

Annemarie van Dooren, Lotte Hendriks, Ora Matushansky (UiL OTS/Utrecht University)<sup>o</sup>

**THE DOR TO THE RESULT**  
**SPIFF WORKSHOP, MAY 27, 2013**

**1. INTRODUCTION**

Examples like (1) have been argued (Simpson 1983) to involve a small clause that describes a state or location resulting from the action denoted by the verb.

(1) I painted the car yellow. Simpson 1983:143

Resultative: “An XP denoting a state or location that **holds of the referent of an NP** in the construction as a result of the action denoted by its verb.” (Rappaport Hovav and Levin 2001:766)

⇒ No direct syntactic or semantic relation between the NP and the XP in question

The direct object restriction, DOR (Levin and Rappaport Hovav 1995): “The controller of a resultative **attribute** must be an object, whether that object is a surface object, as in transitive verbs, or an underlying object, as in passives and intransitive verbs of the unaccusative class, or whether the object is a fake reflexive, as in intransitive verbs of the unergative class.” (Simpson 1983:146)

- |     |  |                                  |
|-----|--|----------------------------------|
| (2) | The car was painted red.                 | passive: Simpson 1983:144        |
| (3) | The ice-cream froze solid.               | unaccusative: Simpson 1983:143   |
| (4) | I ate myself/*him sick.                  | fake reflexive: Simpson 1983:145 |
| (5) | I danced/laughed/worked *(myself) tired. | unergative                       |

**Simpson's generalization presupposes that resultative XPs are predicates**

Our claim: the semantic definition of the resultative by Rappaport Hovav & Levin 2001 **does not correspond to a single syntactic structure**: very similar semantic effects are achieved by different syntactic means.

More specifically, **we distinguish true resultatives**, which involve semantic predication and obey Simpson's generalization, and **path PPs**, which compose with the VP and do not form a constituent with the NP that ends up at the endpoint of the path of the event.

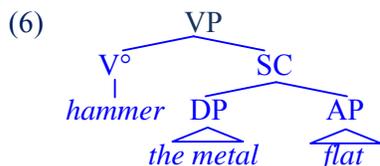
**1.1. Syntactic assumptions**

We assume the small-clause structure (Stowell 1981, 1983) for predication, where the subject and the predicate form a single syntactic constituent.

True resultatives project as small-clause complements of the verb (Hoekstra 1988, Bowers 1997, Ramchand 2008, etc.); the direct object is either base-generated internally to the small clause (6) or controls its PRO subject.

---

<sup>o</sup> We are very grateful to Sjef Barbiers, Alexis Dimitriadis, Marjo van Koppen, Dennis Ott, Janet Randall, Eric Reuland, Eddy Ruys, Mark de Vries and Joost Zwarts for a highly stimulating discussion. Parts of this paper were presented at the UiL-OTS Syntax-Interface seminar (Utrecht, Nov. 19, 2012), at RALFe (Paris, Nov. 28-29, 2012) and at the Linguistics in the Netherlands Annual Meeting (TIN-dag; Utrecht, Feb. 15, 2013). We thank the audiences for their helpful comments.



A resultative is therefore a single syntactic constituent consisting of a subject and a predicate.

We will support the **Direct Object Restriction** by reanalyzing the apparent counterexamples provided by Levin and Rappaport Hovav 1995, Wechsler 1997, and Verspoor 1997.

### 1.2. Subject “resultatives”

In English, as in Dutch, unergative or transitive verbs seem to be incompatible with a subject-oriented resultative:

- (7) \* He dances tired. ✓ as depictives
- (8) \* He ate sick.
- (9) a. Ik eet \*(mezelf) ziek.  
       I eat myself sick
- b. Jan danst \*(zich) moe.  
        Jan dances himself tired
- c. \*Jan danst (de tango) moe. ✓ as a subject-oriented depictive  
        Jan dances the tango tired

Alleged counterexamples to DOR (from Wechsler (1997), Verspoor 1997, Rappaport Hovav & Levin (2001)) appear with intransitive directed-motion (10) and transitive verbs (11)-(12):

- (10)a. They danced **to the other side**.  
       b. They wiggled **away**.  
       c. They rumbled **through the tunnel**.
- (11)a. The wise men followed the star **out of Bethlehem**.  
       b. The sailors managed to catch a breeze and ride it **clear of the rocks**.  
       c. He followed Lassie **free of his captors**. (Wechsler 1997:14)
- (12)a. Fly American Airlines **to Hawaii** for your vacation! Rappaport Hovav & Levin 2001:770  
       b. We took the IRT **from Grand Central to the Brooklyn Fine Arts Museum**.  
       c. We drove the Blue Ridge Skyway **from beginning to end**.

**Our claim:** The boldfaced constituents in (10)-(12) are both syntactically and semantically distinct from true resultatives and should be analyzed as adjuncts or complements denoting the path of the event (Rothstein 2000; Zwarts 2005, 2006; Wechsler 2005). Path PPs need not (or may not!) be projected in the small-clause structure.

Why do we use "path" rather than "direction/goal"? Because paths (including temporal ones) can be specified by their initial point only (*Disasters followed Ron from the word "go"/from birth/from Paris*)

Conversely, property-denoting (type ⟨e, t⟩) resultatives appear in the configuration in (6) and cannot be subject-oriented: the APs in the examples below only function as depictives:

- (13) #John hammered the metal exhausted. (Wechsler 1997:308)
- (14) #I danced tired.

Apparent counterexamples with the adjectives *free*, *loose* and *clear* also involve paths.

### 1.3. The structure of the talk

"Subject-oriented" resultatives always involve paths.

Path specifications are not small clause predicates:

- static small clauses
- movement and clefting
- directionality
- expletives
- NP-internal use
- paths *can* be adjuncts (but don't have to be)

Locative adjectives are a kind of paths

"Subject-oriented" resultatives are not syntactically homogenous (evidence from Dutch):

- unaccusative structures: PPs are complements of the verb
- unergative and transitive structures: PPs are adjuncts

Conclusion & questions for future research

## 2. SUBJECT-ORIENTED 'RESULTATIVES' ALWAYS DENOTE PATHS

Ettlinger 2008 distinguishes path-denoting and property-denoting "resultatives", claiming that they have different syntax: only the former can be clefted or topicalized (15)-(18).

- (15)a. Mel wiped the table clean. (AP property)  
b. \* It was clean that/how Mel wiped the table.  
c. \* Clean Mel wiped the table.
- (16)a. Joni sang us to sleep. (PP property)  
b. \* It was to sleep (that) Joni sang us.  
c. \* To sleep, Joni sang us.
- (17)a. She pulled the victims clear of the rubble. (AP path)  
b. It was clear of the rubble (that) she pulled the victims.  
c. Clear of the rubble, she pulled the victims.
- (18)a. Johnny hit the ball out of the park. (PP path)  
b. It was out of the park (that) Johnny hit the ball.  
c. Out of the park Johnny hit the ball.

Note: Ettlinger's starred examples are not judged ungrammatical by all speakers, and some of them improve if a clear contrast with another predicate can be established. Furthermore, his "PP properties" are really metaphorical paths (cf. Goldberg 1991). Finally, there's the issue of intonation...

Crucially, subject-oriented 'resultatives' only allow path-denoting PPs and APs (but not all of them), cf. Rothstein 2000:

- (19)a. \*The wise men followed the star famous/out of their minds. (AP & PP property)  
b. The wise men followed the star to/\*at the stable. (PP direction & location)
- (20)a. \*She danced tired/out of her mind. (AP & PP property)  
b. She danced towards the store/?(herself) free. (AP & PP path)

Ettlinger's tests confirm the path interpretation of subject-oriented "resultatives":

- (21)a. The wise men followed the star out of Bethlehem/ashore. (AP & PP path)  
b. It was out of Bethlehem/ashore that the wise men followed the star.  
c. Out of Bethlehem/ashore, the wise men followed the star.

- (22) a. She danced towards the store. (AP & PP path)  
b. It was towards the store that she danced.  
c. Towards the store, she danced.

Possible alternative: property-denoting resultatives actually denote paths (cf. Wechsler 2005).

Problem: they do not have the same external syntax:

- (23) a. The liquid went black/?viscous.  
b. Within a minute the liquid went from blue to black/from thin to viscous.

### 3. SUBJECT-ORIENTED 'RESULTATIVES' ARE NOT SMALL CLAUSES

Line of reasoning: path specifications do not appear in the small-clause environments

#### 3.1. Compatibility with small clauses

The verbs *be* and *seem* uncontroversially take small-clause complements. However, they are incompatible with PPs headed by unambiguously directional prepositions (24):

- (24) a. Juliana was at the store/\*towards the store.  
b. Melissa seems at ease/in a rage/\*into a rage/✓into fitness.

The same is true regarding depictives:

- (25) a. Jennifer ate her soup in the kitchen/\*into a plate/#out of a bowl.  
b. Roger got interested in martial arts young/in(\*to) his 20s/\*into fitness.

Under the assumption that directional PPs are not predicates, they cannot form a small clause.

However, as example (26) shows, path PPs are sometimes possible with *be* and then give rise to a resultative-like reading (Hoekstra and Mulder 1990):

- (26) a. The lion is over the second hurdle/\*to the other side of the rink.  
b. In another moment Alice was through the glass/\*into the room.

Note: "relative locations" expressed by path PPs (*to the left of the house*) are different

#### 3.2. Expletive subjects

The compatibility of expletive subjects with path-denoting PPs (27), but not with property-denoting predicates (28) further suggests that these PPs should not be treated as resultatives:

- (27) It rained torrentially right into the open windows. (Randall 2010:94)  
(28) \* It rained cold. property

If resultatives involve the specification of the result state via predication, resultatives oriented towards expletive subjects are correctly predicted to be impossible.

Randall 2010:195: Weather predicates allow unselected resultatives:

- (29) It rained the roads impassable.

#### 3.3. Cross-linguistic availability

A principled distinction between resultatives and path specifications is required: while every language has path PPs (although their compatibility with manner-of-motion verbs is not the same across different languages, see Talmy 1975, Filipović 2007, Gehrke 2008, among many others) true resultatives may be unavailable in a given language, cf. Washio 1997.

### 3.4. Occurrence in NPs

Small clauses can't (30)b appear NP-internally. If path PPs can be adjuncts, this explains (cf. Neeleman and van de Koot 2002:48)) why path PPs (31)a, but no property-resultatives (31)b can occur inside an NP.

- (30) a. I believe Paul happy.  
b. \*the belief (of) Paul happy.

- (31) a. a road to Paris  
b. \*a road broken

While Kayne 1985 claims that resultatives cannot be nominalized, Carrier and Randall 1992 show that verbal *-ing* nominalizations of transitive verbs allow resultatives, differing in this respect from *consider*-type ECM verbs:

- (32) The watering of tulips flat is a criminal offense in the Netherlands.

### 3.5. Path PPs and locative adjuncts

Path-denoting PPs can function as adjuncts:

Even though 0 could involve fictive motion, 0b still requires coordination with a locative adjunct.

- (33)a. Canada is cheering from one coast to the other.  
b. It rained from Boston to New York (and also in Chicago). locative & path

Path PPs do not need to specify the final state:

- (34) And great crowds followed him **from Galilee and the Decapolis**.

### 3.6. Anaphor binding

Wechsler 1997 notes that an anaphor bound by the subject in a directional PP can be either a pronoun or a reflexive (Wechsler 1997:315):

- (35) Lancelot<sub>i</sub> placed the sword beside him<sub>i</sub>/%/?himself<sub>i</sub> (Wechsler 1997:315)  
(36) Max<sub>i</sub> rolled the carpet over him<sub>i</sub>/himself<sub>i</sub>

In this path PPs pattern with adjuncts, where, unlike in complements (Reinhart and Reuland 1993), both pronouns and reflexives are allowed:

- (37) \*Max<sub>i</sub> speaks with him<sub>i</sub>.  
(38) Max saw a gun near himself<sub>i</sub>/him<sub>i</sub>. (Reinhart & Reuland 1993:664)

Anaphor binding also suggests that path PPs can be adjuncts.

### 3.7. Summary

Path PPs can clearly be introduced **outside small clauses** and **differ from true resultatives** both syntactically and semantically.

## 4. LOCATIVE ADJECTIVES

All apparent counterexamples to the DOR involve either path-denoting PPs or the adjectives *free*, *clear* and *loose*.

- (39) The cowboys rode their horses clear of the snow.

Bolinger 1971 suggests that the adjectives *clear*, *free*, *loose* and *open* form a special class, as they freely combine with almost any verb (*to work free*, *to shake free*, as opposed to *?to work clean*, *?to shake clean*); the semantic core that they share, according to Bolinger (1971:77), is ‘disconnectedness’. We hypothesize, however, that the core property setting these adjectives apart is their ability to be interpreted as indications of location:

- (40) a. *clear of the snow* = well outside the snow-covered area
- b. *free of his captors* = well away from the influence of his captors
- c. *loose* = out of bondage
- d. *open* = away from the locus of attachment

All four adjectives can indicate the resultant state of a subject that is not an underlying object only in this locative meaning:

Very difficult if not impossible to confirm for *open*.

- (41) The cowboys rode their horses clear of the snow.  
      = until/so that they ended up well outside the snow-covered area  
      = until/so that their horses ended up clear of the snow  
      ≠ until/so that the cowboys ended up clear of the snow

Further confirmation comes from Emonds 1972:551: modification by *right* and *straight* (42) distinguishes specifications of space and time from other phrases:

- (42) Modification with *right* and *straight*
  - a. Make yourself right at home.
  - b. \*Johnny bought a right red carpet.
- (43) a. You should steer right clear of these ideas.
- b. I pushed the door and it flung right open.
- c. It should break right free/loose.

While resultatives cannot appear after another adjunct, path PPs can:

- (44) \*They painted the room hurriedly white.
- (45) It rained torrentially (right into the open windows).
- (46) Christine followed him hurriedly into the kitchen.

Locative adjectives, unlike true resultatives and like path PPs, can be extraposed over another adjunct:

- (47) The aircraft was pushed hurriedly clear.
- (48) \*They painted the room hurriedly white.

If these adjectives can denote locations, it is not inconceivable that like other locatives, they can be coerced into a directional/path interpretation

## 5. THE STATUS OF PATH PPs AS ARGUMENTS OR ADJUNCTS: EVIDENCE FROM DUTCH

Rappaport Hovav and Levin 2001:773: motion verbs and sound emission verbs can combine with PPs designating the final position of the surface subject ("subject-oriented resultatives"). It seems odd to argue that they alternate between unaccusative and unergative structures.

But Dutch shows that they do:

- (49) Jan springt de sloot in.  
      Jan jumps the ditch in  
      ‘Jan jumps into the ditch.’

Hoekstra & Mulder 1990

- (50) De kinderen sprongen haasje-over het park door. Neeleman and van de Koot 2002  
the children jumped leapfrog the park through  
*The children jumped leapfrog through the park.*

**Claim:** putative subject-oriented resultatives are either projected in the unaccusative structure (section 5.1) or must be construed as adjuncts (section 5.2). A language that clearly shows the distinction is Dutch.

Residual problem: what is the syntax of argument path PPs?

### 5.1. Unaccusatives: John jumps into the ditch

Sentence (51) appears to be a counterexample to the DOR: the prepositional phrase *in de sloot* denotes a resultant state, and the subject of the sentence *Jan* gets into this resultant state by jumping.

- (51) Jan springt in de sloot.  
Jan jumps in the ditch  
'Jan jumps in/into the ditch.'

Hoekstra & Mulder (1990) show that this sentence corresponds to two underlying structures: an unergative motion verb (54)a or an unaccusative motion verb (54)b. Independent evidence comes from auxiliary choice:

- (52) a. Jan **heeft** in de sloot gesprongen.  
Jan has in the ditch jumped  
'Jan has jumped in the ditch.'  
b. Jan **is** in de sloot gesprongen.  
Jan is in the ditch jumped  
'Jan has jumped in/into the ditch.'

Hoekstra & Mulder's observation: "if a PP is added which may be construed as denoting the endpoint of the activity, these verbs may show properties of ergative verbs. [...] If *zijn* is selected [...], the predicate is a change of location." (Hoekstra and Mulder 1990:7-8)

Crucially, a PP has a resultative interpretation if combined with an unaccusative verb (52)b. With the unergative verb, it has a locative interpretation (52)a.

PP-internal syntax also correlates with its meaning. While the order P-NP can be interpreted as either directional or locative (53)a, the order NP-P has the directional interpretation only (Koopman 2000, den Dikken 2006).

- (53) a. Jan springt in de sloot. (directional/locative)  
Jan jumps in the ditch  
'Jan jumps in/into the ditch.'  
b. Jan springt de sloot in. (directional)  
Jan jumps the ditch in  
'Jan jumps into the ditch.'

Crosschecking the two verbal structures against the two PP word orders, as in (54), reveals that only an unaccusative verb can be combined with a directional PP.

- (54) a. dat Jan in de sloot heeft gesprongen. (locative)  
that Jan in the ditch has jumped

- a'. \* dat Jan de sloot in heeft gesprongen. (uninterpretable)  
 that Jan the ditch in has jumped
- b. dat Jan in de sloot is gesprongen. (directional)  
 that Jan in the ditch is jumped
- b' dat Jan de sloot in is gesprongen. (directional)  
 that Jan the ditch in is jumped

It can further be shown that in the unaccusative structure the path PP behaves as an argument of the main verb:

**Arguments cannot be omitted:**

- (55) a. dat Jan (in de sloot) gesprongen heeft. (Hoekstra & Mulder 1990:9)  
 that Jan (in the ditch) jumped has
- b. dat Jan \*(in de sloot) gesprongen is.  
 that Jan \*(in the ditch) jumped is

Note that (55)b is fine in an interpretation of directed motion when there is an implicit source present. This further supports the availability of an unaccusative structure in the absence of a resultative as well.

**Arguments cannot be right-extraposed over the verb:**

- (56) a. dat Jan gesprongen heeft in de sloot.  
 that Jan jumped has in the ditch
- b. \* dat Jan gesprongen is in de sloot.  
 that Jan jumped is in the ditch

Note that this sentence is well-formed when the PP functions as an afterthought, indicated by a difference in intonation, as in (57) (cf. section 7).

- (57) dat Jan gesprongen is IN DE SLOOT.  
 that Jan jumped is in the ditch

**Arguments cannot be separated from the verb by an adverb:**

- (58) a. dat Jan in de sloot vaak gesprongen heeft.  
 that Jan in the ditch often jumped has
- b. dat Jan in de sloot (\*vaak) gesprongen is.  
 that Jan in the ditch (\*often) jumped is

**Adjuncts must bear their own stress to be part of new information:**

- (59) a. dat ze naar de Overkant geDANST hebben.  
 ... that they to the other-side danced have
- b. dat ze naar de Overkant gedanst zijn.  
 ... that they to the other-side danced are

We conclude that the apparent counterexample to the DOR in (51) is in fact compatible with the DOR: either the surface subject is also the external argument, but then the PP is a locative adjunct, or the PP behaves as an argument of the verb, and then the verb is unaccusative and the PP is associated to its sole internal argument.

Hoekstra & Mulder 1990 argue therefore that directed-motion verbs can project in the same structure as canonical resultatives, with the PP functioning as the small-clause predicate.

- (60) SUBJ<sub>i</sub> INFL [<sub>VP</sub> V [<sub>SC</sub> t<sub>i</sub> PP]]

We will discuss evidence for and against this proposal later.

## 5.2. Transitives: The children played leapfrog through the park

The PPs in the next example type are subject-oriented and have a directional interpretation. Moreover, the verbs in these sentences are transitive and take the auxiliary *hebben* 'have'. These facts make these sentences a second type of possible counterexamples to the DOR.

- (61) a. De kinderen speelden het park door haasje-over.  
the children played the park through leapfrog  
b. De kinderen hebben het park door haasje-over gespeeld.  
the children have the park through leapfrog played

The PPs in these sentences are not resultatives, but adjuncts (Neeleman & van de Koot 2002, following the diagnostics from Hoekstra and Mulder (1990).

We adapted Neeleman & van de Koot's original examples (about *taking the train to Gouda*) in order to avoid the unintended parse

Like adjuncts and unlike resultatives, they can **precede the direct object**:

- (62) a. ...dat de kinderen (het park door) haasje-over hebben gespeeld.  
...that the children the park through leapfrog have played  
b. ...dat Jan (gisteren) een auto heeft gewassen.  
...that Jan yesterday a car has washed  
c. \* ... dat Jan (\*geel) een auto heeft geverfd  
... that Jan yellow a car has painted

They are **optional**, allow **PP-over-V** and can be **separated** from the verb by an adverb:

- (63) a. ... dat de kinderen (het park door) haasje-over hebben gespeeld.  
... that the children the park through leapfrog have has  
b. ... dat de kinderen haasje-over hebben gespeeld het park door.  
... that the children leapfrog have played the park through  
c. ... dat de kinderen (vaak) het park door (vaak) haasje-over hebben gespeeld.  
... that the children often the park through often leapfrog have played

Neeleman & van de Koot (2002) also show that the putative "final state" need not be reached:

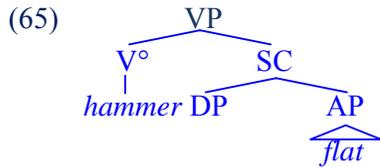
- (64) De kinderen speelden het park door haasje-over maar stopten bij de fontein.  
the children played the park through leapfrog but stopped at the fountain

## 6. CONCLUSION

**Subject-oriented resultatives** do not exist. Apparent subject-oriented resultatives are either path arguments or regular adjuncts with a directional interpretation.

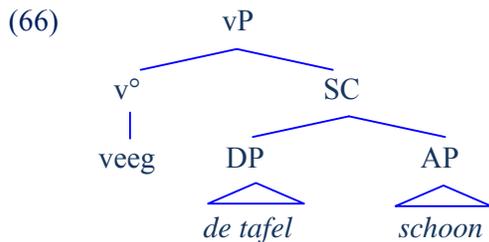
This analysis saves the DOR since the underlying reasons for the DOR (Hoekstra 1988; also see below) do not rule out subject-orientation of PPs with transitive and unergative verbs.

**Object-oriented AP resultatives** always involve a small clause configuration:



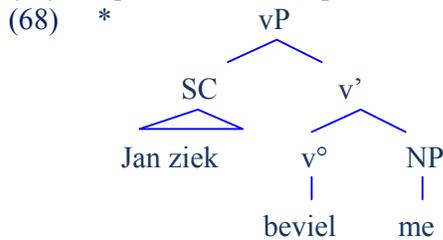
Why are subjects incompatible with small-clause resultatives?

Under the assumption that resultatives are projected as small clauses, they can only be object-oriented:



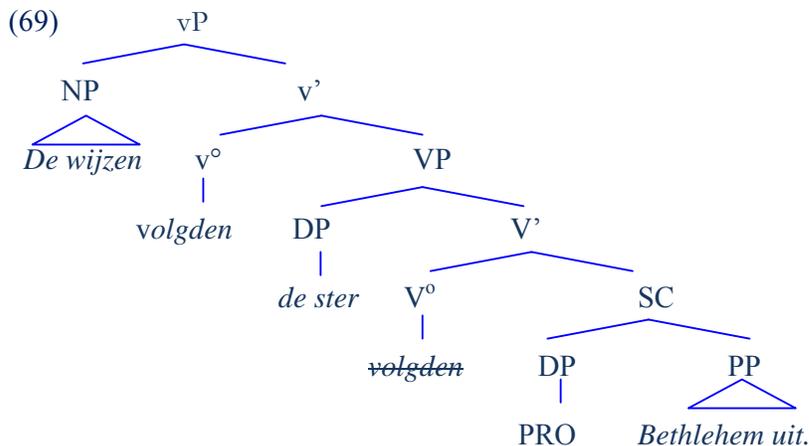
If the semantic subject of a resultative is projected inside the small clause, resultatives cannot be subject-oriented because small clauses are not allowed in the subject position (Chomsky 1981, cf. Williams 1983):

(67) \*[Students bashful] would be a shame.



If the semantic subject of a resultative moves out of the small-clause complement of V°, the surface object would always be an intervener for movement to the subject position

Finally, if the resultative small-clause complement of V° contains a PRO subject, it cannot be controlled by the subject of a transitive verb, because the object would intervene.



Unergatives would have to be assumed to also contain an underlying object.

The core assumptions are therefore that true resultatives have the distribution of small clauses and that control is by the closest antecedent.

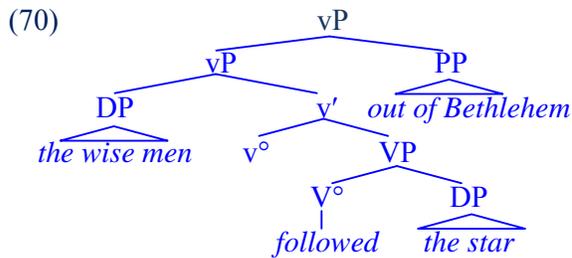
**6.1. Open questions: path PPs and small clauses**

The putative **subject-oriented resultatives** fall into two classes:

- Arguments: directed-motion verbs can be projected as unaccusatives
- Adjuncts: unergative and transitive motion verbs can combine with path PP adjuncts

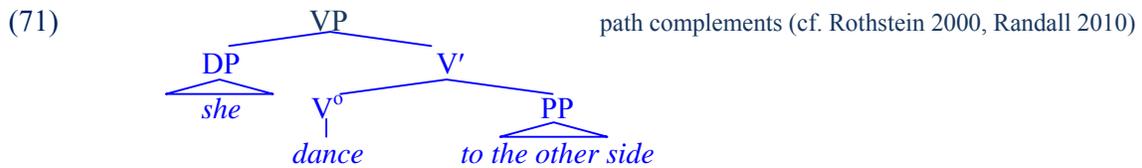
**Locative APs** are assimilated to these two classes together with path-denoting NPs (e.g., *this way*; cf. Randall 2010:39)

With unergative verbs, path PPs are adjuncts:

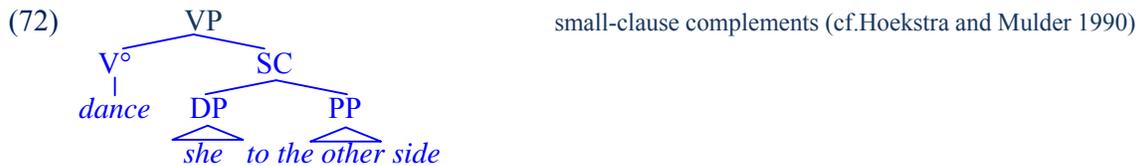


With unaccusative verbs path PPs cannot be adjuncts (and we don't know why).

Two possible structures can be hypothesized:



This structure doesn't explain why unselected resultatives systematically allow both path and AP predicates.



This structure requires an additional explanation: why can't "dynamics" small clauses be used as depictives or complements of raising verbs?

The question still remains open why (directional) head-final PPs (NP-P) are disallowed with unergatives in Dutch.

**6.2. Further information: binding**

We can try to fix the adjunction site of "subject-oriented" path PPs, as subjects, but not objects can bind a reciprocal inside them. This indicates that the path specification cannot be c-commanded by the object:

(73) The wise men<sub>i</sub> followed the stars<sub>k</sub> away from [each other's]<sub>j/\*k</sub> reflections.

We conclude that path PPs appearing with transitive verbs can be adjuncts and hypothesize that they can also be arguments in the same structure as the one associated with unaccusatives

The hypothesis that path PPs can project in two positions in a VP-internal small clause and as a VP adjunct can explain Reinhart and Reuland's facts.

If the path PP projects as the predicate of the small-clause complement of  $V^\circ$ , its subject (the surface direct object) acts as an intervener: a pronoun is possible:

(74) placed [the sword near him]

If the path PP projects as a VP adjunct, the surface direct object does not affect binding: only an anaphor is possible:

(75) [placed the sword] near himself

Prediction: Reinhart and Reuland's optionality should only be possible with path PPs.

(76) \*Max<sub>i</sub> speaks with him<sub>i</sub>.

(77) Max saw a gun near himself<sub>i</sub>/him<sub>i</sub>.

Reinhart and Reuland's complement PP is a non-locative, and another putative adjunct can in fact be a small clause predicate.

Remaining puzzle: an anaphor bound by the object in a directional PP can only be a reflexive (Wechsler 1997:315):

(78) Max rolled the carpet<sub>j</sub> over itself/\*it<sub>j</sub>.

Suggestive:

(79) At Madame Tussauds I saw Ringo Starr<sub>i</sub> next to himself<sub>i</sub>/\*him<sub>i</sub>.

This might be because the second PP cannot be interpreted as the location of the event rather than part of the small-clause complement (since the location is specified by the first PP)

This strongly suggests that object-oriented path PPs must appear in a small-clause structure -- but why?

Is it the same in Dutch, with NP-P order being incompatible with unergatives?

## 7. AFTERTHOUGHTS

### 7.1. Fictive motion

“There exist stative sentences that are indistinguishable from path resultatives in both syntactic structure and argument-structure properties.” (Goldberg & Jackendoff 2004:543).

These are unaccusative structures as shown by the use of the auxiliary *be* in Dutch.

(80) The road zigzagged down the hill. (Goldberg and Jackendoff 2004)

(81) The crack widens towards the gate. (Krifka et al. 1995:71)

As the verbs are stative, no resultant state can be argued to exist.

Furthermore, path specifications do not have to be PPs:

(82)a. Wolves get bigger as you go north from here. (Carlson 1977)

b. Jonas backed away as I advanced.

There is no way to analyze these CPs as result states.

Under our approach fictive motion involves path PPs rather than result small clauses; thus we correctly predict the impossibility of AP resultatives in fictive motion:

(83) \*The road zigzagged difficult.

Once postulated to exist, the structure introducing path PPs should in principle be available also for alleged subject-oriented resultatives; Occam's razor would then exclude the treatment of the latter as resultatives.

## 7.2. Right-dislocation: The children played leapfrog, THROUGH THE PARK

Much more can be said about one of Hoekstra & Mulder's (1990) diagnostics for distinguishing complements from adjuncts. They stated that adjuncts, unlike complements, can show up in postverbal position. In general, this diagnostic holds for the case of resultatives (85) and adjuncts (84).

- (84) a. \*Hij is gesprongen de sloot in.  
He is jumped the ditch in  
b. Hij heeft gesprongen in de sloot.  
He has jumped in the ditch
- (85) a. \*Hij heeft het hekje geverfd groen.  
He has the fence painted green  
b. Hij heeft de trein genomen naar Groningen.  
He has the train taken to Groningen

For some of the right-dislocated adjuncts, the specific intonation can be modified slightly, adding a second 'hat contour'. This intonation is available for adjuncts that have been called afterthoughts (or "colon phrases", Koster 2000, Ott and de Vries 2012).

- (86) a. Joop heeft een art/Tikel geschreven over TAAL\kunde.  
Joop has an article written on linguistics  
'Joop wrote an article on linguistics' (extraposition)  
b. Joop had iets interes/SANTS\ gelezen: een ar/Tikel over TAAL\kunde.  
Joop had something interesting read: an article on linguistics  
'Joop had read something interesting: an article on linguistics' (AT)  
c. ... dat de kinderen haasje/OVER\ speelden, het /PARK \door.  
... that the children leapfrog played, the park through.  
'...that the children played leapfrog through the park'

Afterthoughts (ATs) are right-dislocated clauses for which it is argued that no rightward movement has taken place, but instead, a biclausal structure is present. In the second clause, ellipsis has taken place (Ott & De Vries 2012:1).

- (87) [CP<sub>1</sub> correlate<sub>i</sub>] [CP<sub>2</sub> t<sub>i</sub>]

Ott and de Vries 2012 distinguish between *specificational* ATs and *predicative* ATs: specificational ATs involve a further specification of the first clause (10), while predicative ATs involve secondary predication by means of an NP (11a) or AP (11b) copular clause.

- (88) Jan heeft iets moois gebouwd, EEN GOUDEN IGLO.  
Jan has something beautiful built, a golden igloo  
'John built something beautiful, a golden igloo'
- (89) a. Hij kwam binnen, DOODSBLEEK.  
He came inside pale-white  
'He came in, pale white'

b. Ich habe den John Travolta getroffen, EIN BERÜHMTER STAR!

I have the John Travolta met a famous star

‘I met John Travolta, a famous star!’

In sentences (90) and (91) we are dealing with specificational ATs; the correlate in the main sentence is *haasje-over* ‘leapfrog’, which is further specified by the prepositional phrase. Other prepositional, low, adjuncts can also be analyzed as afterthoughts.

(90) ... dat de kinderen haasje-over hebben gespeeld, MET EEN KRUKJE.  
... that the children leapfrog have played, with a little.stool  
‘...that the children played leapfrog with a little stool.’

(91) ... dat de kinderen haasje-over hebben gespeeld, OP EEN ZONDAG.  
... that the children leapfrog have played, on a sunday  
‘...that the children played leapfrog on a sunday.’

Both for the biclausal analysis, and the rightward movement analysis, it remains a puzzle why not all adjuncts (92) can be right-dislocated.

(92) \* ... dat de kinderen haasje-over hebben gespeeld, gisteren.  
... that the children leapfrog have played, yesterday  
‘...that the children played leapfrog yesterday.’

### 7.3. Visser’s generalization

Visser’s generalization was used by Rappaport Hovav and Levin (2001:771) to support the thesis of the subject ‘resultatives’ being truly subject oriented: No verbs with subject-predicated complements can be passivized (Bach 1979, 1980, Bresnan 1972, 1982):

- (93) a. \*The star was followed out of Bethlehem.  
b. \*The breeze was ridden clear of the rocks.  
c. \*Lassie followed free of his captors.
- (94) a. \*Mazurka’s were danced across the room.  
b. \*The dog was walked to the store.  
c. \*Laps were swum to exhaustion.  
d. \*Leapfrog was played across the park.
- (95) a. \*American Airlines was flown to Hawaii.  
b. \*The IRT was taken from Grand Central to the Brooklyn Fine Arts Museum.  
c. \*The Blue Ridge Skyway was driven from beginning to end.

Visser’s generalization is thus not about resultatives but about adjacency. The control dependent need to be adjacent to the controller (96). For depictives (97), the same generalization holds: After passivization, one cannot continue control.

- (96) a. I promised Sam to leave the country.  
b. \*Sam was promised to leave the country. (Control)
- (97) a. Mary struck me as smart.  
b. \*I was struck by Mary as smart. (Depictive)

### 7.4. Cognate objects

(98) De kinderen speelden haasje-over het park door.  
The children played leapfrog the park through  
‘The children played leapfrog through the park.’

Sentence (98) is a final type of sentences that poses a challenge to the theory. The facts about this sentence are consistent with Hoekstra and Mulder's (1990) description of *John jumps into the ditch*: The prepositional phrase has a resultative interpretation, while (99) has both a resultative and a locative interpretation.

- (99) De kinderen speelden haasje-over door het park.  
The children played leapfrog through the park  
'The children played leapfrog through/all-over the park.'

The sentence could have both an unaccusative (100)a and an unergative (100)b structure.

- (100) De kinderen speelden haasje-over door het park.  
The children played leapfrog through the park
- a.%De kinderen zijn door het park haasje-over gespeeld. (unaccusative)  
The children are through the park leapfrog played
- b.De kinderen hebben door het park haasje-over gespeeld. (unergative)  
The children have through the park leapfrog played

The prediction is that in the case of the unaccusative verb, the prepositional phrase is a resultative that is oriented onto the underlying object. This prediction has one problem: the presence of the apparent direct object *haasje-over* 'leapfrog'.

However, the verb can be analyzed as a compound verb (*paardrijden* 'horseback riding', Booij 1990), and/or the direct object can be analyzed as a cognate object (*sigh a sigh*, Jones 1988, Pereltsvaig 1999b, a, 2001). The cognate object is syntactically projected as a non-argument (Shim and den Dikken 2008). The distinct status is shown in (101): the object cannot occur with a determiner (Pereltsvaig 1999b:539).

- (101) \*De kinderen zijn door het park een/het spel gespeeld.  
The children are through the park a/the game played

In the case of the unaccusative verb (100)a, the DOR would hold if the *haasje-over* 'leapfrog' is not a true object; then, the PP is a regular object-oriented resultative. The diagnostics from section 2 support this conclusion.

- (102) a. ... dat de kinderen haasje-over zijn gespeeld door het PARK.  
... that the children leapfrog are played through the park

Notice that this sentence is well-formed, in contrast to our expectations. The intonation of this sentence demonstrates that again, this PP functions as an afterthought (cf. section 8).

- b. ... dat de kinderen (door het park) haasje-over zijn gespeeld.  
... that the children through the park leapfrog are played
- c. ... dat de kinderen door het park \*(vaak) haasje-over zijn gespeeld.  
... that the children through the park often leapfrog are played

The prediction for the sentence containing the unergative verb is that the prepositional phrase is an adjunct that is oriented onto the subject. The problem with this analysis is the non-argumental status of the cognate object that we argued for above. How can a non-argument license a resultative, as in (103)?

- (103) Hij heeft de tango kapot gedanst.  
He has the tango broken danced

Pereltsvaig 1999b and Nakajima 2006 have independently argued for two types of cognate objects: Argumental and adverbial cognate objects. The sentences in (100) demonstrate that

these two statuses of cognate objects can occur with the same verb: In the sentence with the unaccusative verb, the cognate object is adverbial and is adjoined to the VP; in the sentence with the unergative verb, the cognate object is projected as an internal argument. The presence of two different structures is supported by the fact that, in contrast to the adverbial cognate object in (100), the argumental cognate object in (104) can occur with a determiner.

- (104) De kinderen hebben een/het spel gespeeld door het park.  
The children have a/the game played through the park

In the case of the unergative verb (100)b, we conclude that the DOR would hold if the *haasje-over* is an internal argument; then, the PP-phrase is an adjunct. The diagnostics from section 2 support our conclusion.

- (105) a. ... dat de kinderen door het park haasje-over hebben gespeeld.  
... that the children through the park leapfrog have played  
b. ... dat de kinderen (door het park) haasje-over hebben gespeeld.  
... that the children through the park leapfrog have played  
c. ... dat de kinderen door het park vaak haasje-over hebben gespeeld.  
... that the children through the park often leapfrog have played

The adjunct is a low adjunct, and therefore, the adjunct patterns with low manner-adjuncts (3b), rather than with high time-adjuncts (3c):

- (106) a. ...dat de kinderen [door het park] haasje-over [door het park] hebben gespeeld.  
...that the children through the park leapfrog through the park have played  
b. ...dat de kinderen [met een krukje] haasje-over [met een krukje] hebben gespeeld.  
...that the children with a stool leapfrog with a stool have played  
c. ...dat de kinderen [op een zondag] haasje-over [\*op een zondag] hebben gespeeld.  
...that the children on a Sunday leapfrog on a Sunday have played

## 8. BIBLIOGRAPHY

- Bach, Emmon. 1979. Control in Montague grammar. *Linguistic Inquiry* 10, 515-531.  
Bach, Emmon. 1980. In defense of passive. *Linguistics and Philosophy* 3, 297-342.  
Bolinger, Dwight. 1971. *The Phrasal Verb in English*. Cambridge, Massachusetts: Harvard University Press.  
Booij, Geert. 1990. Complex verbs in Dutch. In *Yearbook of Morphology 1989*, ed. by Geert Booij and Jaap van Marle, 45-63. Dordrecht: Foris.  
Bowers, John. 1997. A binary analysis of resultatives. *Texas Linguistic Forum* 38, 43-58.  
Bresnan, Joan. 1972. Theory of complementation in English syntax, Doctoral dissertation, MIT.  
Bresnan, Joan. 1982. Control and complementation. *Linguistic Inquiry* 13, 343-434.  
Carlson, Gregory Norman. 1977. Reference to Kinds in English, Doctoral dissertation, University of Massachusetts, Amherst.  
Carrier, Jill, and Janet H. Randall. 1992. The argument structure and syntactic structure of resultatives. *Linguistic Inquiry* 23, 173-234.  
Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.

- den Dikken, Marcel. 2006. On the syntax of locative and directional adpositional phrases. Ms., CUNY.
- Emonds, Joseph. 1972. Evidence that indirect object movement is a structure-preserving rule. *Foundations of Language* 8, 546-561.
- Ettlinger, Marc. 2008. The syntactic behavior of the resultative: evidence for a constructional approach. In *CLS 41: The Panels. Proceedings from the Panels of the 41st Meeting of the Chicago Linguistic Society*, vol. 2, ed. by Rodney L. Edwards, Patrick J. Midtlyng, Colin L. Sprague and Kjersti G. Stensrud, 145-160. Chicago: Chicago Linguistic Society.
- Filipović, Luna. 2007. *Talking about Motion: A Crosslinguistic Investigation of Lexicalization Patterns*. Amsterdam: John Benjamins.
- Gehrke, Berit. 2008. Ps in Motion: on the Semantics and Syntax of P Elements and Motion Events, Doctoral dissertation, Utrecht University.
- Goldberg, Adele E. 1991. It can't go down the chimney up: paths and the English resultative. In *Proceedings of the Seventeenth Annual Meeting of the Berkeley Linguistics Society: General Session and Parasession on The Grammar of Event Structure*, 368-378. Berkeley: Berkeley Linguistics Society.
- Goldberg, Adele E., and Ray Jackendoff. 2004. The English resultative as a family of constructions. *Language* 80, 532-568.
- Hoekstra, Teun. 1988. Small clause results. *Lingua* 74, 101-139.
- Hoekstra, Teun, and René Mulder. 1990. Unergatives as copular verbs; locational and existential predication. *The Linguistic Review* 7.
- Jones, Michael Allen. 1988. Cognate objects and the case filter. *Journal of Linguistics* 24, 89-110.
- Kayne, Richard S. 1985. Principles of particle constructions. In *Grammatical Representation*, ed. by Jacqueline Guéron, Hans Obenauer and Jean-Yves Pollock, 101-140. Dordrecht: Foris.
- Koopman, Hilda. 2000. Prepositions, postpositions, circumpositions, and particles. In *The Syntax of Specifiers and Heads*, ed. by Hilda Koopman, 204-260. London: Routledge.
- Koster, Jan. 2000. Extraposition as parallel construal. Ms., University of Groningen.
- Krifka, Manfred, Francis Jeffrey Pelletier, Gregory Norman Carlson, Alice ter Meulen, Gennaro Chierchia, and Godehard Link. 1995. Genericity: An introduction. In *The Generic book*, ed. by Gregory Norman Carlson and Francis Jeffrey Pelletier, 1-124. Chicago and London: The University of Chicago Press.
- Levin, Beth, and Malka Rappaport Hovav. 1995. *Unaccusativity: At the syntax-lexical semantics interface*. Linguistic Inquiry Monograph 26. Cambridge, Mass.: MIT Press.
- Marelj, Marijana, and Ora Matushansky. 2012. Mistaking *for*: testing the theory of mediated predication. Under revision.
- Nakajima, Heizo. 2006. Adverbial cognate objects. *Linguistic Inquiry* 37, 674-684.
- Neeleman, Ad, and Hans van de Koot. 2002. Bare resultatives. *The Journal of Comparative Germanic Linguistics* 6, 1-52.
- Ott, Dennis, and Mark de Vries. 2012. Right-dislocation as deletion. Ms., University of Groningen.
- Pereltsvaig, Asya. 1999a. Cognate objects in Russian: is the notion 'cognate' relevant for syntax? *Canadian Journal of Linguistics* 44, 267-291.

- Pereltsvaig, Asya. 1999b. Two classes of cognate objects. In *Proceedings of WCCFL 17*, ed. by Kimary N. Shahin, Susan Blake and Eun-Sook Kim, 537-551. Stanford: CSLI.
- Pereltsvaig, Asya. 2001. Cognate objects in Modern and Biblical Hebrew. In *Themes and Issues in Arabic and Hebrew*, ed. by Jamal Ouhalla and Ur Shlonsky, 1-31. Dordrecht: Kluwer.
- Ramchand, Gillian. 2008. *Verb Meaning and the Lexicon: A First Phase Syntax*. Cambridge: Cambridge University Press.
- Randall, Janet H. 2010. *Linking: the Geometry of Argument Structure*. Studies in Natural Language & Linguistics 74. Dordrecht: Springer.
- Rappaport Hovav, Malka, and Beth Levin. 2001. An event structure account of English resultatives. *Language* 77, 766-797.
- Reinhart, Tanya, and Eric Reuland. 1993. Reflexivity. *Linguistic Inquiry* 24, 657-720.
- Rothstein, Susan. 2000. Secondary predication and aspectual structure. In *ZAS Papers in Linguistics: Papers from the Oslo Conference on Adjuncts*, ed. by Ewald Lang, Cathrine Fabricius-Hansen and Claudia Maienborn, 241-264. Berlin: ZAS.
- Shim, Ji Young, and Marcel den Dikken. 2008. The tense of resultatives: the case of Korean. In *NELS 38: Proceedings of the 38th Annual Meeting of the North East Linguistic Society*, ed. by Anisa Scherdl, Martin Walkow and Muhammad Abdurrahman, 337-350. Amherst: GLSA.
- Simpson, Jane. 1983. Resultatives. In *Papers in Lexical-Functional Grammar*, ed. by Lori Levin, Malka Rappaport and Annie Zaenen, 143-157. Bloomington, Indiana: Indiana University Linguistics Club.
- Stowell, Timothy A. 1981. Origins of Phrase Structure, Doctoral dissertation, MIT.
- Stowell, Timothy A. 1983. Subjects across categories. *The Linguistic Review* 2, 285-312.
- Stowell, Timothy A. 1991. Small clause restructuring. In *Principles and parameters in comparative grammar*, ed. by Robert Freidin, 182-208. Cambridge, Massachusetts: MIT Press.
- Talmy, Leonard. 1975. Semantics and syntax of motion. In *Syntax and Semantics 4*, ed. by John P. Kimball, 181-238. New York: Academic Press.
- Verspoor, Cornelia Maria. 1997. Contextually-dependent lexical semantics, Doctoral dissertation, University of Edinburgh.
- Washio, Ryuichi. 1997. Resultatives, compositionality and language variation. *Journal of East Asian Linguistics* 6, 1-49.
- Wechsler, Stephen. 1997. Resultative predicates and control. *Texas Linguistic Forum* 38, 307-321.
- Wechsler, Stephen. 2005. Resultatives under the 'event-argument homomorphism' model of telicity. In *The Syntax of Aspect*, ed. by Nomi Erteschik-Shir and Tova R. Rapoport, 255-273. Oxford: Oxford University Press.
- Williams, Edwin S. 1983. Against small clauses. *Linguistic Inquiry* 14, 287-308.
- Zwarts, Joost. 2005. Prepositional aspect and the algebra of paths. *Linguistics and Philosophy* 28, 739-779.
- Zwarts, Joost. 2006. Event shape: paths in the semantics of verbs. Ms., Utrecht University.