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 & Levin 2001:766)

Generalization in English: “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. (Simpson 1983:144)
(3) The ice-cream froze solid. (Simpson 1983:143)
(4) I ate myself/*him sick. (Simpson 1983:145)
(5) I danced/laughed/worked *(myself) tired.

In this talk we will strengthen this generalization, contra Levin and Rappaport Hovav 1995, Wechsler 1997, and Verspoor 1997, by reanalyzing their counterexamples. In English, as well as in Dutch, resultatives cannot be subject-oriented (on Dutch cf. Hoekstra 1988).

(6) a. Ik eet *(mezelf) ziek.
    I eat myself sick
 b. Jan dans *(zich) moe.
    Jan dances himself tired
c. Jan dans *(de tango) kapot.
    Jan dances the tango broken

Object-oriented resultatives, on the other hand, are fine:

(7) Jan veegt de tafel schoon.
    Jan wipes the table clean
(8) (Jan kan niet dansen,) hij dans [de tango kapot].
    Jan can not dance he dances the tango broke
    ‘Jan can’t dance, he ruins the tango.’

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We argue that what has been called "resultative" is not a syntactically homogeneous phenomenon: very similar semantic effects are achieved by different syntactic means. True resultatives, in contrast to resultative-like constituents, specify the final resultant state and form a single constituent with their subject.

Simpson's empirical generalization that resultatives can only be predicated of the underlying object (the direct object restriction, DOR (Levin and Rappaport Hovav 1995)) has hence led to the standard representation of resultatives as small-clause complements of the main verb (Hoekstra 1988, Bowers 1997, Ramchand 2008, etc.), where the subject either projects internally to the small clause (10) or controls its PRO subject.

2. Subject “resultatives”

Simpson’s DOR and by consequence the concomitant syntactic analysis is challenged by Wechsler 1997 (13), Verspoor 1997 (14), and Rappaport Hovav and Levin 2001 (15).

(13) The wise men followed the star out of Bethlehem. (Wechsler 1997:14)
(14) John danced mazurka’s across the room. (Verspoor 1997:151)
(15) We took the IRT from Grand Central to the Brooklyn Fine Arts Museum. (Rappaport Hovav & Levin 2001:770)
Matushansky, Van Dooren and Hendriks (2012) have demonstrated that these English prepositional phrases are not true resultatives; in this talk, we will reconstruct the same arguments, and we will provide additional arguments, for Dutch. We will demonstrate that parallel sentences in Dutch (16)-(18) in fact do not argue against the DOR either.

(16) De wijzen volgd en de ster Bethlehem uit.
The wise men followed the star Bethlehem out
‘The wise men followed the star out of Bethlehem.’

(17) Jan dans te mazurka’s naar de overkant.
John danced mazurka’s to the other side
‘John danced mazurka’s to the other side.’

(18) We namen de bus van CS naar de haven.
We took the bus from Central Station to the harbor
‘We took the bus from Central Station to the harbor.’

Claim: these apparent counter examples do not violate the DOR, since:

(i) some resultatives are actually object-oriented (section 3 & 6),
(19) Jan springt de sloot in. (Hoekstra & Mulder 1990)
Jan jumps the ditch in
‘Jan jumps into the ditch.’

(20) De kinderen zijn haasje-over gespeeld het park door
The children have leapfrog played the park through
‘The children have played leapfrog through the park’

(ii) some ‘resultatives’ are actually path-denoting adjuncts (section 4 & 6).
(21) Jan nam de trein naar Den Haag. (Neeleman & Van de Koot 2002)
Jan took the train to Den Haag

(22) De kinderen hebben haasje-over gespeeld het park door
The children are leapfrog played the park through
‘The children have played leapfrog through the park’

3. OBJECT-ORIENTED RESULTATIVES: JOHN JUMPS INTO THE DITCH

Sentence (23) appears to be a counterexample to the DOR: the prepositional phrase in de sloot denotes a resultant state, and the subject of the sentence John gets into this resultant state by jumping.

(23) Jan springt in de sloot.
John jumps in the ditch
‘John jumps in/into the ditch.’

Hoekstra & Mulder (1990), however, show that this sentence corresponds to two underlying structures: An unergative motional verb (26)a, or an unaccusative motional verb (26)b, which is shown by the use of the auxiliary is.

(24) a. Jan heeft in de sloot gesprongen.
Jan has in the ditch jumped.

John has jumped in the ditch.

John is in the ditch jumped.

Jan is in the ditch jumped.

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Jan has in the ditch jumped.

John has jumped in the ditch.

John is in the ditch jumped.

Jan is in the ditch jumped.

Crucially, only the prepositional phrase combined with the unaccusative verb has a resultative interpretation. Furthermore, the prepositional phrase can have two interpretations as well: While the order NP - P has a resultative or a locative interpretation (25), the order P - NP only has a directional interpretation (Koopman 2000; Den Dikken 2006).

Combining the different types of verbs with the different PP word orders, as in (26), reveals that only the unaccusative verb can be combined with a PP denoting a resultant state. We can hence conclude that Dutch resultatives are uniquely associated with the auxiliary is.

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This analysis applies to sentences with passives (28) and intransitive verbs of the unaccusative class (29) as well, since in all sentences, the surface subject is the underlying object. It is no surprise that all these sentences can contain resultatives.
(28)   De kamer werd groen geverfd.
   The room became green painted
   ‘The room was painted green.’

(29)   Het ijs vroor dicht.
   The ice froze solid

It follows that the apparent counterexample to the DOR in (23) is in fact compatible with the DOR: Either it is a resultative, but it is not directed at the external argument, or it is associated with the surface subject, but it is not a resultative.

(30)   Jan, INFL [VP V [SC t, PP]]
       (Hoekstra & Mulder 1990:4)

Support for this configuration comes from the following sentences which demonstrate that the PP *in de sloot* in (26)b behaves as a complement of the main verb:

- PP cannot be omitted

(31)    a. Dat Jan (in de sloot) gesprongen heeft.  
       That Jan (in the ditch) jumped has 
       (Hoekstra & Mulder 1990:9)

    b. Dat Jan *(in de sloot) gesprongen is.
       That Jan *(in the ditch) jumped is

Note that (31)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.

- PP cannot be placed in postverbal position

(32)    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 resultative functions as an afterthought, demonstrated by a difference in intonation, as in (33) (cf. section 8).

(33)    * Dat Jan gesprongen is IN DE SLOOT.
       That Jan jumped is in the ditch

- PP cannot be separated from the verb

(34)    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
4. **ADJUNCTS: JAN RAN A MARATHON TO GRONINGEN**

The prepositional phrases in (35) are subject-oriented, and they have a directional interpretation. Moreover, the verbs in these sentences are unergative, shown by the auxiliary verb *hebben* ‘have’. These facts make these sentences a second type of possible counterexamples to the DOR.

(35)  

| a. Jan rende een marathon naar Groningen.  
  |Jan ran a marathon to Groningen  
  a’. Jan heeft een marathon gerend naar Groningen.  
  |Jan has a marathon run to Groningen  
  b. Jan nam de trein naar Den Haag  
  |Jan took the train to Den Haag  
  b’. Jan heeft de trein genomen naar Den Haag.  
  |Jan has the train taken to Den Haag.

The prepositional phrases in these sentences are not resultatives, however, but adjuncts (Neeleman & Van de Koot 2002). First, they pattern with adjuncts (36)b, in contrast to true resultatives, (36)c; they can precede the direct object.

(36)  

| a. …dat Jan (naar Groningen) een marathon heeft gerend.  
  |…that Jan to Groningen a marathon has run  
  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

Secondly, the diagnostics from Hoekstra and Mulder (1990), involving optionality (37)a, PP-over-V (37)b and separation by an adverb (37)c point towards the same analysis:

(37)  

| a. … dat Jan de trein (naar Den Haag) genomen heeft.  
  |… that Jan the train to Den Haag taken has  
  b. … dat Jan de trein genomen heeft naar Den Haag.  
  |… that Jan the train taken to Den Haag has  
  c. … dat Jan de trein (vaak) naar Den Haag (vaak) genomen heeft.  
  |… that Jan the train often to Den Haag often taken has

Two additional arguments come from Neeleman & Van de Koot (2002:48). First, in (38), the PP *naar Den Haag* can form part of the complex DP *de trein naar Den Haag*. This path denoting phrase can be licensed within a DP (39)b. This indicates that such phrases indeed do not have to be complements; complements as in (40)b, cannot be licensed within a DP.
(38) Jan nam de trein naar Den Haag.
    Jan took the train to Den Haag

(39) a. Ik ga met de auto op de boot.
    I go with the car on the boat
b. De auto op de boot.
    The car on the boat

(40) a. Ik veeg de tafel schoon.
    I wipe the table clean
b. De tafel schoon.
    The table clean

This diagnostic confirms the analysis presented in section 2: The adjunct (41)b and (42)b, but not the resultative (41)a and (42)b is licensed within an NP.

(41) a. *De sprong de sloot in (resultative)
    The jump the ditch in
b. De sprong in de sloot (adjunct)
    The jump in the ditch
    ‘The jump in/into the ditch’

(42) a. *Het springen de sloot in (resultative)
    The jumping the ditch in
b. Het springen in de sloot (adjunct)
    The jumping in the ditch

Neeleman & Van de Koot’s second argument concerns the semantics: Sentences in (43) do not need to have a resultative interpretation.

(43) Ik nam de trein naar Den Haag, maar stapte uit in Gouda.
    I took the train to Den Haag but stepped out in Gouda

Finally, as expected for adjuncts, they can be stacked (44); the apparent limitation on their number is not syntactic, since they need to contain a unique path (Goldberg 1991).

(44) De trein reed van Leiden via Leiden Lammenschans naar Alphen.
    The train rode from Leiden via Leiden Lammenschans to Alphen

Complements can be iterated as well (45).

(45) Hij sprong het raam uit het dak op.
    He jumped the window out the roof on
    ‘He jumped out of the window onto the roof.’

Sentence (46)a indicates that a resultative cannot be coordinated with an adjunct, while two complements (46)b and two adjuncts (46)c can be. The ill-formedness of (46)a, however, might be due to a violation of the stronger constraint that coordinated PPs must contain
unique path (Goldberg 1991). Moreover, unergatives and unaccusatives, or prepositions and postpositions might not be able to coordinate.

(46) a. *Jan rende de deur uit en naar de overkant.
   ‘John ran the door out and to the other side.’

b. Hij gooide de vaas kapot en de sloot in.
   ‘He threw the vase to pieces and into the ditch.’

c. De trein reed langs Alphen en naar Utrecht.
   ‘The train went past Alphen and to Utrecht.’

We have not been able to construct test sentences containing coordination and iteration that would unambiguously support our analysis. We have not found any counterexamples either.

5. INTERMEDIATE SUMMARY

- Object-oriented resultatives always involve a small clause configuration.
- Subject-oriented ‘resultatives’ do not exist. Apparent subject-oriented resultatives are either underlyingly object-oriented or regular adjuncts with a directional interpretation.

6. COGNATE OBJECTS: A CHALLENGE TO THE THEORY

(47) De kinderen speelden haasje-over de tuin in.
   ‘The children played leapfrog in/into the garden.’

Sentence (47) 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 (48) has a locative interpretation.

(48) De kinderen speelden haasje-over in de tuin.
   ‘The children played leapfrog all-over the garden.’

The verb is unergative Error! Reference source not found..
The prediction for the sentence is that the prepositional phrase is an adjunct that is oriented onto the subject. The status of object, however, is not that clear: *leapfrog* does not behave as a true object, and therefore the combination with *to play* must be analyzed as a complex verb (*paardrijden* ‘horseback riding’, Booij 1990), or the direct object can be analyzed as a cognate object (*sigh a sigh*, Jones 1988, Pereltsvaig 1999a, 1999b, 2001). The cognate object is syntactically projected as a non-argument (Shim & Den Dikken 2008).

Sentence (50) poses a problem for this analysis of the object. How can a non-argument license a resultative?

(50) Hij heeft de *tango* kapot gedanst.
    He has the *tango* broken danced

Pereltsvaig (1999a) and Nakajima (2006) have independently argued for two types of cognate objects: Argumental and adverbial cognate objects. Adverbial cognate objects are the non-argumental objects described above. In the sentence with the unergative verb, the cognate object is projected as an internal argument. This analysis is supported by the fact that the argumental cognate object in (51) can occur with a determiner.

(51) 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 Error! Reference source not found.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.

(52) 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):

(53) 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

7. Conclusion

- True resultatives always involve a small clause configuration.
- Subject-oriented resultatives do not exist. Apparent subject-oriented resultatives are either underlyingly object-oriented or regular adjuncts with a directional interpretation.

Why are subjects incompatible with small clause resultatives (Hoekstra 1988)?
Under the assumption that resultatives are projected as complements to $V^o$, they can only be object-oriented:

(54)  
\[
\begin{array}{c}
\text{vP} \\
\text{v°} \\
\text{veeg} \\
\text{DP} \\
\text{AP} \\
\text{de tafel} \\
\text{schoon}
\end{array}
\]

First of all, small clauses are not allowed in subject position (Chomsky 1981, cf. Williams 1983).

(55)  *[PRO bashful] would be a shame.

(56)  *
\[
\begin{array}{c}
\text{vP} \\
\text{SC} \\
\text{Jan ziek} \\
\text{v°} \\
\text{NP} \\
\text{beviel} \\
\text{me}
\end{array}
\]

Also, if resultative small clauses contain a PRO subject, it cannot be controlled by the subject of a transitive verb, because the object would intervene.

(57)  
\[
\begin{array}{c}
\text{vP} \\
\text{NP} \\
\text{De wijzen} \\
\text{v°} \\
\text{VP} \\
\text{volgden} \\
\text{DP} \\
\text{V°} \\
\text{de ster} \\
\text{SC} \\
\text{volgden} \\
\text{DP} \\
\text{PP} \\
\text{PRO} \\
\text{Bethlehem uit.}
\end{array}
\]

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

Support for the claim that resultatives have to be controlled by the closest argument comes from the interpretation of the following examples. First, Marantz (2005) claims that the structure of cognate objects is identical to regular objects. Therefore, object-oriented resultatives can occur both with regular objects (59)a and cognate objects (59)b.
(58) a. …dat Jan de bal kapot heeft geschopt.
that Jan the ball broke has kicked
b. …dat Jan de tango kapot heeft gedanst.
that Jan the tango broke has danced
c. …dat Jan de bal naar de overkant heeft geschopt.
that Jan the ball to the other.side has kicked
d. …dat Jan de tango naar de overkant heeft gedanst.
that Jan the tango to the other.side has danced

With ditransitives, the resultative can only refer to indirect objects if the direct object is incorporated in the verb (Hale & Keyser 1993, Marantz 2005).

(59) a. *Jan geeft Piet een duw bont en blauw.
Jan gives Piet a push black and blue
b. Jan duwt Piet bont en blauw.
Jan pushes Piet black and blue
‘Jan pushes Piet black and blue.’

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

8. AFTERTHOUGHTS

8.1. 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 (61) and adjuncts (60).

(60) 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

(61) 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 & De Vries (2012)).
(62) a. Joop heeft een art/Tikel geschreven overTAAL\kunde.
   ‘Joop wrote an article on linguistics’ (extraposition)
b. Joop had iets /SANTS\ gelezen: een art/Tikel overTAAL\kunde.
   ‘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).

(63) [CP₁ correlateᵣ] [CP₂ tᵣ]

Ott & De Vries (2012) distinguish between *specification*al 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.

(64) Jan heeft iets moois gebouwd, EEN GOUDEN IGLO.
   ‘John built something beautiful, a golden igloo’

(65) a. Hij kwam binnen, DOODSBLEEK.
   ‘He came in, pale white’
b. Ich habe den John Travolta getroffen, EIN BERÜHMTER S\ TAR!
   ‘I have the John Travolta met a famous star
   ‘I met John Travolta, a famous star’

In sentences (66) and (67) 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.

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

(67) … dat de kinderen haasje-over hebben gespeeld, OP EEN ZONDAG.
   ‘…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 (68) can be right-dislocated.

(68) * … dat de kinderen haasje-over hebben gespeeld, gisteren.
   ‘…that the children played leapfrog yesterday.’
8.2. 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):

(69) a. *The star was followed out of Bethlehem.
   b. *The breeze was ridden clear of the rocks.
   c. *Lassie followed free of his captors.

(70) 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.

(71) 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 (72). For depictives (73), the same generalization holds: After passivization, one cannot continue control.

(72) a. I promised Sam to leave the country.
   b. *Sam was promised to leave the country.  (Control)

(73) a. Mary struck me as smart.
   b. *I was struck by Mary as smart.  (Depictive)

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