

A defective auxiliary in Danish*

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November 28, 2010

Abstract

In English, auxiliaries form a cohesive category. Unlike main verbs, they raise to T. In Danish, it is not as obvious that auxiliaries form such a unified category. In root clauses, all verbal elements can raise to T (and then onto C), while in embedded clauses they always stay *in situ*. This makes telling where a given element sits in the extended verbal projection a challenging task. We examine a verbal element in Danish, *gøre*, that shows up when the verb phrase has been topicalized, elided, or pronominalized. Even though, from surface appearance, *gøre* might appear to be of category T or v, it is located, we argue, right in the middle. It is an auxiliary. But, unlike other auxiliaries, *gøre* is defective because it only subcategorizes for vPs that are pronominal.

*Ange Strom-Weber made a substantial contribution to one of the earlier incarnations of this paper, presented at the 21st Comparative Germanic Syntax Workshop. We are also grateful to Maia Andréasson, Amy Campbell, Kristin Melum Eide, Andrew Garrett, Dan Hardt, Roger Higgins, Kyle Johnson, Christopher Kennedy, Idan Landau, Helge Lødrup, Bjarne Ørnes, Christopher Potts, Dorian Rhoers, Gregory Ward, and the audiences at the Comparative Germanic Syntax Workshop and WECOL 2006 for their observations, discussion, and suggestions at various stages of our work. The sources for naturally occurring examples are provided in a table at the end of the paper.

Keywords: *do* periphrasis, auxiliaries, clause structure, verb phrase anaphora, Danish

1 Introduction

In many languages, traditional grammatical descriptions recognize a class of auxiliaries distinct from main verbs. They are distinguished both by language-independent characteristics and language-specific ones. By definition, auxiliaries can cooccur with a main verb and they do not contribute to the thematic structure of the clause (Schachter 1985:41–44, Payne 1997:84f.). In English specifically, auxiliaries raise to T, to the left of negation and left-edge adverbs, and they govern special inflectional forms (participial, infinitival, etc.) on the verbal form immediately following them (Jespersen 1931:11). In one early generative line of investigation, started by Ross (1969) and continued by Pollock (1989) and others, this distinction was taken to be unnecessary; auxiliaries were simply verbs that took another verb phrase as complement. The past fifteen years, however, have witnessed a resurgence of the more traditional view where auxiliaries comprise a conceptual category distinct from main verbs.

To begin with, the generative conception of clause structure has expanded dramatically to include a variety of functional heads. The *v* head, in particular, introduces the external argument so that the ‘main verb’ is actually a composite of a functional *v* head and a lexical *V* head (Hale and Keyser 1993, Kratzer 1996). This more articulated clausal structure raises doubts for the analysis of auxiliaries as verbs that take a verb-phrase complement. Do auxiliaries really, like main verbs, have both a lexical and functional component—that is, do auxiliaries each have their own *v*? Or, more simply, are auxiliaries functional projections located above the verb? The current consensus is that the latter is correct. In Adger’s (2003:155–203) implementation of this view, the English auxiliaries fall into four categories: modals (Mod), perfect *have* (Perf), progressive *be* (Prog), and passive *be* (Pass). All four functional heads sit above *v* and below T. Under this conception, then,

while auxiliaries are internally diverse, they are still distinct from main verbs because they occur above *v* and *V*.¹

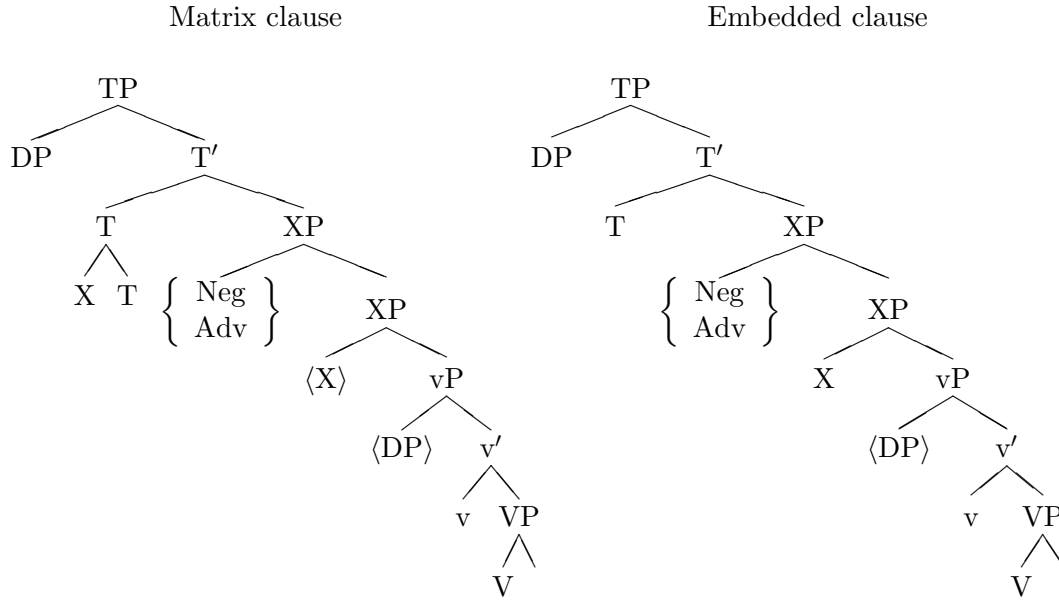
While in English the division between auxiliaries and main verbs seems relatively clear-cut, making the same distinction in Danish is not as easy. On the basis of language-independent properties, Danish does have a class of auxiliaries that includes a variety of modals, perfect *have* ‘have’, perfect *være* ‘be’, and passive *blive* ‘become’. These verbal forms cooccur with main verbs and do not affect the assignment of thematic roles.² But the properties of auxiliaries specific to English do not extend to Danish auxiliaries. In root clauses, Danish has verb-second word order: the highest verbal element, whether it is an auxiliary or a main verb, raises to *T* and then to *C*, where it occurs after the first major sentence constituent (Vikner 1995 and others). In most embedded clauses—including adverbial clauses, clausal subjects, clausal complements to non-bridge verbs (Iatridou and Kroch 1992), relative clauses, and clausal complements of nouns—all verbal elements stay *in situ*, where they surface below negation and other left-edge elements.³ Consider, then, what the surface position of a miscellaneous verbal head *X*, located between *T* and *v*, would be:

¹There is a competing implementation of this position. Perhaps auxiliaries are themselves members of the category *v*? But, in order to account for the syntactic properties of auxiliaries, these *vs* would have to be distinguished from the *v* that introduces the external argument. These auxiliary *vs* would have to bear an additional diacritic to trigger raising to *T*, while the argument-structure introducing *v* would lack it. To our mind, this is practically a notational variant of the Adgerian system where auxiliaries are distinguished from *v* and *V* in their primary category feature.

²Most of the modals also have a main verb use where they take a DP, PP, or CP argument and add to the thematic structure of the clause. We will not be concerned with these here.

³Not surprisingly, subject-initial root clauses exhibit verb-second word order as well. The main verb occurs after the subject and before negation or sentence adverbs. We analyze subject-initial sentences as TPs, following Travis (1984:137) and Zwart (1997a:191–244). Without a CP projection, the subject in Spec-TP is the leftmost element of the clause. Other authors, Schwartz and Vikner (1996) for example, argue that subject-initial clauses are CPs, and that the subject sits in Spec-CP. Nothing in our proposal, as far as we can tell, depends on which analysis is correct.

(1)



In matrix clauses, X would be indistinguishable on the surface from T since it would raise and head-adjoin to it, thus occurring to the left of negation and other left-edge elements. By contrast, in embedded contexts, X would be indistinguishable from *v*, which in Danish is null, or from V.

We are concerned here with one verbal element in Danish, *gøre*, which traditional grammars classify as an auxiliary (Diderichsen 1966:63, Hansen 1967:69, Allan et al. 1995:143f., 159, 511f.).⁴ In keeping with this characterization, we propose that *gøre* is located above *v* but below T in the extended verbal projection—precisely where X is located in (1)—despite the issues this raises. In root clauses, *gøre* moves to, and is indistinguishable from, T. In embedded clauses, *gøre* is especially hard to tell apart from *v* because it has a restricted syntactic distribution. *Gøre* only appears when the verb phrase has been topicalized (2), elided (3), or realized as a verbal proform *det* (4).⁵

⁴The formal literature on this use of *gøre* in Danish is much less extensive than its English counterpart. To our knowledge, there is just an earlier version of this paper, a manuscript by Christer Platzack responding to it (Platzack 2008), and a paper by Bjarne Ørsnes (Ørsnes, to appear). Vikner (2001:456–457) mentions *gøre* in passing but does not develop an analysis. Other Germanic languages possess cognate constructions: e.g. Swedish (Källgren and Prince 1989), Norwegian (Lødrup 1990, 1994), dialects of German (Russ 1990, Langer 2000, Schwarz 2004, Jäger 2006:230–235), dialects of Dutch (Cornips 1998).

⁵The verbal proform has the same form as the third person neuter singular pronoun *det* ‘it’. We gloss this item as

- (2) Jasper lovede at vaske bilen og vaske bilen **gjorde** han så sandelig.
 Jasper promise.PAST to wash.INF car.DEF and wash.INF car.DEF do.PAST he so truly
 ‘Jasper promised to wash the car, and wash the car, he did indeed.’
- (3) Mona og Jasper vaskede bilen, eller rettere Mona **gjorde**.
 Mona and Jasper wash.PAST car.DEF or rather Mona do.PAST
 ‘Mona and Jasper washed the car, or rather Mona did.’
- (4) Mona vaskede ikke bilen men det **gjorde** Jasper.
 Mona wash.PAST not car.DEF but DET do.PAST Jasper
 ‘Mona didn’t wash the car, but Jasper did.’

Since, in each of the constructions in (2)–(4), the lexical verb, V, does not show up in its canonical position (it is either fronted, deleted, or replaced by a proform), *gøre* could very plausibly originate very low in the clause—potentially as *v*. We argue, nonetheless, that the only way we can understand the full range of *gøre*’s properties is as an auxiliary that sits above *v* but below T.

Our argument proceeds in the following way. To begin with, we show that *gøre* is not simply the realization of T, a position we took in an earlier version of this paper, since it would occur to the left of negation and left-edge elements in embedded clauses. Then, we distinguish the usage of *gøre* with verb phrase ellipsis, topicalization, and pronominalization from the homophonous main verb usage. Nor can *gøre* plausibly realize *v*, an approach championed by Platzack (2008). On the one hand, *gøre* has none of the characteristics that overt *vs* have in other languages. On the other hand, *gøre* has a number of properties characteristic of auxiliaries. The proper analysis, then, is one where *gøre* is an auxiliary and occurs in the extended verbal projection between T and *v*. As an auxiliary, however, it is defective—it has the restricted range of distribution illustrated in (2)–(4).

DET throughout, leaving open the issue whether these are separate lexical items or one. See footnote 19 for further discussion.

We propose that, as the lowest auxiliary of the clause, *gøre* takes vP as its complement, though it subcategorizes for only certain types of vPs, those that are pronominal.

2 The category of *gøre*

For the reasons we gave in the preceding section, *gøre* could, depending on the syntactic context, be treated as any one of a number of verbal projections. Some of these are relatively easy to set aside. We show first that, while the pleonastic *do* that, in English, shows up in negation, verum focus, inversion, and other contexts is often treated as a ‘last-resort’ pronunciation of T (Chomsky 1957:62–69, Halle and Marantz 1993:134–137, Bobaljik 1995:63–78), this is not a possible analysis for Danish *gøre*. Nor, as we argue next, can *gøre* simply be a V. While there is a homophonous verb in Danish with a main verb use, the *gøre* that we are interested in is, based on a variety of criteria, distinct from it. Since the ‘main verb’ actually corresponds, under contemporary conceptions of clause structure, to the V-v complex, these same criteria make an analysis of *gøre* as v unlikely. This leaves the most reasonable analysis of *gøre* as an auxiliary.

2.1 *Gøre* is not a T

In main clauses, *gøre* raises like all other finite verbal elements to T, as schematized in (1). Why does it not just originate in this position? In a previous version of this paper, we took *gøre* to be inserted into T in a last-resort operation that parallels English *do*-support. But embedded clauses show that *gøre* must originate lower in the extended verbal projection. In a relative clause like (5), present-tense *gør* occurs below a left-edge adverb.⁶ In (6), *gøre* shows up to the right of negation in the protasis of a conditional. And, in (7), *gøre* surfaces below the left-edge adverb *stadig* ‘still’

⁶The vP *savne ham* ‘miss him’ has been topicalized out of the relative clause, an instance of \bar{A} -movement that is allowed when certain pragmatic conditions are satisfied (Erteschik-Shir 1973:32–49, Jakobsen 1996).

inside a sentential subject.⁷

- (5) Karsten var da en udmærket kollega, men [_{vP} savne ham] kender jeg ikke
Karsten be.PAST well a fine colleague but miss.INF him know.PRES I not
nogen [_{CP} der **ligefrem** **gør**].

anyone who straight.forward do.PRES

‘Sure, Karsten was fine colleague, but I don’t know anyone who actually misses him.’

- (6) Der er en forventning om, at vi skal [_{vP} gå videre], selv om det
there be.PRES an expectation about that we shall.PRES go.INF further even if it
snarere vil være en stor skuffelse end katastrofalt, [_{CP} hvis vi **ikke gør**
rather will be.INF a big disappointment than catastrophic if we not do.PRES
Δ].

‘We are expected to go further (in the competition). That said, it would be a great disappointment, not a catastrophe, if we don’t.’

- (7) Kommunen lovede at [_{vP} vedligeholde parken] i to år. [_{CP} At de **stadig**
city.DEF promise.PAST to maintain.INF park.DEF in two years that they still
gør det] er imponerende.

do.PRES DET be.PRES impressive.

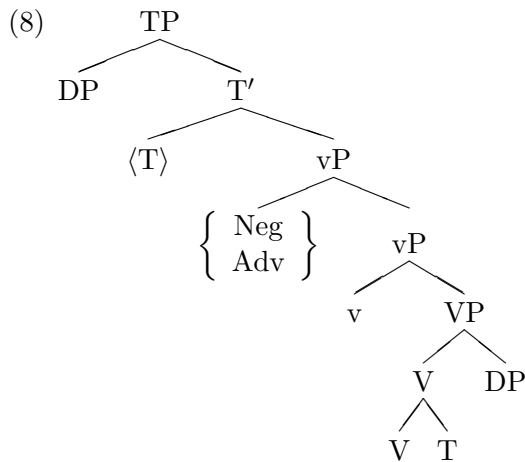
‘The city promised to maintain the park for two years. It’s impressive that they are still doing it.’

⁷Recall that *gøre* only occurs when the verb phrase has been topicalized, elided, or pronominalized. For topicalization, we always bracket the vP that has been fronted, and for ellipsis and pronominalization, the antecedent of the missing verb phrase or verbal proform. Elided constituents are themselves represented with a Δ.

If *gøre* were inserted directly into T, then it would occur to the left of negation and other left-edge elements, but this order is ungrammatical:

- (6') *... hvis vi **gør** **ikke**.
 if we do.PRES not
 Intended: '... if we don't.'

If, however, *gøre* originates below T in the verbal projection and we follow the standard analysis of embedded clauses, where T lowers onto the highest verbal element in the clause, the correct ordering of *gøre* with respect to left-edge elements falls out naturally:



Why could not *gøre*, if it originated in T, lower onto another verbal projection, thereby placing it to the right of negation and left-edge adverbs? We see three reasons why this could not be the case. First, there would be no reason for *gøre* to lower. T, which is a bound tense morpheme, lowers to provide it with a morphological host (Chomsky 1957:38–42). *Gøre*, however, is morphologically free; it does not need a host. Second, as we will see in §4, *gøre* is only possible when the verb phrase has been topicalized, elided, or replaced by a proform *det*. If *gøre* were T, there would be no verbal head for *gøre* to lower onto. Third, we expect, if *gøre* were T, that it would never occur under any other verbal forms. In fact, it can, as when it takes a past-participial form under perfect *have*:

- (9) Hun [dukkede op] ligeså uanmeldt, som han selv ofte **havde gjort** det.
 she emerge.PAST up as unannounced as he self often have.PAST do.PART DET
 ‘She emerged as unannounced as he himself had often done.’

Not only do such nonfinite occurrences rule out an analysis of *gøre* as T, but, as we discuss in §3, they provide crucial evidence that it is an auxiliary.

2.2 *Gøre* is not a main verb

If *gøre* does not realize T, we might think it is base-merged somewhat lower in the clause, say as a V. Danish does have a main verb *gøre*, which, like the English main verb *do*, is transitive and has a highly schematic meaning:

- (10) a. Vi gjorde noget ulovligt.
 we do.PAST something illegal
 ‘We did something illegal.’
- b. Han gør som regel det meste af arbejdet.
 he do.PRES as rule the most of work.DEF
 ‘He normally does most of the work.’
- c. Hun gjorde mig en stor tjeneste.
 she do.PAST me a big favor
 ‘She did me a big favor.’

Five distributional and interpretive properties distinguish this main verb *gøre* from the use of *gøre* we are interested in here (cf. Jäger 2006:83f.). Only the latter:

- (i) can cooccur with lexical verbs in the same clause;
- (ii) does not contribute to the conceptual structure of the clause;

(iii) does not introduce its own event;

(iv) does not add, remove, or otherwise modify the assignment of thematic roles; and

(v) does not add, remove, or otherwise modify the assignment of grammatical relations.

Starting with property (i), *gøre* can cooccur with lexical verbs, such as *vaske* ‘to wash’ in (2), or even with main verb *gøre*:

- (11) De sagde at slangen ikke ville gøre ondt, men [_{VP} gøre ondt] gjorde den
they say.PAST that tube.DEF not would do.INF evil but do.INF evil do.PAST it
nu alligevel.
now anyways
‘They said that the tube wouldn’t hurt, but hurt it did.’

Since the verb phrase *gøre ondt* ‘to hurt’ (lit. ‘to do evil’) is fronted, *gøre*, which occurs in second position, must be of a category other than V.

The remaining four criteria in (ii–v) can be evaluated by comparing the two sentences below. (12b) is the topicalization sentence from (2), while (12a) is the corresponding basic sentence with the verb phrase in its base-merged position.

- (12) a. Jasper lovedede at vaske bilen og han vaskede så sandelig bilen.
Jasper promise.PAST to wash.INF car.DEF and he wash.PAST so truly car.DEF
‘Jasper promised to wash the car, and he (indeed) washed the car.’
- b. Jasper lovedede at vaske bilen og [_{VP} vaske bilen] gjorde han så
Jasper promise.PAST to wash.INF car.DEF and wash.INF car.DEF do.PAST he so
sandelig.
truly
‘Jasper promised to wash the car, and wash the car, he did (indeed).’

Gøre does not add anything to the conceptual structure of the sentence since the two sentences in (12) are truth-conditionally equivalent. It also does not contribute its own event to the meaning of (12b), since just like (12a) the second clause is construed as a single event of car washing. Nor does *gøre* affect the assignment of thematic roles or grammatical relations in the topicalization sentence. In both sentences, *han* ‘he’ is the agent and subject, while *bilen* ‘the car’ is the patient and direct object. In all these respects, *gøre* does not behave like a V.

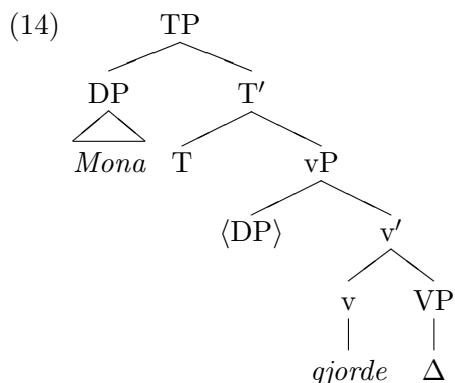
2.3 *Gøre* is not a v

There is another option. *Gøre* may not be a T or a V, but what about v? Platzack (2008) proposes an analysis along these lines.⁸ He treats *gøre* in Danish (as well as its cognates in the other Scandinavian languages) as the realization of v when there is no V adjoined to it.⁹ This happens when the VP has been elided, topicalized, or replaced by a proform. Thus, an ellipsis sentence like (13), repeated from (3) above, would have, under Platzack’s analysis, the parse in (14).

(13) *Mona og Jasper vaskede bilen, eller rettere Mona gjorde Δ.*

Mona and Jasper wash.PAST car.DEF or rather Mona do.PAST

‘Mona and Jasper washed the car, or rather Mona did.’



⁸Baltin (2007) gives a similar treatment to *do* in a similar construction in British English.

⁹For Platzack, the sister of vP is \sqrt{P} . This phrase corresponds to VP in our analysis, and in the ensuing discussion we will refer to it as such. As far as we can tell, this change in terminology has no analytical import.

This makes the correct distributional predictions in embedded clauses. As the realization of *v*, *gøre* would be located to the right of left-edge elements. We expect, however, that if *gøre* is a *v*, it will behave like other members of this category. Looking solely at Danish, this is difficult to show since there are no other overt members of this category. We can look at verbal elements in other languages, though, that have been argued to instantiate the category of *v* overtly.

The primary representatives of this category are LIGHT VERBS, a term coined originally by Jespersen (1946:117) to describe English verb-noun phrase combinations, such as *take a rest* or *have a nap*. It is characteristic of light verb constructions, according to Butt (2003), that the core semantic content of the clausal predicate is provided by something other than the light verb, though the light verb contributes to the argument or event structure of the predicate.¹⁰ This is exactly the contribution that *v* makes to the meaning of the predicate (Hale and Keyser 1993, Kratzer 1996), and so light verbs are perfect candidates to realize *v* overtly, as they indeed have been argued to do in a number of different languages, e.g. French and Italian (Folli and Harley 2007), Hindi-Urdu (Butt and Ramchand 2005), Persian (Megerdooomian 2002, Folli et al. 2005), and Yiddish (Diesing 1998).

Persian is one of the languages that show this most clearly. It has a dossier of light verbs that, together with a nonverbal element (either a noun, an adjective, or a PP), form the vast majority of the language's predicates. There are only about 115 simplex predicates (Mohammad and Karimi 1992:195). These light verbs form pairs that participate in argument structure alternations. Two of these, *zadan* (literally, 'to hit') and *khordan* (literally, 'to eat'), for instance, create complex predicates that differ just in whether or not they have an external argument. The complex predicate *laqat zadan* 'to kick' is transitive, while *laqat khordan* 'to get kicked' is unaccusative:

¹⁰Sometimes, as Butt discusses (p. 2), the light verb's contribution may not be so clear cut. It may add something more subtle, such as a benefactive reading, forcefulness, or suddenness.

(15) a. rostam sohrāb-o laqat **zad**.

Rostam Sohrab-OBJ kick hit.PAST.3SG

‘Rostam kicked Sohrab.’

b. sohrāb(*-o) laqat **khord**.

Sohrab-OBJ kick eat.PAST.3SG

‘Sohrab got kicked.’

(16) *rostam sohrāb(-o) laqat **khord**.

Rostam Sohrab-OBJ kick eat.PAST.3SG

(Toosarvandani 2009:64)

Only when *zadan* is present can the predicate have an external argument, as illustrated by the ungrammaticality of (16). This leads Megerdooian and Folli et al. to posit that the light verbs, including *zadan*, are vs, responsible for introducing the external argument.

Assimilating *gøre* to light verbs like *zadan* or *khordan* in Persian, as Platzack does, is not obviously improbable. After all, light verbs in Persian are, as Toosarvandani (2009) argues, able to license ellipsis of their complement, containing the nonverbal element and internal argument, as in (17).

(17) sohrāb piranā-ro otu na-zad vali rostam Δ zad.

Sohrab shirts-OBJ iron NEG-hit.PAST.3SG but Rostam hit.PAST.3SG

‘Sohrab didn’t iron the shirts, but Rostam did.’ (Toosarvandani 2009:61)

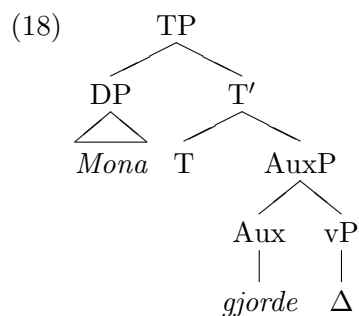
But, *gøre* does not behave in any important ways like one of these light verbs. Under the conception of *v* that we, along with Platzack, have been assuming, if *gøre* were a *v*, it would contribute somehow to the content of the predicate. As we already saw in §2, however, *gøre* adds nothing to the content of the predicate. It does not introduce its own event. And, it plays no role in the assignment of

thematic roles or grammatical relations—in contrast to the Persian light verbs *zadan* ‘hit’ and *khordan* ‘eat’, which respectively require and forbid an external argument.

These considerations—while they make the analysis of *gøre* as *v* more unlikely—do not exclude such a possibility altogether. It is, in theory, possible that *gøre* does not show the same properties as other light verbs because, in Danish, all members of the *v* category are either null or realized as *gøre*, and so paradigmatic alternations of the type we witnessed in Persian are not perceptible on the surface. That is, in order to maintain a *v* analysis, such as Platzack’s, one would have to posit a collection of homophonous *v* heads, all pronounced as *gøre*. One would occur in transitive and unergative predicates, introducing the external argument; another would occur in unaccusative predicates. Creating this type of radical homophony does not strike us as particularly insightful, but it is not necessary to rely solely on such considerations of parsimony to exclude this analysis. In the next section, we look at nonfinite forms of *gøre* that support our analysis of it as an auxiliary, not a light verb of category *v*.

3 *Gøre* is an auxiliary

We propose that *gøre* is an auxiliary. It heads a functional projection located above *v* but below T. The sentence in (13) has, under our analysis, the structure in (18).



This derives the correct word order with respect to left-edge elements. Negation and left-edge adverbs are adjoined to the complement of T, which in (18) is the AuxP headed by *gøre*. In

embedded clauses, it thus appears to the right of these elements.

When there are no other auxiliaries, the presence of *gøre* in the extended verbal projection is obligatory. This follows directly from our analysis. We assume that finite inflection instantiates its own terminal node, T. When the vP has been elided, topicalized, or pronominalized, there is no main verb on which this inflection can appear. And, if *gøre* or some other auxiliary is not present in the numeration, then finite inflection will not find a host at all. This is a violation of the Stray Affix Filter (Baker 1988:140), which is really just an explicit restatement of what it means to be a bound morpheme. As a bound morpheme, finite inflection only appears on a phonological host.

While the structure in (18) looks similar to Platzack’s in (14), there is an important difference. For us, *gøre* is an Aux, while for Platzack, it is a v. This is not just a notational difference. If *gøre* is an Aux, it should behave like other members of that category. As we discussed in the introduction, there are both language-specific and language-independent criteria for auxiliaries. The most useful language-specific property of auxiliaries in English—they raise above negation and left-edge adverbs—is not relevant in Danish, since all verbal elements, including main verbs, can raise. But auxiliaries in Danish share another property that sets them apart from main verbs. They can occur in tag questions (19a), while main verbs cannot (19b).

(19) a. Han har snydt, har han ikke?

he have.PRES cheat.PART have.PRES he not

‘He has cheated, hasn’t he?’

b. *Han snyder, snyder han ikke?

he cheat.PRES cheat.PRES he not

Intended: ‘He is cheating, isn’t he?’

(20) Han snyder, gør han ikke?

he cheat.PRES do.PRES he not

‘He is cheating, isn’t he?’

If *gøre* is a member of the category of Aux, then it, too, should be able to appear in tag questions, as indeed it can (20). Another language-specific property of auxiliaries in Danish is that they trigger either infinitival (the modal auxiliaries) or participial (perfect *have* and *være*, passive *blive*) morphology on the immediately following verbform. Of course, with *gøre*, there is no following verbform when the verb phrase has been elided or pronominalized. But when the verb phrase has been topicalized, as in (2), the main verb is realized in the infinitive. The language-independent properties of auxiliaries are some of the same ones we used in §2.2 to show that *gøre*, when it appears in verb phrase ellipsis, pronominalization, and topicalization contexts, is not a main verb. Of course, auxiliaries can cooccur with a main verb in the same clause (though *gøre* only does so when the verb phrase has been topicalized). And, as Lødrup (1996) describes, they do not impose any semantic restrictions on the subject. That is to say, auxiliaries do not contribute to the clause’s thematic structure.¹¹

Until now, we have discussed only finite *gøre*, but there are, as we mentioned in §2.1, also nonfinite occurrences. In the rest of this section, we show how nonfinite *gøre* makes available two arguments in support of our analysis of *gøre* as an auxiliary. First, nonfinite *gøre* does not occur

¹¹In the Germanic languages, modal auxiliaries with root interpretations do seem to contribute a thematic role of their own, and some of these root modals can even passivize (Lødrup 1996). As shown in (i), *gøre*, too, can passivize.

- (i) A: Endnu forskes der ikke i nikotin som lægemiddel her i landet.
yet research.PASS EXPL not in nicotine as medicine here in country
‘No one has yet researched medical uses of nicotine in this country.’
- B: Men det gøres der i Stockholm.
but DET do.PASS EXPL in Stockholm
‘But people in Stockholm have.’

Since some root modal can also passivize, lack of passivization is not a conclusive test for being an auxiliary.

under the perfect auxiliary *være* or the passive auxiliary *blive*, a distributional gap that is statable only if *gøre* is an auxiliary (§3.2). Second, infinitival *gøre* does not license verb phrase ellipsis, something that is expected if *gøre* is an auxiliary, but not if it is a *v* (§3.3).

3.1 Nonfinite *gøre*

Though we have so far focussed on finite occurrences of *gøre*, it also occurs in nonfinite forms. Under the perfect auxiliary *have*, *gøre* shows up in the participial form *gjort* (21), and after modals in the infinitival form *gøre* (22).

- (21) a. Og [_{VP} dominere valgkampen] **har** det allerede **gjort**.
 And dominate.INF election.campaign.DEF have.PRES it already do.PART
 ‘And it has already dominated the election campaign.’
- b. Hun [dukkede op] ligeså uanmeldt, som han selv ofte **havde gjort**
 she emerge.PAST up as unannounced as he self often have.PAST do.PART
 det.
 DET
 ‘She emerged as unannounced as he himself had often done.’
- c. Per Toftlund [boede på samme hotel], som Teddy **havde gjort** Δ nogle
 Per Toftlund live.PAST on same hotel as Teddy have.PAST do.PART some
 dage tidligere.
 days earlier
 ‘Per Toftlund stayed at the same hotel that Teddy had stayed at some days earlier.’
- (22) a. Men [_{VP} undersøge det], **kan** man vel altid **gøre**.
 but investigate.INF it can.PRES one PTC always do.INF
 ‘But of course one can investigate it.’

- b. Vi kan ikke [fare rundt og spørge], det vil alle opdage og
 we can.PRES not run.INF around and ask.INF it would all detect.INF and
 undre sig over. En anden **må** **gøre** det.
 puzzle.INF REFL about a other must.PRES do.INF DET
 ‘We can’t run around asking people. Everyone would notice and be puzzled. Someone
 else has to do it.’
- c. “Jeg [holder mig til de faktuelle hændelser], når jeg taler om
 I hold.PRES REFL to the actual occurrences when I speak.PRES about
 fortiden— det **burde** du også **gøre**,” siger han.
 past.DEF DET ought.PAST you also do.INF says.PRES he
 “I stick to what actually happened when I speak about the past. You should too,” he
 says.’

Nonfinite occurrences of auxiliary *gøre* satisfy the same five criteria described in §2.2 that finite occurrences do. For the first criterion, the participial form *gjort* cooccurs with the main verb *dominere* ‘dominate’ in (21a), and the infinitival form *gøre* cooccurs with the main verb *undersøge* ‘investigate’ in (22a). Satisfaction of the remaining four criteria can be established by comparing (21c) to the parallel sentence in (23), which does not contain participial *gjort* and does not involve ellipsis.

- (23) Per Toftlund boede på samme hotel, som Teddy havde boet på nogle dage
 Per Toftlund live.PAST on same hotel as Teddy have.PAST live.PART on some days
 tidligere.
 earlier
 ‘Per Toftlund stayed at the same hotel that Teddy had stayed at some days earlier.’

Nonfinite *gøre* does not contribute to the conceptual structure of a sentence since (21c) has identical truth conditions to (23). It also does not introduce its own event since, in both sentences, the relative clause describes a single event, that of Teddy staying at the hotel in question. Nor does nonfinite *gøre* affect the thematic or grammatical roles of the clause it appears in: in both (21c) and (23), *Teddy* ‘Teddy’ is the subject and agent and *samme hotel* ‘the same hotel’ is object of the preposition *på* and specifies a location. We can thus be certain that we are not dealing with main verb *gøre* here.

Like finite *gøre*, nonfinite *gøre* cannot appear with a canonically realized verb phrase. Compare nonfinite *gjort* with topicalization of vP, as in (21a), to the ungrammatical (21a’) where the vP occurs in situ. Similarly, compare the nonfinite *gjort* that occurs with verb phrase ellipsis in (21c) to the ungrammatical (21c’) with no ellipsis; and compare the nonfinite *gør* that occurs with the verbal proform *det* in (22b) to the ungrammatical (22b’).

(21a’) *Det har allerede gjort dominere/domineret valgkampen.
 it have.PRES already do.PART dominate.INF/dominate.PART election.campaign.DEF
 Intended: ‘It has already dominated the election campaign.’

(21c’) *Teddy havde gjort bo/boet på det hotel.
 Teddy have.PAST do.PART live.INF/live.PART on that hotel
 Intended: ‘Teddy had lived at that hotel.’

(22b’) *En anden må gøre fare rundt og spørge.
 a other must.PRES do.INF run.INF around and ask.INF
 Intended: ‘Someone else has to run around asking people.’

There is, however, one significant difference between finite and nonfinite *gøre*. Finite *gøre* is obligatory—in the sense that leaving finite *gøre* out from a grammatical sentence results in ungrammaticality—while nonfinite *gøre* is not (though, for relevant discussion, see Ørsnes, to appear).

Ellipsis is felicitous in (24) with participial *gjort* (the attested form) or without it.

- (24) I det øjeblik man [dæmper disse planer og drager russerne ind på] en
in the moment one dampen.PRES these plans and draw.PRES Russians.DEF in on a
anden måde end man hidtil har (gjort) Δ, så er russerne også
different way than one so.far have.PRES do.PART then be.PRES Russians also
parate til at forhandle.
ready to to negotiate.INF
'As soon as they dampen these plans and include the Russians in a different way than
they have so far, the Russians are ready to negotiate.'

Infinitival *gøre* is optional in (22c) above, and participial *gjort* is optional in (21a). In our analysis of *gøre* as an auxiliary, this follows from basic properties of all auxiliaries. Like perfect *have* or any other auxiliary, *gøre* is not obligatorily present in the extended verbal projection. There are numerations that converge without it. When nonfinite *gøre* is present, its sister, vP, is topicalized, elided, or pronominalized. Since the other auxiliaries license these constructions as well, when nonfinite *gøre* is not present, they take the vP directly as complement.

3.2 Subcategorizing for *gøre*

The first of the two arguments in favor of our analysis of *gøre* as an auxiliary involves the perfect auxiliaries *have* 'have' and *være* 'be'. Most verbs take *have*, but a sizable minority take *være*, including *falde* 'fall', *komme sig* 'recover', and *smelte* 'melt' (see Vikner and Sprouse 1988 and Bjerre and Bjerre 2007 for discussion). To start, we should point out that *gøre* is not inherently incompatible with main verbs that require *være*. These types of verb phrases can serve as the antecedent of pronominalized (25) or elided (26) verb phrases introduced by finite *gøre*.

(25) De eskorterende soldater var rutinemæssigt [**faldet** i søvn]—det **gør** de
 the escorting soldiers be.PAST routinely fall.PART in sleep DET do.PRES they
 jo.

PTC

‘The escorting soldiers had as per routine fallen asleep—they do that.’

(26) Antarktis [**smelter**] ikke, eller rettere 96 procent **gør** ikke Δ .

Antarctica melt.PRES not or rather 96 percent do.PRES not

‘Antarctica isn’t melting, or rather 96% isn’t.’

In (25)–(26), it is finite *gøre* that licenses pronominalization or ellipsis respectively. But we also find nonfinite *gøre* with an antecedent that takes *være* in the perfect:

(25′) Flere af soldaterne [**faldt** i søvn under vagten], og det må de
 several of soldiers.DEF fall.PAST in sleep during duty.DEF and DET may.PRES the
 absolut ikke **gøre**.

absolutely not do.INF

‘Several of the soldiers fell asleep while on duty, which they are absolutely not allowed to do.’

(26′) Antarktis er begyndt at [**smelte**], nøjagtigt som forskerne havde

Antarctica be.PRES begin.PART to melt.INF exactly as researchers.DEF have.PAST

forudsagt det ville **gøre** Δ .

predict.PART it would do.INF

‘Antarctica has begun to melt, exactly as researchers had predicted it would.’

Even though *gøre* is compatible with the types of verbs that take *være* in the perfect, it is not possible for it to occur under perfect *være*, as shown in (25′) and (26′). Contrast this with (21)

and (24), where *gøre* occurs quite felicitously under perfect *have*.

(25'') Soldaterne er [faldet i søvn] og det er tolken også
soldiers.DEF be.PRES fall.PART in sleep and DET be.PRES interpreter.DEF also
(*gjort).

do.PART

'The soldiers have fallen asleep, as has the interpreter.'

(26'') De forudsagde at Antarktis ville være [smeltet ved udgangen af i år], men
they predict.PAST that Antarctica would be.INF melt.PART by exit.DEF of in year but
hele 96 procent er ikke **(*gjort)**.

whole 96 percent be.PRES not do.PART

'They predicted that Antarctica would have melted by the end of this year, but as much
as 96% hasn't.'

Analogously, *gøre* may not occur below the passive auxiliary *blive*, as shown in (27).¹² Again, this restriction is not due to a more general incompatibility with a passive complement since *gøre* can occur with passive antecedents, as in (28).

(27) Den gamle lov blev [fulgt], men det bliver den nye ikke
the old law become.PAST follow.PART but DET become.PRES the new not
(*gjort).

do.PART

'The old law was adhered to, but the new one is not being adhered to.'

¹²A reviewer questions the auxiliary status of *blive* here. While it is true that *blive* has a main verb use, meaning 'to become', when it is used to mark the passive, it patterns with the auxiliaries in its behavior. For example, it can be used in tag questions. Moreover, crosslinguistically, the verb form that is used to mark analytical passive constructions is an auxiliary verb (Abraham 2006:2).

- (28) De håber også, at hele retssystemet kommer til at fungere ordentligt,
 they hope.PRES also that whole court.system come.PRES to to function.INF properly
 således at loven også reelt **bliver** [fulgt]— det **gør** den ikke
 so that law.DEF also in.reality become.PRES follow.PART DET do.PRES it not
 nu.
 now
 ‘They are also hoping that the entire legal system will start functioning so that the law
 will actually be adhered to—that isn’t the case now.’

Consider now how these restrictions on nonfinite *gøre* present themselves under the auxiliary analysis. As an auxiliary, *gøre* is generally optional. When it occurs, it is selected for by a higher head, which is either T (yielding finite *gøre*) or another auxiliary (yielding nonfinite *gøre*). The same is true for regular auxiliaries: they are either the complement of T or of another auxiliary. While T can take any auxiliary as its complement, auxiliaries are typically more selective. Thus, perfect *have* cannot take a complement headed by the passive *blive*, though perfect *være* can. Perfect *være* cannot take a modal complement, though perfect *have* can. We suggest that the restrictions on nonfinite *gøre* should be accounted for in the same terms: *gøre* is impossible under perfect *være* because *være* does not subcategorize for *gøre*. Similarly, nonfinite *gøre* is impossible under passive *blive* because *blive* does not subcategorize for *gøre*. In fact *blive* is not able to take an auxiliary complement at all. These restrictions are summarized in the two templates below:

- (29) a. modal < perfect *have* < modal < *gøre*
 b. modal < perfect *være* < passive *blive*

Gøre belongs only on the auxiliary hierarchy in (29a), since it is subcategorized for by modals and perfect *have*, but not by *være* or *blive*. There might be explanations for these subcategorization

patterns, but what is important here is that *gøre* behaves like other auxiliaries in that it may be selected for by some, but not all auxiliaries. *Gøre* itself does not allow for an auxiliary complement, but that does not disqualify it from being an auxiliary: the passive auxiliary *blive* also does not take an auxiliary complement.

The dependence of nonfinite *gøre* on the next highest auxiliary is entirely unexpected under Platzack's analysis. There is no external syntactic difference between a vP in which V has raised to v and one in which V fails to raise and v is realized as *gøre*. For Platzack, this is an alternation that is governed entirely by the featural properties of V, and v itself is identical in both its realizations. Since, then, the two types of vP are indistinguishable to higher auxiliaries, any auxiliary should be able to select for a vP in which V does not raise to v and v is pronounced as *gøre*. This is a prediction that Platzack himself acknowledges (p. 13): 'if the support verb is a spelled-out v, we expect it to occur after all auxiliaries.' In particular, we expect it to occur after perfect *være* and passive *blive*, contrary to fact.¹³

Within the v analysis, to account for the impossibility of *gøre* under perfect *være* and passive *blive*, one might say that these auxiliaries do not take the vP as complement, but rather the VP directly. There would be no v in the structures for (25''), (26''), and (27) above, and hence no source for *gøre*.¹⁴ (Though note Platzack commits himself explicitly (p. 9) to v being present in all clauses.) It is clear, however, the verbs that occur under perfect *være* and passive *blive* are not

¹³Platzack claims that his prediction is borne out for Swedish *göra* and provides examples of nonfinite *göra* under modals and perfect *ha* 'have'. Swedish does not form perfect aspect with the cognate of Danish *være*, so the question of whether participial *göra* occurs below *være* does not arise. But when we look at the passive, which Swedish forms with *bli* 'become', Swedish behaves just like Danish: it does not allow nonfinite *göra* below passive *bli* (Maia Andréasson, personal communication, May 15, 2009).

¹⁴Insofar as the class of verbs that occur with perfect *være* can be assimilated to the class of unaccusatives, their proposed lack of a v would match Chomsky's (2000) idea that passives and unaccusative clauses involve two different v's than do transitive clauses.

always missing a *v* since, as shown in (25), (26), and (28), finite *gøre* show up with these verbs, and finite and nonfinite *gøre* have, by hypothesis, the exact same source. To make the right cut between finite and nonfinite *gøre*, one would have to posit that verbs can occur optionally with *v*. But, while some auxiliaries (modals and perfect *have*) would take either *vP* or *VP* as their complement, perfect *være* and passive *blive* would only take *VP*. This move seems entirely *ad hoc* to us, as it vitiates any motivation for including *v* in the extended verbal projection in the first place. If it is completely optional whether *v* appears or does not appear, what precisely does it do?

From the auxiliary hierarchy in (29), we can see why it is hard to tell the auxiliary and *v* analyses of *gøre* apart. On the *v* analysis, *gøre* occurs immediately below the lowest auxiliary; on the auxiliary analysis, *gøre* is the lowest auxiliary. We conclude, nonetheless, that it IS possible to tell the difference. The ban on nonfinite *gøre* under perfect *være* and passive *blive* mimics gaps in the distribution of other auxiliaries, and this similarity is captured by the auxiliary analysis, which accounts for all such gaps in terms of subcategorization.

3.3 No ellipsis with infinitival *gøre*

The difference between the auxiliary and *v* analyses come out in another area as well. When *gøre* is in its infinitival form, it does not license verb phrase ellipsis, as shown in (30). Verb phrase pronominalization is still possible, though, as we saw in (22b) and (22c), so is verb phrase topicalization (22a). The other nonfinite form of *gøre*, past participial *gjort*, is not subject to this restriction, as shown by the grammatical ellipsis example in (31) (see also (21c) and (24) above).

- (30) a. Jeg har ingen som helst grund til at tro, at Microsoft vil
 I have.PRES no as any reason to to believe.INF that Microsoft want.PRES
 [misbruge deres magt] eller på nogen måde vil [skade Danmark]. Hvorfor
 abuse.INF their power or on any way want.PRES harm.INF Denmark why

skulle de (*gøre) Δ?

should they do.INF

‘I have no reason whatsoever to believe that Microsoft wants to abuse their power or in any way harm Denmark. Why should they?’

b. Da jeg [fik det fjernet], tænkte jeg slet ikke på det som et barn.

when I get.PAST it remove.PART thought.PAST I at.all not on it as a child

Havde jeg gjort det, så havde jeg ikke turdet (*gøre) Δ.

have.PAST I do.PART DET then have.PAST I not dare.PART do.INF

‘When I had it removed, I didn’t think of it as a child at all. If I had, I wouldn’t have dared to.’

c. Spillerne kunne være et afgangshold fra teaterskolen, der

players could.PRES be.INF a graduating.class from theater.school.DEF that

følger et løst skitseret forløb og bytter roller og skifter

follow.PRES a loosely sketched course and swap.PRES roles and change.PRES

karakter, når de kan (*gøre) Δ.

character when they can.PRES do.INF

‘The actors could be a graduating class from a theater school that follow a loosely sketched plan and swap roles and change characters when(ever) they can.’

(31) Nu fisker jeg ikke efter en partner. Men hvis jeg havde **gjort** Δ, havde jeg...

now fish I not after a partner but if I had done had I

‘I’m not looking looking for a new partner. But if I had been, I would...’

In this respect, infinitival *gøre* patterns with regular auxiliaries. When they appear in their infinitival forms, perfect *have* and passive *blive*, too, are not able to license verb phrase ellipsis, as illustrated in (32a) and (32b) respectively, and ellipsis with infinitival modals is marginal at best

(32c).

- (32) a. *Han kan måske [have lagt nøglerne ude på trappen] eller rettere
he can.PRES perhaps have.INF put.PART keys out on stair.DEF or rather
hans mor kan **have** Δ.

his mother can.PRES have.INF

Intended: 'He might have put the keys out on the stairs, or rather his mother might have.'

- b. *Mange fodboldtalenter håber på at blive [udtaget til truppen] ligeså
many football.talents hope.PRES on to become.INF select.PART for team.DEF just.as
snart de er gamle nok til at **blive** Δ.

soon they be.PRES old enough to to become.INF

Intended: 'Many soccer talents hope to be selected for the team as soon they are old enough to be.'

- c. ??I øjeblikket kan jeg ikke [afse tid til det], men jeg håber at
in moment.DEF can.PRES I not off.see.INF time to it but I hope.PRES to
kunne Δ når projektet er afsluttet.

can.INF when project.DEF be.PRES finish.PART.

'At the moment I am not able to set time aside for this, but I hope to be able to when the project is done.'

The generalization, then, is that infinitival auxiliaries do not license ellipsis of the verb phrase.¹⁵ It is possible that there might be a deep explanation for this ban. For now, we simply observe that verb phrase ellipsis must be licensed by some head in the extended verbal projection bearing inflectional features (Lobeck 1995:141–150, Merchant 2001:60), and that the class of heads that are able to do this vary across languages. In Danish, it seems as though auxiliaries in their infinitival forms are not able to license verb phrase ellipsis, while auxiliaries in their finite and participial forms are.

Within Platzack’s analysis of *gøre* as *v*, it is entirely unexpected that the infinitival form of *gøre* should prevent ellipsis. For Platzack, ellipsis versus pronominalization is mediated by the feature content of *V*. In his system, *v* bears a valued uninterpretable *Infl* feature that is checked by the corresponding interpretable feature on *T*. In Danish, *V* optionally also bears this uninterpretable feature. When it does not and when *V* also does not raise to *v*, then the *VP* is elided. If it does, and *V* still does not raise to *v*, then the *VP* is replaced by the proform *det*. Since the relationship between

¹⁵Bjarne Ørsnes notes (personal communication, November 17, 2009) that this restriction is not operative in comparative clauses:

- (i) De producerer flere svin nu end vi nogensinde vil (kunne) (gøre) Δ.
 they produce more pigs now than we ever will can.INF do.INF
 ‘They produce more pigs now than we will ever be able to.’

This observation fits with the well-known fact that comparatives allow for deletion of a range of constituents, not just *vPs*, and hence that comparative deletion cannot be reduced to verb phrase ellipsis. In particular, Kennedy (2002) argues that when the conditions for verb phrase ellipsis are met, the gap in a comparative clause is derived by ellipsis. When they are not met, the gap arises through movement (of the compared constituent) followed by deletion. There is thus an independent mechanism for deleting *vPs* in comparatives and we suggest that this mechanism, and not ellipsis, is what derives apparent examples of verb phrase ellipsis with infinitival licensors like (i) above. What is important to us here is that *gøre* behaves like other auxiliaries in comparatives. All can occur in their infinitival form with comparative deletion of a *vP* and none can license verb phrase ellipsis outside comparatives.

gøre and ellipsis is completely governed by a feature on V, it is not possible, within Platzack's system, to rule out ellipsis with just the infinitival form of *gøre*. Either it should be possible with every form, or it should not be possible at all. Even supposing that an analysis of auxiliary *gøre* as *v* were able to derive the facts in (30), it would miss a generalization. It is not just auxiliary *gøre* that fails to license ellipsis when it appears in the infinitive: all auxiliaries display this restriction. Ideally, however we explain the lack of ellipsis with infinitival *gøre*, we would want the same analysis to extend to all the other auxiliaries. By uniting them all in a single category, our analysis does exactly this.

4 The three environments for auxiliary *gøre*

We have argued that *gøre* is an auxiliary, though it is clearly different from other auxiliaries in two important and related respects. *Gøre* is what we would like to call a defective auxiliary since it has no dedicated semantic content and therefore its distribution is syntactically restricted. In terms of its distribution, *gøre* occurs in three main environments: when the verb phrase has been elided, when it has been topicalization, and when it is realized as the verbal proform *det*. It does not occur when the verb phrase receives its canonical realization. This contrasts with the other auxiliaries of the language, which have semantic content and whose distribution is not restricted by syntactic construction.

We propose to account for *gøre*'s defective status by restricting the types of verb phrases it can subcategorize for. Specifically, it only subcategorizes for pronominal vPs, as stated in (33). All other auxiliaries of the language can subcategorize for ANY type of vP, including pronominal ones.

(33) Subcategorization frame for *gøre*

[_{AuxP} *gøre* [_{vP} *pro*]]

The interpretation of the vP pronominal that *gøre* subcategorizes for gets its meaning in one of two ways. Either it is anaphoric, referring to some antecedent in the discourse, or it is bound and saturated by a sentence initial VP. Since fully realized verb phrases are not pronominal, *gøre* will never cooccur with a main verb. Thus, (34) is ungrammatical, regardless of the choice of nonfinite inflection on the lower verb.

- (34) *Han gjorde vaske/vasket bilen.
 he do.PAST wash.INF/wash.PART car.DEF
 Intended: ‘He washed the car.’

While it might strike some as odd to distinguish between pronominal and nonpronominal members of a category in this way, we know from other domains that syntax can make reference to such a distinction. The Scandinavian languages are famous for object shift, an operation where the object moves to the left of the verb. In Danish, only simple pronominal DPs can undergo object shift; full DPs never do, no matter what their prosodic properties are (Vikner 1989).

Crucially, while *gøre* subcategorizes for a proform, it does not matter whether it is overt or not. Nor do we specify that *gøre* only subcategorizes for a single type of overt proform—*det*, for instance. As we show in the next sections, both overt and null proforms are attested under *gøre*, as are a number of different types of overt proforms.

4.1 Verb phrase ellipsis

We treat the missing vP in verb phrase ellipsis as a null proform that receives its interpretation from the surrounding discourse, as in the work of Dalrymple et al. (1991), Hardt (1993), Lobeck (1995), and Culicover and Jackendoff (2005:266–272); see Chung et al. 1995 for a related, but not

identical, analysis of sluicing.¹⁶ Though it has received little attention in the literature, verb phrase ellipsis is productive in Danish, as attested by the naturally-occurring examples in (35).¹⁷

- (35) a. Har du [set hendes eksamenspapirer]. Jeg har aldrig Δ .
 have.PRES you see.PART her exam.papers I have.PRES never
 ‘Have you seen her exam papers. I never have.’
- b. Hun [bærer tørklæde] ... fordi hun gerne vil Δ .
 she wear.PRES scarf because she willingly will.PRES
 ‘She wears a head scarf... because she wants to.’
- c. Jeg har ingen som helst grund til at tro, at Microsoft [vil
 I have.PRES no as any reason to to believe.INF that Microsoft want.PRES
 misbruge deres magt eller på nogen måde vil skade Danmark]. Hvorfor
 abuse.INF their power or on any way want.PRES harm Denmark why
 skulle de Δ ?
 should.PAST they
 ‘I have no reason whatsoever to believe that Microsoft wants to abuse their power or
 in any way harm Denmark. Why should they?’

¹⁶The more traditional analysis of ellipsis, recently resurrected by Merchant (2001), is that ellipsis is deletion of a fully formed vP under identity with an antecedent vP. Under this conception, we see no way of unifying verb phrase ellipsis with the other environments where *gøre* appears. Should the deletion view of ellipsis turn out to be correct, the subcategorization frame in (33) would have to be stated disjunctively.

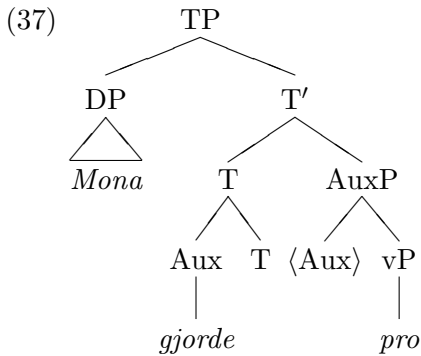
¹⁷For reasons that we do not currently understand, the use of verb phrase ellipsis in Danish is somewhat more restricted than in English, especially in main clauses. Overall, pronominalization is 5 to 6 times more frequent than ellipsis in running text. More specifically, in main clauses pronominalization is 8 to 9 times more frequent, and in embedded clauses it is 3 times more frequent. The availability of verb phrase pronominalization and its interaction with verb second (Andréasson 2008, Mikkelsen 2009) might help to explain why this is.

If in ellipsis contexts, the verb phrase is a proform, then *gøre* should be able to take it as complement, as indeed it does (36). The second conjunct of the sentence in (36) has the structure in (37). The null proform that takes the place of the vP finds the vP of the first conjunct as its antecedent, accounting for the meaning of the second conjunct (that Mona washed the car).

(36) Mona og Jasper vaskede bilen, eller rettere Mona gjorde Δ.

Mona and Jasper wash.PAST car.DEF or rather Mona do.PAST

‘Mona and Jasper washed the car, or rather Mona did.’



One possible objection to this analysis is that the subject argument must consequently be merged in Spec-TP, and therefore is not interpretable. We certainly must abandon the Uniform Theta Assignment Hypothesis (UTAH; Baker 1988) as a SYNTACTIC principle since agent arguments are no longer always base-generated in Spec-vP. But the core intuition behind the UTAH can be preserved. The vP proform in ellipsis contexts must be of type $\langle e, t \rangle$ —that is, a function from individuals to truth values. Ignoring intervening tense and aspect, the *e*-type argument is saturated by the referent of the subject DP. If the proform is anaphoric to an unaccusative verb phrase antecedent, then the subject will be a patient. If, on the other hand, the proform is anaphoric to

an unergative or transitive verb phrase, then the subject will be an agent.^{18,19}

¹⁸One way to reconcile our analysis of *gøre* with the UTAH is to assume that pronominal vPs have a syntactically articulated vP sister and arguments originate within that vP in accordance with the UTAH. (We are grateful to Idan Landau for suggesting this possibility.) Under this analysis, vP ellipsis would be deletion of the syntactically articulated vP, following Merchant (2001). The articulated vP would also delete in structures with the overt vP proform *det* yielding the verb phrase pronominalization construction we analyze immediately below. Instead of deleting, the articulated vP may move to Spec-CP yielding, if the proform is null, verb phrase topicalization or, if the proform is overt, verb phrase left dislocation. (These fronting constructions are discussed in more detail in §4.3 below.) As far as we can tell, this alternative analysis is compatible with the data and observations presented in this paper. The main reason that we do not adopt it here is that we have no independent evidence that verbal proforms can take vP complements. As a matter of fact, overt proforms can never cooccur with an articulated vP *in situ*, so some principle or mechanism must be put in place to ensure that the articulated vP deletes or moves, and we do not know what this principle or mechanism would be. Moreover, the proform and articulated vP cannot cooccur as the pivot of an *it*-cleft nor as the counterweight of a pseudocleft, as might have been expected if they formed a constituent.

¹⁹We assume that *det* in verb phrase pronominalization is a verbal proform. An obvious alternative, advocated by a reviewer, is that it is a nominal proform, i.e. a pronoun. It is difficult to tell the two apart on morphosyntactic grounds, since *det* carries no inflection. The pronoun view has the advantage that *det* clearly has pronominal uses: it is the third person singular neuter pronoun. If that is what is used in verb phrase pronominalization, we do not need to posit a separate, homophonous verbal *det*. On the other hand, the pronoun analysis would require auxiliaries to take nominal complements, which goes against the basic generalization that auxiliaries are verbal elements that take other verbal elements as complement. So, either *det* is category ambiguous (verbal or nominal) or auxiliaries exhibit disjunctive c-selection (verbal or nominal complement). We have opted for the former, but as far as we can tell, our analysis of *gøre* is compatible with the latter option, as long as the null proform involved in ellipsis and topicalization, as well as the relative proforms in (60) and (61), are also nominal, and the subcategorization frame for *gøre* in (33) mentions a nominal, as opposed to verbal, proform. The pronoun analysis would, however, have to rule out illicit combinations of auxiliaries and NPs, an issue that does not arise under our analysis in which *det* is a verbal proform.

4.2 Verb phrase pronominalization

While in ellipsis contexts a null proform is anaphoric to an antecedent in the surrounding discourse, in pronominalization contexts the verb phrase is replaced by an overt verbal proform, *det*.²⁰ The proform tends to front to clause-initial position, as in (38). When, however, Spec-CP is occupied by another element, such as a sentence-level adverb, as in (39), or a question operator, as in (40B), *det* occurs where canonical vPs do.

- (38) Morales spurgte en dreng på 7–8 år, om han havde [fået sine
Morales ask.PAST a boy on 7–8 years whether he have.PAST receive.PART REFL.POSS
børnepenge]. **Det** havde han.
child.money DET have.PAST he
‘Morales asked a boy who was 7 or 8 years old whether he had received his “child money.”
He had.’

²⁰Verb phrase pronominalization has been noted in descriptive grammars (see, for instance, Hansen 1967:31, Diderichsen 1966:178, Allan et al. 1995:158f.), but it has received little theoretical treatment. In addition to our own work elsewhere (Houser et al. 2008), Vikner (1988:11) and Andréasson (2008) cite some examples but do not develop an analysis. Formally similar, though functionally distinct, verb phrase anaphoric constructions can be found throughout Germanic: e.g. verb phrase pronominalization with *det* in Norwegian (Lødrup 1994) and Swedish (Källgren and Prince 1989), as well as German *es* (López and Winkler 2000), short *do* replies in Dutch (van Craenenbroeck 2004:125–260), and *do it* and *do so* anaphora in English (Kehler and Ward 1999). While verb phrase pronominalization in Danish bears a surface similarity to English *do it/so*, it is different in at least one crucial regard: the English anaphors require that their antecedents be agentive, but their Danish counterpart places no such restriction on its antecedent as the examples in (21b), (25), (27), (38), and (60) demonstrate. Like English *it*, *det* has individual- and propositional-denoting uses as well.

(39) Hele fredagen på arbejdet overvejer jeg, om jeg skal [tage i
 whole Friday at work consider.PRES I whether I should.PRES take.INF in
 byen], for det tilfælde, at hun skulle være der... Selvfølgelig skal
 town.DEF for the case that she should.PAST be.INF there of.course should.PRES
 jeg ikke **det**.

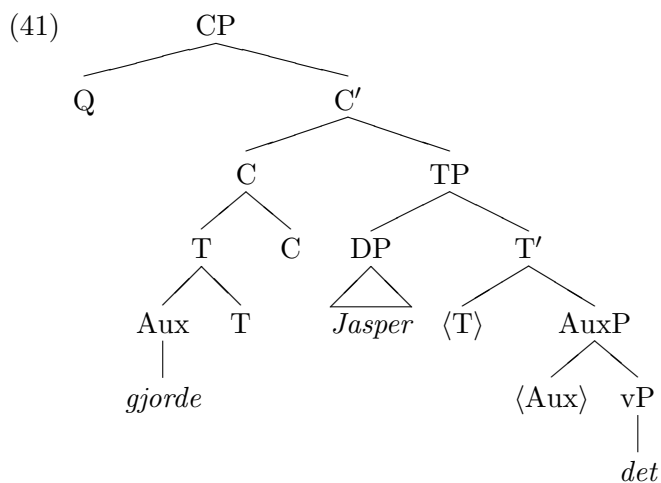
I not DET

‘All day Friday at work I’m thinking about whether I should go out that evening, just in
 case she’s going to be there... Of course I shouldn’t.’

We treat *det* as originating as the sister of an auxiliary. Thus, when Spec-CP is occupied by some
 other element, such as the null question operator of the polar question in (40), it does not move:

(40) A: Mona vaskede sin bil inden hun tog afsted.
 Mona wash.PAST her car before she take.PAST off.place
 ‘Mona washed her car before she left.’

B: Gjorde Jasper også det?
 do.PAST Jasper also DET
 ‘Did Jasper too?’

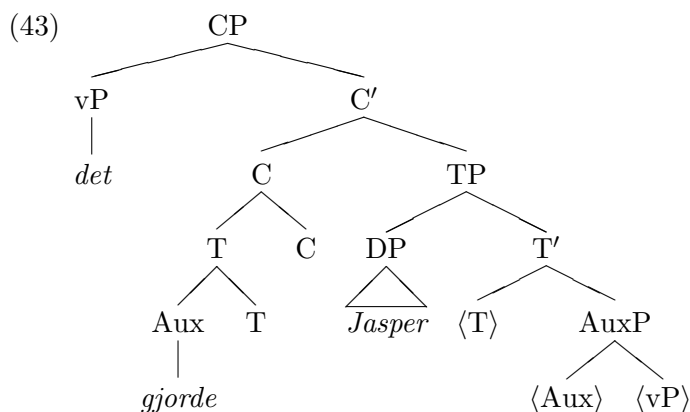


When there is nothing in Spec-CP, *det* raises, so that the sentence in (42) has the structure in (43).²¹

(42) Mona vaskede ikke bilen men *det* gjorde Jasper.

Mona wash.PAST not car.DEF but DET do.PAST Jasper

‘Mona didn’t wash the car, but Jasper did.’



This analysis of verb phrase pronominalization has the benefit of accounting straightforwardly for another construction in which *gøre* occurs, what we will call VERB PHRASE LEFT DISLOCATION, illustrated in (44) (see Källgren and Prince 1989 for discussion of the parallel construction in Swedish).

(44) Dieter Wulf er stadig partiløs, og han ønsker ikke at oplyse, hvad han

Dieter Wulf be.PRES still partyless and he wish.PRES not to state.INF what he

stemte på ved *det* nylige valg til parlamentet. Men [_{vP} **stemme**]— **det**

vote.PAST on at the recent election to parliment.DEF but vote.INF DET

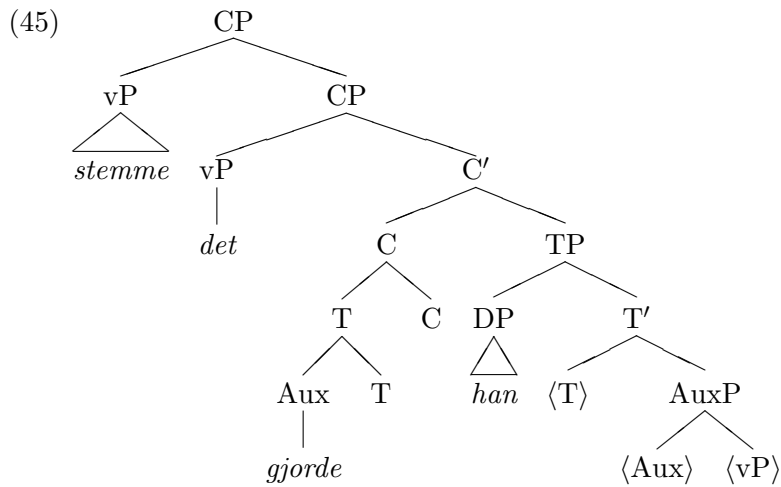
gjorde han.

do.PAST he

²¹In work elsewhere (Houser et al. 2008), we analyze *det* as represented underlyingly by a fully articulated verb phrase. This is problematic, however, since \bar{A} -movement of internal arguments is unavailable, something that we would expect under that scenario to be possible.

‘Dieter Wulf is still without a party and he doesn’t want to say what party he voted for at the recent parliamentary elections. But vote he did.’

In addition to a verbal proform *det*, which fronts, there is a fully-realized vP in left-peripheral position. This produces verb-third word order. As shown in (45), we analyze left dislocation as vP pronominalization with an overt vP adjoined to the root clause.

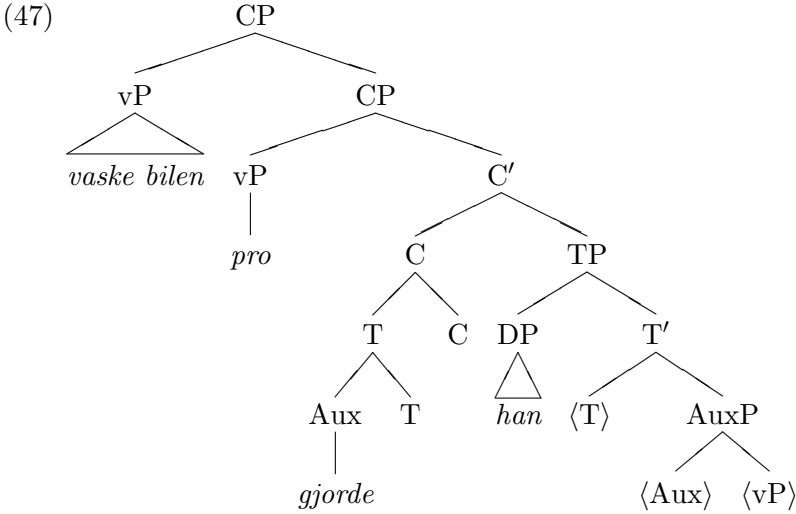


As a specific instance of verb phrase pronominalization, the presence of *gøre* in left dislocation contexts is licensed by the subcategorization frame in (33) since the sister of *gøre* is again pronominal.

4.3 Verb phrase topicalization

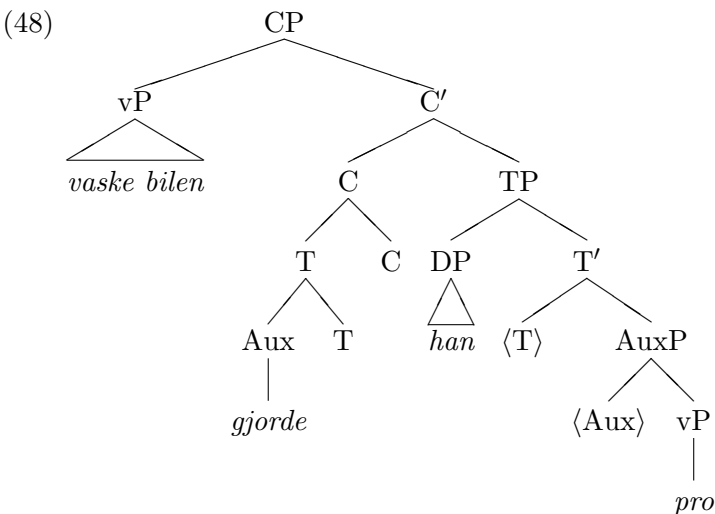
Finally, much like verb phrase left dislocation, we analyze verb phrase topicalization in Danish as base-merger of a pronominal vP under an auxiliary and of the initial vP as an adjunct to CP. The topicalized sentence in (46) thus has the parse in (47).

- (46) Jasper lovede at vaske bilen og vaske bilen **gjorde** han så sandelig.
 Jasper promise.PAST to wash.INF car.DEF and wash.INF car.DEF do.PAST he so truly
 ‘Jasper promised to wash the car, and wash the car, he did indeed.’



This analysis is parallel to the one that Zwart (1997b) proposes for topicalization in Dutch, where it is a (sometimes null) pronominal element that raises to Spec-CP, while the ‘topicalized’ phrase is adjoined to the root clause.

We might consider a simpler analysis of verb phrase topicalization where nothing moves. The initial vP is simply base-merged in Spec-CP, though it is coindexed with a proform merged under an auxiliary, such as *gøre*:



This analysis can be set aside, though, since Danish verb phrase topicalization shows positive traits of movement. It is paralleled in this by verb phrase left dislocation—an important comparison since our analyses of the two constructions are structurally identical.

With regards to island constraints, for instance, the initial vP in both topicalization and left-dislocation constructions cannot be interpreted as embedded inside of a sentential subject (49), an adjunct (50), an embedded interrogative clause (51), or the left or right conjunct of a coordinate structure (52)–(53). Throughout, the (a) examples involve topicalization and the (b) examples involve left dislocation. The underscore marks the base position of the proform.

(49) Sentential Subject Constraint

- a. *_[vP Lave mad] overrasker _[CP at han godt kan ___] mig ikke.
 make.INF food surprises that he well can me not
- b. *_[vP Lave mad] det overrasker _[CP at han godt kan ___] mig ikke.
 make.INF food DET surprises that he well can me not
 Intended: ‘That he can cook doesn’t surprise me.’

(50) Adverb island

- a. *_[vP Lave mad] går de tit ud og spiser _[CP selvom han kan ___].
 make.INF food go.PRES they often out and eat.PRES even.though he can
- b. *_[vP Lave mad] det går de tit ud og spiser _[CP selvom han kan ___].
 make.INF food DET go.PRES they often out and eat.PRES even.though he
 kan ___].
 can
 Intended: ‘They often go out to eat, even though he can cook.’

(51) Wh-island

- a. *_[vP Drukket kaffe] spørger de altid _[CP hvornår man sidst har ___].
 drink.PART coffee ask.PRES they always when one last have.PRES

- b. *_[vP Drukket kaffe] det spørger de altid [<sub>CP hvornår man sidst har
drink.PART coffee DET ask.PRES they always when one last have.PRES
—</sub>].

Intended: ‘They always ask when you last had a cup of coffee.’

(52) Coordinate Structure Constraint (extraction of left conjunct)

- a. *_[vP Lave mad] kan de — og vaske op.
make.INF food can they and wash.INF up
- b. *_[vP Lave mad] det kan de — og vaske op.
make.INF food DET can they and wash.INF up
Intended: ‘They can cook and do laundry.’

(53) Coordinate Structure Constraint (extraction of right conjunct)

- a. *_[vP Vaske tøj] kan de lave mad og —.
wash.INF clothes can they make.INF food and
- b. *_[vP Vaske tøj] det kan de lave mad og —.
wash.INF clothes DET can they make.INF food and
Intended: ‘They can cook and do laundry.’

Under our analysis, these island violations arise because a pronoun originates inside each of these islands and raises to Spec-CP of the matrix clause, crossing an island boundary in the process. In the (a) examples, the proform is null, and in the (b) examples, it is *det*.

Topicalization and left dislocation again behave the same with respect to the binding conditions. In both constructions, the initial vP acts as if it is interpreted where ordinary vPs are base generated, under an auxiliary:

(54) Condition A

- a. [_{VP} Forsvare sig selv_i over for de store børn] kan Peter_i godt, selvom han
 defend.INF REFL REFL over for the big kids can Peter well even.though he
 ikke er ret stor.
 not be.PRES quite big
- b. [_{VP} Forsvare sig selv_i over for de store børn] det kan Peter_i godt, selvom
 defend.INF REFL REFL over for the big kids DET can Peter well even.though
 han ikke er ret stor.
 he not be.PRES quite big
 ‘Peter_i is able to defend himself_i against the bigger kids, even though he’s not that
 big.’

(55) Condition B

- a. [_{VP} Forsvare ham_{*i/j} over for de store børn] kan Peter_i godt, selvom han ikke
 defend.INF he over for the big kids can Peter well even.though he not
 er ret stor.
 be.PRES quite big
- b. [_{VP} Forsvare ham_{*i/j} over for de store børn] det kan Peter_i godt, selvom
 defend.INF he over for the big kids DET can Peter well even.though
 han ikke er ret stor.
 he not be.PRES quite big
 ‘Peter_i is able to defend him_{*i/j} against the bigger kids, even though he’s not that big.’

(56) Condition C

- a. [_{VP} Forsvare Peter_i over for de store børn] kan han_{*i/j} godt, selvom han ikke
 defend.INF Peter over for the big kids can he well even.though he not

er ret stor.

be.PRES quite big

- b. [_{vP} Forsvare Peter_i over for de store børn] det kan han_{*i/j} godt, selvom han
defend.INF Peter over for the big kids DET can he well even.though he

ikke er ret stor.

not be.PRES quite big

‘He_{*i/j} is able to defend Peter_i against the bigger kids, even though he’s not that big.’

As shown in (54), a reflexive pronoun in the sentence-initial vP can be bound by a subject DP for either construction. And, as (55) shows, a nonreflexive pronoun in the same position cannot be coreferential with a subject DP. Finally, an R-expression in the fronted vP, as in (56a), is not free when it is coreferential with the subject DP. The judgment pattern in (54)–(56) can be understood as reconstruction effects: in each case, the binding possibilities are exactly as they would be if the vP occupied its normal position below the matrix subject *Peter/han*. Under our analysis the reconstruction effects cannot involve actual reconstruction of the initial vP. Instead, these effects are mediated by the proform.

Two further movement diagnostics—the licensing of parasitic gaps and cross-over effects—turn out to be inconclusive. The grammaticality of (57), without or without an overt proform, suggests that both fronting constructions license parasitic gaps, and hence that both involve movement.

- (57) [_{vP} Lave mad] (det) gør hun ikke ____, selvom hun godt kan ____.

make.INF food DET do.PRES she not even.though she well can

‘She doesn’t cook, even though she knows how.’

However, since the gap is the size of a vP and the initial vP provides an antecedent, the alleged parasitic gap could simply be an instance of verb phrase ellipsis. Support for this claim comes from

the fact that the second gap is not dependent on the first, as the grammaticality of (58) makes clear.

- (58) Hun laver ikke mad, selvom hun godt kan ____.
she make.PRES not food even.though she well can
'She doesn't cook even though she knows how.'

Unless the possibility of ellipsis in the second clause can be eliminated, the grammaticality of examples like (57) does not tell us anything about the derivation of verb phrase topicalization and left dislocation in main clauses.

The difficulty with checking for cross-over effects is that strong cross-over requires the element that is being crossed over to c-command the base position of the crossing element. In the case of topicalization, this means that we must construct a configuration in which one vP proform *det* c-commands the base position of another vP proform (which can be null or overt). The only such configuration that we have been able to identify is coordination of a vP with a verb phrase containing a second vP proform. Topicalization out of that second conjunct is indeed ungrammatical, but that is already ruled out by the Coordinate Structure Constraint (52)–(53). It is thus impossible to tell whether verb phrase topicalization yields strong cross-over effects.

Weak cross-over configurations (where the crossed-over element does not c-command the base position of the crossing element) can be constructed, as in (59) where the relative clause modifying the subject contains a vP proform *det* that is coindexed with the proform connected to the initial vP. If the latter proform moves from a base-position below negation in the main clause to before the finite auxiliary, it would cross over a coindexed proform, namely *det* in the relative clause.

(59) [_{VP} Redde os]_i (det_i) vil det selskab [_{CP} der bedst kan redde os og før har gjort
 save us DET will the company that best can save us and before has done
 det_i] ikke ___ den her gang.

DEG not this here time

‘The company that is the best position to save us and have done so before will not do it
 this time.’

Speakers find both versions of (59) repetitive and somewhat strained, but grammatical. The lack of a cross-over effect in (59) could be interpreted as evidence against a movement analysis of verb phrase topicalization. On the other hand, weak cross-over effects are notoriously weak and variable even with nominal proforms, as noted early on by Wasow (1979:157–175), suggesting that it is not a very good diagnostic to begin with. The island and connectivity effects documented above all support the movement analysis and this evidence seems to strong enough that (59) can be set aside.

4.4 Extensions

Our proposal predicts that *gøre* should be possible when the verb phrase is replaced by ANY proform, not just the ones we have considered. This is indeed the case, as far as we can tell. In (60) and (61), the verb phrase is replaced by the relative pronouns *hvad* ‘which’ and *hvilket* ‘which’ (which raise to Spec-CP), and the appearance of *gøre* is grammatical:²²

(60) Ballademagerne i Det Konservative Folkeparti burde skamme sig dybt og
 troublemakers.DEF in the conservative people.party ought shame REFL deeply and
 længe, og derefter holde kaje, **hvad** de desværre nok ikke **gør**
 long.time and thereafter keep mouth which they sadly probably not do.PRES

²²Platzack (2008) and Ørnsnes, to appear make the same observation.

⟨hvad⟩.

‘The troublemakers in the Conservative Party should be deeply ashamed for a long time and then keep quiet, which they are sadly unlikely to (do).’

- (61) I hvert fald hopper Richard af toget, og Frances går grueligt meget
in each case jump.PRES Richard off train.DEF and Frances go.PRES terribly much
igennem for at finde ham, **hvilket** hun først **gør** ⟨hvilket⟩ tre år senere på
through for to find.INF him which she first do.PRES three years later on
nattoget til Innsbruck.

night.train.DEF to Innsbruck

‘In either case, Richard jumps the train and Frances has to endure many trials to find him, which she does only three years later on the night train to Innsbruck.’

In (60), *gøre* is clearly not a main verb since the relative clause modifies a stative predicate, *holde kaje* ‘keep quiet’, and this predicates thematic roles are not modified by the presence of *gøre* (see property (iv) in §2.2).

Our proposal finds spiritually akin ones elsewhere. Working within Lexical Functional Grammar, Lødrup (1990) treats *gjøre* in Norwegian as an auxiliary that just like its Danish counterpart shows up when the verb phrase has been topicalized (62) or pronominalized (63).

- (62) [_{VP} Like jordbær] kjenner jeg ingen som gjør.

like.INF strawberries know.PRES I nobody who do.PRES

‘Like strawberries, I know nobody who does.’

(Lødrup 1990:6)

- (63) a. [Liker du jordbær?] Ja, jeg gjør **det**.

like.PRES you strawberries yes I do.PRES DET

‘Do you like strawberries? Yes, I do that.’

(Lødrup 1990:4)

b. Marit [svømmer] og **det** gjør Jon også.

Marit swim.PRES and DET do.PRES Jon too

‘Marit swims, and so does Jon.’ (Eide 2005:65)

To capture its distribution, Lødrup imposes a restriction on *gjøre* that he calls R. It states (p. 10) that ‘the verbal complement of *gjøre* must enter into an unbounded dependency.’ Restriction R accounts for the appearance of *gjøre* in (62) and (63b) where the (pronominalized) verb phrase has indeed been fronted, but in order to account for sentences like (63a) where *det* stays in situ, Lødrup adds the caveat that the proform is exempt from R. Though he did not consider such sentences, R would not derive the occurrence of *gjøre* when the verb phrase has been elided, which is possible in Norwegian as illustrated in (64).

(64) Du [trener da når du er på treningssenteret], gjør du ikke Δ ?

you train.PRES PTCL when you be.PRES on training.center.DEF do.PRES you not

‘But you work out when you go to the gym, don’t you?’²³

In contrast, our treatment of *gjøre* as a defective auxiliary—an auxiliary, in other words, that only subcategorizes for pronominal vPs—is successfully able to unify all of these environments, as well as extend to other syntactic environments where the verb phrase is an overt proform.

5 Conclusion

The major analytical challenges presented by Danish auxiliary *gjøre* are its limited but regular distribution and its position relative to adverbs and other auxiliaries. We have argued that these challenges are met by an analysis that treats *gjøre* as a defective auxiliary.

²³www.iform.no/pub/art.php?id=1430, accessed November 28, 2010. (We thank Helge Lødrup for pointing out his example.)

As an auxiliary, *gøre* must find its place in the extended verbal projection, and given the distribution of nonfinite forms of *gøre*, we concluded that it is located at the very bottom of the auxiliary hierarchy. This low position makes it difficult to distinguish our auxiliary analysis from Platzack’s analysis of *gøre* as the realization of *v*. But a wider range of data—specifically, *gøre*’s distribution under other auxiliaries—supports our analysis of *gøre* as a member of the category Aux. The idiosyncratic fact that auxiliary *gøre* cannot follow perfect *være* or passive *blive* means that, either *være* and *blive* are not auxiliaries (a highly suspect result), or, as we argue, that *gøre* is not the realization of *v*. In addition, auxiliary *gøre* does not license verb phrase ellipsis when it occurs in the infinitive. Again, this is entirely unexplained if *gøre* is *v*; if, instead, it is an Aux, it falls in line with other auxiliaries, which exhibit the same restriction.

A common intuition about English *do*-support is that it is, as Grimshaw (1997:381) puts it, ‘possible only when it is necessary.’ This idea that *do*-support is somehow a strategy of ‘last resort’ is usually implemented within a transformational framework as an operation that applies at the end of a failed derivation to save it.²⁴ Our analysis rejects a similar characterization of auxiliary *gøre* in Danish. But it is worth asking what such a last-resort analysis would look like. To start, auxiliary *gøre* would never be present in the narrow syntactic representation of a sentence. It would instead be inserted to host some inflectional material whose normal host is unavailable because of the vagaries of a particular derivation—say, because the verb has been manipulated through ellipsis, pronominalization, or topicalization. By contrast, in our analysis, the restricted distribution of auxiliary *gøre* follows from its defective status. Auxiliary *gøre* is part of the Danish lexicon: it is a feature bundle that can be added to the numeration, just like any other auxiliary, and it can be merged into the extended verbal projection, again, just like any other auxiliary. Unlike other

²⁴Or alternately, as in Grimshaw’s work within an Optimality Theoretic framework, inserting *do* satisfies a high-ranked constraint that would otherwise be violated.

auxiliaries, however, it only takes a pronominal vP complement.

Are these analyses of auxiliary *gøre* empirically different? If we just consider finite *gøre*, the answer seems to be no. Tense must be expressed and, in the relevant contexts, it has to be expressed on *gøre* because no other verbal form is present to host the tense suffix. Whether *gøre* is there all along (as in our base-generation analysis) or recruited at a relatively late stage in the derivation (as in the last-resort analysis) appears to be a matter of analytical preference and theoretical commitment. But the existence of nonfinite *gøre*, and its general optionality, poses a challenge to last-resort analyses. If nonfinite *gøre* is optional, as it is in many contexts, then nonfinite inflectional morphology does not necessarily have to be expressed. And if it does not have to be expressed, then it is not clear what would motivate the insertion of nonfinite *gøre*. If there is no problem to solve, then there is no need to resort to any strategy, let alone a last-resort one. Since most dialects of English lack nonfinite forms of auxiliary *do*, this issue has not figured very prominently in the literature (though, see Baltin 2007 on British English). But the pervasiveness of nonfinite *gøre* in Danish brings this issue to the forefront, and it suggests that a base-generation account is on the right track, at least for Danish and related languages.

Data sources

EXAMPLE	SOURCE
(6)	“Verdensmester uden mestre.” <i>Jyllandsposten</i> , June 8, 1998.
(9), (21b)	From corpus DK87-90
(21a)	Paul Valley. “Fremmedhadet farver Schweiz’ valgkamp.” <i>Information</i> , September 8–9, 2007, p. 5.
(21c)	Leif Davidson. 2002. <i>De gode søstre</i> . Copenhagen: Lindhardt og Ringhof, p. 149.
(22a)	“I bakspejl og krystalkugle.” <i>Magisterbladet</i> , 2000.
(22b)	Leif Davidsen. 2002. <i>De gode søstre</i> . Copenhagen: Lindhardt og Ringhof, p. 166.
(22c)	Jakob Ejersbo. 2002. <i>Nordkraft</i> . Copenhagen: Gyldendal, p. 372.
(24)	Danmarks Radio. P1, Orientering, January 29, 2009.
(25)	Henrik Winther. “Istanbulekspressen.” <i>Weekendavisen</i> , January 12–18, 2007, p. P8.
(26)	Bo Bjørnvig. “Dommedagsfesten.” <i>Information</i> , Ideer, September 7–8, 2007, p. 5.
(28)	Pernille Bramming. “En sidste nostalgi.” <i>Weekendavisen</i> , June 1–7, 2007, p. 8.
(30a)	Peter Holten Rude. “Danmark har kapituleret.” <i>Weekendavisen</i> , June 1–7, 2007, p. 10
(30b)	Ruth Abildgaard in Danmarks Radio, P1, Dokumentartimen, January 18, 2009.
(30c)	Bo Green Jensen. “Firmaets mand.” <i>Weekendavisen</i> , December 8–14, 2006, p. 5.
(35a)	“Hvad var det dog der skete med Arken?” <i>Jyllandsposten</i> , May 19, 1998.
(35b)	Martin Selsøe Sørensen. “Religiøse demokrater.” <i>Information</i> , April 28-29, 2007, p. 9.
(35c)	Peter Holten Rude. “Danmark har kapituleret.” <i>Weekendavisen</i> , Opinion, June 1–7, 2007, p. 10.
(38)	Rune Geertsen. “Den hvide mand i den røde poncho.” <i>Information</i> . April 28–29, 2007, p. 9.
(39)	Jakob Ejersbo. 2002. <i>Nordkraft</i> . Copenhagen: Gyldendal, p. 258.
(44)	From Korpus 2000
(60)	From Korpus 2000
(61)	Lars Bonnene. Toglæsning. <i>Weekendavisen</i> , February 2–8, 2007, p. P12.

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