Deep properties of surface pronouns:
Pronominal predicate anaphors in Norwegian and other Germanic languages

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1 Introduction

Three superficially similar surface patterns:

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

(2) German:
   a. Jan kann die Aufgabe lösen; Werner kann es nicht.
      Jan can the problem solve Werner can it not
   b. Jan kann die Aufgabe lösen; Werner kann es nicht tun.
      Jan can the problem solve Werner can it not do

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

2 ‘Deep’ and ‘surface’ anaphora

Hankamer and Sag 1976, Sag and Hankamer 1984: (‘model-interpretive’ vs. ‘ellipsis’)

(4) Diagnostics:
   a. extraction (A′, A, head)
   b. agreement
   c. inverse scope
   d. Missing Antecedent Anaphora
   e. pragmatic control (linguistic antecedent)
   f. sloppy identity
   g. split antecedents

2.1 Potent diagnostics

2.1.1 Extraction

(5) I asked him to write a report.
   a. Did he agree to? (surface)
   b. Did he agree? (deep)

(6) a. Which report did he refuse to write, and which report did he agree to?
   b. *Which report did he refuse to write, and which report did he agree?

(Caveat in Aelbrecht (2010), van Craenenbroeck (2010): Beware the fallacy of denial of the antecedent.)

2.1.2 Agreement

(7) a. First, there were bananas available, and then there weren’t.
   b. First, there were going to be bananas available, and then there weren’t.

2.1.3 Inverse quantifier scope (IQS)

(8) a. A doctor examined every patient, and then a nurse did. (∃>∀, ∀>∃)
   b. A doctor examined every patient, and then a nurse did it. (∃>∀, *∀>∃)

2.1.4 Missing Antecedent Anaphora (MAA)

(9) Grinder and Postal (1971):
   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.
2.2 Problematic diagnostics

2.2.1 Pragmatic control (Use of anaphor without a linguistic antecedent)

(10) a. Yes, we can do it! Yes, we did it! Don’t do it! (Pullum 2000, Merchant 2004)
   b. Yes, we can! Yes, we did! Don’t! (Pullum 2000, Merchant 2004)

2.2.2 Sloppy identity

(11) a. Abby cleaned her gun, and Beth did, too.
   (12) a. Ralph ate his ice-cream with a spoon, and Seymour did the same thing.
       b. Harvey stubbed his toe on the doorstep, and it happened to Max, too.
   c. Undergraduates can be covered under their parents’ health plans if desired;
      {likewise for graduate students. / that goes for grad students, too.}
   d. A professor who pays down her mortgage with her paycheck is wiser than one
      who gambles it away in online poker.

2.2.3 Split antecedents

(13) Our son has a BMW$_1$ and our daughter rides a Kawasaki$_2$. They$_{1+2}$ take up the
whole garage.
(14) Wendy is eager to sail around the world and Bruce is eager to climb Mt. Kilimanjaro,
but neither of them can, because money is too tight. (Webber 1978)

3 Norwegian (gjøre) det

3.1 Basic characteristics

3.1.1 $gjøre$ det is not nonstative

(15) Set aside English $do$-support $do_0$, which is an auxiliary:
   a. Jack quickly pays his taxes but Jill doesn’t$_0$.
   b. Jack has always paid his taxes but Jill hasn’t ($£$done$_1$).
   c. Jack has always paid his taxes but Jill never has ($£$done$_1$).
(16) English VP-ellipsis $do_1$ is not restricted to stativity, but can’t replace $be$:
   a. Jack didn’t$_0$ leave but Jill quickly did$_1$.
   b. Jack might not know French but Jill does$_1$.
   c. Jill must love Jack but John might not (€do$_1$).
   d. Jill is ready but John {isn’t/*doesn’t}.
(17) English $do_2$ in $do$ it is a main verb, doesn’t move to T, is restricted to nonstative
antecedents, is compatible with auxiliary $be$:
   a. Jill finished her paper. Did$_0$ Jack do$_2$ it too?
   b. Jill understood the exam. *Did$_0$ Jack do$_2$ it too?
   c. Jill isn’t scheming but Jack is always doing$_2$ it.
(18) Norwegian anaphoric gjøre det, like English VP-ellipsis do, is not restricted to nonstatives, and similarly to its English counterpart cannot replace ‘be’:
      Kari loves Jan does Jorunn it
   b. Kari kan ikke fransk, men Joakim gjør det.
      Kari knows not French but Joakim does it
   c. Jeg vet ikke om Kari elsker Joakim, men Jens må gjøre det.
      I know not if Kari loves Joakim but Jens must do it
   d. Jan er klar men Kari {er/*gjør} ikke det.
      Jan is ready but Kari is/does not it

3.1.2 Norwegian VP-ellipsis is restricted

(19) English VP- (or predicate) ellipsis is allowed with any auxiliary and with the copula:
   a. Jill isn’t complaining, but Jack is.
   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 too.

(20) Norwegian allows VP-ellipsis with modals...
   Jan kan løse problemet, men Kari kan ikke.
      Jan can solve the problem but Kari cannot

(21) ...but not with ‘have’ or passive ‘become’ or the copula:
   a. Kari har skrevet ei avhandling, men Jan har ikke *(gjort det).
      Kari has written a dissertation but Jan has not done it
   b. Kari ble arrestert, men Jan ble ikke *(det).
      Kari became arrested but Jan became not it
   c. Kari er begeistret og Jan er også *(det).
      Kari is enthusiastic and Jan is also it

(22) Except in polarity questions (see also Lødrup 2012):
   a. Norge har kvalifisert seg til Grand Prix. Har Nederland (gjort det)?
      Norway has qualified REF to Eurovision has the Netherlands done it
   b. Finland ble stemt ut. Ble Sverige (det)?
      Finland became voted out became Sweden it
   c. Storbritannia er alltid med. Er Italia (det)?
      Great Britain is always with is Italy it

3.2 Deep anaphoric properties

(23) No linguistic antecedent necessary (pragmatic control):
   Han gjør det ikke.
      he does it not
   ‘He won’t do it’
(24) A’ extraction is possible with VP ellipsis, (24-b), but not with gjøre det, (24-c):
   a. Jeg vil bake flere kaker, men han vil ikke (gjøre det).
      I will bake several cakes but he will not (do it)
   b. Hvilke kaker vil du bake, og hvilke kaker vil du ikke?
      which cakes will you bake and which cakes will you not
   c. *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

3.3 ‘Surface’ anaphoric properties

(25) Missing Antecedent Anaphora (MAA):
   Guro writes never with pen M Jens does always itN itM is green
(26) Inverse Scope (IQS):
   En av studentene i gruppe A svarte feil på hvert spørsmål, og
   one of the.students in group A answered wrong on every question and
   en av studentene i gruppe B gjorde også det. (scopally ambiguous)
   one of the.students in group B did also it
(27) Merchant (to appear) questions whether MAA and IQS are reliable diagnostics for
   surface anaphora. However, a pragmatic account seems unlikely to fare well for
   MAA since the pragmatically similar gjøre det samme ‘do the same’ (cf. Hardt et al.
   2011 for English) behaves differently from gjøre det:
   Guro skriver med en grønn penn. Jens gjør det samme. #Han kjøpte den i
   Guro writes with a green pen Jens does the same he bought it in
   Oslo.
   Oslo
(28) Similarly, gjøre det samme forces a wide scope reading for the indefinite subject en
   av studentene ‘one of the students’ in the second clause:
   En av studentene i gruppe A svarte feil på hvert spørsmål, og
   one of the.students in group A answered wrong on every question and
   en av studentene i gruppe B gjorde det samme. (∃∀, ∀∀∃)
   one of the.students in group B did the same

The sensitivity of the two diagnostics to surface syntax thus suggests a syntactic account.

4 Ambiguity

(29) There are two gjøre det’s, one involving a light verb gjøre1 and one involving a main
    verb gjøre2.
(30) gjøre2 is a deep anaphor; this is the one that doesn’t need a linguistic antecedent.
(31) gjøre1 is a surface anaphor; this is the one that allows MAA and IQS.
(32) Object shift of det in gjøre det distinguishes the two types.
4.1 Deep gjøre₂

(33) When we control for the difference, it turns out that gjøre₂ is restricted to nonstative contexts, just like English do₂:

(34) a. Watching John pretending to break our new expensive vase:
   Slapp av, han gjør {det} ikke {*det}.
   relax he does it not it
b. Watching John doing the dishes, which he clearly doesn’t like doing:
   *Huffda, han gjør {det} ikke {det}. (where det = ‘like doing the dishes’)
oh dear he does it not it

(35) Gjøre isn’t really anaphoric at all — the anaphor is the accompanying pronoun. The deep anaphoric pronoun appearing with the lexical verb can be a regular pronoun, and undergoes object shift, (34-a).

(36) The same deep anaphoric properties are observed with other lexical verbs such as prøve ‘try’.

(37) 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

4.2 Surface gjøre₁

(38) The pronoun appearing with the light anaphor is not the usual pronoun; it typically fails to undergo object shift:¹

a. Kari går ofte på kino. John gjør {det} ikke {det}.
   Kari goes often on cinema John does it not it

(39) Missing Antecedent Anaphora (MAA) is impossible with Object Shift:

   Guro writes never with pen₉ Jens does always it₉ it₉ is green

   Guro writes never with pen₉ Jens does it₉ always it₉ is green

(40) Inverse Scope (IQS) is impossible with Object Shift:

   En av studentene i gruppe A svarte feil på hvert spørsmål,...
   one of the students in group A answered wrong on every question

a. ... og en av studentene i gruppe B gjorde også det. (∃∀, ∀>∃)
   and one of the students in group B did also it

b. ... og en av studentene i gruppe B gjorde det også. (∃∀, *∀>∃)
   and one of the students in group B did it also

¹Pronouns referring to CP, vPs, and kind-denoting noun phrases in general typically refrain from undergoing OS, cf. Andréasson 2009, Anderssen and Bentzen 2012, Lødrup 2012. However, see Anderssen and Bentzen 2011 for a discussion of contexts where such pronouns do shift.
5 Extraction

(41) The puzzle is then, why doesn’t gjøre₁ allow extraction? (This was the one negative diagnostic, i.e. the one which showed gjøre det failing to do something.)

(42) The answer is, the presence of anaphoric det systematically blocks A’ extraction wherever it appears; recall that VP-ellipsis allowed A’ extraction

(43) Extraction of either the subject or the object is blocked from embedded clauses with det+CP, (43-c) vs. (43-e) (from Bentzen 2012):²

a. 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.’

b. [Hvem], 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?’

c. *[Hvem], påstod han det at t_i hadde mistet brillene sine?
   who claimed he IT that had lost glasses.the his
   ‘Who did he claim that Jon had lost?’

d. [Hva], påstod han at Jon hadde mistet t_i?
   what claimed he that Jon had lost
   ‘What did he claim that Jon had lost?’

e. *[Hva], 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?’

6 Inverse Quantifier Scope

(44) Then the new puzzle is, if surface-anaphoric gjøre det forbids A’ extraction, how does it allow IQS?

(45) The answer to that is, the subject is A-moved out of the anaphoric site, and can achieve IQS by lowering (Johnson and Tomioka 1998). The scope inversion takes place entirely within the vP.

(46) The subject raises from the anaphoric vP:

a. Jeg trodde at en tanke skulle slå meg, men...
   I thought that a thought should strike me but
b. ...det gjorde aldri det.
   it did never it
   ‘...one never did.’

c. ...det gjorde det aldri.
   it did it never

(47) Gender agreement also possible if the quasireferential noun phrase is made ‘familiar’ enough; still object shift eliminates the idiomatic reading of the vP:

²Note that many varieties of Norwegian lack a that-trace effect, thus allowing examples like (43-b).
Modal examples support the reconstruction analysis of IQS. There is inverse scope in modal examples without anaphora/ellipsis, (48-a), and an elided quantifier can take scope over a surface modal followed by plain *det*, (48-b):

a. Jeg kan bake hver eneste kake på lista... (◊>∀, ∀>◊)
   
   *I can bake every single cake on the list*

b. ... og Per kan også det. (◊>∀, ∀>◊)
   
   *And Per can too it*

(49) However, an elided quantifier cannot take scope over a surface modal followed by *gjøre det*:

   Jeg kan bake hver eneste kake på lista og Per kan også gjøre det.
   
   *I can bake every single cake on the list and Per can too do it*

(50) a. *Per* kan *gjøre det* [vP ∀x t_p t_q]
   
   b. *Per* kan *det* [vP ∀x t_p t_q]

(51) Note also that object shift is impossible with either reading:

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

7 VP-anaphoric *it in Continental West Germanic* is ‘deep’?

Opinio communis (L´opez and Winkler 2000, Winkler 2005, Winkler 2012): Yes

(52) 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.’

(With mixed or incomplete results for agreement (no), ISQ (untested), MAA (mixed), pragmatic control (OK), split antecedents (yes).) Extraction (from Winkler 2012):

(53) *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 not.’)

West Germanic *es* is not possible in non-comparative extractions, including of amount-denoting DPs, nor in degree-denoting phrasal comparisons (illustrated only for German):
(54) a. Wir wissen, wieviele Lieder Marie singen kann, aber wir wissen nicht, how many songs Marie can sing, but we know not wieviele Lieder ihr Grossvater (*es) konnte. how many songs her grandfather it
b. Marie kann mehr Lieder singen, als nur die, die ihr Grossvater (*es) Marie can more songs sing than just those which her grandfather it konnte. could

(55) Same story as in Norw? Extraction from it-associates in German and Dutch is also verpönt (see Berman 1998, etc.):
   a. 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?’

7.1 But... there’s a comparative wrench in the works

A surprising contrast: Norwegian is well-behaved . . .

(56) Norwegian strictly forbids extraction, with or without gjøre
   a. Marie kan synge flere sanger enn bestefaren hennes kunne (*gjøre det). Marie can sing more songs than grandfather her could do it
   b. Marie kan synge flere sanger enn bestefaren hennes kunne (*det). Marie can sing more songs than grandfather her could it

(57) In fact, with comparative deletion, participial gjøre has to surface without det
   a. Marie har sunget flere sanger enn bestefaren hennes har gjort (*det). Marie has sung more songs than grandfather her has done it

. . . but continental West Germanic is not:
   A′-extraction of the comparative operator is licit with the propredicate es (het/das/ . . . ) (which are in fact preferred to the variants without):

(58) German prefers es with comparative deletion3; Yiddish allows it, and so does Dutch (perhaps reluctantly), all with unexplored speaker variation
   Ge Marie kann mehr Lieder singen als ihr Grossvater (es) konnte. Marie can more songs sing than her grandfather it could
   Du ?Marie kann mehr liedjes zingen dan haar grootvader (het) kon. Marie can more songs sing than her grandfather it could
   Yi Marie kann 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.’

(59) Cf. Sportiche (1995) for French:

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3This preference is often cited as an absolute requirement; but see Ström Herold 2009:119ff. for counterexamples and discussion.
So what allows extraction just in the comparative cases?

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

b. PP
   P
   als
   DP₁
   (n-viele Lieder)
   CP
   TP
   vP
   v
   DP
   <VP>
   konnten
   v
   D
   es
   singen
   t₁

(61) es is a special D: it selects for an elided VP (or vP): es: [CAT: D, [E]; SEL: v]
    (Cf. Elbourne 2008)

(62) Correct prediction: as usual (Lechner 2004), the dependency inside the comparative clause will pass diagnostics for A’-movement:

a. *Marie kann mehr Lieder singen, als ihr Opa einen Mann kennt, der
   Marie can more songs sing than her grandpa a man knows who
   (es) konnte.
   it could
(63) **No IPP with pro-predicates** (cf. lack of exceptional *essere* with MCE in Italian)

a. Marie kann mehr Lieder singen, als ihr Grossvater ...  
   *Marie can more songs sing than her grandfather*
   
   (i) hat singen können. (*IPP*)
      has sing.INF can.INF
   
   (ii) (es) gekonnt hat.
      it can.PART has
   
   (iii) (*es) hat können.
      it has can.INF

b. Marie kan meer liedjes zingen dan haar grootvader ...  
   *Marie can more songs sing than her grandfather*
   
   (i) heeft kunnen zingen. (*IPP*)
      has can.INF sing
   
   (ii) (het) heeft gekund.
      it has can.PART
   
   (iii) (*het) heeft kunnen.
      it has can.INF

This follows from the structure given if the IPP involves exceptional Agree of the lower V and the modal: the D-shell layer blocks such upward Agreement. (Also on Wurmbrand 2010’s analysis of the IPP, if the modal must be a ‘lexical modal’ in her terms to select the DP)

(64) a. Why can this *es* only co-occur with *A*-movement in comparatives? (Cf. lack of *A*-mvmt out of MCE in Dutch: Aelbrecht 2010)

b. Cannot be just the type of the extractee (somehow being checked or specially compatible with *es*), given that degree and amount questions are ill-formed

c. Could be timing of extraction, if 1. comparative operators have to extract early, and 2. VP-ellipsis occurs before other operators can extract (as in the logic of Aelbrecht 2010, Baltin 2012, etc.).

d. Could be featurally encoded: the *es* that has an intermediate wh-extraction feature also has an unvalued degree feature that can only be valued by *als*

### 8 Conclusions

(65) a. Not all diagnostics are created equal

b. Norwegian (*gjøre* *det* is ambiguous between ‘surface’ and ‘deep’ anaphoric uses

c. Continental WGmc pro-predicate seems to be surface, but only in comparatives
References


Pullum, Geoffrey. 2000. Hankamer was! In Jorge hankamer webfest, ed. Sandra Chung, James McCloskey, and Nathan Sanders. Santa Cruz, Ca.: UCSC Linguistics Department. Http://ling.ucsc.edu/Jorge/.


