Dr. art.-thesis. NTNU, Trondheim, Norway.
- Faarlund, J. T., S. Lie and K.I. Vannebo. 1997. *Norsk Referansegrammatikk*. Oslo: Universitetsforlaget.
- Haegeman, L. 1994. *Introduction to Government and Binding Theory* (2nd edition). Oxford: Blackwell
- Haegeman, L. & J. Guéron. 1999. *English Grammar*. Oxford: Blackwell.
- Hauge, H. 1996. *Locative inversion in English*. Hovedoppgave, Department of English, NTNU, Trondheim, Norway.
- Holmberg, A. & C. Platzack 1995. *The Role of Inflection in Scandinavian Syntax*. New York: Oxford University Press.
- Huddleston, R. 1976. "Some theoretical issues in the description of the English verb". *Lingua* 40: 331-83.
- Lasnik, H. 2000. *Syntactic Structures Revisited*. Cambridge, Mass.: The MIT Press.
- Palmer, F. R. 1987. *The English Verb* (2nd edition). London: Longman.
- Pollock, J.-Y. 1989 "Verb movement, universal grammar, and the structure of IP". *Linguistic Inquiry* 20: 365-424.
- Quirk, R., S. Greenbaum, G. Leech and J. Svartvik. 1985. *A Comprehensive Grammar of the English Language*. London: Longman.
- Radford, A. 1997. *Syntactic Theory and the Structure of English*. Cambridge: Cambridge University Press.
- Roberts. I. 1991. "Excorporation and minimality". *Linguistic Inquiry* 22: 209-218.
- Rizzi, L. 1990. *Relativized Minimality*. Cambridge, Mass.: The MIT Press.
- Trask, R. L. 1993. *A Dictionary of Grammatical Terms in Linguistics*. London: Routledge.
- Travis, L. 1984. *Parameters and Effects*. Doctoral Dissertation. MIT, Cambridge, Mass.
- Vikner, S. 1995. *Verb Movement and Expletive Subjects in the Germanic Languages*. New York: Oxford University Press.