

Anne Bjerre

University of Southern Denmark

bjerre@sitkom.sdu.dk

Tavs Bjerre

Aarhus University

tavs.bjerre@hum.au.dk

1 Introduction

In Danish aspectual differences are expressed by certain verbal constructions. Such aspectual constructions have not received much attention in the Danish literature, but cf. Diderichsen (1946, p. 156), Hansen (1967, vol. 3, pp. 30–31), Jensen (1985, p. 113), Brandt (1992) and Jørgensen (2001).

(1) is an example of such an aspectual construction which is used to express imperfective aspect, and which we will henceforth refer to as the *sidder og* construction.

- (1) Peter sidder og smiler.
Peter sits and smiles

The *sidder og* construction consists of two verbal conjuncts and the conjunction *og*, ‘and’. The verb in the first conjunct is an intransitive motion or position verb, primarily *sidder*, ‘sit’, *ligger*, ‘lie’, *går*, ‘walk’, *løber*, ‘run’, and *står*, ‘stand’.

In Swedish and Norwegian, the *sidder og* construction is also found. Josefsson (1991) mentions the Swedish example in (2).

- (2) Henry sitter och fiskar abborre.
Henry sits and fishes perch

Lødrup (2002) similarly mentions the Norwegian example in (3).

- (3) Han sitter og skriver dikt.
He sits and writes poems

Apart from being interesting from a semantic point of view, the *sidder og* con-

struction is syntactically interesting, as it behaves differently than ordinary coordinated constructions wrt. a series of syntactic phenomena. The syntactic properties of constructions like the *sidder og* construction have been dealt with in the Nordic literature under the heading *pseudocoordination*. The discussion is, among other things, concerned with whether the construction is really a coordination or whether it may better be treated as some kind of subordinated construction, cf. e.g. Johnsen (1988), Josefsson (1991), Johannessen (1998), Lødrup (2002), Vannebo (2003) and Wiklund (2005).

Contrary to the above-mentioned proposals, the analysis presented in this paper rests on the assumption that the construction is both a coordination and a subordination at the same time. The main idea is based on a further development of a constructional approach to phrasal types, as presented in Ginzburg and Sag (2000).

2 A short note on the semantics of *sidder og*

Here we will shortly describe the semantics of the construction, cf. e.g. Bjerre and Bjerre (2007) for a semantic treatment of the *sidder og* construction.

The construction is mainly characterized by the aspectual information that it introduces, as mentioned above, i.e. whether the event expressed by the second conjunct is regarded as completed or not, (Brandt, 1992) and (Hansen, 1967). We propose that the construction is used to remove any ambiguity that may be present in a certain context. This is exemplified in (4).

We would like to thank two anonymous reviewers for their helpful comments. Tavs Bjerre would like to thank Det Letterstedtske Selskab who supported his participation in the workshop.

- (4) a. Peter sang da Ole kom hjem.
Peter sang when Ole came home
- b. Peter sad og sang da Ole
Peter sat and sang when Ole
kom hjem.
came home

(4a) is ambiguous. Either Peter had already started singing before Ole came home or he started at the time when Ole came home. (4b), on the other hand, is not ambiguous. In this case the singing was already in progress when Ole came home.

An interesting characteristic of these constructions manifests itself when the verb in the second conjunct is either a semelfactive or achievement verb, as shown in (5).

- (5) a. Peter sidder og blinker.
Peter sits and winks
- b. Peter sidder og vinder.
Peter sits and wins

When semelfactive and achievement verbs enter the construction, the combination of the punctual property of the verbs and the imperfective aspect of the construction results in an iterative reading of the event described by the second conjunct.

3 Related constructions

Danish also uses a set of pseudocoordination constructions to force a sequential reading on the involved events, rather than a progressive reading. Examples of such constructions are shown in (6), cf. Bjerre and Bjerre (2007).

- (6) a. Hun gik ud og så til
She went out and saw to
maden.
food-the
- b. Hesten gik hen og døde.
Horse-the went over and died
- c. Tag og slip tasken!
Take and let-go-of bag-the
‘(You should) let go of the bag’

While we do not find constructions with the similar function as the *sidder og* construction in English, these related examples seem to have English counterparts, as shown in (7).

- (7) a. I finally went and did it.

- b. He went and got all pompous.
c. She upped and opened the door.

4 Syntactic properties of *sidder og*

In this section we would like to point out that the Danish *sidder og* construction shares many of the syntactic properties discussed in the above-mentioned literature on pseudocoordination. We will point out the properties that the construction shares with ordinary coordinated constructions, and we will discuss its behaviour wrt. extraction, overt subjects, there-constructions and time and place adjuncts setting it apart from ordinary coordination.

4.1 Coordination properties of the *sidder og* construction

The construction contains a coordinating conjunction. It is, however, restricted to *og*, ‘and’, as shown in (8).

- (8) a. Peter sidder og sover.
Peter sits and sleeps
- b. *Peter sidder eller/men sover.
Peter sits or/but sleeps

The verbs in the two conjuncts have the same morphological form¹. This is shown in (9).

- (9) a. Peter sidder og sover.
Peter sits and sleeps
- b. *Peter sidder og sov.
Peter sits and slept

The *sidder og* construction shares these properties with ordinary coordinated constructions.

4.2 Extraction and *sidder og*

According to the Coordinate Structure Constraint, (Ross, 1967), a conjunct cannot contain a gap except in ‘Across-the-Board’ cases where each conjunct has a gap that refers to one and the same filler. (10a) is an example of the *sidder og* construction clearly violating this constraint, whereas the constraint is obeyed in the coordination without *sidder*, (10b).

¹It should be noted that this restriction can be overridden on semantic or pragmatic grounds.

- (10) a. Pigen_i Peter sad og kyssede
Girl-the Peter sat and kissed
e_i.

- b. *Pigen_i Peter dansede og
Girl-the Peter danced and
 kyssede *e_i.*
kissed

That the *sidder og* construction does not obey the constraint suggests that it is not an ordinary coordinated construction.

4.3 No overt subject in second conjunct in *sidder og*

In pseudocoordinations, the second conjunct cannot have an overt subject, cf. (11).

- (11) a. Han sidder og blinker.
He sits and blinks
 b. *Han sidder og han blinker.
He sits and he winks

In ordinary coordinations the overt expression of the second subject is optional, cf. (12).

- (12) a. Han synger og danser.
He sings and dances
 b. Han synger og han danser.
He sings and he dances

In some cases the subject of the second conjunct may be overtly expressed in what may look like a *sidder og* construction, but in that case it loses its characteristic aspectual meaning and is not a *sidder og* construction, but an ordinary coordination. Again the data suggests that pseudocoordinations are not ordinary coordinations.

4.4 There-constructions and the *sidder og* construction

A restricted set of verbs may appear in there-constructions, including *sidder*, as shown in (13).

- (13) a. Der visner en masse
There withers a lot (of)
 blomster her.
flowers here
 b. Der dør en masse blomster
There dies a lot (of) flowers
 her.
here

- c. Der sidder en mand i
There sits a man in
 haven.
garden-the

Transitive verbs, on the other hand, typically do not appear in there-constructions, as shown in (14).

- (14) a. *Der læser en mand en bog.
There reads a man a book
 b. *Der kendte en mand en pige.
There knew a man a girl.

There-constructions can also appear in coordinated constructions if the two coordinated verbs belong to the set of verbs allowing there-constructions, as shown in (15).

- (15) Der visner og dør en masse
There withers and dies a lot (of)
 blomster her.
flowers here

Again, transitives are not allowed, as shown in (16)

- (16) a. *Der synger en mand en sang
There sings a man a song
 og læser en bog.
and reads a book
 b. *Der danser en mand og
There dances a man and
 synger en sang.
sings a song.

However, *sidder og* constructions with a transitive verb in the second conjunct do occur in there-constructions, as shown in (17).

- (17) a. Der sidder en mand og læser
There sits a man and reads
 en bog.
a book
 b. Der sidder en mand og synger
There sits a man and sings
 en sang.
a song.

The fact that a transitive verb in the pseudocoordination may appear with a *der*, 'there', subject suggests that pseudocoordinations are not ordinary coordinations.

4.5 Time and place adjuncts and

sidder og

Sidder og constructions and ordinary coordinations behave differently with respect to the placement of time and place adjuncts. In *sidder og* constructions, time and place adjuncts can occur in front of, between or after the two conjuncts, but it is not possible for the two conjuncts to have separate time and place adjuncts, contrary to ordinary coordinations. This is shown in (18).

- (18) a. *Peter havde siddet ude i
Peter had sat out i
haven og spist en
garden-the and eaten an
is inde i huset.
ice cream in in house-the
- b. Peter havde repareret bilen
Peter had repaired car-the
ude på gaden og derefter
out on street-the and after that
drukket en øl inde i
drunk a beer in in
haven.
garden-the

Note that there is no problem with separate manner adjuncts, as shown in (19).

- (19) Peter havde siddet bekvemt ude
Peter had sat comfortably out
i haven og omhyggeligt
in garden-the and meticulously
gennemlæst manuskriptet.
read through manuscript-the

5 Copredicates

In the previous section we showed that the *sidder og* construction has both subordination and coordination properties. In this section we suggest that *sidder og* constructions, in addition to coordination constructions, are also complex predicate constructions consisting of a host predicate, the verb in the first conjunct, and a copredicate, the verb in the second conjunct.

(20) shows examples of other complex predicates.

- (20) a. Manuskriptet blev færdigt.
Manuscript-the was finished

- b. Manuskriptet var færdigt.
Manuscript-the was finished
- c. Peter skulle læse manuskriptet.
Peter should read manuscript-the
- d. Peter havde læst manuskriptet.
Peter had read manuscript-the

It can be seen that in complex predicate constructions the copredicate is the most contentful part of the predicate, while the host predicate contributes with information on tense, aspect, modality etc. This also applies to the *sidder og* construction in (21).

- (21) Peter sidder og råber.
Peter sits and yells

In (21) the most contentful part of the construction is the second conjunct. It is more about yelling than about sitting, in other words. The main purpose of the first conjunct is to add aspectual content even though it does have conceptual content, Peter is actually sitting.

6 Other hybrid constructions

In this section we will show that the hybrid analysis of phrases has a more general application than *pseudocoordination* constructions.

6.1 Adjunct complements

Phrases like *nede under køkkengulvet* in (22) indicating the place of something, normally function as adjuncts.

- (22) Musene havde leget længe nede
Mice-the had played long down
under køkkengulvet.
under kitchen floor

Such phrases may either be omitted or be combined with *do so* replacing the VP, as shown in (23).

- (23) a. Musene havde leget længe.
Mice-the had played long
- b. Musene legede og det gjorde
Mice-the played and that did
de nede under køkkengulvet.
they down under kitchen floor

However, with a verb like *bo*, ‘live’, such phrases cannot be omitted or combined with *do so*, as shown in (24).

- (24) a. Musene havde boet længe nede
Mice-the had lived long down
under køkkengulvet.
under kitchen floor
- b. *Musene havde boet længe.
Mice-the had lived long
- c. *Musene boede og det gjorde
Mice-the lived and that did
de nede under køkkengulvet.
they down under kitchen floor

The data in (24) indicate that the phrase *nede under køkkengulvet* in these examples functions as a complement of the verb. However, it retains properties characteristic of adjuncts. The internal structure of the phrase is not selected by the verb, any phrase denoting a place may satisfy the verb *bo*. The phrase occupies the same position in the sentence among the (other) adjuncts even if it functions as a complement.

6.2 Possessive determiners

Another interesting construction from the point of view of hybrid phrases, is a noun phrase with a possessive determiner. At first glance the Danish possessive determiner in (25a) behaves distributionally like the central determiner in (25b).

- (25) a. min bog
my book
- b. en bog
a book

It precedes a nominal to form a full noun phrase. This behaviour suggests that a noun phrase with a possessive determiner is a head-specifier construction, just like constructions with a central determiner, or a head-complement construction if one prefers a DP type of analysis of noun phrases.

However, in Danish the possessive determiner has a more varied distribution. (26) shows examples from Neville (2000).

- (26) a. denne min nyvundne verden .
this my newly won world

- b. jeres den gamle grammofon .
your the old record player

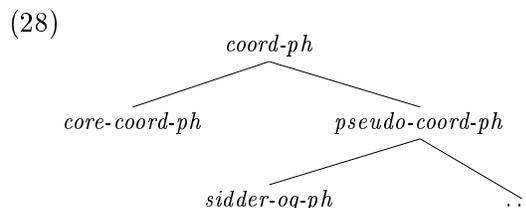
Note that in e.g. Norwegian and Northern Swedish we also find the possessive determiner following the noun. The examples in (27) are from Delsing (1993).

- (27) a. huset mitt (Norwegian)
house-the my
- b. huse mitt (Northern
house-the my
Swedish)

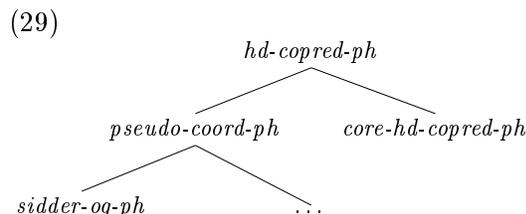
Thus distributionally, the Danish possessive determiner exhibits a more adjunct like behaviour in that its position is less fixed than that of the central determiners. But even more interesting, from a semantic point of view, the possessive introduces more content than the central determiners, in that it additionally introduces a possessive relation, suggesting that it is an adjunct. So again we find a construction type with hybrid properties.

7 Formalization

To account for an analysis of the *sidder og* construction as both a coordinated and a subordinated construction, we set up a hierarchy of phrases. Firstly, we assume that coordinated phrases split into two types, *core-coord-ph* and *pseudo-coord-ph*, the *sidder-og-ph* being a subtype of the *pseudo-coord-ph*, as shown in (28).

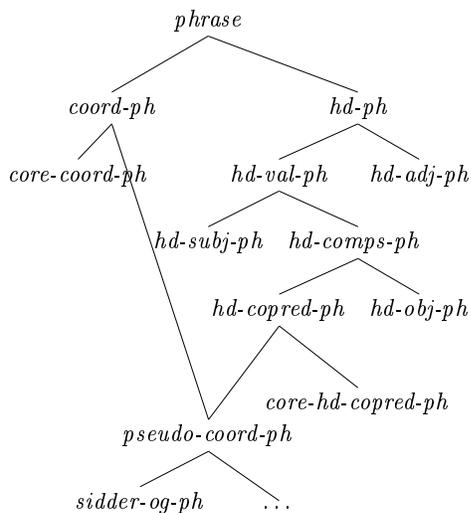


Similarly, we assume that phrases containing a head and a copredicate split into two types, *pseudo-coord-ph* and *core-hd-copred-ph*, again *sidder-og-ph* being a subtype of the *pseudo-coord-ph*, as shown in (29).



When we fit these subhierarchies into a larger phrase hierarchy we get the hierarchy shown in (30).

(30)



The hierarchy allows the *sidder-og-ph*, and other pseudocoordination constructions, to inherit constraints expressed on both headed and coordinated phrases.

7.1 Representing daughters in phrases

The analysis in the previous section hinges on a more generalized way of representing daughters in phrases.

Typically, daughters are represented in a way that makes explicit what types of phrase daughter is actually represented, as shown in (31) through (33) taken from (Pollard and Sag, 1994).

$$(31) \left[\begin{array}{l} \textit{phrase} \\ \text{DTRS} \left[\begin{array}{l} \textit{head-comp-struct} \\ \text{HEAD-DTR } \textit{sign} \\ \text{COMP-DTRS } \textit{list(phrase)} \end{array} \right] \end{array} \right]$$

$$(32) \left[\begin{array}{l} \textit{phrase} \\ \text{DTRS} \left[\begin{array}{l} \textit{head-adj-struct} \\ \text{HEAD-DTR } \textit{phrase} \\ \text{ADJUNCT-DTR } \textit{phrase} \end{array} \right] \end{array} \right]$$

$$(33) \left[\begin{array}{l} \textit{phrase} \\ \text{DTRS} \left[\begin{array}{l} \textit{head-filler-struct} \\ \text{HEAD-DTR } \textit{phrase} \\ \text{FILLER-DTR } \textit{phrase} \end{array} \right] \end{array} \right]$$

Different features are used for different non-head daughters. A commonly used alternative is to use the NON-HD-DTR feature for representing non-head daughters of the types above as shown in (34).

$$(34) \left[\begin{array}{l} \textit{hd-ph} \\ \text{HD-DTR } \textit{sign} \\ \text{NON-HD-DTR } \textit{phrase} \end{array} \right]$$

For representing coordinated phrases, a type is typically used with completely different features, notably with no HD-DTR feature, as shown in e.g. (35), also from (Pollard and Sag, 1994).

$$(35) \left[\begin{array}{l} \textit{phrase} \\ \text{DTRS} \left[\begin{array}{l} \textit{coord-struct} \\ \text{CONJ-DTRS } \textit{set(sign)} \\ \text{CONJUNCTION-DTR } \textit{word} \end{array} \right] \end{array} \right]$$

Such representations do not allow hybrid phrases that are subtypes of both headed phrases and e.g. coordinated phrases, as they will inherit two distinct sets of features.

Instead we propose a generalized list-valued DTRS feature introduced at phrase level as shown in (36)².

$$(36) \left[\begin{array}{l} \textit{phrase} \\ \text{DTRS } \textit{list(sign)} \end{array} \right]$$

On such an analysis both headed phrases and coordinated phrases will inherit the DTRS feature and consequently a subtype of the two will inherit the same feature from both its supertypes.

With this way of representing daughters, hybrid phrases can be assumed to inherit constraints placed on its supertypes. One such constraint is THE HEAD FEATURE PRINCIPLE. The hybrid *pseudo-coord-ph* is both a headed and a coordinate phrase, and consequently THE HEAD FEATURE PRINCIPLE applies to the phrase. On an analysis employing a generalized list-valued DTRS feature, THE HEAD FEATURE PRINCIPLE needs reformulation, and we express it by the constraint on headed phrases shown in (37).

$$(37) \left[\begin{array}{l} \textit{hd-ph} \\ \text{SYNSEM} \mid \text{LOC} \mid \text{CAT} \mid \text{HEAD} \boxed{\square} \\ \text{DTRS} \left\langle \left[\begin{array}{l} \textit{sign} \\ \text{SYNSEM} \mid \text{LOC} \mid \text{CAT} \mid \text{HEAD} \boxed{\square} \end{array} \right] \mid \textit{list} \right\rangle \end{array} \right]$$

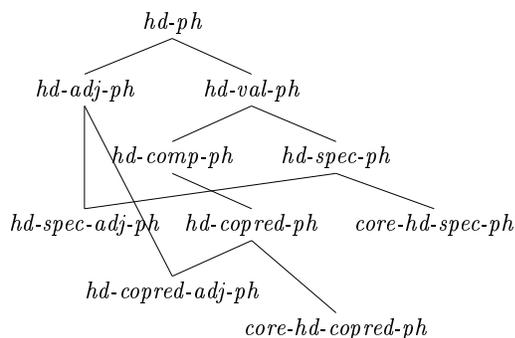
In other words, we use the convention that the first daughter on the DTRS list is the head daughter. We have not chosen the first daughter as the head daughter on theoretical grounds, rather from a practical point of view the first element on a list is easily identified.

²Sag et al. (2003) also use a DTRS feature, but in addition they also have a HD-DTR feature.

7.2 Adjunct complements and possessive determiners

In 6 we showed that the hybrid analysis of phrase types has a more general application than the analysis of pseudocoordination constructions. To formalize the hybrid analysis of adjunct complements and possessive determiners we need to further develop our phrase type hierarchy. In (38) we propose two more hybrid types, the *hd-copred-adj-ph* and *hd-spec-adj-ph*.

(38)



The *hd-copred-adj-ph* is a subtype of both *hd-copred-ph* and *hd-adj-ph*, whereas the *hd-spec-adj-ph* is a subtype of both *hd-spec-ph* and *hd-adj-ph*.

8 Further research

In 7 we showed a formalization of hybrid phrases. This formalization is the first step towards an account of the hybrid behaviour these phrases were shown to have in 4. The analysis of the *sidder og* construction as an instance of the hybrid *sidder-og-ph*, a subtype of the *pseudo-coord-ph*, makes it possible to account for the observation that the construction behaves as a coordinated construction in some respects, but as a subordinated construction in others, as it will inherit constraints expressed both on the *coord-ph* and the *hd-copred-ph*. Further research will investigate which constraints are needed and for which types they should be defined in order to give a full account of the behavior of the Danish *sidder og* construction.

9 Conclusion

In this paper we have proposed an analysis of pseudocoordinations as a hybrid phrase type. This is achieved by setting up a phrasal type

hierarchy, where the type *pseudo-coord-ph* is a subtype of both *coord-ph* and *hd-copred-ph*, and consequently inherits properties from both types.

The analysis hinges on us not using specific features for daughter types, e.g. HD-DTR, NON-HD-DTR, CONJ-DTR etc. Instead the more general list-valued feature DTRS is used.

We also showed that the hybrid phrase analysis has a more general application by giving examples of other constructions with hybrid properties, be they distributional or semantic in nature. We showed that phrases containing adjunct complements and possessive determiners might be analysed as instances of hybrid phrases.

References

- Anne Bjerre and Tavs Bjerre. 2007. *Sidder og . . . : Constructional aspect in Danish*. In *Postproceedings of The 1st International Workshop On Typed Feature Structure Grammars (TFSG'06)*.
- Søren Brandt. 1992. Two problems in Danish verb syntax. *Nordic Journal of Linguistics*, 15:47–64.
- Lars-Olof Delsing. 1993. *The Internal Structure of Noun Phrases in the Scandinavian Languages*. Team Offset.
- Paul Diderichsen. 1946. *Elementær Dansk Grammatik*. København: Gyldendal.
- Jonathan Ginzburg and Ivan Sag. 2000. *Interrogative Investigations: The Form, Meaning and Use of English Interrogatives*. Stanford: CSLI.
- Aage Hansen. 1967. *Moderne Dansk*. Grafisk Forlag.
- Per Anker Jensen. 1985. *Principper for grammatisk analyse*. København: Nyt Nordisk Forlag Arnold Busk.
- Janne Bondi Johannessen. 1998. *Coordination*. Oxford, New York: Oxford University Press.
- Lars Johnsen. 1988. A note on subordination. *University of Trondheim Working Papers in Linguistics*, (6):195–202.
- Henrik Jørgensen. 2001. Nogle bemærkninger om aspekt i dansk. In Carsten Madsen, Henrik Skov, and Peer E. Sørensen, editors, *Jeget og ordene*, pages 115–136. Århus: Klim and Institute for Nordic Languages and Literature.
- Gunlög Josefsson. 1991. Pseudocoordination – a VP + VP coordination. *Working Papers in Scandinavian Syntax*, 47:130–156.

- Helge Lødrup. 2002. The syntactic structures of Norwegian pseudocoordinations. *Studia Linguistica*, 56(2):121–43.
- Anne Neville. 2000. *An HPSG Account of Danish Pre-nominals*. Ph.D. thesis, University of Copenhagen.
- Carl Pollard and Ivan A. Sag. 1994. *Head-Driven Phrase Structure Grammar*. University of Chicago Press.
- John Robert Ross. 1967. *Constraints on Variables in Syntax*. Ph.D. thesis, MIT.
- Ivan A. Sag, Thomas Wasow, and Emily M. Bender. 2003. *Syntactic Theory. A formal Introduction*. Stanford: CSLI, second edition.
- Kjell Ivar Vannebo. 2003. *Ta og ro deg ned noen hakk*: on pseudocoordination with the verb *ta* ‘take’ in a grammaticalization perspective. *Nordic Journal of Linguistics*, 26(2):165–93.
- Anna-Lena Wiklund. 2005. *The Syntax of Tenselessness. On Copying Constructions in Swedish*. Umeå: Umeå University.