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23nd Colloquium on Generative Grammar

The nanosyntax of *Path*
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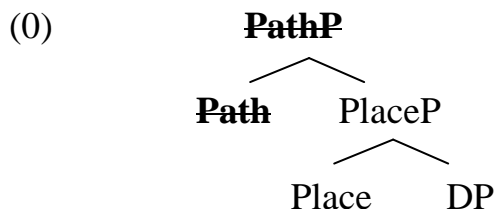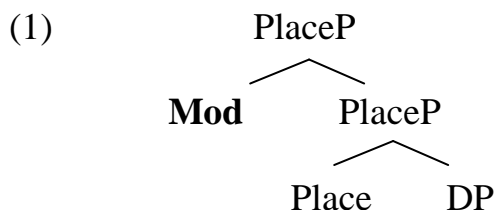---

Goal:

    a. To examine the notion of *Path* and its presence as a projection in the structure.

    b. To give evidence that there is no projection *Path*.

Main ideas:

→ There is no projection in the *fseq* that lexicalizes *Path* over *Place*

(0)
~~**PathP**~~
~~**Path**~~   PlaceP
      Place   DP

→ The notion of *Path* is interpreted by other means, for instance by means of a modifier of *Place*:

(1)
PlaceP
Mod   PlaceP
      Place   DP

- This way I explain contrasts like the following:

(2)   a. El vaso está **a** {el borde de la mesa/*la mesa}.
             b. Juan fue {a/*en} su casa.
             c. Juan bailó {hasta/*a} su casa.
   d. Juan recorrió {la carretera/*hasta su casa/*hacia su casa}.

- Main tools that I use from and not from Nanosyntax:

- fine-grained syntactico-semantic structure (Svenonius 2010)

- phrasal spell-out and post-syntactic lexicalization (Starke 2011)

- The presence of modifiers that change the properties of the terminals.

- The possibility of lexicalizing modifiers together with terminals.

1. Introduction:

A *Path* projection in the structure:

- Jackendoff (1983):

(3)   **PathP**

        Path   PlaceP

             Place   DP
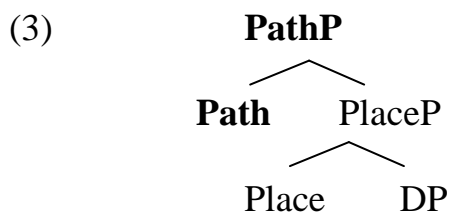
- The *Path* function returns a *Path*.

→ This way he explains elements like *into*

(4)   PathP

        Path   PlaceP
        to

             Place   DP
             in
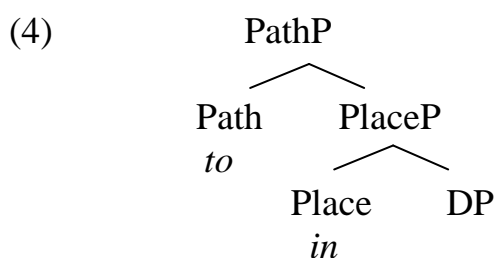
2. What is *Path*?

A set of points?

Directionality?

Both?

- atemporal sequences of locations (Bierwisch, 1988; Verkuyl and Zwarts, 1992; Nam, 1995)

(5)   a bridge out of San Francisco (Fong 1997:2)

(6)   La carretera va a la playa
        'The road goes to the beach.'

- Is the preposition the element that gives the interpretation of a set of points?

(7)   Juan va a la playa.
        'Juan goes to the beach.'

- Directionality? → Directional Ps are related to *Path* (Gehrke 2008)

    → They can't combine with verbs like *remain* or *stay*:

(8)   a. The box stayed in / on / under / behind the table.
        b. *The box stayed to / into / onto / from the table.

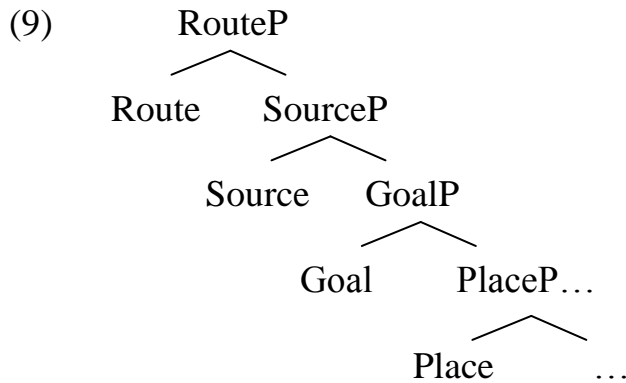   Gehrke (2008:8)

    - P_{Dir} in Den Dikken (2010)

→ **Recent works:**

There is a projection that directly encodes the notion of 'Path' in almost all recent works on Ps (Fábregas 2007, Gehrke 2008, Koopman 2010, Svenonius 2010, Pantcheva 2011)

- even in those in which *Path* is decomposed into different projections

- ***Path* as a set of points** → Pantcheva (2011):

(9)
```
            RouteP
           /      \
      Route       SourceP
                 /      \
           Source       GoalP
                       /     \
                   Goal       PlaceP…
                             /      \
                        Place        …
```

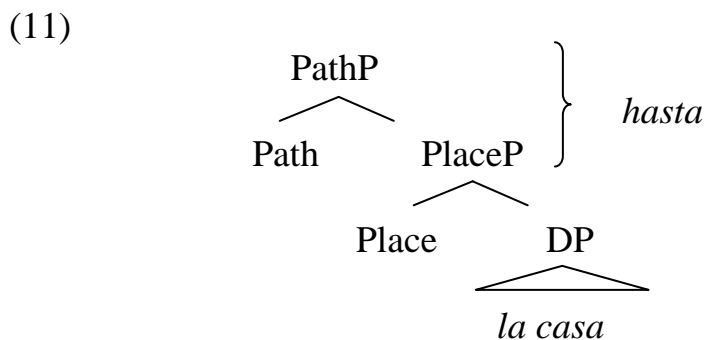→ Goal paths (following Zwarts 2008):

(10)   -----+++++

Goal paths represent different points.
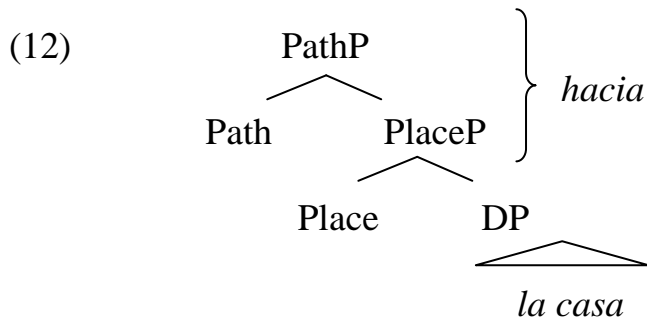
- ***Path* as a component of directional elements**

    → Fábregas (2007): *hacia* and *hasta*

    → both lexicalize *Path*, unlike *a*:

(11)
```
              PathP                  ⎫
             /     \                 ⎬  hasta
        Path       PlaceP            ⎭
                  /      \
             Place        DP
                         /  \
                       la casa
```

(12)

```
        PathP      ⎞
       /    \      ⎟
    Path   PlaceP  ⎬  hacia
          /    \   ⎠
       Place   DP
              /  \
             la casa
```

Fábregas (2007:190)

- *Path* can also be lexicalized by the verb:

(13)

```
        ⎛      procP
        ⎟     /    \
corr er ⎨  proc   PathP
        ⎟        /    \
        ⎝    Path    PlaceP
                    /    \
                 Place    DP
                   a     /  \
                       su casa
```
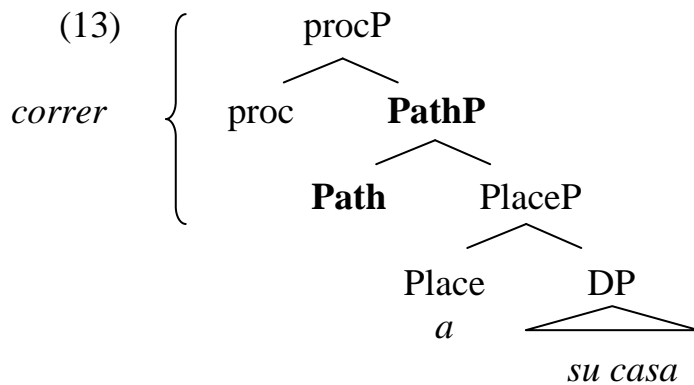
Fábregas (2007:189)

- What does it mean that both *hacia* and *hasta* lexicalize *Path*? And a verb like *correr*?

→ **What does *Path* represent?**

    A set of points?

    Directionality?

    Both?

→ Main problems:

- If directional Ps represent a set of points it should be possible to have examples like the following:

(14)　　*Juan recorrió {hasta su casa/hacia su casa}.
　　　　　'Juan covered {up to/towards} his house

And also:

(15)　　*Juan fue la carretera.
　　　　　'Juan went the road.'

- If *Path* represents directionality, it is not expected that we find directional elements in locative constructions:

(16)　　a. La casa está al norte.
　　　　　'The house is to the North.'
　　　　b. Mi casa está hacia allá.
　　　　　'My house is towards there.'

→ A possible solution:

Directional elements as locative elements originally:

→ (Extended) Structural Ambiguity Hypothesis (Gehrke 2008, Real Puigdollers 2010):

(17)　　For any spatial preposition that can be interpreted as locative, it is only locative. Any ambiguity between a directional and a locative meaning is structural.

　　　　　　　　　　　　　　　　(Real Puigdollers 2010:129)

- In those cases, the directional interpretation of them is PP-external.

Set of points? → it doesn't behave as a real set of points like *la carretera* ('the road')

Directionality? → *Path* elements appear in locative constructions

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→ I agree in the fact that *Path* elements are locative, but their interpretation is not only PP-external → they lexicalize a modifier

3. *Path* in modifiers

***Path* may be entailed by means of modifiers of *Place*, but there is no *Path* projection as such**

Modifier: non-terminal element of the structure that changes the properties of the head it combines with.
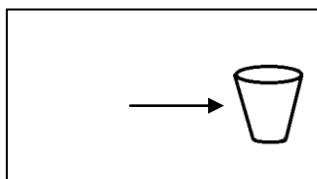
(18)
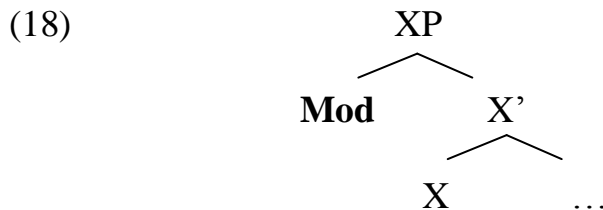
→ Zwarts and Winter (2000): a modifier is the element that applies to an element (BP or B-bar) and gives the same element (BP or B-bar).

(19)   Place → Place
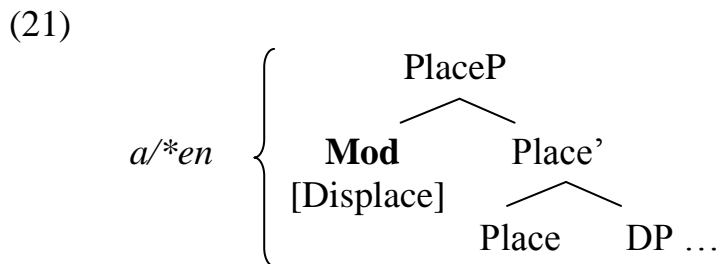
3.1. *Displace*

→ It gives the interpretation that a point is reached from another

(20)   El vaso está al borde de la mesa
          'The glass is on the edge of the table.'

- The position of the glass is interpreted as "displaced" from the center of the table.

→ In Spanish *a* and not *en* can lexicalize this modifier:

(21)

```
                              PlaceP
                             ╱      ╲
   a/*en   {          Mod          Place'
                   [Displace]      ╱    ╲
                              Place      DP …
```


→ This modifier gives directionality.

How is it possible to have a directional element in a locative construction?

- To interpret a dislocation in a locative construction it is necessary that two locations are interpreted.

> → *El vaso está al borde de la mesa* doesn't mean that the glass has moved to the edge, but that its location is established with respect to a point of reference, considered the basic location.

- A "directional" element like *a* is possible in these cases as long as it is possible to understand these two locations

- Elements like *borde* are *AxParts* (cf. Fábregas 2007), i.e. they represent parts of elements → The two needed locations are, first, the part and, second, the element to which the part belongs: *edge* and *table*.

- If it is not possible to interpret a second location, the presence of *Displace* is not possible and, hence, the lexical item chosen is *en*:

(22)   Juan está {en/*a} su casa.

- In directional constructions, it is obligatory to understand two locations.

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→ In those cases, *a* is obligatory:[2]

(23)   Juan fue {a/*en} su casa.
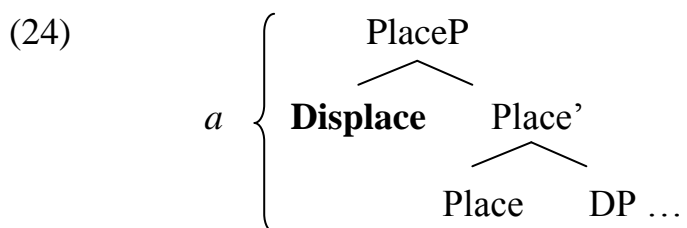   'Juan went {to/in} his house.'

→ *a* is possible in locative (and, hence, stative) constructions because it doesn't give a change of location of the Figure, but the interpretation that a location is displaced.

The properties of *Displace* allow to consider *a* as locative

→ This solves the debate with respect to the directional or locative condition of *a* in Spanish:

- it is locative because it represents a location (its higher head is *Place*)

- it is directional in the sense that it entails two points (which doesn't mean that there is change of location of the Figure: *the glass*, for instance)

→ One interesting advantage is that the same structure is kept for *a* in locative and directional constructions:

(24)
```
                    PlaceP
                   ╱      ╲
a {        Displace      Place'
                         ╱     ╲
                      Place    DP …
```

→ What is external is the interpretation of movement.

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[2] I assume that in the case of verbs like *entrar*, which can combine with *en*, the expression introduced by *en* gives the location of the final state and it is not the complement of the predication
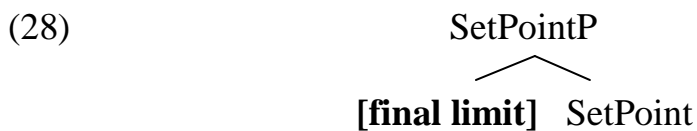
3.2. *SetPoint*

→ It gives the interpretation that the element it combines with belongs to a set (or scale)

(25)   Juan fue hasta su casa.
        'Juan went up to his house.'

- The house is interpreted as the last point of a set:

(26)

(27)

        PlaceP
         ╱╲
hasta **SetPoint**   Place'
                         ╱╲
                    Place   DP …
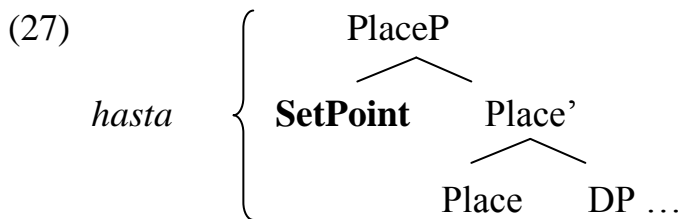
*The interpretation of last point comes from a modifier of *SetPoint*

(28)   SetPointP
                         ╱╲
                [final limit]   SetPoint

*It could be a different one: [initial point], like in *desde*

* But it can also give the meaning of interiority, for instance. This explains cases like *into*, without saying that *to* lexicalizes *Path* (in line with Noonan 2010):

(29)   PlaceP
                         ╱╲
into   **SetPoint**   Place'
          ╱╲   ╱╲
    [int]   SetPoint Place   DP …

10
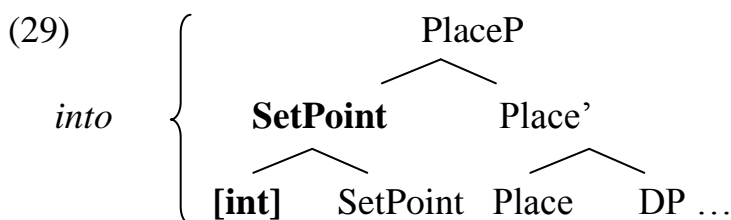
→The presence of *SetPoint* entails a set of points, although it doesn't represent a set of points by itself.

- This explains:

→ Why *hasta* can't appear in contexts in which a set of points can:

    (30)   a. Juan recorrió la ciudad
                   b. *Juan recorrió hasta su casa.
                    'Juan covered {the city/up to his house}.'

    It represents a spatial configuration and not an entity that corresponds to a set of points.

→ But also why it can combine with verbs like *bailar*, unlike *a*:

    (31)   Juan bailó {hasta/*a} la pared.
              'Juan danced {up to/to} the wall.'

- This examples shouldn't be possible according to Talmy's typology: verbs like *bailar* can't combine with directional Ps in Spanish

- It is possible because a verb like *bailar* needs durativity in the event and the entailment of a set of points gives this durativity.

→ Talmy's typology can be explained by means of the lexical items available in languages (in line with Son 2007, Fábregas 2007, Real Puigdollers 2010)

→ **Further evidence that there is path:**

- Counterfactual and scalar interpretation:

    (32)   a. Juan no fue a su casa
             'Juan didn't go to his house.'

                → He didn't start
                → *He started but didn't arrive

           b. Juan no fue hasta su casa
             'Juan didn't go to his house.'

→ He didn't start

→ He started but didn't arrive

> → *Path* is not present in the structure but can be entailed from the presence of a modifier that *hasta* lexicalizes, like *to* in English.

3.3. Two important questions

- Why are *Displace* and *SetPoint* modifiers?

→ They may appear in different positions: *estar*, *abajo*.

→ They don't give a new element.

→ They are not necessarily present in all languages.

*But they determine the properties of the element they combine with:

    (33)   Juan fue {a/*en} su casa – 'Juan went to his house.'

- Are *SetPoint* and *Displace* the same?

→ It could be that they are the same element with a different modifier that determines if the element is a single point or if it belongs to a set.

4. *Place* over *Path*?

    (34)   La casa está hacia allá
             'The house is towards there.'

→ A location based on a directional element

- *Place-Path-Place*?

    (35)

```
                    PlaceP
                    /    \
                Place   PathP
                        /    \
                      Path   PlaceP…
```
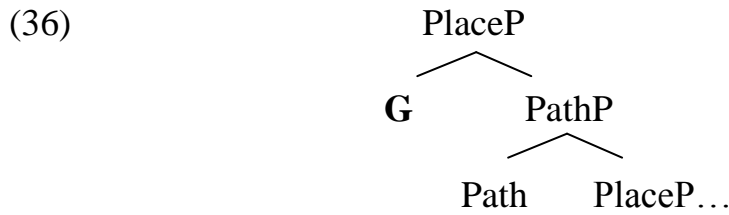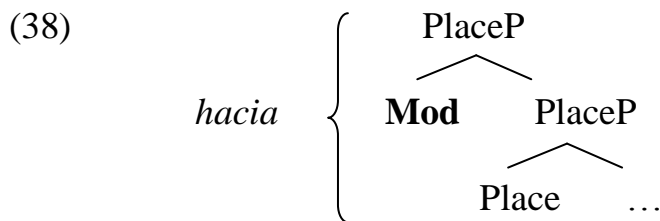
→ It is not necessary to postulate a new function like the *G-function* in Svenonius (2010):

(36)
$$
\begin{array}{c}
\text{PlaceP} \\
\diagup \quad \diagdown \\
\textbf{G} \qquad \text{PathP} \\
\diagup \quad \diagdown \\
\text{Path} \qquad \text{PlaceP…}
\end{array}
$$

(37)   Across a meadow a band is playing excerpts from *H.M.S. Pinafore.*

Cresswell (1978)

→ By means of modifiers like *Displace* or *SetPoint* it is not necessary to postulate a projection related to *Place* higher than *Path*:

(38)
$$
hacia
\begin{cases}
\begin{array}{c}
\text{PlaceP} \\
\diagup \quad \diagdown \\
\textbf{Mod} \qquad \text{PlaceP} \\
\diagup \quad \diagdown \\
\text{Place} \qquad …
\end{array}
\end{cases}
$$

→ As it represents a configuration established over a single point, it can correspond to a location.
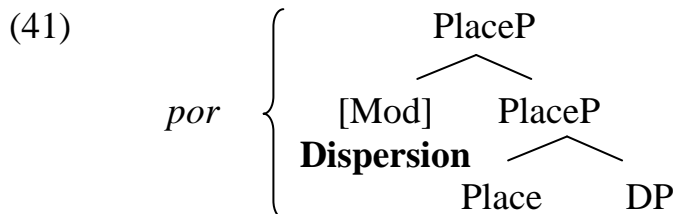
5. Other situations in which a *Path* is entailed

- Extended constructions:

(39)   La carretera va a la playa.
         'The road goes to the beach.'

- Routes: *Dispersion*

Directional verb + Multiple location

(40)   Los niños fueron por la carretera.

(41)

por {
```
                        PlaceP
                       ╱      ╲
            [Mod]      PlaceP
          Dispersion   ╱    ╲
                   Place      DP
```

In both cases, the interpretation of 'set of points' doesn't come from a *Path* projection.

→ In the first case, it comes from the intrinsic meaning of the extended entity.
→ In the second case, it comes from the *Dispersion* modifier.

---

5. Conclusions:

→ *Path* is not encoded as a projection in the structure. It can be entailed by means of modifiers:

   SetPoint or *Scale*: *hasta, to*

→ Ps are locative in the sense that their higher projection in any case is *PlaceP*.

→ This explains:

- The use of directional elements in locative constructions.

- The apparent exceptions for Talmy's typology.

- The nature of elements like *a* or *hasta* in Spanish.

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