

Phrasal pronominalization and intra-Germanic variation in predicate *that*-anaphora*



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1 Introduction

Various Germanic languages can use a demonstrative pronoun, parallel to ‘that’, as a form of verbal anaphora in construction with a modal or auxiliary verb.

- (1) Jan løser problemet, Kari { kan / må / bør / gjør } ikke **det**.
Jan solves problem-DEF Kari can must should does not DET
‘Jan solves the problem, Kari can’t/mustn’t/shouldn’t/doesn’t.’
[Norwegian, Bentzen et al. (2013)]
- (2) Kann Anna das Problem lösen? — Nein, **das** kann sie nicht.
can Anna the problem solve no that can she not
‘Can Anne solve the problem? – No, she can’t.’
[German, López & Winkler (2000)]
- (3) Tasman kon niet zwemmen maar Cook kon **dat** weel.
Tasman could not swim but Cook could that well
‘Tasman couldn’t swim but Cook could.’ [Dutch, (Zwart 2011:128)]

Even some dialects of English allow such forms. Many dialects allow ‘fronting *that*’ (4a); and some dialects of Scottish (/Northern British) English allow *that* to appear

immediately after a modal or auxiliary (4b):

- (4) John can make curry really well.
 - a. That he can. [many Englishes]
 - b. He can that. [Scots]
- This talk makes a detailed comparison of Norwegian *det* (1) and Scots *that* (4b).
- I argue in favor of a *verb phrase pronominalization/ellipsis* account of such forms (Houser et al. (2007), Bentzen et al. (2013)); a VP is present in underlying structure, but ‘replaced’ by *det* on the surface.
- I argue, however, that the pronominalization site must be rather larger than vP in such constructions, contra previous analyses.
- However, *det* and Scots *that* differ from each other in subtle ways (and both differ from ‘fronting *that*’ in (4a))
- I argue that these differences arise because Scots pronominalizes a **different stretch** of the functional hierarchy than Norwegian *det* does.

*Many thanks to four CGSW reviews for feedback, and to many NTNU colleagues (too many to list) for their judgments. I am of course the only one responsible for the interpretation of those judgments.

- I propose a way of capturing variation within Germanic: many (all?) Germanic varieties have a way of expressing verbal anaphora via a *that*-like demonstrative, but they differ in the precise phrase that is pronominalized.
- I first show some previously unremarked upon properties of (Norwegian) *det*, and show how these properties are captured on this analysis, before proceeding to discussion of the Scots data.

2 Scandinavian *det*

2.1 The basic pattern

- All the mainland Scandinavian languages can use the third person neuter pronoun *det* ‘it/that’ as a form of verbal anaphora.
 - Constructions with *det* are frequently translated into English by means of verb phrase ellipsis (VPE)
 - And like VPE, *det* co-occurs with modal verbs, passive and perfect auxiliaries, and *gøre/gjøre/göra* ‘do’.
- (5) Jan løser problemet, Kari { kan / må / bør / gjør } ikke **det**.
Jan solves problem-DEF Kari can must should does not DET
‘Jan solves the problem, Kari can’t/mustn’t/shouldn’t/doesn’t.’
[Norwegian, Bentzen et al. (2013)]
- (6) Han siger han kan hækle, men selvfølgelig kan han ikke **det**.
he says he can crochet but of.course can he not DET
‘He says he can crochet, but of course he can’t.’ [Danish, Houser et al. (2007)]
- (7) Maria gillar mjölk medan Johan inte gör **det**.
Maria likes milk while Johan not does DET
‘Maria likes milk, while Johan doesn’t.’ [Swedish, Platzack (2012)]
- On the basis of various diagnostics, Houser et al. (2007) analyze Danish *det* as **surface anaphora** in the terms of Hankamer & Sag (1976) (see also Lødrup (1994, 2012))

⇒ That is, it is an anaphor with internal linguistic structure, like English VPE.

- It passes various tests of surface-anaphoric status:

(8) **‘Missing antecedent’ effects**

- a. Jeg har aldrig redet på en kamel, men det har Ivan og han siger
I have never ridden on a camel but DET has Ivan and he says
at **den** stank forfærdeligt.
that it stank horribly
‘I’ve never ridden a camel, but Ivan has ~~ridden a camel~~, and he says that
it stank horribly. [Danish, Houser et al. (2007)]

(9) **Preference for linguistic antecedent**

[A and B are observing C struggling to swim in a pool]

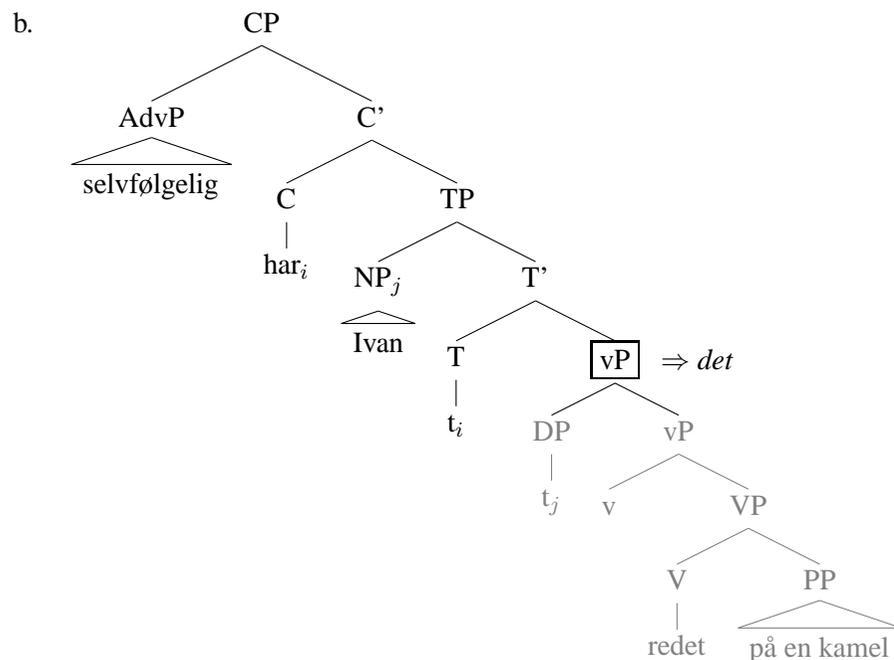
- a. A: #Det kan jeg heller ikke.
DET can I either not
#‘I can’t either.’ (i.e. intended: ‘I can’t **do that** either’)
[Danish, Houser et al. (2007)]

(10) **Form-matching with linguistic antecedent required** – e.g. alternation between transitive and intransitive versions of a verb is not possible (viz. Johnson (2001)):

- a. *Jeg ville hænges hestskoene over døren og det gør den nu.
I would hang horseshoe.DEF over door.DEF and DET does it now
*‘I wanted to hang the horseshoe over the door, and it does now.’ (i.e. intended: ‘... and it’s hanging there now’) [Danish, Houser et al. (2007)]

- On this basis, Houser et al. (2007) propose that *det* is a form of VERB PHRASE PRONOMINALIZATION (VPP)
- The whole verb phrase is present underlyingly, but gets spelled out as *det*

- (11) a. Jeg har aldrig redet på en kamel, men selvfølgelig har Ivan det.
I have never ridden on a camel but of.course has Ivan DET
‘I have never ridden a camel, but of course Ivan has.’



Caveat: Bentzen et al. (2013) show that *det* in a (Norwegian) sentence like (12) is in principle ambiguous between a *deep* and a *surface* anaphoric reading.

- (12) Det gjør jeg ikke.
 DET do I not
 a. 'I don't.' [surface anaphora]
 b. 'I don't do it/that.' [deep anaphora]

- On the deep-anaphoric reading, *det* is 'just' a pronoun (equivalent to English *it*), and *gjøre* is 'main verb *do*'. Bentzen et al. call this *det_D*.
- On the surface-anaphoric reading, *det* recapitulates a verb phrase. Bentzen et al. call this *det_S*.

- Bentzen et al. show that the two readings come apart under Object Shift: surface anaphoric *det* does not undergo Object Shift past negation and other adverbs, while deep anaphoric *det* does (as it's just a 'regular' pronoun).

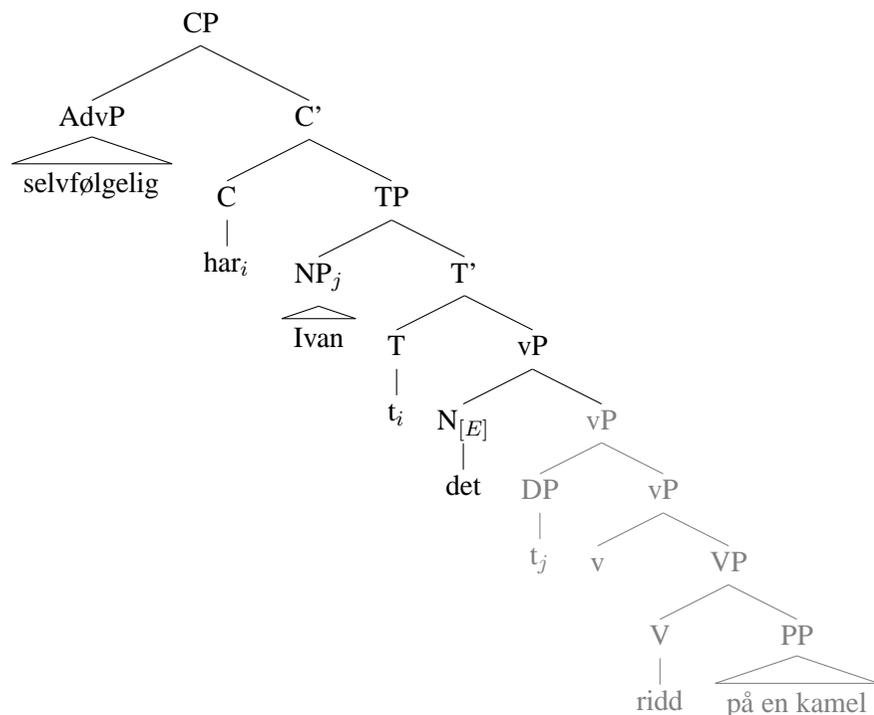
- (13) a. Jeg gjør det ikke.
 I do that not
 'I don't do it/do that.' [deep anaphora]
 b. Jeg gjør ikke det.
 I do not DET
 'I don't.' [surface anaphora]

⇒ I will have nothing to say about deep-anaphoric uses of *det* in this talk.

- In the examples I provide I will try to make sure I am always using surface-anaphoric *det* by using either of two controls:
 - placing *det* after sentence adverbials like *ikke* (in main clauses), i.e. in a non-Object-Shifted position
 - making the antecedent be a stative clause (e.g. *know the answer*), which surface-anaphoric *det* can take as antecedent, but deep-anaphoric *det* cannot (as Bentzen et al. (2013) discuss, viz. Eng. *do it/that*: *John knows the answer*, and *#Mary does it/that too*)

Bentzen et al. also subscribe to a surface-anaphoric view of *det_S*, but argue that the verb phrase is not 'spelled out' or 'overwritten' by *det*. Rather, *det* is a nominal head that adjoins to a vP and licenses its ellipsis:

(14)



Things I will not address/remain agnostic on in this talk:

- Which of the two approaches (Houser et al. (2007)'s 'overwriting' approach or Bentzen et al. (2013)'s 'ellipsis' approach) is correct.
- Why *det* does not allow (most kinds of) A'-extraction, even though it is surface anaphora (patterning with *do so* and 'British *do*'; see Haddican (2007), Aelbrecht (2010), Baltin (2012) and refs therein for discussion)
- How and why *g(j)øre*-support comes about: this seems to pattern almost exactly like English *do*-support; see e.g. Houser et al. (2011) for discussion.

2.2 New data: syntactic restrictions on *det*

- As surface anaphora, *det*'s closest relative in English is verb phrase ellipsis.
- An analysis proposing that *det* is either pronominalization or ellipsis of a vP suggests that it should have all or most of the properties of English VPE.
- I introduce some new data showing that *det* has some important differences from English VPE.
- **Note:** from now on, all data comes from Norwegian unless stated otherwise; I do not know if the patterns carry over to the other Scandinavian languages (but have no reason to believe they do not)

2.2.1 Ellipsis of 'low' auxiliaries

The first difference between English VPE and *det* concerns the elidability of the auxiliary *have* (Norwegian *ha*).

- In English, *have* can survive in VPE; in fact (for most speakers) it cannot be elided, even in construction with a modal verb (Aelbrecht & Harwood (2015) and refs therein)

- (15) John should have been more active...
- ... and Mary should have been ~~more active~~ too.
 - ... and Mary should have ~~been more active~~ too.
 - ??/% ... and Mary should ~~have been more active~~ too.

- By contrast, in Norwegian, *det* can only co-occur with **finite** *ha* 'have'.
- If *ha* occurs 'low', i.e. below a modal verb, it cannot appear: it must be subsumed' by *det*.

- (16) a. Har du spist middag?
have you eaten dinner
b. Ja, jeg har det.
yes I have DET
'Yes, I have.'
- (17) Skulle han ha våknet?
should he have woken.up
a. Ja, han skulle det.
b. *Ja, han skulle ha det.

Modal verbs have participial forms in Norwegian, and these can appear below other modals, as in the below example (Eide 2005:322):

- (18) Jeg skulle gjerne ha kunnet ha kommet før.
I should gladly have can.PERF have come before
'I should gladly have been able to have arrived earlier.'

In such cases, the complement of either modal (*skulle* and *kunnet*) can be replaced by *det*, but *ha* cannot survive (Kristin Melum Eide, p.c.):

- (19) a. Jeg skulle det. ~~ha kunnet ha kommet før~~
b. *Jeg skulle ha det. ~~kunnet ha kommet før~~
c. Jeg skulle ha kunnet det. ~~ha kommet før~~
d. *Jeg skulle ha kunnet ha det. ~~kunnet før~~

2.2.2 Participial mismatches

In both Norwegian and English, the modal verb can change between a *det*-sentence (resp. VPE sentence) and its antecedent.

- (20) Du kan betale nå, men du må/bør ikke det.
you can pay now but you must/should not that.
'You can pay now, but you don't have to./but you shouldn't.'

In English, it is also possible to 'switch' between a perfect antecedent and a non-perfect VPE sentence, and vice versa (Lasnik (1995), Potsdam (1997))

- (21) A: Have you ever lived in Oslo?
B: I did ~~live in Oslo~~ in the past, but now I live in Bergen.
- (22) A: Do you live in Oslo?
B: I have ~~lived in Oslo~~ in the past, but now I live in Bergen.

By contrast, while the Norwegian equivalent of (21) is grammatical – the equivalent of (22) is not (although *Jeg har bodd i Oslo tidligere* is grammatical in (24)).

- (23) a. Har du noensinne bodd i Oslo?
have you ever lived in Oslo
b. Jeg gjorde ikke det når jeg var yngre, men jeg bor der nå.
I did not DET when I was younger, but I live there now
- (24) a. Bor du i Oslo?
live you in Oslo
'Do you live in Oslo?'
b. ??Jeg har det tidligere, men nå bor jeg i Bergen.
I have DET earlier but now live I in Bergen
intended: 'I have in the past, but now I live in Bergen.'

2.3 Analysis

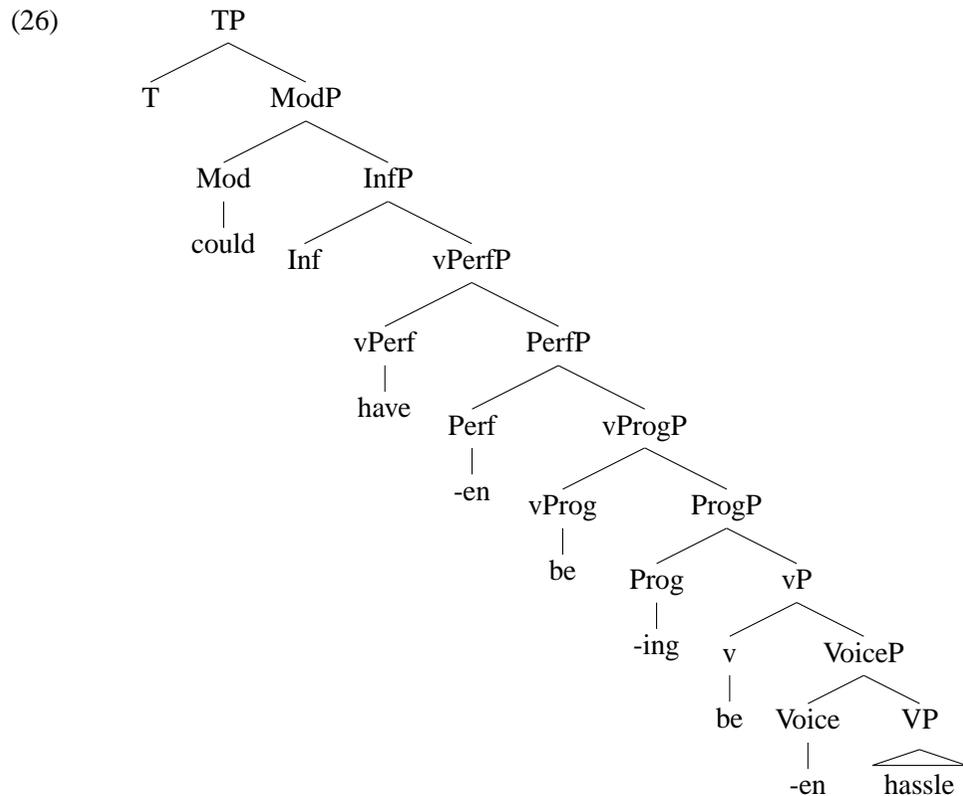
- How do we account for the differences between English VPE and Norwegian *det*?
- My proposal: the size of the elided/pronominalized stretch is different in the two languages.

2.3.1 Auxiliary structure

To capture the differences, I adopt a model of the ‘extended vP’ or ‘auxiliary layer’ in which verbal morphology inhabits their own projections (e.g. PerfP, ProgP, VoiceP etc.), and auxiliary verbs (v_{Perf} , v_{Prog} etc.) select for these aspectual/morphological projections.

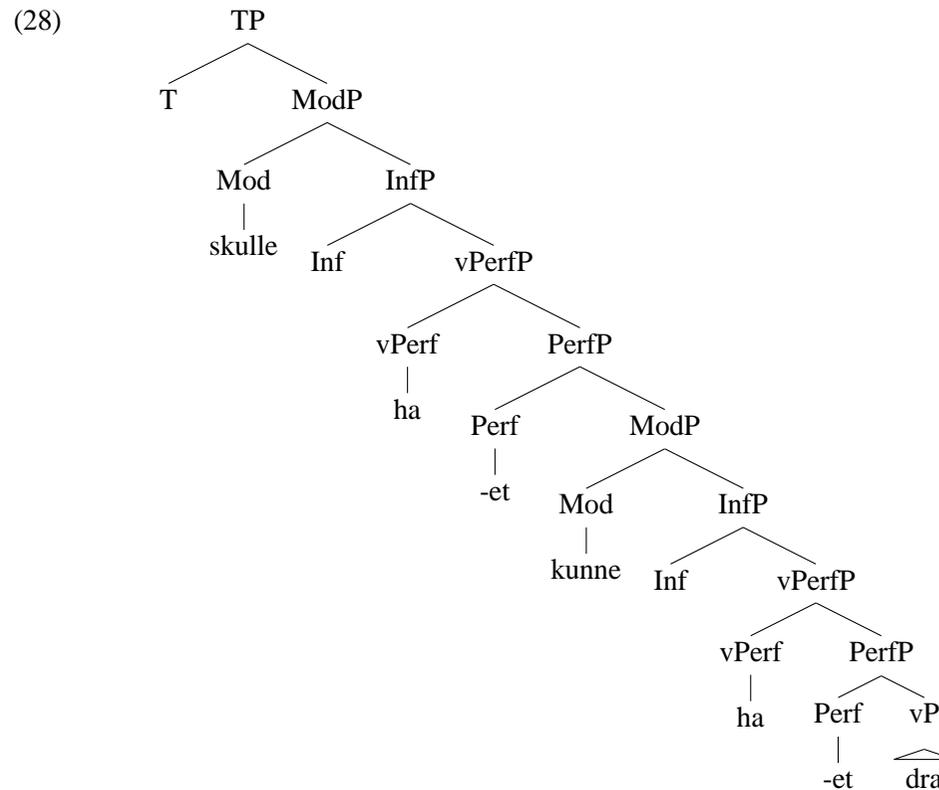
- Concretely, I adopt the proposal of Harwood (2014) (see also e.g. Bošković (2014)), shown in (26).

(25) They could have been being hassled. (from Harwood (2014)’s (22))



- The fine detail of this structure is not too important for the current proposal.
- The crucial component of this model for my purposes is InfP – the projection selected by modals which heads non-finite verbal projections.
- I propose that Norwegian auxiliary structure looks roughly the same as proposed above – although as modals can stack in Norwegian, this means that ModP can recurse lower down in the structure, and select a second InfP.

(27) Jeg skulle ha kunnet ha dratt.
 I should have can.PERF have gone
 ‘I should have been able to have gone.’



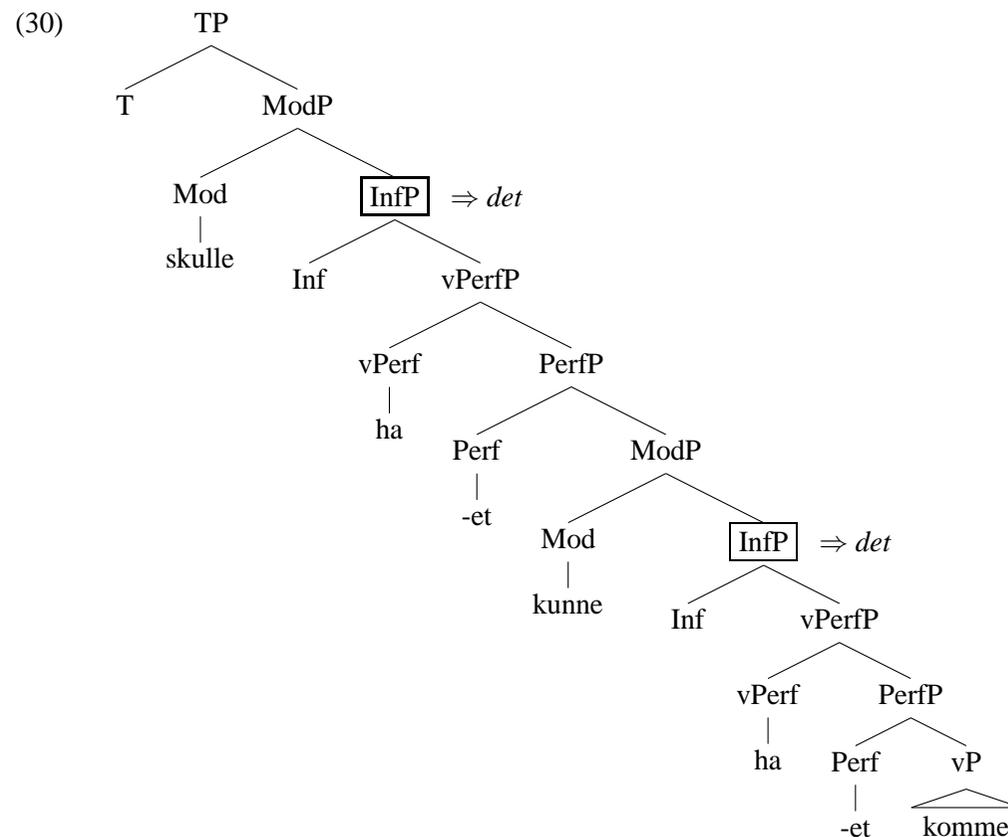
Proposal: *det* pronominalizes InfP, while English VPE targets a much lower projection (vP, following Merchant (2013), or vProgP, following Aelbrecht & Harwood (2015))

2.3.2 Only complements of ModP pronominalize

This proposal immediately captures the paradigm in (19) (repeated in (29)).

- If a modal occupies ModP, then auxiliary *ha* is ‘stuck’ within InfP, and will obligatorily be ‘subsumed’ by *det*.
- By contrast, English auxiliary *have* is outside the domain of ellipsis (see Aelbrecht & Harwood (2015) for more detailed discussion)

- (29)
- Jeg skulle *det*. ~~ha kunnet ha kommet for~~
 - *Jeg skulle ha *det*. ~~kunnet ha kommet for~~
 - Jeg skulle ha kunnet *det*. ~~ha kommet for~~
 - *Jeg skulle ha kunnet ha *det*. ~~komet for~~



And like Norwegian *det*, ‘low’ auxiliaries are not allowed:

- (44) He should have known the answer.
 a. ?Aye, he should that.
 b. *Aye, he should have that.

However Scots *that* contrasts with Norwegian *det* by allowing very few ‘mismatches’ between antecedent and the *that*-phrase.

- The referent of the subject, tense, and polarity may not change; and in most cases the auxiliary/modal being used cannot either (modulo *do*-support).

- (45) John can make good curry.
 a. Yes, he can that.
 b. #No, he can’t that. [no polarity change]⁴
 c. #Mary can that too. [no subject change]
- (46) He should pay the fine. – #He has that already. [no tense/aspect change]
- (47) You can pay now, #and in fact you must/should that. [no modality change]

It is in fact possible to change the auxiliary/modal, but only in a subset of cases:

- (48) a. “Mistress Scott’s servants are her own concern. You must take it up with her.” “We will that – aye, indeed we will.”
 [Alanna Knight, *The Gowrie Conspiracy*, 2013]
 b. It’s likely to rain today. — ?Aye, it might that. [constructed]

3.2 Analysis

Scots *that* looks quite similar to Norwegian *det*, so on the face of it a similar pronominalization analysis is called for.

- But what accounts for the differences discussed above?
- These can be understood when the *function* of this *that* is taken into consideration.
- As the previous examples show, and as the DSL paraphrase ‘indeed, just as you say’ implies: this *that* is an **agreeing polarity response**.
- Other such agreeing polarity responses (e.g. VP ellipsis + *indeed*) show the same signature properties discussed above (see e.g. Sailor (2014) for discussion)

- (49) John can make good curry.
 a. He can indeed.
 b. #He can’t indeed./#Indeed he can’t.⁵
 c. #Mary can indeed (too).
- (50) You can pay now, #and you must/should indeed.
- (51) It’s likely to rain today. — ?It might indeed.

We can capture this property of Scots *that* by analyzing it as a pronoun for an even bigger ‘stretch’ of functional structure.

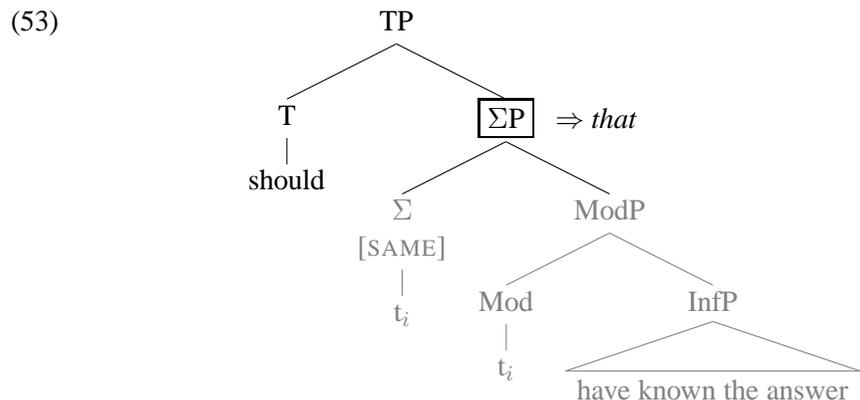
- Suppose, following Laka (1990) and much subsequent work, that there is a polarity phrase ΣP , which in English is immediately below TP (i.e. the landing site for finite auxiliaries)

⁴Having negative polarity as such is OK: *John can’t swim. – No, he can’t that*; but changing polarity is ungrammatical.

⁵Sentence-final *indeed* independently seems infelicitous with negation, even if the antecedent contains it: *John can’t play piano. — ??He can’t indeed*.

- I propose that Scots *that* pronominalizes a Σ P which is specified for [SAME] in the sense of Farkas & Bruce (2010), i.e. agreeing with the antecedent statement.

(52) He should have known the answer. – Aye, he should ~~that have known the answer~~.



This captures the similarities between Scots and Norwegian, and also the differences:

- as in Norwegian, ‘low’ auxiliaries cannot ‘escape’ pronominalization
- the inability to change subject, polarity etc. is an independent property of polarity responses.

4 English ‘fronted *that*’

Even (standard) English allows for a similar use of *that* – if it is fronted.⁶

(54) John can make good curry. — Yes, that he can.

- This *that* passes all the tests for surface anaphora discussed above for *det* and Scots *that*.
- But it doesn’t share all the properties of Scots *that*.
- In particular, it appears to be compatible with low auxiliaries, and (somewhat more marginally) with a change in polarity:⁷

(55) a. John’s been working hard. — That he has been.
b. I need to get the car to start, ?but that it just will not.

Stranding of auxiliaries in the progressive form is possible but marginal for me – which is also the case for VPE and VP fronting.

- I am an outlier in (marginally) allowing the survival of *being* in VPE and VPF, but a known type of outlier; see Thoms (2010), Aelbrecht & Harwood (2015) for discussion.

⁶Not all speakers accept examples like these, a point discussed by Haj Ross in a presentation at CLS 52, *Take that!* (which I have only been able to consult the abstract of); but many do, and the variation (as far as I can tell) seems to be ‘idiolectal’, rather than ‘dialectal’ as the Scots examples are.

⁷The subject cannot alternate, but this restriction also holds of VP fronting in the general case:

- (i) John will work hard. . .
a. ??...and that Mary will, too.
b. ??...and work hard Mary will, too.

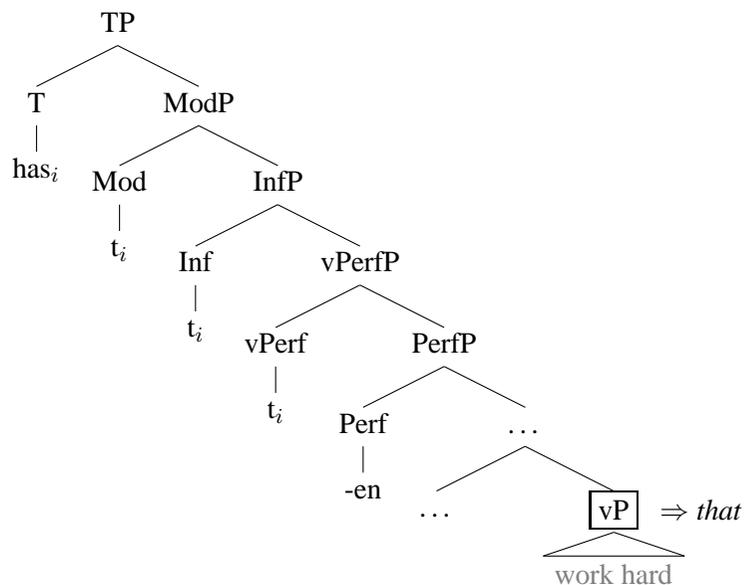
In general, fronted *that* seems to inherit the pragmatic restrictions of VP fronting (Ward (1990), Samko (2015) a.o.), which would not be surprising if *that* was a VP (or vP) pronoun.

- (56) I was worried he might be being hassled. . .
- ? . . . and he is being.
 - ? . . . and hassled, he is being.
 - ? . . . and that he is being.

On this basis, it seems that the constituent targeted by *that*-pronominalization in English seems to be the same as that targeted by VPE or VP fronting.

- Pinning down the identity of that constituent – or even establishing whether there is a unique constituent that VPE targets – is a hotly debated topic in the literature.
- Following Merchant (2013), I'll assume that the target of VPE in English is vP; but it could (for example) be vProgP, as argued by Aelbrecht & Harwood (2015), or the ellipsis site could be flexible (but still 'small'), as in Bošković (2014), Sailor (2014).

- (57) a. John has worked hard. – That he has.
b.



Remaining puzzle: why does this *that* have to front?

- Speculation: this could be linked to the general plausibility of a link between VP ellipsis and VP fronting (Johnson (2001))
- Aelbrecht & Haegeman (2012) have arguments against equating the two directly, but Aelbrecht (2011) proposes an analysis in which VPE and VPF may have an indirect link: both have to be licensed by long-distance Agree.
- Perhaps VP pronominalization in (standard) English is licensed by the same Agree relation as fronting – leading to a conspiracy where pronominalized *that* must also front?

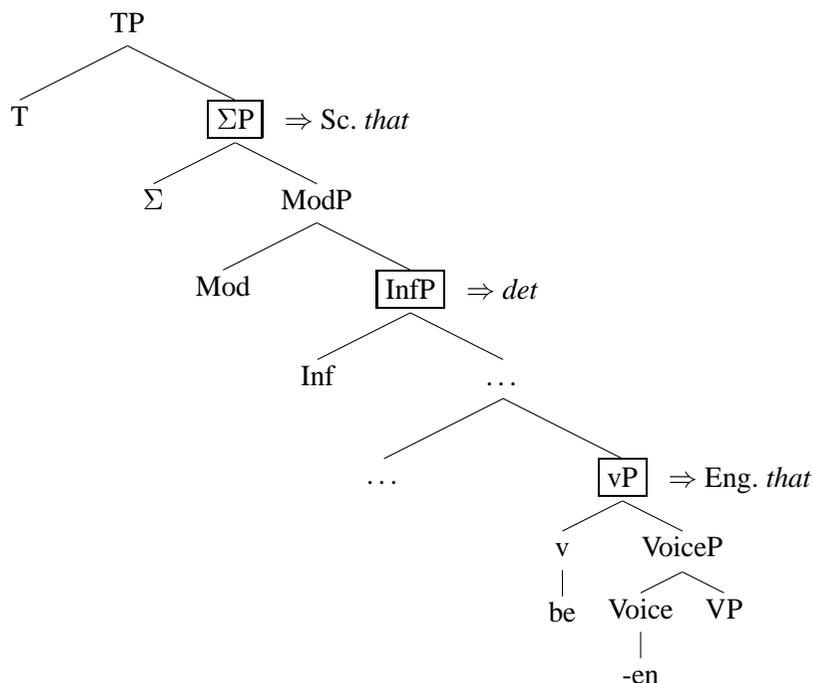
⇒ future work.

5 Conclusion: towards a typology

Key empirical datum: Many Germanic varieties use a demonstrative similar to ‘that’ as a verbal anaphor – but with subtly different properties.

Key proposal: the typology of variation is tied to the fine structure of the ‘extended vP/IP’ domain – different Germanic varieties pronominalize different ‘stretches’ of functional structure.

(58)



For future research: many (all?) Germanic varieties other than those investigated here use demonstrative ‘that’ as a verbal anaphor.

- (59) Kann Anna das Problem lösen? — Nein, **das** kann sie nicht.
 can Anna the problem solve no that can she not
 ‘Can Anna solve the problem? – No, she can’t.’
 [German, López & Winkler (2000)]
- (60) Tasman kon niet zwemmen maar Cook kon **dat** weel.
 Tasman could not swim but Cook could that well
 ‘Tasman couldn’t swim but Cook could.’ [Dutch, (Zwart 2011:128)]

- What are the properties of these anaphors?
- Do they pronominalize yet different stretches of the tree?

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