# GOALS AND SOURCES

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TIN-dag, Utrecht, February 03, 2007

## 1 Introduction

### 1.1 Paths and Places

(Jackendoff, 1983): PPs can be decomposed into the ontological categories PLACE or PATH with the functions such as TO, FROM, VIA or IN, ON, UP:

(1)    a.    *in the room*: [$_{Place}$ IN ([$_{Thing}$ ROOM])]
       b.    *into the room*: [$_{Path}$ TO ([$_{Place}$ IN ([$_{Thing}$ ROOM])])]
       c.    *through the cheese*: [$_{Path}$ VIA ([$_{Place}$ IN ([$_{Thing}$ CHEESE])])]

Different types of Paths:

(2)    a.    SOURCES specify where the path starts: *away from, out of, off, from*
       b.    GOALS specify where the path ends: *to, into, onto, towards*
       c.    ROUTES describe trajectories without end-points: *across, through, past, via, along*

### 1.2 Non-linguistic Goal Path bias

**Lakusta and Landau (2005)**

Goal bias across different populations (children with Williams Syndrome, normal children and adults) and across different event types (Manner of Motion, Change of Possession, Change of State, Attachment / Detachment Verbs)[1]

(3)    The frog turned from green to blue.
       a.    The frog turned to blue.
       b.    *The frog turned from green.

explanation at the level of perceptual and attentional systems

**Stefanowitsch and Rohde (2004)**

Goal-over-source principle is a tendency rather than an absolute rule - systematic 'exceptions'

Verbs like *cruise, stroll*: occur mainly with route PPs

Verbs like *escape*: occur mainly with source PPs

account in terms of frames evoked by the lexical semantics of particular verbs

**Fong (2006)**

asymmetry does not carry over to other Source Ps

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[1]There are similar findings for German in Assadollahi et al. (2006) as well as for other languages in the literature cited by Lakusta and Landau (2005).

(4)    a.  ??I climbed from my room.
       b.   I climbed out of the chimney.
       c.   The tailback sauntered off the field.

### 1.3   Is this bias reflected in semantic or syntactic asymmetries between goals and sources?

- Filip (2003): Czech source but not goal prefixes are compatible with measure phrases

(5)    Goal-Source Telicity Asymmetry (Filip, 2003, 79)
    The spatial orientation of directional modifiers determines the telicity status of a derived predicate. Source-modifiers form atelic (homogeneous) predicates. Goal-modifiers form telic predicates.

Contra: Součková (2004); Gehrke (2005, to appear) / Arsenijević (2004, 2006); Žaucer (2004)

- Nam (to appear): event structural difference between goal and source PPs

**Goal of the talk: There is no general aspectual asymmetry between goals and sources**

## 2   Theoretical assumptions

### 2.1   Event structure

Moens and Steedman (1988); Pustejovsky (1991); Higginbotham (2000); Ramchand (2004, to appear), among others: decomposition of events

- Pustejovsky (1991)

(6)    **State** ($S$): a single event, which is evaluated to no other event
    Examples: *be sick, love, know*
    S
    |
    e

(7)    **Process** ($P$): a sequence of events identifying the same semantic expression
    Examples: *run, push, drag*
        P
      ⟋‾‾⟍
    e1 ... en

(8)    **Transition** ($T$): an event identifying a semantic expression, which is evaluated relative to its opposition (with $E$ as a variable for any event type)
    Examples: *give, open, build, destroy*
        T
      ⟋‾‾⟍
    E1   $\neg$ E2

- Higginbotham (2000)

  accomplishments are syntactically represented by ordered pairs of positions for events

  accomplishment interpretation may also stem from TELIC PAIR FORMATION (<E, E'>) associated with prepositions rather than with the verbal head

  (9)     I flew my spaceship to the morning star.
          fly (I, my spaceship, e) & to (the morning star, (e, e'))

  *to* (the main predicate) bears an ordered pair of event positions

  The first one of these events is a process which gets identified with the single event position in the verb *fly* when the *to*-phrase is combined with such a VP

### 2.2   The semantics of goal and source PPs and the shape of events (Zwarts, 2005, 2006)

a directional PP denotes an algebraically structured set of paths

A path is a continous function from a real interval [0,1] (the indices of a path) to spatial points; $p(0)$ is the starting point of the path, $p(1)$ is its end point, and for every index i between 0 and 1, $p(i)$ is an intermediate point.

**Boundedness** (telicity) in the spatial domain:

(10)    a.   *bounded, telic*: to, into, onto, from, out of, off, away from, past, via
        b.   *unbounded, atelic*: towards, along
        c.   *(un)bounded, (a)telic*: across, around, down, over, through, up

(11)    A set of paths **X** is **cumulative** iff
        (i) there are **p** and **q** $\in$ **X** such that **p+q** exists and
        (ii) for all **p, q** $\in$ **X**, if **p+q** exists, then **p+q** $\in$ X.
        (Zwarts, 2005, 12)

Atelic PPs can be concatenated (closure under sums), telic PPs are not closed under sums

(12)    { **p**: there is an interval $I \subset [0,1]$ including ...
        ... 0 and consisting of all the $i \in [0,1]$ for which **p**($i$) is AT x } = ⟦ from x ⟧
        ... 0 and consisting of all the $i \in [0,1]$ for which **p**($i$) is ON x } = ⟦ off x ⟧
        ... 0 and consisting of all the $i \in [0,1]$ for which **p**($i$) is IN x } = ⟦ out of x ⟧
        ... 1 and consisting of all the $i \in [0,1]$ for which **p**($i$) is AT x } = ⟦ to x ⟧
        ... 1 and consisting of all the $i \in [0,1]$ for which **p**($i$) is ON x } = ⟦ onto x ⟧
        ... 1 and consisting of all the $i \in [0,1]$ for which **p**($i$) is IN x } = ⟦ into x ⟧

common properties of all these Ps: involve a two-stage structure, a negative and a positive phase (see also Fong, 1997, for an account of the semantics of PPs in terms of phase quantification)

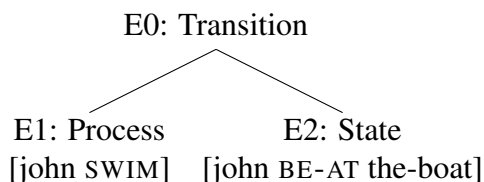Zwarts (2006): function SHAPE relates paths to events (similar: Jackendoff 1996; Krifka 1998)

(13)    ⟦ V PP ⟧ = { $e \in$ ⟦ V ⟧: SHAPE($e$) $\in$ ⟦ PP ⟧ }

(14)    ⟦ swim across the lake ⟧ = { $e \in$ ⟦ swim ⟧: SHAPE($e$) $\in$ ⟦ across the lake ⟧ }

## 3 The proposal of Nam (to appear) for PPs in event structure

### 3.1 Goal PPs: internal locatives

(15)   *John swam to the boat.*
                    E0: Transition

        E1: Process          E2: State
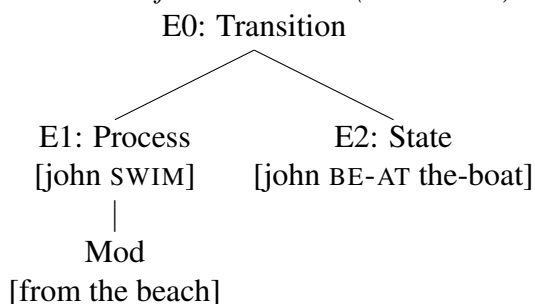        [john SWIM]     [john BE-AT the-boat]

(16)   $[_{VP_1} DP_1 [_{V_1'} V_1 [_{VP_2} [_{V_2'} (DP_2) V_2 PP_G ]]]]$

(17)   Mapping-1: PPs constituting a result state are generated in the lower VP.

### 3.2 Source-PPs: intermediate locatives

(18)   *John swam from the beach (to the boat).*
                    E0: Transition

        E1: Process          E2: State
        [john SWIM]     [john BE-AT the-boat]
             |
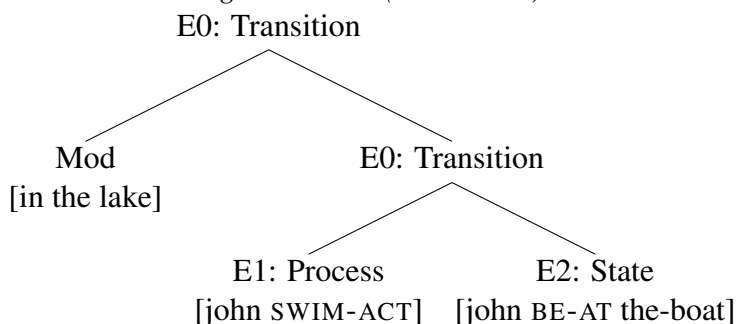           Mod
        [from the beach]

(19)   $[_{VP_1} DP_1 PP_S [_{V_1'} V_1 [_{VP_2} [_{V_2'} (DP_2) V_2 (PP_G) ]]]]$

(20)   Mapping-2: PPs modifying a causing event are generated under the higher VP.

### 3.3 Non-directional PPs: External Locatives

(21)   *John is swimming in the lake (to the boat).*
                    E0: Transition

        Mod                  E0: Transition
        [in the lake]

                    E1: Process          E2: State
                    [john SWIM-ACT]   [john BE-AT the-boat]

(22)   $[_{VP_1} PP_{ND} [_{VP_1} DP_1 [_{V_1'} V_1 [_{VP_2} [_{V_2'} (DP_2) V_2 (PP_G) ]]]]]$

(23)   Mapping 3: PPs modifying the whole event are generated adjoined to the higher VP.

## 4   Directional readings of locative Ps

Nam's observation: Directional readings of locative Ps like *in, under, behind, on* refer to goals, not to sources

**BUT:**

in isolation locative only, goals always have to be marked separately (Gehrke, 2007)

(24)    STRATEGIES TO MARK GOALS

    a.    ***kick*-verbs** + locative Ps (Dutch, English; Norwegian, Tungseth 2006; Italian, Folli to appear)
        *kick*-verbs + *in front of, between* (Russian)

    b.    combining locative Ps with the goal P *to* into **complex PPs**: *into, onto; to behind, to under* etc. (English; Italian, Folli to appear)

    c.    locative Ps in **postposition** (Dutch; Afrikaans, Biberauer and Folli 2004)

    d.    **accusative case** marking on DP inside PP with (almost) all locative Ps (German, Latin, Greek, most Slavic languages)

(25)    *P exclusively locative: with swim-verbs*

    a.    Oscar swam in the lake. *English*

    b.    Oskar zwom in het meer. *Dutch*
        Oskar swam  in the lake

(26)    *P ambiguous between locative and goal: with put-verbs*

    a.    Oscar jumped in the lake. *English*

    b.    Oskar sprong  in het meer. *Dutch*
        Oskar jumped in the lake

(27)    *PP as goal: in combination with to (English) / in postposition (Dutch)*

    a.    Oscar swam into the lake. *English*

    b.    Oskar zwom het meer in. *Dutch*
        Oskar swam  the lake  in

(28)    a.    Het vliegtuig vloog onder de  brug    door.    *Dutch*
        the plane      flew   under the bridge through
        'The plane flew (on a path) under the bridge.' (*only route*)

    b.    Het vliegtuig vloog onder de  brug.
        the boat       floats under the bridge
        'The plane flew under the bridge. (*only locative*)

    c.    *Het vliegtuig vloog de  brug    onder. (*directional*)
        the plane       flew   the bridge under

(29)    a.    Das Boot trieb    unter die       Brücke. *German*
        the  boat floated under the.ACC bridge
        'The boat floated to under the bridge.' (*only goal*)

    b.    Das Boot trieb    unter der       Brücke durch    / entlang.
        the  boat floated under the.DAT bridge  through / along
        'The boat floated (on a path) under the bridge.' (*only route*)

    c.    Das Boot trieb    unter der       Brücke.
        the  boat floated under the.DAT bridge
        'The boat floated under the bridge.' (*only locative*)

**real asymmetry: fewer and less elaborate strategies to mark sources**

not clear, however, why this should result in structural differences proposed by Nam (to appear)

(30)    *addition of from to get a source reading also possible*
     a.    The boat drifted from behind the hill.
     b.    The boat drifted from inside the cave.
        (examples from Svenonius, 2004, 5)

(31)    *incorporation asymmetries not limited to sources*
     a.    to + in, on = into, onto
     b.    *infrom, *onfrom
     c.    *underto, *behindto

(32)    *not all postpositional phrases refer to goals*
     a.    de   kamer uit
        the room   out
        'out of the room' (*source*)
     b.    het bos    door
        the forest through
        'through the forest' (*route*)

## 5   Against a semantic asymmetry between goals and sources

### 5.1   Telicity tests

(33)    **Nam's claim**
     a.    Mary ran to the store in / *for ten minutes.
     b.    Mary ran from the library *in / for ten minutes.

Nam's conclusion:

- Source PPs scope over the whole situation aspect and do not shift the aspectual character (situation aspect) of the inner event denoted by the lower VP

- Goal PPs behave like internal arguments that participate in the aspectual composition

**BUT:**

(34)    *British English judgments*
     a.    Mary ran towards the store *in / for ten minutes.
        John ran away from the car ???in / for ten minutes.
     b.    Mary ran to the store in / *for ten minutes.
        Mary ran away in / *for ten minutes.
     c.???John ran from the car.

### 5.2   Adverbial modification and locative PPs in event structure

Adverbs like *quickly, rudely, clumsily, again* display (scopal) ambiguities, which have been accounted for in terms of event structure (Pustejovsky, 1991; von Stechow, 1996; Eckardt, 1998; Ernst, 1998, among others)

(35)    Clyde cleans his boots again ...
      a.    ... and Clyde has cleaned his boots before. *repetitive (repetition of whole event)*
      b.    ... and his boots were clean before. *restitutive (repetition of result state)*
           (examples from von Stechow 1996)

Pustejovsky (1991):

- restitutive reading of *again* is only possible with complex events where *again* modifies the result state

- repetitive reading: *again* modifies the process part of any complex event or also simple states or processes

(36)    **Nam's claim for English**
      a.    John drove to New York again. *ambiguous*
      b.    John drove from New York again. *repetitive*

Nam's conclusion:

- sentences containing source PPs lack an expression that may denote a result state, hence *again* can only get a repetitive reading

- Goal PPs constitute a core event (i.e. a result state subevent), whereas source PPs do not

**BUT:**

(37)    *British English judgments*
      a.    John drove towards New York again. *repetitive*
           John drove away from New York again. *ambiguous / repetitive*
      b.    John drove to New York again. *ambiguous*
           John drove away again. *ambiguous*
      c.???John drove from New York again.

## 6   Against a syntactic goal-source asymmetry in Dutch

### 6.1   P-incorporation

Koopman (1997): Dutch postpositions, including the postpositional element of circumpositions, as well as particles can incorporate into V whereas prepositions cannot (see also den Dikken, 2003, for discussion).

**Nam's claim: Dutch goal but not source Ps allow incorporation into V**

(38)    *Dutch (Nam to appear / Koopman 1997)*
      a.    ... dat zij  de jas    over de stoel hebben heen gelegd.
           that they the jacket over the chair have    there put
           '... that they put the jacket over the chair.'
      b.    ... dat dit  boek (van)  onder het bed is (?*vandaan) gekomen.
           that this book (from) under the bed is (?*from)     come
           '... that this book disappeared from under the bed.'

**BUT:**

not minimal pairs: morphologically complex P (source P *van* 'from' + ground element *daan* 'there') vs. simple P (plain ground *heen*, roughly meaning 'there')

- Koopman (1997, footnote 35, p.46): *vandaan* is a 'compound postposition' that does not incorporate (this property holds for many compounds)

- den Dikken (2003): complex material cannot incorporate due to a morphological Well-formedness Condition

(39)     a.     ... dat zij   de  mensen de  kamer hebben uit  gegooid.
                      that they the people  the room   have     out thrown
                 '... that they threw the people out of the room.'
         b.     ... dat Jan de  tas  van   mij heeft weg  genomen / af  gepakt.
                      that Jan the bag from me  has   away taken     / off grabbed
                 '... that Jan took the bag away from me.'


### 6.2   Pied-Piping

Koopman (1997): prepositional but not postpositional phrases can be dislocated by pied-piping

**Nam's claim: source PPs allow pied-piping, goal PPs do not**

(40)     *Dutch (Nam to appear / Koopman 1997)*
         a. *Onder welke brug    door     is het vliegtuig gevlogen?
             under  which bridge through is the plane       flown
             'Which bridge did the plane fly under?'
         b. *Welk  bos    in ben jij   gelopen?
             which forest in are  you run
             'Which forest did you run into?'

(41)     *Dutch (Nam to appear / Koopman p.c.)*

         Van  welke brug    ben jij   gelopen?
         from which bridge  are  you walked

         'From which bridge did you walk?'

**BUT:**

not minimal pair: contrast between **post**positional PPs (40) and **pre**positional PP (41)

(42)     *Utrecht and Rotterdam Dutch (both ok in Limburg Dutch)*

         In welk   bos     *ben / heb  jij   gelopen?
         in which forest *are  / have you run

         'In which forest did you run (around)?' (*directional / locative*)

(43)     a. ??Uit welk  bos    ben jij   gelopen? *Utrecht and Rotterdam Dutch*
                 out which forest are  you run
         b.     Uit welk bos ben jij gelopen? *Limburg Dutch*

(44)   a.  *Welke stad uit  ben jij   vertrokken?
           which city  out are  you departed
           'From which city did you depart?'
       b.  *Welk  bos   uit ben jij   gelopen?
           which forest out are  you walked
           'Which forest did you walk out of?'

(45)   a.  Welk  bos   in / uit ben jij   komen    lopen?
           which forest in / out are  you come.PRT walk.INF
           'Which forest did you walk into / out of?'
       b.  In / uit welk  bos   ben jij   komen    lopen?
           in / out which forest are  you come.PRT walk.INF
           'Which forest did you walk into / out of?'

(46)   a.  ??Ik loop van   een brug.
           I  walk from a    bridge
           'I am walking from a bridge.'
       b.  Ik loop van   een brug   af.
           I  walk from a    bridge off
           'I am walking off a bridge.'
       c.  Ik spring van   een brug.
           I  jump  from a    bridge
           'I am jumping from a bridge.'

Which Ps can appear postpositionally and which Ps cannot and why? Can only those that can
be particles also occur postpositionally?

- *in* 'in' and *op* 'on' as well as *uit* 'out' can

- *onder* 'under' and *achter* 'behind' cannot

- directional Ps like source-oriented *van* 'from' as well as goal-oriented *naar* 'to(wards)'
  cannot

What is the difference between postpositions and particles?

empirical difference: particles but not postpositions can combine with R-pronouns

(47)   *Dutch (Koopman, 1997)*
       a.  ... omdat   zij  er   (in) is (in) geklommen.
               because she  ER  (in) is (in) climbed
           '... because she climbed (in) there (in).'
       b.  ... *omdat ik er   heb  opgezocht.
               because I   ER have  up-searched
           '... because I have looked up there.'

## 6.3   Interim summary for Dutch

- asymmetry between locative and directional PPs

- asymmetry between morphologically simple and complex Ps

- There are postpositional phrases among both source and goal PPs:
  *Zij zijn het bos in / uit komen gelopen.* 'They walked into / out of the forest.'

- There are both source and goal PPs that cannot appear postpositionally:
  *Zij zijn de winkel van / naar gelopen.* 'They walked from / to the shop.'

- A bare *from*-phrase is dispreferred.

## 7  Against a syntactic goal-source asymmetry in English

### 7.1  Prepositional (Pseudo-) Passives

**Nam's claim: prepositional passives are possible with goal PPs but 'hardly found' with source Ps**

(48)  *data from Nam (to appear), partially citing Couper-Kuhlen (1979)*
    a.  The store can be run to / *from in a matter of minutes.
    b.  The boat is jumped into / *from.
    c.  The house is moved into / *from.

**BUT:**

- numerous examples with stranded source Ps:

(49)  *data from Couper-Kuhlen (1979)*
    a.  This jail has never been escaped from.
        Martha hasn't been heard from recently.
        John didn't believe that people should be begged from.
        The horse was sprung from with alacrity.
        As the branch was swung from, it broke.
    b.  It is dangerous to ride unsaddled horses - they can be so easily tumbled off.
        If the platform is not stepped off carefully, it may tip over.
        The balcony has a railing around it to keep it from being fallen off.

- plenty of examples where telic (resultative) goal prepositions cannot strand:

(50)  *data from Couper-Kuhlen (1979)*
    a.  ∗The floor was crashed to by the dishes.
        ∗The ground was fallen to by the injured bird.
        ∗His feet were sprung to.
        ∗London is gone to by this road.
        ∗Death was slowly being bled to.
    b.  ∗The distance was being stared into.
        ∗The lock won't be gone into by the key.
        ∗The well was fallen into by a large tree.
        ∗The house had been blown into by dust.

- examples with stranded atelic goal preposition *towards*:

(51)  *data from Couper-Kuhlen (1979)*
        Act towards others as you would be acted towards.

- Some of Nam's examples are dubious:

(52) *British English judgments*
    a. The prison was run from.
    b. The store can be run out of.
       This boat may not be jumped out of.
       The house was moved out of.

- unclear what governs the possibility of deriving prepositional passives:

not restricted to goal Ps

not restricted to telic or resultative Ps

not restricted to Ps that can be used as particles

not evident that only Ps in argument position can strand (see also Abels, 2003, for discussion)

## 7.2 Relative ordering of goal and source PPs

**Nam's claim: Goal PPs are always object-oriented, whereas source PPs can be subject- or object-oriented**

(53) a. John saw Mary in the garden. → Mary was in the garden.
    b. John loaded the hay onto the truck. → The hay moved onto the truck.

(54) a. John saw Mary in the garden from the rooftop.
    b. John loaded the hay onto the truck from the ground.

**well ...**

difference when source and goal PPs are reversed (54-b) & difference with bare Source PP:

(55) a. John loaded the hay from the ground onto the truck.
    b. John loaded the hay from the ground.

(55-a): *from the ground* (forming a complex PP with *onto the truck*) only modifies the internal argument contrary to what Nam claims

(55-b): to the extent that it is grammatical - first reading available is object-oriented

(54-b) John cannot be on the truck but has to be on the ground (unless *from the ground* is some afterthought). - Nam's claim is correct

**real asymmetry**: goal PPs cannot be subject-oriented whereas source PPs can

## 7.3 Locative alternations

**Nam's claim: locative PPs involved in such alternations are 'mostly' of the goal-type**

(56) a. to spray paint on the wall
    b. to spray the wall with paint

**well ...**

two conditions have to be met for locative alternation to be possible:

- verb has to be of the 'right type' (e.g. *fill, load, spray* etc., cf. Levin 1993)
- PPs have to be able to refer to a surface or a container (e.g. PPs headed by *on, in*)

(57)  a.  John threw the stone away from Mary. - *John threw Mary with the stone.
      b.  John dragged / pulled the cart out of the ditch. - *John dragged / pulled the ditch
          with the cart.

(58)  a.  John threw the stone to / towards Mary. - *John threw Mary with the stone.
      b.  John dragged / pushed the cart into the ditch. - *John dragged / pushed the ditch
          with the cart.

**real asymmetry**:

(59)  a.  John filled water into the tank. - John filled the tank with water.
      b.  John removed paint from the wall. - *John removed the wall with paint.

## 8   Conclusion

apparent differences between sources and goals that Nam relies on are deducible from other
asymmetries that are unrelated to the difference between sources and goals:

- directional vs. locative Ps
- prepositions vs. postpositions
- adpositions (or transitive Ps) vs. particles (intransitive Ps)?

asymmetry between one source element *from / van*, on the one hand, and goals and all other
source elements, on the other

remaining 'real asymmetries': Goal PPs can only be object-oriented & locative alternation is
not possible with source-oriented verbs like *remove* in (59-b)

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