

## *At*-trace in Danish

### 1 Introduction

This paper discusses a set of new data which shows that in some, non-standard, variants of Danish we do find *that*-trace sentences, or *at*-trace sentences, in contrast to what has so far been assumed.

Danish uses a “pleonastic” *at*, (‘that’), cf. Thrane (2003, pp. 335–337) and Hansen (1983). Hansen (1983) writes that “the *At* seems to be lurking on all of us and often slips in during a moment’s inattention”<sup>1</sup>. This means that *at* occurs in a large number of contexts, only some of which will be shown to allow *at*-trace sentences in these non-standard variants.

The criterion determining which contexts allow or disallow *at*-traces in these non-standard variants will be shown to follow from an independent constraint on the subject position in local subject extractions.

### 2 Background

Chomsky (1981) formulated the *Empty Category Principle* as a constraint on where traces can occur, requiring traces to be properly governed. The principle is assumed to account for the “\*[ $\bar{S}$  that [*NPE*] . . . ]” filter proposed in Chomsky and Lasnik (1977, p. 451), i.e. the *that*-trace effect. The principle rules out sentences containing subject traces with the intervening complementizer *that*, as in example (1b). Such traces are not properly governed.

- (1) a. Who do you think saw Bill?  
b. \*Who do you think that saw Bill?

Taraldsen (1986), Engdahl (1984) and Engdahl (1985) show that, in Scandinavian, subject traces can be governed by the complementizer *som*, as the Norwegian example in (2) from Taraldsen (1986, p. 150) shows, i.e. the “anti-*that*-trace” effect, (Taraldsen, 1986, p. 151).

- (2) Vi vet hvem \*(som) snakker med Marit.  
we know who that talk with Marit  
‘We know who is talking to Marit.’

Engdahl (1984) and Engdahl (1985) further argue that variants of Norwegian and Swedish allow subject traces to be governed by the complementizer *at* or *att*, (‘that’).<sup>2</sup> Engdahl (1984, p. 12) provides the Norwegian example in (3) and the Finland Swedish example in (4) of *that*-trace sentences.

- (3) Disse konstruksjoner<sub>i</sub> trur eg at e<sub>i</sub> er meir naturlege uttrykksmåtar.  
these constructions think I that are more natural expressions  
‘These constructions, I think that they are more natural expressions.’
- (4) Vi försökt ta upp sådana fall som<sub>i</sub> vi tänkte att e<sub>i</sub> skulle vara intressanta.  
we tried take up such cases that we thought that should be interesting  
‘We have tried to take up such cases that we thought would be interesting.’

On the other hand, there has been a common agreement that Danish does not allow the complementizer *at* to govern subject traces, cf. eg. Hansen (1983), Vikner (1991), Mikkelsen (2002), Thrane (2003) and Lohndal (2007). The present paper agrees that this is indeed the case in standard Danish. However in Section 3 we present data that shows that in some, non-standard, variants of Danish we do find complementizer-governed subject traces.

<sup>1</sup>Translation of “*At*’et synes at ligge og lure på os alle og smutter tit med under et øjeblikks uopmærksomhed”.

<sup>2</sup>Maling and Zaenen (1978) and Maling and Zaenen (1982) provide Icelandic examples of government of subject traces from comp.

### 3 The data

In (5) we find examples of various occurrences of *at* in Danish. Apart from (5a), where we find the complementizer introducing a nominal clause, the examples show the pleonastic use of *at* in Danish. (5b) is an example of *at* following another complementizer introducing a nominal clause. (5c) is an example of *at* in an embedded interrogative. (5d) is an example of *at* following the complementizer *som* in an embedded interrogative. (5e) is an example of *at* introducing a relative clause. (5f) is an example of *at* following the complementizer *som* introducing a relative clause. (5g) is an example of *at* in a cleft-sentence. Finally, (5h) is an example of *at* following the complementizer *som* in a cleft-sentence. The examples in (5) exhibit an *at*-trace effect, i.e. the expletive subjects cannot be omitted, in most variants of Danish.

- (5) a. Hvem tror du altid at \*(der) aldrig har bestilt billetter?<sup>3</sup>  
who believe you always that there never has booked tickets  
'Who do you always believe never has booked tickets.'
- b. Hvad de er enige om at \*(der) er sket<sup>4</sup>  
what they are in agreement about that there is happened  
'What they agree has happened'
- c. Jeg ved ikke hvem at \*(der) har fortalt ham det.<sup>5</sup>  
I know not who that there has told him this  
'I don't know who told him this.'
- d. Jeg vil gerne vide hvad som at \*(der) skal til for at blive rig i en fart.<sup>6</sup>  
I will like know what comp that there must to for that become rich in a hurry  
'I would like to know what it takes to become rich in a hurry.'
- e. Føler at jeg har fundet den bil at \*(der) dækker alle mine behov.<sup>7</sup>  
feel that I have found the car that there covers all my needs  
'Feels like I have found the car that covers all my needs.'
- f. Molly er flyttet til en bondegård, som at \*(der) hedder Dyrefryd!<sup>8</sup>  
Molly is moved to a farm comp that there is called Dyrefryd  
'Molly has moved to a farm called Dyrefryd!'
- g. Det var Kirsten at \*(der) fandt guldhornet her.<sup>9</sup>  
it was Kirsten that there found golden horn.DEF here  
'It was Kirsten who found the golden horn here.'
- h. Det er mig som at \*(der) står ved siden af ham i det hvide tøj!<sup>10</sup>  
it is me comp that there stands by side of him in the white clothes  
'It is me who is standing next to him wearing white clothes.'

In some, non-standard, variants of Danish, the types of examples in (5a), (5b), (5d), (5f), and (5h) are possible without the expletive *der*, 'there', in subject position, as shown in (6) giving rise to *at*-trace sentences.

- (6) a. Og biblen vil jeg ikke ligefrem sige at hjælper på det.<sup>11</sup>  
and bible.DEF will I not straightforward say that helps on it  
'And the bible, I won't say that it helps exactly.'
- b. Dog er der nogle skills som de fleste er enige om at er de vigtigste.<sup>12</sup>  
still is there some skills comp the most are in agreement about that are the most important

<sup>3</sup>Thrane (2003, p. 338)

<sup>4</sup>[http://books.google.dk/books?id=\\_AaoTTs-4KIC&pg=PA34&lpg=PA34&d#v=onepage&q&f=false](http://books.google.dk/books?id=_AaoTTs-4KIC&pg=PA34&lpg=PA34&d#v=onepage&q&f=false)

<sup>5</sup>Mikkelsen (1911, p. 501)

<sup>6</sup><http://www.hvodden.dk/hvordan-bliver-jeg-lige-sa-rig-som-martin-thorborg.htm>

<sup>7</sup>[http://www.bilgalleri.dk/forum/generel-diskussion/870071-hvorfor\\_koeber\\_i\\_en\\_gulpladet\\_bil](http://www.bilgalleri.dk/forum/generel-diskussion/870071-hvorfor_koeber_i_en_gulpladet_bil)

<sup>8</sup><http://rokokoposten.dk/2013/01/15/kaeledyrsbondegaard-afsloeret-som-fup-familiehund-blev-i-vir>

<sup>9</sup>Hansen (1983, p. 76)

<sup>10</sup><http://www.hot.dk/Message?cmd=104&menuId=155&forumId=3&from=16&tId=45333>

- ‘Still, there are some skills that most people agree are the most important skills.’
- c. Dog meget forskelligt, hvem som at er lærer i faget ...<sup>13</sup>  
 however very different who comp that is teacher in course.DEF  
 ‘However very different who teaches the course ...’
- d. Det næste spil hedder Dirt 2 som at er et racerspil af Colin MCrae.<sup>14</sup>  
 the next game is called Dirt 2 comp that is a racer game by Colin MCrae  
 ‘The next game is called Dirt 2 which is a racer game by Colin MCrae.’
- e. Det var mig som at var det uhyggelige.<sup>15</sup>  
 it was me comp that was the scary  
 ‘It was me who was the scary part.’

## 4 The analysis

The presence of the complementizer *at* in the types of examples in (5) is optional. Following Hansen (1983, p. 69), we analyze *at* as a complementizer signalling non-V2 word order typically characterizing embedded clauses in Danish. Section 3 shows that *at*’s presence triggers an *at*-trace effect in most variants of Danish, but that in some, non-standard, variants of Danish, only in the types of examples (5c), (5e) and (5g) does *at* trigger an *at*-trace effect.

However, we will argue that in these, non-standard, variants none of the occurrences of *at* does in fact trigger an *at*-trace effect. How, then, do we account for the requirement of an expletive subject in the types of examples (5c), (5e) and (5g)? We argue that the occurrences of the expletive subject in (5c), (5e) and (5g) are licensed by an independent constraint. The examples in (7) show that in the absence of optional *at*, these types of examples still require an expletive subject.

- (7) a. Hvem tror du altid (der) aldrig har bestilt billetter?  
 who believe you always there never has booked tickets  
 ‘Who do you always believe never has booked tickets.’
- b. Hvad blev vi enige om (der) skal ske?  
 what became we in agreement about there must happen  
 ‘What did we agree must happen?’
- c. Jeg ved ikke hvem \*(der) har fortalt ham det.  
 I know not who there has told him this  
 ‘I don’t know who told him this.’
- d. Jeg vil gerne vide hvad som (der) skal til for at blive rig i en fart.  
 I will like know what comp there must to for that become rich in a hurry  
 ‘I would like to know what it takes to become rich in a hurry.’
- e. Føler at jeg har fundet den bil \*(der) dækker alle mine behov.<sup>16</sup>  
 feel that I have found the car there covers all my needs  
 ‘Feels like I have found the car that covers all my needs.’
- f. Molly er flyttet til en bondegård, som (der) hedder Dyrefryd!  
 Molly is moved to a farm comp there is called Dyrefryd  
 ‘Molly has moved to a farm called Dyrefryd!’
- g. Det var Kirsten \*(der) fandt guldhornet her.  
 it was Kirsten there found golden horn.DEF here  
 ‘It was Kirsten who found the golden horn here.’

<sup>11</sup><http://www.gamereactor.dk/forum/?forum=2&thread=41975&page=2>

<sup>12</sup>[http://urban.managerzone.com/thezone/paper.php?paper\\_id=7771&page=7&sport=soccer](http://urban.managerzone.com/thezone/paper.php?paper_id=7771&page=7&sport=soccer)

<sup>13</sup><http://nofragileframes.blogspot.dk/2011/05/day-08.html>

<sup>14</sup><http://stormolrik.blogspot.dk/2013/01/lnge-siden-og-godt-nytar-del-1.html>

<sup>15</sup><http://www.kaffeklubben.org/?emne=864#>

- h. Det er mig som (der) står ved siden af ham i det hvide tøj!  
 it is me comp there stands by side of him in the white clothes  
 ‘It is me who is standing next to him wearing white clothes.’

This is because the expletive subject is obligatory in local subject extractions in Danish, cf. e.g. Bjerre (2010) and Müller and Ørsnes (2011). In the non-local extractions in (5a) and (5b), the expletive subject is optional. Likewise, the expletive subject is optional after the complementizer *som* in (5d), (5f) and (5h). In fact, the sentences are preferred without the expletive subject.

Consequently, in the variants of Danish where the complementizer *at* does not show an *at*-trace effect, *at*-trace sentences may be formed in extraction contexts not involving local subject extractions.

## 5 Formalization

Following Bouma et al. (2001) and Ginzburg and Sag (2000) we treat *that*-trace effects in terms of local subcategorization. Bouma et al. (2001, p. 50) and Ginzburg and Sag (2000, p. 181) make this possible by making information about subject extraction accessible to the selecting complementizer, i.e. an extracted subject is not cancelled from the SUBJ list. The complementizer *that* in English which does not allow *that*-trace sentences, selects for a saturated SUBJ list as shown in (8).

$$(8) \left[ \begin{array}{l} \text{ROOT } that \\ \text{HEAD } \left[ \text{spec } \left[ \begin{array}{l} \text{HEAD } v \\ \text{SUBJ } \langle \rangle \\ \text{COMPS } \langle \rangle \end{array} \right] \right] \end{array} \right]$$

As mentioned in Section 4, subject extraction in Danish is complicated by the requirement of an expletive in subject position in local subject extractions. We follow Bjerre (2011) in differentiating between “real” subject gaps and subject gaps filled by an expletive, the latter having a *expl(itive)-ss*, a subtype of *canon(ical)-ss*, as opposed to the *gap-ss* value of “real” gaps, a subtype of *noncan(onical)-ss*. Thus, to account for the Danish *at* in the variants that disallow *at*-traces we get the constraint in (9).

$$(9) \left[ \begin{array}{l} at \\ \text{SS} | \text{LOC} | \text{CAT} \left[ \begin{array}{l} \text{HEAD } complementizer \\ \text{COMPS } \left\langle \left[ \begin{array}{l} \text{LOC} | \text{CAT} \left[ \begin{array}{l} \text{HEAD } | \text{SUBJECT}^{17} \langle canon-ss \rangle \\ \text{SUBJ } \langle \rangle \\ \text{COMPS } \langle \rangle \end{array} \right] \right] \right\rangle \right] \end{array} \right] \end{array} \right]$$

The variants that allow the *at*-trace sentences will not be required to select a *canon-ss* which means that sentences with both subject gaps, *gap-ss*, and expletive subjects, *expl-ss*, can be selected. This is shown in (10).

$$(10) \left[ \begin{array}{l} at \\ \text{SS} | \text{LOC} | \text{CAT} \left[ \begin{array}{l} \text{HEAD } complementizer \\ \text{COMPS } \left\langle \left[ \begin{array}{l} \text{LOC} | \text{CAT} \left[ \begin{array}{l} \text{SUBJ } \langle \rangle \\ \text{COMPS } \langle \rangle \end{array} \right] \right] \right\rangle \right] \end{array} \right] \end{array} \right]$$

(10) will not give rise to *at*-trace sentences with extracted local subjects, as an independent constraint on local subjects extraction constructions will require the head-daughter to have a saturated SUBJ list and a SUBJECT list with a *canon-ss*.

<sup>17</sup>We register information about the nature of the subject in the SUBJECT feature, cf. Bjerre (2011). This is because we want to distinguish clauses with expletive subjects from clauses with “real” subject gaps. Expletive subjects are cancelled from the SUBJ list and subject gaps do not appear on the SUBJ list.

## 6 Conclusion

In this paper we have shown a set of new data which shows that in some, non-standard, variants of Danish we do find *at*-trace sentences, in contrast to what has so far been assumed. We further showed that *at* occurs in a large number of contexts, only some of which allowed *at*-trace sentences. The constraint determining whether or not *at*-traces occur in these variants was shown to be an independent constraint on the subject position in local subject extractions requiring the presence of an expletive subject.

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