

Danish There-Constructions with Intransitive Verbs

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Abstract

In this paper we argue that the distribution of verbs in there-constructions is determined by a “locative” constraint. We show that an important function of the there-construction is to “locate” the logical subject referent at a place or in a state. This accommodates an unaccusative interpretation. However, agentive manner of motion verbs, typically analyzed as unergative verbs, also appear in there-constructions in Danish. We introduce a lexical rule inserting *there*. In order for our lexical rule to account for all verbs appearing in there-constructions, including the agentive manner of motion verbs, a non-resultative complex event structure is proposed for these verbs, representing both the unaccusative existence or appearance meaning and the agentive meaning of these verbs.

Keywords THERE-INSERTION, HPSG, LEXICAL SEMANTICS, DANISH.

3.1 Introduction

According to the Unaccusative Hypothesis, (Perlmutter, 1978), intransitive verbs split into two classes, unaccusative verbs and unergative verbs, based on their different underlying structures. In Perlmutter’s terminology, unaccusatives have ‘an initial 2 but no initial 1’, (Perlmutter, 1978, 160). This means that unaccusatives have an underlying object but no subject. Unergatives, on the other hand, have an underlying subject. Although the classification is based on syntactic characteristics, Perlmutter points out that semantic factors determine the syntactic classes, e.g. unaccusatives take a patient argument whereas unergatives typically describe an activity, cf. (Perlmutter, 1978, 162–163).

Other authors have tried to determine the syntactic class semantically. Zanen (1993), based on Dowty (1991), proposes that the argument of unac-

cussatives has more patient properties than agent properties, and the argument of unergatives has more agent properties than patient properties. Levin and Hovav (1995) argue that the syntactic classification of verbs into unaccusatives and unergatives corresponds to a distinction between verbs which are externally caused and internally caused (Levin and Hovav, 1995, 98). Sorace (2004) posits a hierarchy of auxiliary selection based on a hierarchy of semantic verb classes, and suggests that this same hierarchy may be a hierarchy of unaccusativity.

The there-construction has traditionally been discussed within the context of unaccusativity, claiming that the verbs that allow there-insertion are unaccusative verbs, cf. Burzio (1986). Treating there-insertion as an unaccusative diagnostics, however, begs an explanation as to why certain apparently unergative verbs allow there-insertion. In Danish, intransitive agentive manner of motion verbs frequently appear in there-constructions, cf. (1).¹

- (1) a. Der løber en hest på motorvejen.
 There runs a horse on motorway-the
 b. Der gik en mand længere ude i mosen.
 There walked a man further out-stative in bog-the

Based on such examples with agentive objects, it has been rejected that there-insertion is an unaccusativity diagnostics, cf. e.g. Sveen (1996) and Lødrup (2000). The verbs appearing in there-constructions may then be explained by e.g. the discourse function of the construction, saying that the construction weakens or bleaches the meaning of certain verbs, cf. Oxenvad (1934), Börjars and Vincent (2005) and many others, or by positing two lexical entries for these verbs, one consistent with an unaccusative verb and one consistent with an unergative verb, cf. e.g. Hoekstra and Mulder (1990). The meaning consistent with the unaccusative representation may then be considered to be a “deagentivized” version of the unergative, cf. also Kirsner (1973) and Maling (1987).

In this paper we want to argue that the distribution of verbs in there-constructions is determined by a “locative” constraint. We want to show that an important function of the there-construction is to “locate” the logical subject referent at a place or in a state. See also Bresnan (1993) who proposes a similar constraint for the English locative inversion construction. This means that the function of the there-construction is to state the existence or appearance of the logical subject referent at some location or in some state. This meaning accommodates an unaccusative interpretation. However, as also mentioned by e.g. Brink (1997) and Lødrup (2000), the agentive manner of motion verbs still have an agentive interpretation truth-conditionally, and so

¹ All examples in this paper are found on the internet.

we believe that this has to be represented lexically. In order for our lexical rule to account for all the verbs appearing in there-constructions, including the agentive manner of motion verbs, a non-resultative complex event structure is proposed for these verbs. This event structure represents both the unaccusative existence or appearance meaning and the agentive meaning of these verbs. Further support for the non-resultative complex event structure is provided by the behaviour of the verbs in Danish pseudo-coordination constructions.

3.2 Danish intransitive verbs in there-constructions

In this paper we concentrate on intransitive verbs in Danish there-constructions, cf. Bjerre and Bjerre (Forthcoming) for an account of transitive verbs in Danish there-constructions. In Danish we find unaccusative verbs of existence or appearance² in there-constructions, as shown in (2).

- (2) a. Der eksisterer mange former for realisme.
 There exists many types of realism
 b. Der opstod en fejl.
 There appeared a mistake

We also find unaccusative verbs of change of state, both internally and externally caused change of state, as in (3).

- (3) a. Der blomstrede et Æbletræ saa rigt og en vild Kastanie.³
 There bloomed an apple tree so richly and a wild chestnut
 b. Der brændte et hus ved Hørup Mølle ved lynnedslag.
 There burned a house at Hørup Mølle by strike of lightning
 c. Der gik en stol i stykker under valget af dirigent.
 There went a chair to pieces during election-the of chairman

With internally caused verbs which are ambiguous between an existence and change of state reading, according to (Milsark, 1979, 252–253) only the former reading appears in there-constructions in English, however, in Danish both readings are found, cf. (4).

- (4) a. Der vokser blomster.
 There grow flowers
 b. Der vokser et barn i dig.
 There grows a child in you

We also find verbs of emission in Danish there-constructions, as in (5).

²We use the verb classes in Levin and Hovav (1995) in this presentation.

³Until 1948 in Danish nouns were written with capital letters and the character 'å' with 'aa'.

- (5) a. Da hjulet var kommet af, kunne vi konstatere at der
When wheel-the was come off could we ascertain that there
 lækkede olie fra systemet.
leaked oil from system-the
- b. Der lyser en stjerne på himlen et sted.
There shines a star on sky-the some place

Another class of verbs found in Danish there-constructions is verbs of spatial configuration. We find both verbs in the “simple position” sense and verbs in the “assume position” sense. Examples are given in (6).

- (6) a. Der ligger en bombe på min terrasse.
There lies a bomb on my terrace
- b. Der satte sig en kvinde ved hans bord.
There sat a woman at his table

With respect to motion verbs, we find both verbs of directed motion and motion verbs with locational PPs, as in (7).

- (7) a. Der gik en høj, svær Haandværksmand ud af Døren, idet
There walked a tall, heavy workman out of door-the, as
 jeg traadte ind.
I walked in
- b. Der gik en ko på Nørrebro.
There walked a cow on Nørrebro

With respect to the verbs of directed motion, we find examples where the verbs have a disappearance interpretation as well as examples where they have an appearance interpretation in Danish, as in (8). This is apparently in contrast to English, Levin and Hovav (1995) cite Kimball (1973) for a constraint against verbs of disappearance in there-constructions.

- (8) For selv om der gik mange ud ad den ene dør, kom der
Because even if there walked many out of the one door, came there
 ikke nye ind ad den anden.
not new in of the other

Intransitive verbs that do not predicate a state or location of their logical subject cannot occur in there-constructions, e. g. *grine*, ‘laugh’, *nyse*, ‘sneeze’ etc.

In this section we have showed that many different classes of intransitive verbs appear in Danish there-constructions. As we have stated earlier, we will, however, show in 3.5 that all these verbs share a common characteristic in stating the existence or appearance of the logical subject referent at some location or in some state.

3.3 Agentive manner of motion verbs

As shown in the previous section, agentive manner of motion verbs appear in the there-construction. As also mentioned earlier, their presence in the construction has been explained as a de-agentivization of the verbs. Truth-conditionally, this is a problem, as there is no doubt that the agentivity and the manner component of their meaning is evident, as shown by (9).

- (9) Der spadserer en flue på væggen.
There strolls a fly on wall-the

The manner of the motion is important, the fly “strolls”, flies typically do not stroll, and it is used to emphasize the manner of the motion.

We also find other examples with adverbials which are inconsistent with a pure existence at a location interpretation, cf. (10).

- (10) a. Der løber en lille krokodille hurtigt rundt på væggen i mit
There runs a small crocodile quickly about on wall-the in my
 soveværelse.
bedroom
 b. Der svømmede 2 delfiner stille rundt.
There swam 2 dolphins quietly about

Indeed, the combination with *rundt*, ‘about’, may turn other agentive verbs into motion verbs allowing these to appear in the there-construction as shown in (11).

- (11) a. *Der fjoller cirka 22 mænd efter en sort/hvid bold
There fool approximately 22 men after a black/white ball
 i stedet for.
instead
 b. Der fjoller cirka 22 mænd rundt efter en sort/hvid
There fool approximately 22 men about after a black/white
 bold i stedet for.
ball instead
 (12) a. *Der fiser en mand med en violin.
There farts a man with a violin
 b. Der fiser en mand rundt med en violin.
There farts a man about with a violin

This phenomenon also suggests that the meaning of manner of motion verbs, when used in there-constructions, is not reduced to a pure existence or appearance at a location interpretation.

The data presented here suggests that agentive manner of motion verbs have two “submeanings”, an existence at location meaning, but also an agen-

tive activity meaning. It may be that the agentive “submeaning” is weakened or bleached for some discourse functional purpose, but it is still present.

3.4 There-insertion and pseudo-coordination

Danish does not express aspect morphologically. Aspectual differences are instead expressed by using various verbal constructions, so-called pseudo-coordinations. Such aspectual constructions have not received much attention in the Danish linguistic literature, but cf. Diderichsen (1946, 156), Hansen (1967, vol. 3, 30–31), Jensen (1985, 113), Brandt (1992), Jørgensen (2001) and Bjerre and Bjerre (2007b).

Examples of agentive manner of motion verbs in pseudo-coordinations are shown in (13).

- (13) a. Børnene løber og leger.
 Children-the run and play
 b. De sidder og kysser.
 They sit and kiss

The combination of the two conjuncts makes the construction imperfective, and the events expressed by the second verb in the construction, *play* and *kiss*, are understood to be in progress and continuous.

The first verb in a pseudo-coordination is a motion verb or a verb of spatial configuration. Also here do the verbs retain their full meaning though it may be bleached. As mentioned above these are verbs that appear in there-constructions and there-insertion is possible in all pseudo-coordinations, even when the second verb in the pseudo-coordination is a verb that does not on its own allow there-insertion.

Mateu and Amadas (1999), based on studies by Bybee et al. (1994) showing that the progressive corresponds with or originates as a locative construction in most languages, propose an analysis of progressive constructions where a locative unaccusative structure which is associated with “be” locates the event depicted by the full verb. (14) is an example from Mateu and Amadas (1999).

- (14) John is breaking the window.

Thus, (14) means “John is centrally located in the event of causing the window to become broken”, in this way giving it a progressive interpretation.

The Danish pseudo-coordination construction and the English “be” + “ing” construction have similar functions. However, in Danish we can use an agentive manner of motion verb. If we adopt the idea of Mateu and Amadas (1999) that the progressive is a locative structure and we analyse these verbs as denoting a non-resultative complex situation with a locative subevent, in addition to accounting for their agentive meaning, we account for

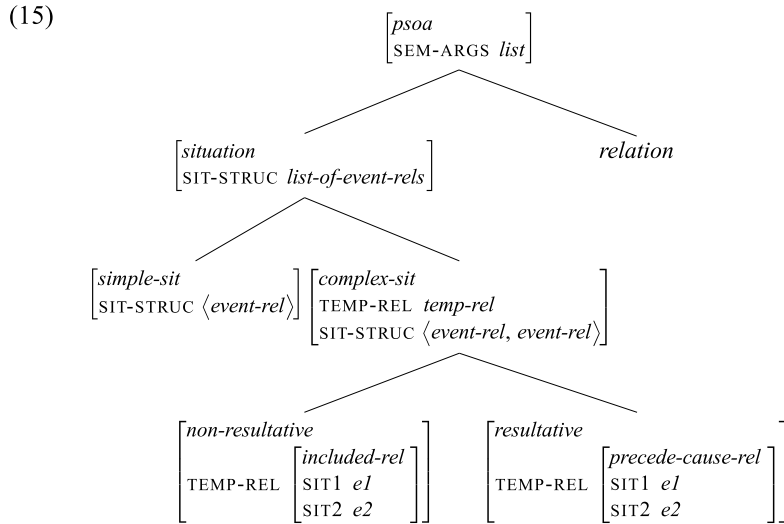
both their appearance in pseudo-coordinations and their appearance in there-constructions. In pseudo-coordinations the locative structure additionally locates the following event, but in there-constructions, the locative structure additionally locates the focused logical subject referent.

3.5 Complex event structure

Before we can formulate our lexical rule for there-insertion, we need to show how we will represent the lexical semantics of verbs. The analyses provided in this section are modifications of analyses presented in Bjerre (2003) and Bjerre and Bjerre (2007a).

Verbs split into a number of semantic classes reflected in their event and argument structure. Verbs (or predicates) denote situations. Situations may be divided into simple situations, a process or a state, and complex situations. Complex situations have typically been explained as situations where a process results in another situation, in most cases a state. The idea of decomposing event structure goes back at least to Lakoff (1965) and McCawley (1968) and is employed in combination with the Vendlerian classification (Vendler, 1957) in Dowty (1979) and Levin and Hovav (1995) among many others.

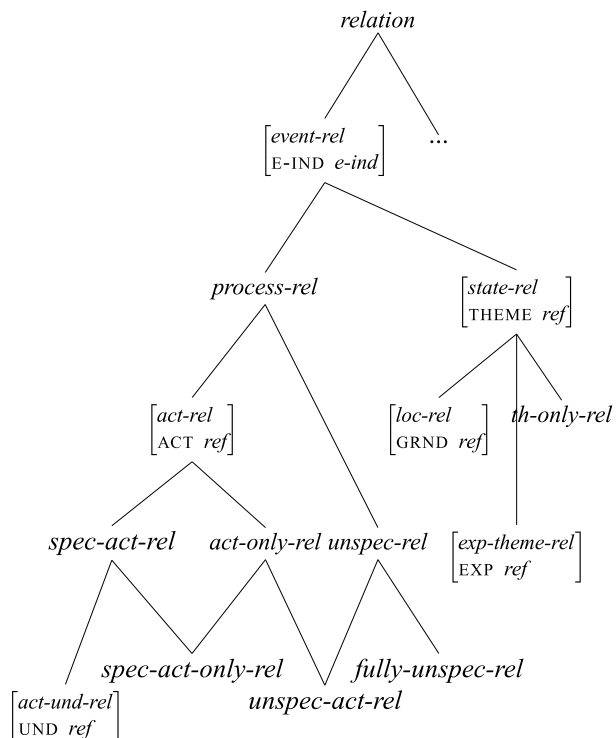
In this paper we propose that a complex situation can also be non-resultative and consist of two subsituations that are not causally linked, but happen or exist in parallel. This is reflected in (15).



In a *resultative* situation subsituation1 precedes and causes subsituation2, whereas in a *non-resultative* situation subsituation1 is temporally included in subsituation2.

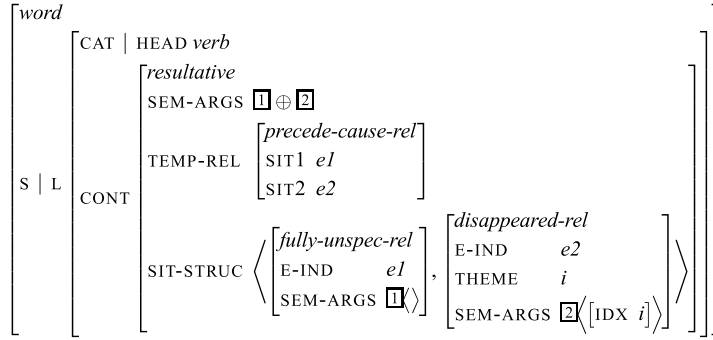
We assume that semantic relations come with a fixed number of arguments. We are inspired by Davis (2001), though many details differ. Semantic roles are introduced as features on relations as shown in the hierarchy in (16).

(16)



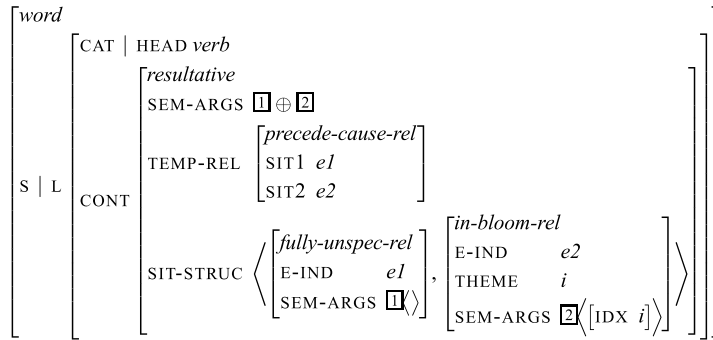
Based on the types for event and argument structure in (15) and (16), lexical representations for the verb classes we have discussed earlier can be formulated. The relations used in our formalizations are subsumed by the relations in (16).

In (17) the representation for *forsvinde*, ‘disappear’, a verb of appearance.

(17) *forsvinde*, ‘disappear’

The meaning of *forsvinde* is that an unspecified process with no semantic roles results in the state of some theme entity being disappeared, *disappeared-rel* being a subtype of *theme-only-rel*.

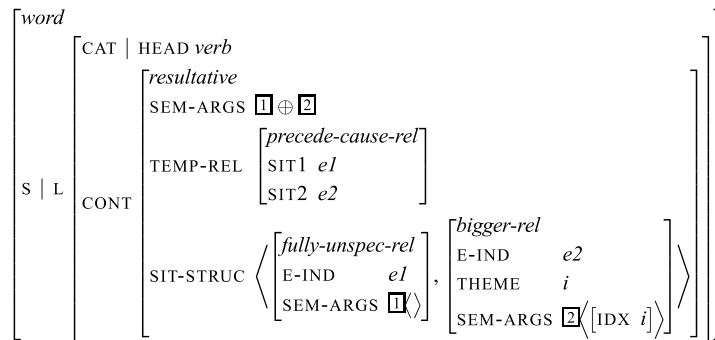
(18) gives the lexical representation of *blomstre* in its internally caused interpretation.

(18) *blomstre*, ‘bloom’ (internally caused)

Again the meaning of *blomstre* involves an unspecified process leading to the state of an theme entity being in bloom.

In (19) we see the representation for *vokse* in its change of state interpretation.

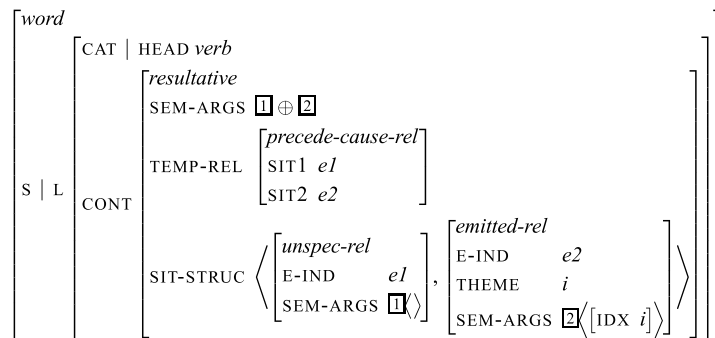
(19) *vokse*, ‘grow’ (change-of-state reading)



Vokse means that an unspecified process leads to the state of a theme entity being bigger. We do not try to solve the problem of how the relative relation *bigger* should be represented.

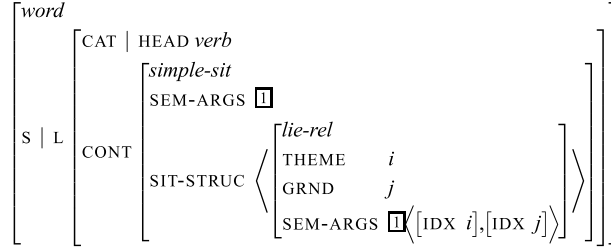
In (20) the representation for the verb of emission *lække* is shown.

(20) *lække*, ‘leak’



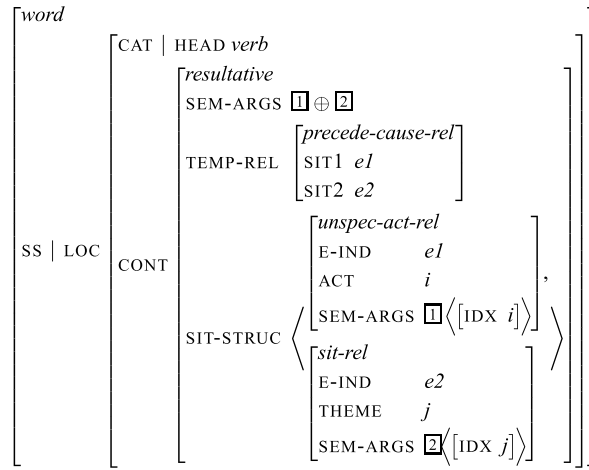
The meaning is that an unspecified process results in the state of a theme entity being emitted. The emitted entity is restricted to be a fluid, but we will assume that this restriction must be stated in terms of selectional restrictions on the argument by the verb, rather than being reflected in event and argument structure.

(21) shows the resrepresentation of the spatial configuration verb *ligge*.

(21) *ligge*, ‘lie’

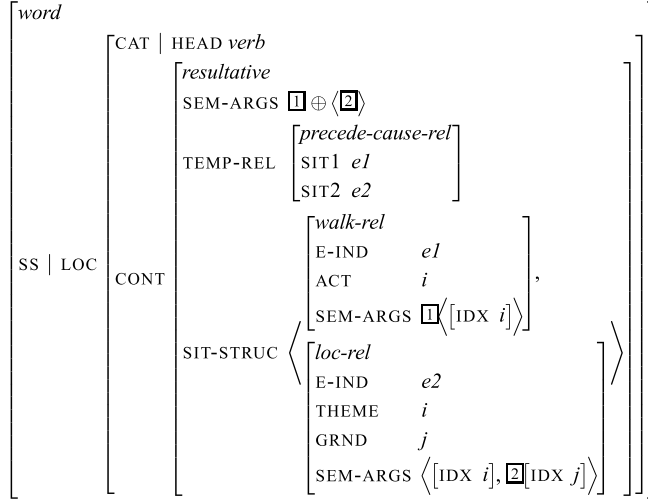
The verb means that some them entity is located in some place.

In (22) the representation of the spatial configurational verb *sætte sig* which has an assume position meaning, is shown.

(22) *sætte sig*, ‘sit down’

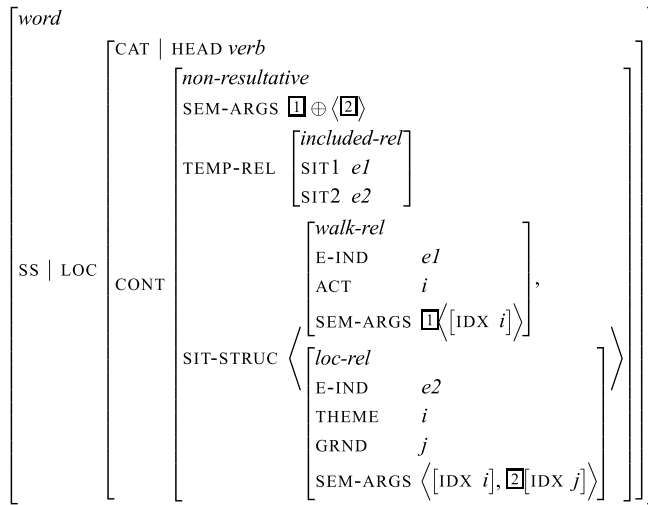
The meaning is that some unspecified process involving an actor results in a state of a theme being placed at a location. The actor and the theme have the same referent.

In (23) we show the lexical representation for the agentive manner of motion verb *gå* with a directed motion interpretation.

(23) *gā*, ‘walk’ (directional)

The meaning is that an walking process leads to the state of some theme entity being in some location. The actor and the theme have the same referent.

Finally we give an example of a representation for an agentive manner of motion verb with a locational rather than directional interpretation. As can be seen in (24), the event structure associated with this group of verbs is a non-resultative complex event. The complex event consists of a walking process subevent and a location subevent.

(24) *gā*, ‘walk’ (locational)

The meaning of the verb is that two subevents are involved simultaneously, a walking process involving an actor and a locational state involving the placement of a theme at a location. The actor and the theme have the same referent.

3.6 Constraint on there-insertion

In 3.1 we stated that an important function of the there-construction is to “locate” the logical subject referent at a place or in a state. The formalizations of the semantics of the verbs appearing in there-constructions show a generalization of the classes of verbs allowing there-insertion. The formal constraint on there-insertion in Danish can be seen in the rule in (25)⁴.

$$(25) \left[\begin{array}{c} \text{there-insertion-lexical-rule} \\ \left[\begin{array}{c} \text{word} \\ \text{IN} \left[\begin{array}{c} \text{SYNSEM} \mid \text{LOC} \\ \text{INFO-STRUC} \mid \text{TOPIC} \langle \boxed{1} \rangle \end{array} \right] \left[\begin{array}{c} \text{CAT} \left[\begin{array}{c} \text{HEAD} \text{ verb} \\ \text{SUBJ} \langle \boxed{1} \text{ NP}[\text{indef}]:\boxed{2}_i \rangle \\ \text{COMPS} \boxed{3} \end{array} \right] \\ \text{CONT} \left[\begin{array}{c} \text{situation} \\ \text{SIT-STRUC list} \oplus \langle \left[\begin{array}{c} \text{state-rel} \\ \text{THEME } i \end{array} \right] \rangle \oplus \text{list} \end{array} \right] \end{array} \right] \end{array} \right] \\ \left[\begin{array}{c} \text{word} \\ \text{OUT} \left[\begin{array}{c} \text{SYNSEM} \mid \text{LOCAL} \mid \text{CATEGORY} \left[\begin{array}{c} \text{SUBJ} \langle \text{der} \rangle \\ \text{COMPS} \boxed{3} \oplus \langle \boxed{1} \rangle \end{array} \right] \\ \text{INFO-STRUC} \mid \text{TOPIC} \langle \rangle \end{array} \right] \end{array} \right] \end{array} \right] \end{array} \right]$$

The function of this lexical rule is to produce a verb (and thereby a clause) without a topic. The input to the rule is a verb that has an indefinite subject, the subject position is coded as topic. The referent of the subject is semantically located in a state relation, i.e. it is the theme argument of a state relation. As (16) shows *state-rel* subsumes both *loc-rel* and *theme-only-rel* which are the relations involved in verbs allowing there-insertions. *Der*, ‘there’, is inserted on the SUBJ list⁵ and the logical subject is placed on the COMPS list. The output has no topic. Everything not explicitly mentioned in the rule is carried over unaltered from input to output.

As *der* has no referential index it is unable to occur as a ‘normal’ argument

Note that the lexical rule in (25) does not preclude transitive verbs, cf. Bjerre and Bjerre (Forthcoming)

⁴Cf. Kuthy and Meurers (2003) for details concerning the feature INFO-STRUC.

⁵In German, the corresponding element *es* is not a subject, cf. e.g. Platzack (1983), so in Linearization-based HPSG (e.g. Kathol (2000)) the there-insertion lexical rule for German would insert *es* not on the SUBJ list but directly in the *F* slot.

3.7 Conclusion

We have shown that the distribution of verbs in Danish there-constructions is determined by a “locative” constraint, meaning that the function of the there-construction is to state the existence or appearance of the logical subject referent at some location or in some state. In order for the constraint to account for the verbs appearing in there-construction, including the agentive manner of motion verbs, a non-resultative complex event structure was proposed for the motion verbs. This event structure represents both the unaccusative existence or appearance meaning and the agentive meaning of the agentive manner of motion verbs. Support for the non-resultative complex event structure was provided by the behaviour of these verbs in Danish pseudo-coordinations. Given an analysis with a non-resultative complex situation with a locative subevent, we accounted for their agentive meaning, but also both their appearance in pseudo-coordinations and their appearance in there-constructions. Whereas in pseudo-coordinations the locative structure could be said to locate the following event, in there-constructions, it was shown to locate the logical subject referent.

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$$\left[\begin{array}{l} \text{there-insertion-lexical-rule-German} \\ \text{IN} \left[\begin{array}{l} \text{word} \\ \text{DOM} \langle [v] \rangle \\ \text{SYNSEM} \mid \text{LOC} \text{ CAT} \mid \text{HEAD verb} \end{array} \right] \\ \text{OUT} \left[\begin{array}{l} \text{word} \\ \text{DOM} \left\langle \left[\begin{array}{l} F \\ \text{PHON} \langle es \rangle \end{array} \right], [v] \right\rangle \end{array} \right] \end{array} \right]$$

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