# Building bridges: Themes in the work of Bergljot Behrens

Event semantics  $\cdot$  discourse relations  $\cdot$  causation  $\cdot$  elaboration  $\cdot$  translation

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### Theme 1: Clause-final free adjuncts and causation

Behrens (1998) confronts free adjuncts and the underspecification problem, highlighted in translation: the implicit relation in a language like English or Italian must be made explicit in a language like German or Norwegian.

Concerning clause-final adjuncts, she makes two novel claims:

- $\rightarrow$  The relation is often between *events*, and
- $\rightarrow$  it is often one of *identity* or *parthood*  $\sqsubseteq$ . Consider first cases like (1) and (2):
- (1) Then, suddenly, the bottle exploded with a bang, sending sharp sprays of glass to the corners of the room.
- (2) A Chicago metro train has derailed at O'Hare International Airport, injuring 32 people.

Free adjuncts are commonly thought to contain a PRO subject controlled by the subject of the matrix clause, or to share the subject of the matrix clause. Here, however, the matrix subject is not a good subject for the adjunct:

- (3) ?...bottle sent sharp sprays of glass to the corners of the room.
- (4) ?A Chicago metro train has injured 32 people.

Behrens's observation and idea:

- → The free adjunct verb is *causative*, decomposing into a causing event  $e_1$  and a caused event  $e_2$ :  $\lambda e_1 \exists e_2 \mathsf{CAUSE}(e_2)(e_1) \dots$
- $\rightarrow$  e<sub>1</sub>, usually unspecified, = the matrix clause event.

Behrens (1998: 113ff.) shows how this can be modeled in a theory like DRT once PRO is assumed to be *eventive*: "...the causer role is always eventive. [...] causatives in free adjunct structures prefer the Causer role for PRO."

Evidence in support: As noted by Thomson (1977), nominalization DPs can be subjects of causative verbs.

- (5) The explosion sent shards of glass flying over a wide area, damaging 19 other businesses and 18 vehicles.
- (6) The derailment injured one person and caused severe delays to commuters.

The eventive PRO is represented as a presupposed event discourse referent seeking and finding unification with a previously introduced event referent, the one stemming from the matrix clause verb:

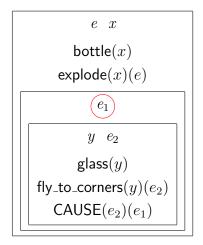


Figure 1: DRS for adjunct causing event  $e_1$  unifying with matrix event e

The final DRS resulting from this unification features just two events, e and  $e_2$ , where e is the causing event and  $e_2$  is the caused event.

Key findings about translations:

- → These adjuncts are often translated into Norwegian by subordinate clauses with causal connectives and unaccusative verbs
- → or by coordinated CPs with unaccusative verbs.
- (7) would be an example of the former kind.
- (7) The waiter was shoved from behind, tipping five glasses of beer down Merkel's back.

Kelneren ble dyttet så glass veltet mot Merkels rygg.

Behrens notes that VP coordination, since it requires subject co-reference, is not a possible translation here (1998: 138). However, cases like (8) do occur.

(8) Dermed er man et skritt nærmere årsaken til hvorfor toget sporet av og skadet 37 personer ved Skotterud i går.

It is evident from the context that many of the 37 persons were passengers, raising a challenge for theories of VP coordination (see, e.g., Weisser 2015).

## Theme 2: Clause-final free adjuncts and elaboration

A very different relation between matrix and final adjunct is observed here:

- (9) Meanwhile, extremist settlers routinely harass Palestinians on the ground, uprooting olive trees and vandalizing mosques.
- (10) The settlers, in turn, assault Palestinians and damage their property in what they call 'price tag' attacks, throwing rocks and bottles, uprooting olive trees and setting fields on fire.
- (11) ... couples who treat each other with contempt rolling eyes, calling names, speaking in a sarcastic and cynical way, and using hostile humor are the most likely to break up.

It is still about events, though; building on Pusch (1980), Behrens develops and defends this idea (162ff.): On the intended and inferred interpretation, the events described in the adjunct  $\Box$  the event described in the matrix.

This inference is licensed by the information, some of it accommodated, that the matrix description subsumes the adjunct descriptions; for example, vandalization of mosques are forms of harassment.

Behrens anchors it to the Principle of event minimization (Kamp 1992: 284):

The better interpretation is that which can make do with a minimum of happenings.

In general terms, the idea that the events described in a sequence of clauses are sub-events of some event introduced in a preceding clause explicates the discourse relation *elaboration* (Asher 1993: 300f.) semantically.

The resulting interpretation can be modeled in a DRS like this:

Figure 2: DRS for adjunct events  $e_1, e_2$  forming a sum and unifying with matrix event e

The two or more events described in the adjunct are assumed to fuse together and merge with the event described in the matrix.

Whereas in the causative case, the event merging with the matrix event results from event fission, in the elaboration case it results from event fusion.

Key findings about translations:

- $\rightarrow$  These adjuncts are often translated into Norwegian with ved å clauses
- → or by locative relative clauses
- $\rightarrow$  or by full sentences.
- (12) would be an example of the second kind, (13) one of the third kind.
- (12) Enkelte nybyggere har innført det de kaller en "prislapp"-politikk, der de angriper palestinere, deres åkre eller...
- (13) Nationaltheatrets styre gikk grundig til verks. De nedsatte et ansettelsesutvalg. De involverte de ansatte. De lyste ut stillingen i hele...

#### Theme 3: Elaboration connectives in contrast

Behrens and Fabricius-Hansen (2002) observe that connectives that seem to articulate the discourse relation of elaboration are not invariably translated or even translatable with each other across English, German and Norwegian.

For example, English by (+ gerund clause) is stricter than German indem (+ finite clause) in requiring identity or parthood between events in addition to sameness of aktionsart, agent, space and time.

The authors factorize elaboration into features different subsets of which are encoded in different connectives.

Next, they note that conversely, German indem is sometimes not a good rendering of English by. The authentic German translation of (14a) is (14b). One could hypothesize a translation like (14c), but this is an odd sentence.

- (14) a. Neither would give way by reversing.
  - b. Keiner setzte zurück und machte Platz.
  - c. ?Keiner wollte nachgeben, indem er zurücksetzte.

In fact, (15) is attested and would be a more accurate translation.

(15) Keiner wollte nachgeben und zurücksetzen.

The authors suggest that (14c) is odd because, "with an unmarked intonation pattern indicating wide sentence focus", it is dispreferred for *indem* to scope under matrix negation, as by indeed scopes below matrix negation in (14a). VP conjunction, by contrast, preferably scopes below a preceding negation.

More generally, the authors draw attention to VP conjunctions as good translations of by locutions. Here are two more examples from the OMC:

- (16) a. It would break his heart, unless [...] unless he could render me a service by making it possible for one of my friends to buy his house. (Peter Mayle, A Year in Provence)
  - b. Es würde ihm das Herz brechen [...] –, außer er könnte mir einen Dienst erweisen und einem meiner Freunde ermöglichen, das Haus zu erwerben.
- (17) a. Nor shall I compete with the station announcer by bawling my verses at the Waterloo commuters.
  - b. Und ich werde auch nicht mit dem Zugansager... wetteifern und den Fahrgästen lauthals meine Verse vortragen.

### Theme 4: Nongrammaticalized progressives produced

Even in 'aspectless' languages, there are means to mark that an event is in progress; see Ebert (2007) on Dutch, Stutterheim, Carroll and Klein (2009) on German, and Tonne (2007) on Norwegian.

However, controlled elicitation studies of the use of aspectual constructions were few for Dutch and German and nil for Norwegian until 2013.

Behrens, Flecken and Carroll (2013) investigate whether different nongrammaticalized aspectual constructions are sensitive to differences in situations, differently across the three languages.

Let us focus on Norwegian, where we must assume a competition between (i) no aspectual marking, (ii) pseudocoordinations, (ii) prospective constructions (Tonne 2001, Tonne 2007):

- (18) (i) gjør lekser.
  - (ii) sitter og gjør lekser.
  - (iii) holder på å gjøre lekser.

Subjects were shown video clips of everyday situations of six different types and asked to describe what was happening:

	AKTIONSART	EXAMPLE	
1	no change in state	woman playing violin	
2	low dynamicity	pill dissolving in water	
3	affected object	man peeling potatoes	
4	effected object	woman molding vase	
5	motion to goal	man entering mosque	
6	motion no goal	woman climbing ladder	

Table 1: Situation types distinguished by Behrens, Flecken and Carroll (2013)

	ZERO	PSEUDOCO	driver/er (ute) og	PROSPEC
1	127	64	13	2
2	122	24	1	1
3	137	13	0	0
4	211	49	9	2
5	340	0	7	0
6	343	1	8	2

Table 2 shows the raw results of the Norwegian elicitation experiment:<sup>1</sup>

Table 2: Aspectual locutions elicited by Behrens, Flecken and Carroll (2013)

It may be relevant to note in this connection that in all of the 9 video clips showing situations of the effected-object type, an agent is sitting down, and that in all of the 5 clips showing situations of the affected-object type, an agent is either standing or sitting down.

In fact, this work can serve to highlight an interesting methodological issue: When eliciting spontaneous linguistic output by means of visual input, this input needs to provide plain and simple, concise and concrete information – or else subjects will be at a loss to put what is going on into words.

Arguably, this constraint will bias any such experiment towards elementary and physical situations, at the cost of more complex and psychological ones, situations that would be verbalized with sentences like (19)–(22), featuring PROSPEC locutions:

<sup>&</sup>lt;sup>1</sup> Records of results for the PROSPEC locution  $p\mathring{a}$  vei... are not included here because it is unclear if they in fact display an infinitive verb.

- (19) Et språk er i ferd med å dø ut.
- (20) En gutt holder på å stryke i to fag.
- (21) Ei jente holder på å gjøre det slutt med kjæresten.

Τ

## Theme 5: (In)Direct speech and Audience Design

Borthen et al. (2014) investigate how the choice of a referring expression in speech reports depends on the (in)directness of the report, as illustrated in:

- (1) Over the weekend, Peter had to look after a parrot called Polly. Polly was green with some dark spots on her wings. On Sunday afternoon, Peter forgot to close the cage when he opened the window to let in some fresh air. Polly flew out, and very soon, Peter did not see her anymore. He ran out on the street and asked every stranger he passed
  - a. "Have you seen \_\_\_\_\_?"
  - b. whether they had seen \_\_\_\_\_.

A cooperative speaker will employ **audience design** (Clark and Murphy), taking the availability of the referent in the addressee's mind into account. But who is the audience?

In the direct report case, (3a), it is the original hearer, but in the indirect report case, (3b), narrators will have a choice between the **iconic** approach, copying the perspective of the original hearer, and the **narrative** approach, instead adopting the perspective of the current hearer (and original speaker).

The authors set out to test this hypothesis:

#### Hypothesis 1

Definites and proper names will be chosen more frequently in indirect speech than in direct speech across the four languages.

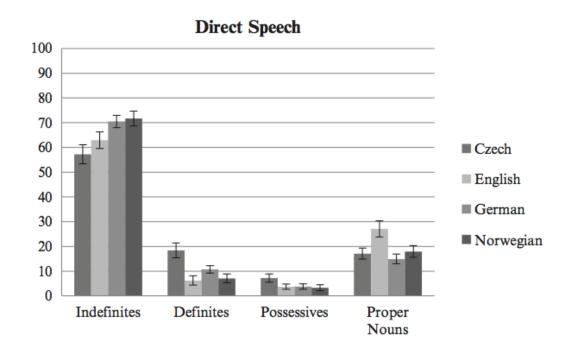
The experiment was set up as a questionnaire with thirty or more informants from each of the four languages Czech, English, German, and Norwegian. The informants were asked to read short narratives of the kind in (4a-b) and to mark their preference for one of the four alternatives to fill the open slot.

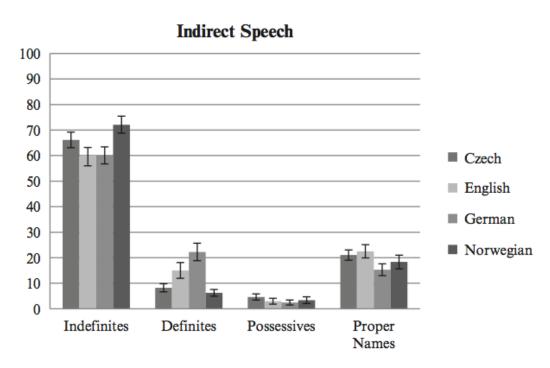
- (2) a. Paula, a nurse in a geriatric ward, was worried because earlier that day, a dementia patient, Mr. Simpson, had evidently decided to go off on a walk on his own. He was nowhere to be found. Paula rushed out on the street and asked the first person she came across: "Excuse me, you haven't seen \_\_\_\_\_ around here, have you?"
  - an elderly man; the elderly man; her elderly man; Mr. Simpson
  - b. Paula, a nurse in a geriatric ward, was worried because earlier that day, a dementia patient, Mr. Simpson, had evidently decided to go off on a walk on his own. He was nowhere to be found. Paula rushed out on the street and asked the first person she came across if she had seen \_\_\_\_\_\_ around there.

an elderly man; the elderly man; her elderly man; Mr. Simpson

For Hypothesis 1, the overall result was negative: no significant main effect of direct versus indirect speech on the choice of referring expression was found; in fact (see next page), subjects tended to use indefinites across the board, thus taking the iconic approach to indirect speech.

For English and German, however, there were positive results, since definites were chosen significantly more often in indirect than in direct speech; in regard to German, in particular, confidence intervals are disjoint both for indefinites and for definites.





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