Deep properties of surface pronouns: Pronominal predicate anaphors in Norwegian and German

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Abstract

We examine VP-anaphoric uses of Norwegian *gjøre det* 'do it' and argue that 'surface' and 'deep' anaphoric uses of *gjøre det* can be distinguished. We suggest that this ambiguity is connected to the special use of *det* as a verbal anaphor; this special use of *det*, which we mark det_s, is distinct from the usual pronoun *det* (det_d) in that it fails to undergo Object Shift. Using this as a diagnostic, we show that the deep anaphoric *gjøre det* really behaves like any lexical verb plus a pronominal direct object (i.e., *gjøre* det_d, 'do it'). In the case of the surface anaphoric *gjøre det*, it is more as if *gjøre* is a light verb (it shows no aktionsart restrictions) and det_s is a predicate anaphor of a special kind: it selects for an elided verbal projection. Its anaphoric properties are thus indirect, as a result of the more general requirement that elided material have a certain kind of antecedent.

Keywords: Norwegian, German, Germanic, ellipsis, predicate anaphora, pro-predicates, predicate ellipsis, comparatives

1 Introduction

Predicates in the Germanic languages display several possibilities for anaphora. Two of the best known involve ellipsis of the verb phrase (VPE), as in English (1a), and a use of the verb *do* with a singular neuter pronoun object, as in (1b).

(1) English:
   a. Jack can solve the problem; Jill can't.
   b. Jack can solve the problem; Jill can't do it.

Norwegian and German both have constructions that are parallel to the English *do it*, as in the following (b) examples, but they also possess an alternative that is not attested in English, namely the use of a neuter pronoun with an auxiliary directly, as in the (a) examples:

(2) Norwegian:
   a. Jan kan løse problemet; Kari kan ikke det.
       Jan can solve problem.the Kari can not   it

'Jan can solve the problem; Kari can't.'

    b.   Jan kan løse problemet; Kari kan ikke gjøre det.
            Jan can solve problem.the Kari can not   do   it
            'Jan can solve the problem; Kari can't do it.'

(3)   German:

    a.   Jan kann die Aufgabe lösen; Werner kann es nicht.
            Jan can   the problem solve Werner can it not
            'Jan can solve the problem; Werner can't.'

    b.   Jan kann die Aufgabe lösen; Werner kann es nicht tun.
            Jan can   the problem solve Werner can it not   do
            'Jan can solve the problem; Werner can't do it.'

Such constructions and related anaphoric devices have been the subject of a number of previous studies. Lødrup (1994, 2012) and Borthen (2003) discuss the use of the pronoun *det* 'it' as a VP and as a DP anaphor in Norwegian. Houser et al. (2007, 2011) and Ørsnes (2011) discuss *gøre det* 'do it' as a VP anaphor in Danish, and Platzack (2012) addresses this construction in Swedish. Furthermore, for Norwegian, Swedish, and Danish, respectively, Anderssen and Bentzen (2012), Bentzen et al. (2013), Andréasson (2009, 2010, 2013), and Ørsnes (2013) all discuss such constructions with respect to whether the pronoun *det* 'it' with a VP or clausal antecedent undergoes Object Shift or not. The German facts have been investigated in López and Winkler (2000) and Ström Herold (2009) (and van Craenenbroeck 2010 examines related Dutch facts). In this paper, we aim first to give a fuller picture of the properties of these elements in Norwegian in particular, showing that there are two distinct constructions involving *det* 'it,' one which patterns with 'surface' anaphora and one which patterns with 'deep' anaphora. We then show that the German congener with *es* shows a similar mixed behavior, but differs in its behavior inside clausal comparatives, a difference we trace to a difference in the lexical specification of the pronominal element.

2   The mixed properties of Norwegian *(gjøre) det*

2.1   VP ellipsis and anaphora in Norwegian

Verbal predicate ellipsis and anaphora in Norwegian show both parallels to and contrasts with English constructions. The best known construction of verb phrase anaphora in English is VP ellipsis, or VPE, as already illustrated in (1a) above, and further in (4) below. Norwegian has a similar phenomenon, but its range is more restricted than that of English VPE. English VPE is allowed with any auxiliary and the copula (whether or not the copula is raised, as illustrated in (4d)):

(4)   a.   Jill can solve the problem, but Jack can't.
    b.   Jack hasn't written a thesis, but Jill has.
    c.   Jill was arrested, but Jack wasn't.
    d.   Jill is exuberant and Jack {is/has been} too.

Norwegian allows VPE consistently only with modals, not with aspectual 'have', passive 'become', or the copula (where, if there is no verbal aspect necessary in the anaphora site, *gjøre* does

not surface, though *det* is typically required):[1]

(5)   Jan kan løse problemet, men Kari kan ikke.
           Jan can solve problem.the but   Kari can not
           'Jan can solve the problem, but Kari can't.'

(6)   a.   Kari har skrevet ei avhandling, men Jan har ikke %(gjort det).
               Kari has written a dissertation but Jan has not   done it
               'Kari has written a dissertation, but Jan hasn't.'

        b.   Kari ble   arrestert, men Jan ble   ikke %(det).
               Kari became arrested but Jan became not   it
               'Kari was arrested, but Jan wasn't.'

        c.   Kari er begeistret   og Jan {er også/har også vært} *(det).
               Kari is enthusiastic and Jan is also/has also been   it
               'Kari is enthusiastic and Jan {is/has been} too.'

Thus, modals contrast with nonmodal auxiliaries and the copula.[2] The general tendency is that where English has VPE, Norwegian requires or tends to have the pro-form *det*, together with a (tensed) modal, auxiliary, or the pro-verb *gjøre*. Thus Norwegian *gjøre det* appears to behave like an overt version of English VP-ellipsis, what Hankamer and Sag (1976) call a 'surface' anaphor (cf. Lødrup 2012; cf. also Houser et al. 2007 for a similar claim for Danish pronoun *det*), and what Sag and Hankamer (1984) call simply 'ellipsis'.

    In initial respects, Norwegian *gjøre det* seems to occur in the same environments and with the same restrictions that English VPE does. Like English VPE, shown in (7), *gjøre det* can take a range of eventuality types as its antecedent, including statives. Dynamic verbs were illustrated in various previous examples (e.g. (2b) and (6a)); stative verbs are illustrated by the data in (8).

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[1]In a poll of Norwegian speakers, we found considerable variability on this particular point. In particular, (6a) was accepted by five of ten speakers with VPE (i.e., lacking *gjøre det*), and six accepted (6b) with VPE (though none accepted (6c) without *det*). We focus on the pattern represented by the alphabetically first author of this paper, who, like three of the speakers in the survey, accept (6a) only with *gjøre det* and (6b) only with *det*, i.e., they use VPE only in more restricted contexts, such as with modals. We leave the nature of the variability to future research.

[2]A systematic exception to this general pattern is found in polarity questions (see Lødrup 2012), where VPE is allowed with all auxiliaries and the copula:

(i)   a.   Norge   har kvalifisert seg   til Grand Prix.
               *Norway has qualified   REFL *to Eurovision Song Contest*
               'Norway has qualified for the Eurovision Song Contest.'
               Har Nederland   (gjort det)?
               has the Netherlands done it
               'Have the Netherlands?'

        b.   Bulgaria ble   stemt ut. Ble   Sverige (det)?
               Bulgaria became voted out became Sweden it
               'Bulgaria was voted out. Was Sweden?'

        c.   Storbritannia er alltid   med. Er Italia (det)?
               Great Britain is always with is Italy   it
               'Great Britain is always in. Is Italy?'

These data show that there is an interaction between ellipsis type and position, apparently, of the licensing verbal elements. We will not, however, attempt to account for this interaction, which seems to be amenable to a feature co-occurrence rule account.

(7)   a.   Jack loves Kim. Does Jill?
       b.   Jack might not know Kim but Jill does.

(8)   a.   Kari elsker Jan. Gjør Jorunn det?
            Kari loves Jan does Jorunn it
            'Kari loves Jan. Does Jorunn?'
       b.   Jeg vet   ikke om Kari kjenner Joakim, men Jens må   gjøre det.
            I   know not if Kari knows   Joakim but Jens must do   it
            'I don't know if Kari knows Joakim, but Jens must.'

The fact that Norwegian *gjøre det* can take as its antecedent stative verbal predicates headed by verbs like *elske* 'love' and *kjenne* 'know' is crucial: this fact distinguishes *gjøre det* from what might have been thought to be its closest English congener, the verbal anaphors *do it* or *do so*.[3] These anaphors, as is well known, involve the main verb *do* (do_{MV}), and typically are thought to require a nonstative antecedent:[4]

(9)   a.   *Jack loves Kim. Does Jill do it/so?
       b.   *Jack might not know Kim, but Jill does it/so.

   So in this important respect, Norwegian *gjøre det* behaves like VPE, not like *do it*.

2.2   'Surface' anaphoric properties

Hankamer and Sag (1976) famously proposed a distinction between what they dubbed 'surface' anaphors like VPE and 'deep' anaphors like *do it*, based on the variable behavior of these constructions with respect to a number of diagnostics.[5] Two phenomena occur only with surface anaphors: Missing Antecedent Anaphora and the possibility of inverse quantifier scope.

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[3]For reasons of space, we will not investigate the properties of *do that*, which is typically grouped with *do it* in particular. As Jonathan Bobaljik (p.c.) points out, *do that*, while infelicitous with stative antecedents, seems to license missing antecedent anaphora and perhaps to allow for inverse scope, making it an unusual mix, as we will see below. There is very little systematic investigation of the differences between these English anaphors (though see Miller and Pullum (2013) for some relevant observations). Generally the fact that *do that* (as opposed to *do it*) displays properties associated with surface anaphors fits well with our analysis, given (i) the observation by Bentzen and Anderssen (2012) that in certain respects, Norwegian shifted *det* is parallel to English *it*, while Norwegian nonshifted *det* has a distribution more like English *that*, and (ii), the fact that lack of Object Shift is also more generally correlated with surface anaphoric properties.

[4]The copula *be* (Norwegian *være*) behaves differently from stative verbs in both languages. Like English VPE with the auxiliary *do*, Norwegian *gjøre det* does not permit its antecedent VP to be headed by a form of the copula *være* 'be' (in such cases, *være* itself must be used again).

(i)   a.   Jill is ready but John {isn't/*doesn't}.
       b.   Jan er klar,   men Kari {er/*gjør} ikke det.
            Jan is ready but Kari is/does   not it
            'Jan is ready but Kari isn't.'

This property holds of English *do it/so* substitution as well: **Jill is ready but John doesn't do it/so*.

[5]Hankamer and Sag (1976) related this behavior to whether the antecedent is a 'surface' form or a 'deep' form; Sag and Hankamer (1984) refine this analysis and description to replace 'surface' with 'ellipsis' *tout simple*, and 'deep' with 'model-interpretive.' The contrasts of interest, however, remain the same.

In Missing Antecedent Anaphora (MAA), first examined in Grinder and Postal (1971), an anaphoric pronoun such as *it* in (10a) takes as its antecedent a noun phrase that is understood to be internal to a predicate anaphor (that is, the putative noun phrase antecedent to the pronoun is 'missing' from the overt linguistic context). VPE is the kind of predicate anaphor that can introduce such an antecedent, while *do it* is not. (The examples in (10) are from Bresnan 1971:591).

(10)   a.   My uncle didn't buy anything for Christmas, but my aunt did, and it was bright red.
        b.   *My uncle didn't buy anything for Christmas, so my aunt did it for him, and it was bright red.

Just like VPE in English, Norwegian *gjøre det* licenses Missing Antecedent Anaphora:

(11)   Guro skriver aldri med penn. Jens gjør alltid   det. Den er grønn.
        Guro writes never with pen$_M$ Jens does always it$_N$ it$_M$ is green
        'Guro never writes with a pen. Jens always does. It's green.'

VPE and *do it* also differ in whether they permit inverse quantifier scope readings. In English, quantificational objects inside VPs typically can scopally interact with—including taking wide scope over—quantificational elements outside the VP (for example, quantificational subjects, negation, adverbs, and modals). This possibility gives rise to scopal ambiguities (see Sag 1976 and Fox 2000 for discussion). As Hankamer and Sag (1976) point out, VPE preserves scopal ambiguities that may be present in the antecedent clause, while *do it* does not. For example, with a universal object and an existential subject, VPE allows either scopal interpretation, while *do it* allows only the subject to take wide scope:

(12)   a.   A doctor examined every patient, and then a nurse did. ($\exists{>}\forall$, $\forall{>}\exists$)
        b.   A doctor examined every patient, and then a nurse did it. ($\exists{>}\forall$, *$\forall{>}\exists$)

Again, Norwegian *gjøre det* patterns with English VPE, preserving the scopal ambiguity.

(13)   En av studentene i gruppe A svarte   feil   på hvert spørsmål, og en av
        one of students.the in group   A answered wrong on every question   and one of
        studentene   i   gruppe B gjorde også det. (scopally ambiguous)
        students.the in group   B did   also it
        'A student in group A answered every question wrong, and a student in group B did too.'[6]

According to these diagnostics, then, *gjøre det* appears to be an instance of surface anaphora.

It is worth noting here that it has sometimes been questioned whether Missing Antecedent Anaphora and inverse scope are reliable diagnostics for surface anaphora (see Merchant (2013) for this point and references therein). We believe that a pragmatic account seems unlikely to fare well for Missing Antecedent Anaphora since the pragmatically similar *gjøre det samme* 'do the same' (cf. Hardt et al. 2011 for English) behaves differently from *gjøre det*:

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[6]It is easier to get the inverse scope reading with a nonpartitive indefinite subject in English, hence we have used one in the translation. Norwegian, on the other hand, resists weak indefinites in the high subject position, and it seems much easier to get a narrow scope reading with a partitive than with a simple indefinite. We think that the bias for a wide-scope reading of the partitive is present in both languages, and can be overridden in both languages, but the possibility of a weak indefinite in subject position in English makes that alternative salient and the narrow scope reading of the partitive commensurately more difficult.

(14)   Guro skriver med en grønn penn. Jens gjør det samme. #Han kjøpte den i Oslo.
Guro writes with a green pen Jens does the same he bought it in Oslo
'Guro writes with a green pen. Jens does the same thing. #He bought it in Oslo.'

Similarly, *gjøre det samme* forces a wide scope reading for the indefinite subject *en av studentene* 'one of the students' in the second clause:

(15)   En av studentene i gruppe A svarte feil på hvert spørsmål, og en av
one of students.the in group A answered wrong on every question and one of
studentene i gruppe B gjorde det samme. (∃>∀, *∀>∃)
students.the in group B did the same
'A student in group A answered every question wrong, and a student in group B did the same thing.'

The fact that 'surface' properties help determine the outcomes with these two diagnostics therefore thus suggests that both anaphora resolution and the resolution of potential scopal ambiguities in ellipsis can be sensitive not just to the meaning of larger antecedents, but to those antecedents' forms. Fox (2000) presents a detailed theory of such sensitivity for scope, and see Johnson (2012) for a proposal for anaphora.

2.3 'Deep' anaphoric properties

To this point, we have seen substantial parallels between Norwegian *gjøre det* and the English 'surface' anaphor VPE (see especially Houser et al. 2007 for similar discussion of the Danish version of *gjøre det*). However, there are also two ways in which *gjøre det* patterns with the 'deep' anaphor *do it*. First, like *do it*, *gjøre det* seems to be quite felicitous in discourse-initial contexts. That is, it allows for 'pragmatic control' or exophoric uses, and does not seem to require a linguistic antecedent, unlike what is traditionally reported for English VPE (but see Merchant 2004 and Miller and Pullum 2013 for important qualifications to this traditional claim):

(16)   Context: Watching a pantomimed threat to break something:
      a.   He won't do it. / He might do it.
      b. ??He won't. / ??He might.

Similarly, *gjøre det* needs no linguistic antecedent:

(17)   Context: Watching a pantomimed threat to break something:
      Han gjør det ikke. / Han kan komme til å gjøre det.
      he does it not / he can come to INF *do it*
      'He won't do it.' / 'He might do it.'

Second, $\overline{\text{A}}$-extraction out of a VP ellipsis site is possible, as illustrated in (18a), but not with *do it*, (18b):

(18)   a.   How many reports did he refuse to write, and how many reports did he agree to?
      b. *How many reports did he refuse to write, and how many reports did he agree to do it?

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In this respect again, *gjøre det* patterns with *do it* in that $\overline{\text{A}}$-extraction is impossible, as in (19b):

(19)   a.   Hvilke kaker vil du bake, og hvilke kaker vil du ikke?
           which cakes will you bake and which cakes will you not
           'Which cakes do you want to bake, and which cakes don't you?'
       b.   *Hvilke kaker vil du bake, og hvilke kaker vil du ikke gjøre det?
           which cakes will you bake and which cakes will you not   do   it

The deviance of (19b) is not due to any inability of *gjøre det* to co-occur with the modal *vil*:

(20)   Jeg vil bake flere   kaker, men han vil ikke (gjøre det).
       I   will bake several cakes but   he will not (do   it)
       'I want to bake several cakes, but he doesn't (want to).'

We are, therefore, left with a mixed set of properties: Norwegian *gjøre det* patterns with 'surface' anaphors like English VPE in licensing Missing Antecedent Anaphora and inverse quantifier scope, but with 'deep' anaphors like *do it* in permitting 'pragmatic control' and in disallowing extraction.

3   An ambiguity analysis

To account for this otherwise seemingly irreconcilable admixture of behaviors, we propose a classical ambiguity analysis: there are two instances of *gjøre det*: one that involves a form that co-occurs with ellipsis, det_s, and one that involves a different pronoun that does not conceal or co-occur with ellipsis, det_d. 'S' is a mnemonic here for 'surface anaphor,' but also for 'sentence,' since it is connected to CP anaphora, and 'D' is a mnemonic for 'deep anaphor,' but also for 'DP,' as we think that det_d is an ordinary pronoun. In the analysis of pronominal structure proposed by Déchaine and Wiltschko (2002), det_d would be a ϕP, while det_s would be an NP, as it can replace a predicate.

By hypothesis, then, det_d is a 'deep' anaphor (like any pronoun): its resolution is achieved by linking it to a model-theoretic object, and it does not involve predicate ellipsis.[7] It therefore creates no expectation that a linguistic antecedent is needed; it contains no complex internal syntactic structure of the kind that facilitates further anaphora; it does not contain quantificational elements that could undergo covert scope-shifting operations; and it does not provide appropriate origin sites for moved elements. It has the distribution of a DP, and the verb introducing it, *gjøre*, is a 'main' verb and must have a dynamic discourse antecedent.

Det$_s$ on the other hand, is a 'surface' anaphor: it involves (co-occurs with) ellipsis. Therefore, it co-occurs with complex unpronounced syntactic structure and thus licenses Missing Antecedent Anaphora and inverse scope. Like other ellipses, it resists exophoric control, and allows for stative antecedents. The verb which appears with it is morphologically the same as main verb *gjøre* 'do' but has light verb characteristics. Unlike VPE, ellipsis with det_s does not allow extraction from its complement: we return below to the issue of how to account for this anomalous behavior.

In this we draw on Helge Lødrup's (2012) analysis of certain uses of *det* as 'surface' anaphors.

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[7]On a theory of pronouns that allows, or even requires, pronouns to have an elliptical component (see Elbourne 2010), of course this pronoun would too, in which case the difference would rather lie in what category of material is elided.

He discusses *det* as a sort of 'kind' anaphor in the complement to verbs like *kjøpe* 'buy.' As he notes, the kind anaphor does not match in gender with its antecedent, but licenses a pronoun which does, as in MAA, as he illustrates with the example in (21). The noun *hund* is grammatically masculine, and thus would ordinarily correspond to the masculine/feminine ('common gender') pronoun *den*, but in the second conjunct of the first sentence we see the neuter pronoun *det*.

(21)   Marit kjøpte ikke hund, men det kjøpte John. Den er veldig stor.
        Marit bought not dog but it$_N$ bought John it$_M$ is very big
        'Marit didn't buy a dog, but John did. It is very big.'

This use of *det* is restricted to certain kinds of verbs, as Lødrup shows. Our analysis extends to all verbs, when they are replaced by *gjøre*.

In the following sections, we give independent evidence for this lexical ambiguity, from a differential empirical behavior under Object Shift conditions. We show that det_d and det_s are distinguished by Object Shift: det_d, as a regular pronoun, undergoes Object Shift, but det_s, as special head triggering predicate ellipsis, does not.

3.1 'Deep' det_d: Pragmatic control correlates with Object Shift

There is a positive correlation between the use of deep anaphoric det_d and Object Shift. Object Shift in Mainland Scandinavian is an operation that typically applies to unstressed pronominal objects, moving them across negation and adverbs, as seen by comparing the relative order of the object and the negative adverb in the examples in (22):

(22)   a.   Jeg fant ikke bilen.
                I found not car.the
                'I didn't find the car.'
    b.   Jeg fant den$_{Masc}$ ikke.
                I found it not
                'I didn't find it.'

Holmberg (1999) argues that the triggering feature for Object Shift is [−Focus]; elements negatively specified for [±Foc] have to move out of the focus domain (cf. also Mikkelsen 2011 for a focus-based account of Object Shift).

The generalization is sometimes made on the basis of patterns like that in (22) that pronouns shift while full DPs do not, but *det* often fails to shift when it is referentially linked to a CP, *v*P, or kind-denoting noun phrase. Anderssen and Bentzen (2012) and Bentzen et al. (2013) specifically investigate such cases, and propose that *det* with a CP, *v*P, or kind-denoting antecedent do undergo Object Shift when they constitute familiar or continuing topics, but remain in situ when they constitute aboutness topics. We suggest that the reference of a shifted *det* is resolved in the same way as for deep anaphors, det_d, even when its antecedent is clausal, eventive, or kind-denoting.[8] In the case of pragmatic control discussed in section 2.3, det_d does not have a structural antecedent, but rather refers to a discourse topic that has been established in a context, possibly extralinguistically. In pragmatic control contexts, the pronoun det_d constitutes a [−Focus] element and by referring to

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[8]See also Lødrup (1994, 2012), Andréasson (2009) and Ørsnes (2013) for discussions of Object Shift and pronouns referring to CPs, *v*Ps, and kind-denoting noun phrases.

a discourse topic, it functions as a continuing topic. Some feature on det_d causes it to obligatorily undergo Object Shift. Obligatory shift of a pragmatically controlled pronoun is illustrated in (23).

(23) Watching John pretending to break our new expensive vase:

Slapp av, han gjør {det} ikke {*det}.
relax off he does it   not   it
'Relax, he won't do it.'

This behavior of pronouns without linguistic antecedents, that is, pronouns with 'deep' anaphoric properties, can be observed also with verbs other than *gjøre*, such as *prøve* 'try':

(24) Watching John climbing up a tall bridge, and Jack getting ready to do the same:

Jeg prøver {det} ikke {*det}.
I   try   it not   it
'I won't try it.'

In contrast, we do not expect this kind of correlation between Object Shift and surface det_s. Rather, we predict that Object Shift will be incompatible with Missing Antecedent Anaphora, inverse quantifier scope, and extraction, as discussed further below.

3.2 Surface det_s: 'Surface' properties correlate with lack of Object Shift

The pronoun that appears with *gjøre det* when this anaphor has 'surface' properties, i.e. det_s, is different from the pronoun det_d discussed in the previous section.

First, when Missing Antecedent Anaphora is licensed, Object Shift becomes impossible (normally; we discuss a counterexample momentarily). We mark the *d* and *s* subscripts on the two different instances of *det* to call attention to this aspect of the analysis, though they have the same form, and translate det_d as 'it' when it is possible to preserve the meaning of the original.

(25) a. Guro skriver aldri med penn. Jens gjør alltid   **det**$_s$. Den er grønn.
          Guro writes never with pen$_M$ Jens does always it$_N$ it$_M$ is green
          'Guro never writes with a pen. Jens always does. It's green.'
      b. Guro skriver aldri med penn. Jens gjør **det**$_d$ alltid. #Den er grønn.
          Guro writes never with pen$_M$ Jens does it$_N$ always it$_M$ is green
          'Guro never writes with a pen. Jens always does it. #It's green.'

Second, Object Shift is incompatible with an inverse scope reading—such readings are available only when the pronoun has not shifted:

(26)   En av studentene i gruppe A svarte   feil   på hvert spørsmål,...
          one of students.the in group   A answered wrong on every question
          'A student in group A answered every question wrong, ...'
      a. ... og en av studentene i gruppe B gjorde også **det**$_s$. ($\exists > \forall$, $\forall > \exists$)
          and one of students.the in group   B did   also it
          '...and a student in group B did too.'
      b. ... og en av studentene i gruppe B gjorde **det**$_d$ også. ($\exists > \forall$, *$\forall > \exists$)
          and one of students.the in group   B did   it   also

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'... and a student in group B did it too.'

The correlation between 'deep' properties and Object Shift and between 'surface' properties and the failure to undergo Object Shift is captured, on our analysis, by positing an ambiguity in the anaphor itself. The regular pronoun det_d has the distribution of a pronoun, and thus must be introduced in an argument position, such as the object position of main verb *gjøre* 'do'; this verb is a dynamic verb like its English main verb counterpart. The ellipsis site marker det_s, on the other hand, has the distribution of a predicate, and is supported by an auxiliary or by a light verb use of *gjøre*, which is not restricted to dynamic contexts, much as English auxiliary *do* is not.

The combination of these properties makes a novel prediction, since det_s involves ellipsis and therefore allows stative antecedents and disprefers exophoric use, while det_d allows exophoric use but is not compatible with a stative predicate. This combination predicts that if a salient or manifest property in the context is stative, *neither* an Object Shifted *nor* an in situ use of *det* will be found: the shifted use is ruled out, since it would require det_d, which cannot have a stative interpretation, and the in situ use is ruled out, since det_s requires a linguistic antecedent. Exactly this is the case, as the following example shows:

(27)   [Watching John doing the dishes, which he clearly doesn't like doing:]
        *Huffda, han gjør {det_d} ikke {det_s}. (where *det* = 'like doing the dishes')
        oh.dear he does it   not   it
        (*'Oh dear, he doesn't (do it).')

A further fact of relevance here is that the use of the 'deep' anaphor is often dispreferred when the 'surface' one can be used: in Norwegian this can be seen in the fact that when a linguistic antecedent is available, Object Shift sometimes becomes strongly dispreferred:

(28)   Kari går   ofte på kino.   John gjør {??det_d} ikke {det_s}.
        Kari goes often on cinema John does   it   not   it
        'Kari often goes to the movies. John doesn't (??do it).'

The fact that the shifted pronoun is odd here, and that it is not the case that both variants are freely available, seems to pattern with a range of other facts known about elliptical anaphoric devices. For reasons explored in Merchant (2013) and van Craenenbroeck (2012), it appears that across a variety of constructions, the availability of a 'surface' anaphor tends to inhibit the use of an otherwise equivalent 'deep' anaphor. Roughly speaking, when ellipsis can be used, it should be; when ellipsis fails, other, contextually equivalent, anaphoric devices can be made use of. In the case of *gjøre det*, this preference seems especially strong in some cases, such as (28), and less so in others, such as (25b) and (26b), for reasons that are unclear at this point. However, it seems that the same pattern holds of the English *do* and *do it* here, as seen in the translations. And while we can understand why det_d, as a pronoun, would have to undergo Object Shift when it can, we will postpone until section 3.4 below an account of why the prosodically otherwise similar det_s *cannot* shift.

Lødrup (1994, 2012) observes that the kind-denoting *det* which occurs with verbs like *kjøpe* can undergo Object Shift, citing the example in (29) (*bil* 'car' is masculine, so the referential pronoun would have to be *den*, and would suggest, incongruously here, that John and we bought the same car at the same time).

(29) John kjøpte bil da   vi kjøpte det, men han kjøpte det ikke på grunn   av oss.
      John bought car when we bought it   but   he   bought it   not on ground of us
      'John bought a car when we did, but he didn't buy it because of us.'

Both instances of *det* 'it' are neuter, despite the fact that *bil* 'car' is masculine. The second instance of *det* is Object-shifted across *ikke* 'not.' Lødrup concludes that det_s can undergo Object Shift when it represents given information. We have controlled for this factor in the examples in this paper, so that our results are compatible with Lødrup's position. But an alternative explanation is that the Object-shifted *det* in (29) is actually a ϕP, i.e. our det_d. In that case, we would have to allow det_d to have a 'kind' interpretation under certain circumstances—crucially here, the antecedent has a kind interpretation, a situation which is often correlated with lack of gender (and number) agreement (see Borthen 2003).[9] Thus we will set aside these cases where *det* is contextually old and assume that elsewhere, Object Shift is a good test for distinguishing det_s from det_d.

3.3 Extraction

The ambiguity analysis accounts for why *gjøre det* seems to display both 'surface' and 'deep' behaviors. But positing an ambiguity raises a new question: why is $\overline{\text{A}}$-extraction uniformly disallowed? As we saw above in (19b), $\overline{\text{A}}$-extraction from the site of *det* is banned, regardless, it seems, of whether the *det* can be analyzed as 'surface' or 'deep.'

  The answer comes from the behavior of $\overline{\text{A}}$-extraction in the presence of anaphoric *det* more generally: there is a use of Norwegian *det* which systematically blocks $\overline{\text{A}}$-extraction from an associated CP. First, note that in Norwegian, most finite CP complements can be accompanied by an overt pronoun *det*, which we believe to be identical to det_s (The examples in (30)-(31) are from Bentzen 2012).

(30) a. Han påstod at   Jon hadde mistet brillene   sine.
          he   claimed that Jon had   lost   glasses.the his
          'He claimed that Jon had lost his glasses.'
      b. Han påstod det at   Jon hadde mistet brillene   sine.
          he   claimed it   that Jon had   lost   glasses.the his
          'He claimed that Jon had lost his glasses.'

As discussed by Bentzen (2012), extraction from embedded clauses when these clauses are associated with *det* is impossible; compare the acceptable examples (31a) and (31c) without *det* to the unacceptable examples (31b) and (31d) :[10]

(31) a. [Hvem]$_i$ påstod han at   t$_i$ hadde mistet brillene   sine?
          who   claimed he that   had   lost   glasses.the his
          'Who did he claim had lost his glasses?'
      b. *[Hvem]$_i$ påstod han **det** at   t$_i$ hadde mistet brillene   sine?
          who   claimed he IT *that   had   lost   glasses.the his*

---

[9]Examples like (29) also allow MAA of the restricted kind discussed by Lødrup, i.e. an instance of a car-kind introduced by neuter *det* can also be referred back to with a masculine *den*; cf. (21).

[10]Note that only varieties of Norwegian which lack a *that*-trace effect allow examples like (31a), but the point is illustrated by (31c-d) even for those varieties which observe the *that*-trace effect.

c. [Hva]$_i$ påstod han at Jon hadde mistet t$_i$?
   what claimed he that Jon had lost
   'What did he claim that Jon had lost?'

d. *[Hva]$_i$ påstod han **det** at Jon hadde mistet t$_i$?
   what claimed he IT *that Jon had lost*
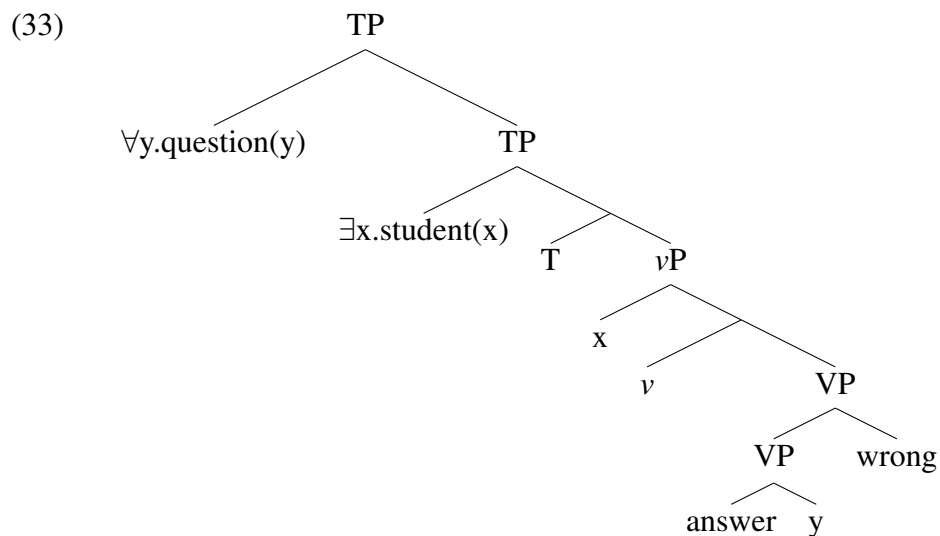   'What did he claim that Jon had lost?'

Thus if the constraint that accounts for this pattern (see below for some more discussion) is sensitive simply to the presence of a determiner-like element associated with an extraction domain, the constraint should apply in the case of predicate-replacing *det* (what we are calling *det*$_s$) as well.

3.4 Inverse quantifier scope

Given this state of affairs, it now becomes urgent to examine the case of inverse quantifier scope. Recall that such scoping is possible with *det*$_s$, as shown in the repeated example here:

(32) En av studentene i gruppe A svarte feil på hvert spørsmål, og en av
     one of students.the in group A answered wrong on every question and one of
     studentene i gruppe B gjorde også det$_s$. (scopally ambiguous) (= (13))
     students.the in group B did also it
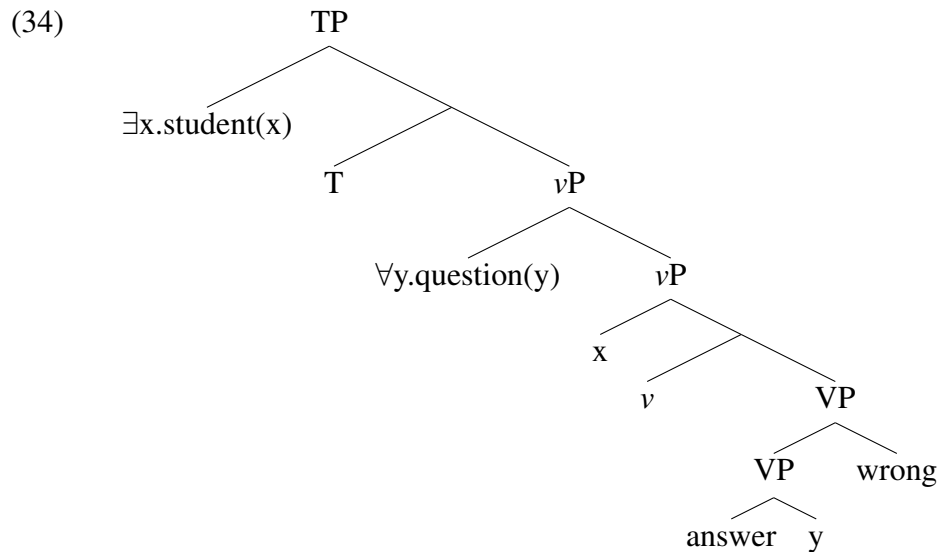   'A student in group A answered every question wrong, and a student in group B did too.'

It is often assumed that inverse quantificational scope is derived by a covert $\overline{\text{A}}$-movement—Quantifier Raising—of the object to a position c-commanding the subject, yielding structures such as the following at LF:

(33)

```
                    TP
           ┌─────────┴──────────┐
    ∀y.question(y)             TP
                        ┌───────┴────────┐
                  ∃x.student(x)    ┌─────┴─────┐
                                   T          vP
                                   x      ┌────┴────┐
                                          v        VP
                                              ┌─────┴─────┐
                                             VP         wrong
                                          ┌───┴───┐
                                       answer    y
```

In the VP-anaphor clause, *gjøre* could be assumed to be at the position of *v* in this tree, and *det*$_s$ could be assumed to replace the VP, as Houser et al. (2007) propose for the parallel construction in Danish.

But in that case, inverse scope would involve QR across *det*$_s$. If QR is a kind of $\overline{\text{A}}$-movement, as standardly assumed, then it should pattern with overt $\overline{\text{A}}$-movement, and inverse scoping should be

disallowed, contrary to fact. The fact that inverse scope is possible is consistent, however, with the derivation of this scoping proposed in Johnson and Tomioka (1998). Johnson and Tomioka (1998) posit that object-over-subject inverse scope should be analyzed as involving the interpretation of the subject in a lower, predicate-internal position (either by means of lowering at LF or reconstruction, however implemented). Scope inversion is derived by QRing the object not over the overt position of the subject in specTP or higher, but to the outer edge of the extended projection of the verb, above the base or reconstructed position of the subject:

(34)

TP
├── ∃x.student(x)
└──
    ├── T
    └── vP
        ├── ∀y.question(y)
        └── vP
            ├── x
            └──
                ├── v
                └── VP
                    ├── VP
                    │   ├── answer
                    │   └── y
                    └── wrong

If what is unpronounced in ellipsis structures with *gjøre det* were the VP, then QR to the edge of *v*P would still cross *det*$_s$ (assuming the latter to be sister to the elided constituent, as we suggest below). Thus, in order for QR not to cross *det*$_s$, we must assume that the ellipsis site is the larger *v*P.

This means that we must assume that ordinary A-movement of the subject out of the ellipsis site is not blocked, even though $\overline{\text{A}}$-movement is. There is in fact evidence that A-movement is not blocked by *gjøre det*. The first such evidence comes from cases where a subject must get its thematic interpretation from the verb, for example in cases like the following.

(35)   a.   En tanke   slo   meg.
           a   thought struck me
           'A thought struck me.'
       b.   Det slo   meg en tanke.
           it   struck me   a   thought
           'A thought struck me.'

When *slå* 'strike' combines with a narrow semantic range of objects such as 'thought' or 'idea' and an animate experiencer argument, it has a meaning different from its literal physical meaning (as in English), something like '(experiencer) suddenly had a thought.' This quasi-idiomatic interpretation can arguably only come about if the theme is an internal argument of the predicate, and would not be expected to enter into nonlocal relations such as control or pronominal anaphora. In fact, the neutral word order in the impersonal variant, illustrated in (35b), suggests that the theme

might even originate lower than the experiencer.

At least in such constructions, then, we can be sure that the subject is raising from within the verb phrase, and could not be contributed by *gjøre* in some kind of control construction under standard conceptions. Thus, if we can show that even with these verbs, the verb phrase can be replaced by *gjøre det*, then we will have shown that A-movement of the subject escapes the ellipsis site.

To see that this in fact is so, consider first (36). In this example, the VP anaphor *gjøre det* stands in for the verb phrase *slå meg* 'strike me,' while the subject *det*, standing for 'a thought,' raises from the anaphoric *v*P, just in case we have *det*$_s$ (and hence no Object Shift).

(36)   a.   Jeg trodde at en tanke skulle slå meg, men...
             I thought that a thought should strike me but
             'I thought that a thought would strike me, but ...'
     b.   ... det gjorde aldri det$_s$.
             it did never it
             '... one never did.'
     c.   *... det gjorde det$_d$ aldri.
             it did it never
             (*'... one never did it.')

The pronominal subject in the second conjunct clause in (36b) is in the neuter form, consistent with a 'kind' interpretation.[11] It can be made clearer that the subject is raising if it shows gender agreement with its antecedent, which means we have to rule out the kind-interpretation. This can be done by making the quasi-referential noun phrase *en tanke* 'familiar' enough to support regular, nonkind anaphora to the common-gendered antecedent *en tanke*, as in (37). Once again, as expected, Object Shift eliminates the idiomatic reading of the *v*P, (37c):

(37)   a.   Jeg satt klar med penn og papir, fordi jeg visste at en smart tanke skulle
             I sat ready with pen and paper because I knew that a smart thought should
             slå meg.
             strike me
             'I was sitting ready with pen and paper, because I knew that a clever thought would strike me.'
     b.   Så gjorde den plutselig det$_s$.
             so did it suddenly it
             'And then it suddenly did.'
     c.   #Så gjorde den det$_d$ plutselig.
             so did it it suddenly
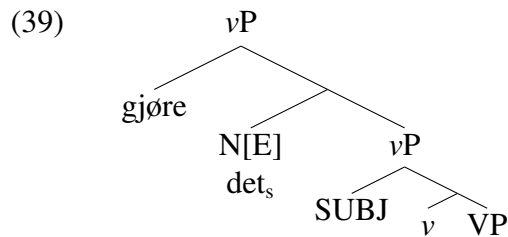   (#'And then it suddenly did it.')

Finally, we observe that *gjøre det$_s$* is possible with antecedents headed by unaccusative, passive, and raising verbs. In (38a)-(38b) Object Shift is not possible, indicating that only *gjøre det$_s$* is available here. In contrast, (38c) does allow Object Shift, but the interpretation is different with and without Object Shift of *det*. Without Object Shift, the antecedent of *det* is the complete preceding

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[11]The form is identical with that of an expletive, opening the possibility that the subject is not raised at all in (36). But impersonal clauses cannot normally have nonimpersonal clauses as their antecedents, in VP-anaphora.

clause and the interpretation is that she *does not seem to understand me*. With Object Shift, on the other hand, the antecedent of *det* is only the infinitive clause and the interpretation is that she *does not understand me*.

(38) a. Vokser den på trær? Nei, den gjør ikke det. / *Nei, den gjør det ikke.
          grows it on trees no it does not it   no it does it not
          'Does it grow on trees? No, it doesn't.'

    b. Ble   han arrestert? Nei, han ble   ikke det. / *Nei, han ble   det ikke.
        became he arrested no he became not it   no he became it not
        'Was he arrested? No, he wasn't.'

    c. Han virker for å forstå   meg, men hun gjør ikke det / hun gjør det ikke.
        he seems for to understand me but she does not it   she does it not
        'He seems to understand me, but she doesn't.'

We therefore propose that det_s cooccurs with an elided verbal predicate, taking as inspiration the similar proposal in Elbourne (2008), though our implementation differs in details. In particular, we suppose that det_s is an N, following the Déchaine and Wiltschko (2002) decomposition of pronominal structure, that hosts an E-feature (the latter triggering ellipsis of its sister), and that originates as the sister of the predicate. We take the predicate in this case to be the highest argument-introducing verbal projection: on many conceptions, *v*P. The *gjøre* that occurs with this *det* can then be analyzed as a species of *v* which selects for this head (and licenses the E feature, for example).[12] The resulting structure is the following:

(39)
```
              vP
             /  \
       gjøre      
             N[E]     vP
             det_s   /  \
                  SUBJ    
                       v   VP
```

The node immediately dominating N here is unlabeled in (39). Given the flexibility of det_s to attach to a wide variety of predicative constituents, without affecting selectional relations, we assume that it is adjoined. Hence the unlabeled node would be a projection of the verbal material below it.[13]

This structure also allows us to understand why the otherwise prosodically light det_s cannot undergo Object Shift: if Object Shift targets only the category of ordinary pronouns[14] (distinguished by additional features such as [-Foc] or the like), then det_s, as an N, does not qualify as a potential target for Object Shift. (It may front, but this is true of a much wider range of constituents.)

An alternative possibility would be that det_s realizes a head in the clausal skeleton, as proposed by Sportiche (1995) for the French predicate clitic *le*. This allows for extraction of a comparative operator out of the missing predicate phrase, as in (40).

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[12]We will not pursue the exact identity of the light verbal element. It could be a raising light verb, or a low auxiliary, as in Houser et al. (2011) or Platzack (2012), or perhaps Voice in the conception of Collins (2005).

[13]Compare Cable's (2010) proposal for an adjoined operator Q in his analysis of *wh*-movement.

[14]In Danish, locative particles meaning 'here' and 'there' also shift.

(40)   Louis était aussi fidèle   que *Op*$_1$ Marie l'était *t*$_1$.
            Louis was as   faithful as   Marie it-was
            'Louis was faithful as Marie was.'

But Norwegian *det*$_s$ has no clitic-like properties, and proposing a high position outside the predicate would leave it mysterious why *det* should block $\overline{\text{A}}$-extraction (as indeed the French *le* does not).

     Houser et al. (2007) propose a kind of overwriting analysis, where the Danish *det* 'replaces' a *v*P; this *v*P by hypothesis is marked as [top], which, as an $\overline{\text{A}}$-feature, competes with any [wh] feature internal to the *v*P being replaced. We are reluctant to posit overwriting as a mechanism, but will propose that a feature from the $\overline{\text{A}}$-system is present in these structures, in order to explain the impossibility of $\overline{\text{A}}$-extraction.

     We are now in a position to see the complete analysis of cases of inverse quantifier scope such as (13). In such examples, the quantificational subject reconstructs to its base position inside the *v*P, while the quantificational object QRs to an immediately c-commanding position. This instance of QR does not cross *det*, which blocks all $\overline{\text{A}}$-extraction from its complement; the resulting LF structure is shown schematically in (41):

(41)
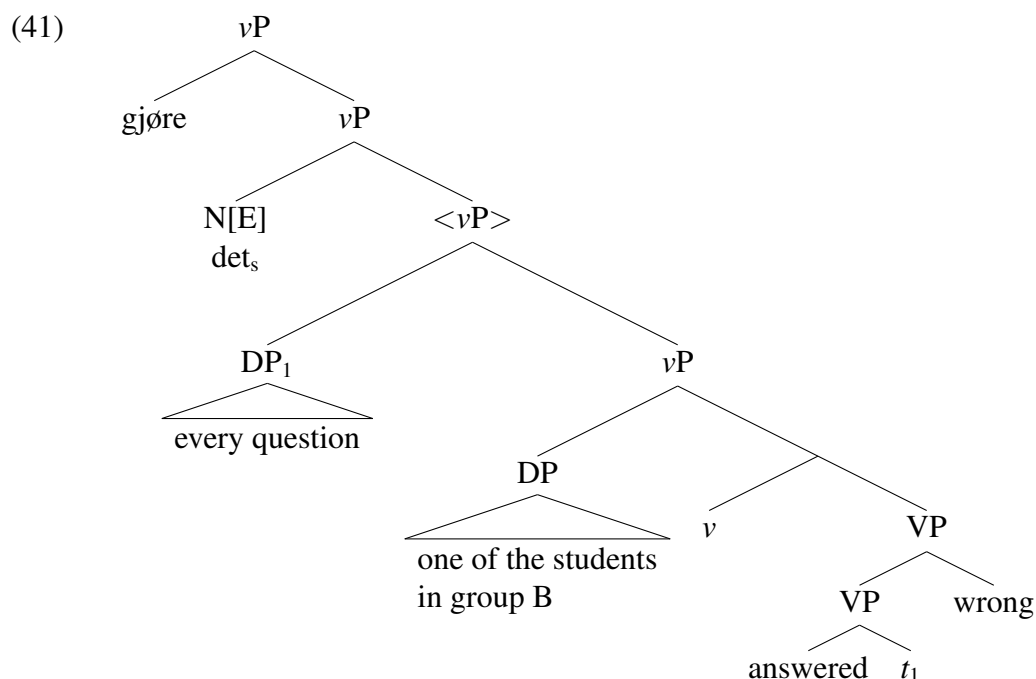
Here we represent *gjøre* as a light verb *v* taking a *v*P complement; it is the presence of a *v*P below *gjøre* which makes this structure large enough to support inverse scope in the ellipsis site, in contrast to the structure in (34) previously discussed. In contrast, main verb *gjøre*, as an ordinary main verb, would not take a *v*P complement, and would hence not provide any possibility of inverse scope.

     We suppose the impossibility of $\overline{\text{A}}$-extraction could be derived in one of two ways. One, it could be due to the nominalizing property that accompanies *det*: predicates or CPs that 'associate'

with *det* appear to have more definite nominal properties than those that do not, and for reasons that are not entirely clear, $\overline{\text{A}}$-extraction from such phrases is degraded. Two, *det*$_s$ might have some kind of $\overline{\text{A}}$-feature that would interfere with $\overline{\text{A}}$-extraction (compare the similar reasoning found in Houser et al. 2007).[15] In any case, it is not enough to claim that *det*-associates are 'islands' tout court.

Modal examples reveal an additional property of the reconstruction analysis of the observed inverse quantifier scope. In modal examples without anaphora or ellipsis, inverse scope can also be found, as illustrated in (42a), which permits both the surface and inverse scope readings. This scopal ambiguity is preserved when a modal co-occurs with *det* directly, as we showed in (5) above—when the antecedent clause is ambiguous, a continuation such as (42b) retains the ambiguity (and, as is expected, the ambiguity must be resolved in the same way in both clauses, making this discourse 2-ways, not 4-ways, ambiguous; see Sag 1976 and much later work):

(42) a. Jeg kan bake hver eneste kake på lista... ($\Diamond > \forall$, $\forall > \Diamond$)
    I can bake every single cake on list.the
    'I can bake every cake on the list...'
  b. ... og Per kan også det$_s$. ($\Diamond > \forall$, $\forall > \Diamond$)
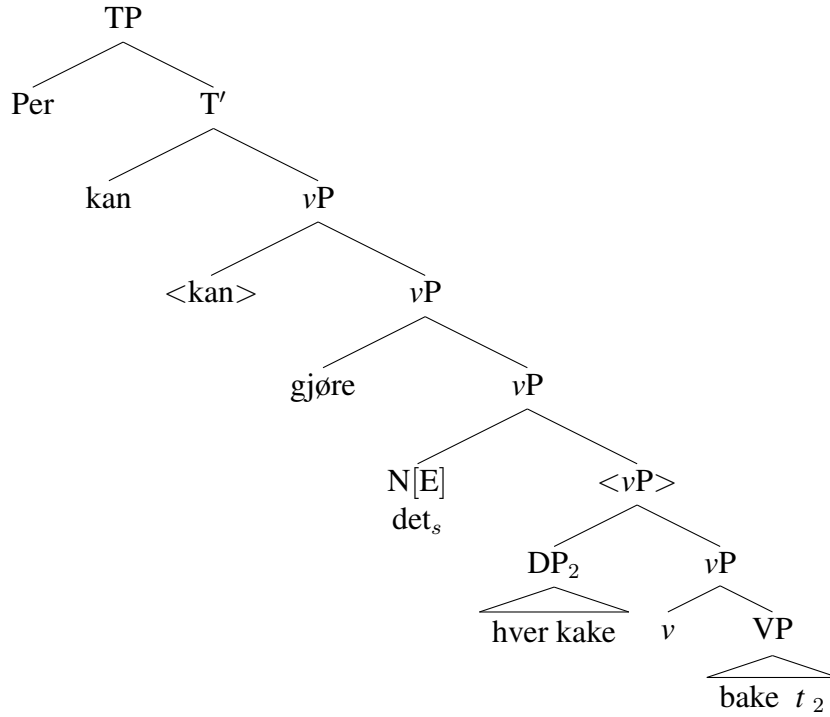   *and Per can too it*
    '... and Per can too'

However, an elided quantifier *cannot* take scope over a surface modal followed by *gjøre det* (Object Shift cannot be applied when the main verb is not finite, so there is no surface way to distinguish *det*$_d$ from *det*$_s$ here; we don't expect *det*$_d$ to provide scopal ambiguity, so the interesting datum here concerns *det*$_s$):

(43) Jeg kan bake hver eneste kake på lista og Per kan også gjøre det$_s$.
   I can bake every single cake on list.the and Per can too do it
   'I can bake every cake on the list and Per can also do it.' ($\Diamond > \forall$, $*\forall > \Diamond$)

We have already seen why inverse scope of an object quantifier with respect to a modal selecting *gjøre* is not expected: even a derivation with *det*$_s$ will fail to provide a possible landing site for QR of the object to a position c-commanding any of the possible positions of the modal (since the object cannot raise past *det*), nor can the modal reconstruct to a position under *gjøre*. Thus, (44) gives a structure with the highest possible landing site after QR of the object quantifier (with the traces of the subject suppressed):
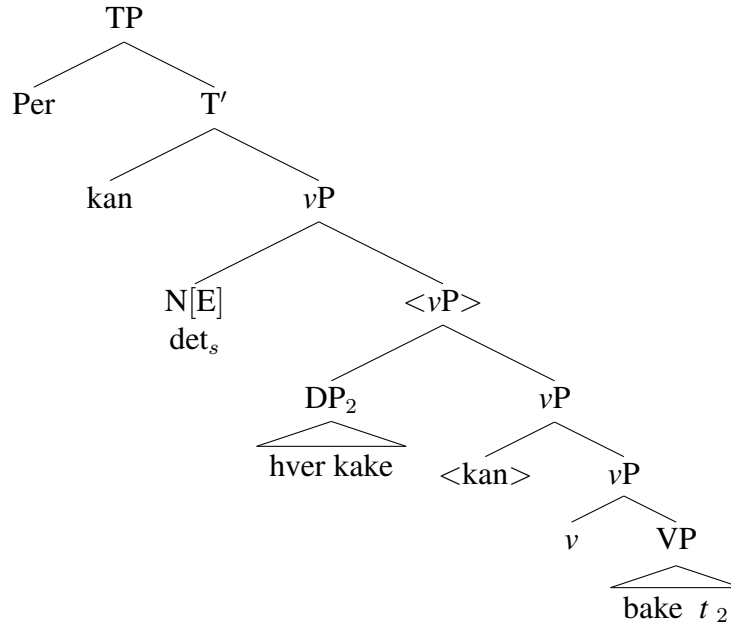
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[15]A third possibility would be to follow Aelbrecht (2010) in appealing to the relative timing of $\overline{\text{A}}$- vs. A-extraction vis-à-vis ellipsis. Our data are consistent with such an implementation.

(44)

```
                              TP
                      ┌────────┴────────┐
                    Per               T′
                              ┌────────┴────────┐
                            kan               vP
                                      ┌────────┴────────┐
                                   <kan>              vP
                                            ┌──────────┴──────────┐
                                         gjøre                  vP
                                                      ┌──────────┴──────────┐
                                                    N[E]                  <vP>
                                                    det_s          ┌────────┴────────┐
                                                                 DP_2               vP
                                                                  /\          ┌──────┴──────┐
                                                              hver kake       v          VP
                                                                                        /\
                                                                                    bake  t_2
```

When *det*$_s$ occurs with a modal directly, however, without the co-presence of *gjøre*, additional possibilities for the position of N[E] are available: in particular, N[E] can attach to the *v*P originally headed by *kunne* (the citation form of *kan* 'can') itself. Taking this option means that an object quantifier can QR to a *v*P-peripheral position which does not cross *det*, but from which the quantifier can c-command the base position of the moved modal. If moved modals (like other heads) can reconstruct for purposes of scope, then an LF can be generated in which the object takes scope over the modal:

(45)   LF for (42b):

```
                          TP
                    ┌──────┴──────┐
                  Per            T′
                          ┌──────┴──────┐
                        kan            vP
                                ┌───────┴───────┐
                             N[E]            <vP>
                             det_s      ┌──────┴──────┐
                                      DP₂            vP
                                    hver kake   ┌─────┴─────┐
                                             <kan>        vP
                                                    ┌──────┴──────┐
                                                    v            VP
                                                            bake  t₂
```

In the tree above, additional support can be seen for our contention that *det*$_s$ is adjoined: Under standard conceptions of head movement, it would not be possible for the modal verb *kunne* to move across an intervening head; but it must originate inside the ellipsis site in order to be interpreted inside the scope of the elided quantifier, and it must move out of the ellipsis site in order to be pronounced (making this an example of 'verb-preserving VP-ellipsis,' observed in languages like Irish and Russian).

Note also that Object Shift is impossible with either reading:

(46)   *Jeg kan bake hver eneste kake på lista   og Per kan det$_d$ også.
        I   *can bake every single cake on list.the and Per can it   too*
        ('I can bake every single cake on the list and Per can it too.')

This is because only *det*$_d$ can shift, and the modal sense of *kunne* does not allow a DP direct object.

4   Predicate anaphoric *it* in German and comparatives

We have explored Norwegian in some detail to this point; in this final section, we turn to a more cursory but nevertheless illuminating examination of some related facts from German. This language (like its relatives Yiddish and Dutch, among others) also permits a use of the singular neuter pronoun with certain modal verbs and with cognates of English *do* to render predicate anaphora. In this section, we briefly review the major claims that have been made about these elements, which are consistent with the Norwegian facts examined thus far, and then introduce a new set of facts that resist a simple and otherwise attractive assimilation to the Norwegian *det*$_d$.

The German third singular neuter nondeictic pronoun *es*, as we saw above in (3), can stand in for a verbal predicate, as seen in the following example (from López and Winkler 2000; see also Winkler 2005, 2013):

(47) Ben will   die Aufgabe lösen, aber ich weiss nicht, ob er es kann.
Ben wants the task   solve but I   know not   if he it can
'Ben wants to solve the problem, but I don't know if he can.'

Pragmatic control is permitted with such examples, and typical $\overline{\text{A}}$-extractions are not, as discussed in Winkler (2013), who gives the following example:

(48)   *Ich weiss, wen Sandra einladen muss, aber ich weiss nicht, wen   Jan es muss.
I   know who Sandra invite   must but I   know not   whom Jan it must
('I know who Sandra must invite, but I don't know who Jan must <invite>.')

To this example we add the following, which demonstrate that German *es* is also not possible with the extraction of amount-denoting DPs in questions, nor in degree-denoting phrasal comparisons (using an amount relative):

(49)   a.   Wir wissen, wieviele   Lieder Marie singen kann, aber wir wissen nicht, wieviele
we know   how.many songs Marie sing   can but we know   not   how.many
Lieder ihr Grossvater   (*es) konnte.
songs her grandfather   it   could
   b.   Marie kann mehr Lieder singen, als   nur die, die   ihr Grossvater (*es) konnte.
Marie can   more songs sing   than just those which her grandfather   it   could

These examples further show that German has some kind of VP ellipsis with modals (see especially Aelbrecht 2010 for discussion); while these examples are rarer, they do occur, though we will not pursue an investigation of their properties further here.

A reasonable conclusion to draw from such contrasts is the one that Winkler and other researchers do: German *es* involves 'deep' anaphora, parallel to Norwegian det_d discussed above. Avoiding such a conclusion would require that one posit some other reason that such $\overline{\text{A}}$-extractions are ill-formed. One possibility would be to link such ill-formedness, as in Norwegian, to the well-known fact that extraction from *it*-associates in German is not possible (see Berman 1998):

(50)   Was hat er (*es) gesagt, dass er gelesen hat?
what has he   it   said   that he read   has
'What did he say that he read?'

But barring any evidence to the contrary, there seems no reason even to search for such alternative explanations. Unfortunately, there is one construction whose properties do indeed force us to refine the claim that $\overline{\text{A}}$-extraction from *es*-predicate anaphors is never found: comparatives.

4.1   Comparatives and predicate anaphors

In Norwegian, the interaction between comparatives and predicate anaphors is as expected: since clausal comparatives involve $\overline{\text{A}}$-extraction in the *than*-clause (following Chomsky 1977 and many since), we do not expect to find licit occurrences of (*gjøre*) *det* inside clausal standards that involve comparison of predicate-internal elements. And indeed, in Norwegian, we do not:

(51)   a.   Marie kan synge flere sanger enn bestefaren   hennes kunne (*gjøre det).
Marie can sing   more songs than grandfather.the her   could   do   it

> 'Marie can sing more songs than her grandfather could.'
>> b. Marie kan synge flere sanger enn bestefaren hennes kunne (*det).
>> *Marie can sing more songs than grandfather.the her could it*
>> 'Marie can sing more songs than her grandfather could.'

That $\overline{\text{A}}$-extraction is not under an absolute ban in clausal comparatives is shown by the fact that the variants in (51) without *det*, involving apparent simple VP-ellipsis after the modal, are fine.[16]

In contrast to Norwegian, the facts from German come as a surprise: while this language disallows questioning and relativization out of an *it*-associated pro-predicate, clausal comparatives are licit.[17] If anything, German speakers show a preference for *es* with comparative deletion.[18]

(52)   Marie kann mehr Lieder singen als ihr Grossvater (es) konnte.
       Marie can more songs sing than her grandfather it could
       'Marie can sing more songs than her grandfather could.'

The question, then, is what allows this apparently exceptional extraction just in the comparative cases? Recall that the standard analysis of clausal comparatives involves an unbounded dependency formed between the comparative operator (here represented as *n-viele Lieder 'n-many songs'*) and a position inside the clause. We suppose that the predicate *es* in German is similar to the *det* of Norwegian in taking a verbal projection as its complement. Putting these two analytical elements together yields the phrase marker for the comparative clause as follows:

(53)   a.   Marie kann mehr Lieder singen als ihr Grossvater (es) konnte.
            Marie can more songs sing than her grandfather it could

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[16]In fact, with comparative deletion, the participial form of *gjøre* can surface without *det*:

(i)   Marie har sunget flere sanger enn bestefaren hennes har gjort (*det).
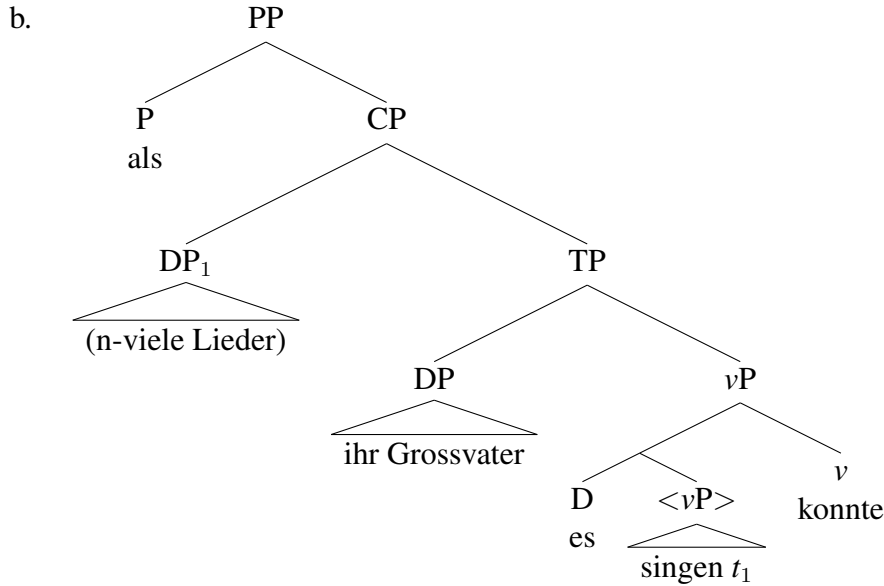   *Marie has sung more songs than grandfather.the her has done it*

We leave the analysis of this use of *gjøre* aside here, noting only its apparent similarity to the British English *do* analyzed in Baltin (2012).

[17]Yiddish, according to Jerry Sadock, whom we thank for his judgment of this example, appears to pattern with German in this regard:

(i)   Marie kan zingen mer lider az ir zeyde kon (es).
      Marie can sing more songs than her grandfather could it
      'Marie can sing more songs than her grandfather could.'

Dutch, on the other hand, seems to disallow the predicate anaphor *het* in such comparatives, requiring the bare modal.

[18]This preference is often cited as an absolute requirement; but see Ström Herold (2009):119ff. for counterexamples and discussion.

b.

```
                      PP
                     /  \
                    P    CP
                   als  /  \
                      DP₁   TP
                    (n-viele Lieder)  /  \
                                    DP    vP
                               ihr Grossvater  /  \
                                             D  <vP>  v
                                             es  singen t₁  konnte
```

PP
- P: als
- CP
  - DP_1: (n-viele Lieder)
  - TP
    - DP: ihr Grossvater
    - vP
      - D: es
      - $<vP>$: singen t_1
      - v: konnte

One might suppose that, in contrast to relativization, there is no actual long-distance dependency formed in the comparative, but this solution would require a reanalysis of forty years of data showing that the dependencies in the two constructions are parallel (passing all the standard diagnostics for $\overline{\text{A}}$-dependencies), and we will not pursue such a revisionary route here.

Instead, as for det_s above, we can suppose that *es* is a special kind of nominal element: it selects for an elided verbal predicate (VP or *v*P). In explicit feature notation, we have: *es*: [CAT: N, [E]; SEL: V].

Positing the standard $\overline{\text{A}}$-extraction of a (silent) comparative operator makes the correct prediction that these comparatives—even those involving *es*-propredicates—will be sensitive to islands as usual (see Lechner 2004 for an investigation of German comparatives and a documentation of the island sensitivities):

(54) a. *Marie kann mehr Lieder singen, als   ihr Opa   einen Mann kennt, der (es)
          Marie can   more songs sing   than her grandpa a   man   knows who   it
          konnte.
          could
          (*lit.* 'Marie can sing more songs than her grandpa knows a man who could.')

Finally, we end with the observation (see also Lederer 1969) that the *Infinitivus Pro Participio* (IPP) effect is blocked by the presence of *es*:[19]

(55) Marie kann mehr Lieder singen, als   ihr Grossvater ...
      Marie can   more songs sing   than her grandfather

      a. hat singen   können. *(IPP)*
          has sing.INF *can*.INF

---

[19]This can be compared with the lack of exceptional *essere* with Modal Complement Ellipsis in Italian; see Beltrama (2012).

b.   (es) gekonnt hat.
       it   can.PART *has*

c.   (*es) hat können.
       it   has can.INF

This follows from the structure given if the IPP involves exceptional Agree of the lower V and the modal, and if the D-shell layer blocks such upward Agreement. The pattern can also be accounted for on Wurmbrand's (2012) analysis of the IPP, if the modal must be what she terms a 'lexical modal,' to select the DP.

The last remaining question is the following: Why can this *es* only co-occur with $\overline{\text{A}}$-movement in comparatives? (Compare the lack of $\overline{\text{A}}$-movement out of Modal Complement Ellipsis sites in Dutch, as investigated in Aelbrecht 2010.)

This exceptionality of the behavior of the comparative operator cannot be attributed to the semantic type of the extractee (somehow being checked or specially compatible with *es*), given that degree and amount questions are ill-formed, as seen above. One possibility, following the similar logic of Aelbrecht (2010) and Baltin (2012), would be to attribute the difference to the *timing* of extraction, if (i) comparative operators have to extract early (as can elements that A-move or head-move), (ii) VP-ellipsis occurs before other operators can extract, and (iii) elements inside a VP-ellipsis site are inaccessible to further computations or operations (because they are 'deleted' or otherwise) after ellipsis has occurred. Such an implementation is deeply derivational in nature, of course. An alternative would be to posit an appropriate feature encoding: the *es* that has an intermediate wh-extraction feature also has an unvalued degree feature that can only be valued by *als* 'than' (cf. the similar logic in Alrenga et al. 2012): N[*es*: *u*Deg[$\overline{\text{A}}$], *u*THAN:__].

5   Conclusions

We have shown that Norwegian *det* is ambiguous between 'surface' and 'deep' anaphoric uses. We have suggested that this ambiguity is connected to the special use of *det* as a verbal anaphor; this special use of *det*, which we have marked *det*$_s$, is distinct from the usual pronoun *det* (*det*$_d$) in that it fails to undergo Object Shift. Using this as a diagnostic, we showed that the deep anaphoric *gjøre det* really behaves like any lexical verb plus a pronominal direct object (i.e., *gjøre det*$_d$, 'do it'). In the case of the surface anaphoric *gjøre det*, it is more as if *gjøre* is a light verb (it shows no aktionsart restrictions) and *det*$_s$ is a predicate anaphor of a special kind: it selects for an elided verbal projection. Its anaphoric properties are thus indirect, as a result of the more general requirement that elided material have a certain kind of antecedent.

We documented a novel property of the surface anaphor *det*$_s$: it allows A-movement (and concomitant reconstruction) out of its silent complement but creates a strong island for $\overline{\text{A}}$-movement. This is somewhat surprising since restrictions on A-movement tend to be stricter than those of $\overline{\text{A}}$-movement, and it is difficult to think of other cases where A-, but not $\overline{\text{A}}$-movement is allowed. This restriction was shown to follow if *det* creates an absolute barrier to $\overline{\text{A}}$-movement (as it seems to when it has an overt clausal associate), but allows QR to target the edge of its elided complement.

Finally, we showed that despite many similarities to the Norwegian *det*, the propredicate *es* in German differ in allowing comparative operators to extract from its elided complement. This puzzling behavior is consistent with an extension of our Norwegian analysis to the German case,

but requires that the German anaphor be featurally specified to only occur in the local domain of a marker of the standard of comparison. This unusual confluence of features is able to accommodate the narrow exception to the ban on $\overline{\text{A}}$-movement that is otherwise observed in German as in Norwegian.

Acknowledgements

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