Case Movement and Theories of Case[*]

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1. Introduction: the "two datives" puzzle

1.1. A hitherto unnoticed fact – unnoticed, to the best of my knowledge – is that *prima facie* there appear to be two datives in languages, distinguished by their meanings and their positions in the Case Hierarchy.

What we shall call 'dative 1' (DAT1) shows up close to the nominal stem and can therefore be taken to be low in the Case Hierarchy (if we assume a mirror-theoretical correspondence between hierarchical order and the order of suffixes). It is however above genitive (GEN); for in Dravidian, it is suffixed to a genitive-marked stem, cf.[1]

(1) (Malayalam)

a. John-in-ə 'John-GEN-DAT'

b. mara-(tt)-in-ə 'tree-(augment)-GEN-DAT'

Are dative and genitive contiguous on the Case Hierarchy, or are there other cases intervening between them? Following Caha (2007), who builds on the Case Hierarchy of Blake (2001), we shall assume that accusative is lower than dative; but differently from these authors, we shall place accusative above genitive, because accusative is suffixed to a genitive-marked stem in Dravidian:

(2) (Malayalam)

a. John-in-e 'John-GEN-ACC'

b. mara-(tt)-in-e 'tree-(augment)-GEN-ACC'

Ignoring nominative for the moment, we now get the following hierarchy:

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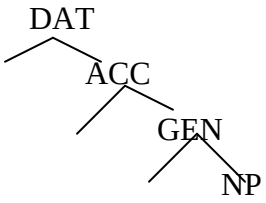
[1] For Dravidian, see Jayaseelan (2007a, 2007b). For a parallel claim for Russian nominals, see Pesetsky (2007, 2013). (Pesetsky proposes that Russian nominals come with a "primitive" genitive.) It is interesting that traditional grammatical investigations of Dravidian morphology also have endorsed the view that oblique cases in Dravidian are suffixed to a genitive stem, see Krishnamurti (2003:218ff.).

(3)



Dative and accusative (however) never show up together in Dravidian; what do show up together are dative and genitive, and accusative and genitive, as we have just illustrated. So what other types of evidence can we bring to bear on the hierarchy in (3)? If we adopt the "systematic syncretism hypothesis" of Caha (2007), we can construct an argument at least for saying that dative and accusative are contiguous in the hierarchy.

(4) *Systematic syncretism hypothesis*: Systematic syncretism always targets structurally adjacent Cases.

In the Indo-Aryan languages – e.g. Hindi, Marathi, Bangla – dative and accusative are realized by the same Case suffix: in Hindi this suffix is *-ko*:

(5) (Hindi)

a. John-ne Bill-**ko** dekhaa
John-ERG Bill-ACC see.PAST
'John saw Bill.'

b. John-ne Bill-**ko** ek kitaab diyaa
John-ERG Bill-DAT one book give.PAST
'John gave Bill a book.'

On the other hand, genitive is realized by a different Case morpheme:

(6) (Hindi)

John-**kaa** kuttaa 'John's dog'
John-GEN dog

This tells us that genitive does not intervene (in the hierarchy) between dative and accusative:

(7) * dative > genitive > accusative

However we already know that genitive is lower than accusative, from (2).[2]

[2] (7) is the order adopted by Blake (2001) and Caha (2007). It must be pointed out that Caha (2007) also argues for the order he adopts on the basis of the systematic syncretism hypothesis; he cites Czech and

But this still does not tell us about the *inter se* order of dative and accusative. How do we choose between (8a) and (8b)?

(8) a. dative > accusative > genitive

b. accusative > dative > genitive

We shall later on (in § 3) present a syntactic operation in which a dative case is "removed" from an NP. And in that circumstance, the NP surfaces with accusative case, arguing that there is an accusative case immediately below dative. That is, it enables us to choose (8a) over (8b).

1.2. The dative we looked at in the previous subsection is the 'lower' dative. There is also a 'higher' dative, call it 'dative 2' (DAT2), which is above the locative case (LOC).

This dative takes the locative as its complement, as evidenced by the following Malayalam forms:

(9) a. London-il-eek'k'ə [3] 'to London'
London-LOC-DAT

b. wiiTT-il-eek'k'ə 'to home'
house-LOC-DAT

The locative may be 'silent' when the nominal ends with a vowel, cf.

(10) Kocci-k'k'ə 'to Kochi'
Kochi-DAT

But we shall take it that the locative is always underlyingly present in the complement of DAT2.

DAT2 clearly has the meaning of direction. So we are in fact looking at the familiar 'PATH > PLACE' configuration postulated by Jackendoff (1990). Riemsdijk & Huybregts (2002) point out that in a language, if both PATH and PLACE are

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Finnish case paradigms in support of it, see (22) and (33) in his article. I will not attempt to resolve this issue here, but will only say that I am relying strongly on the "morphological inclusiveness" argument, the fact that the Dravidian accusative form "includes" the genitive form.

[3] *-eek'k'ə* is one of three allomorphs of the dative case in Malayalam:

(i) *- ə* (illustrated in (1))
(ii) *-kkə /k'k'ə* (illustrated in (10), below)
(iii) *-eek'k'ə* (illustrated here)

morphologically realized, PLACE is always closer to the nominal than PATH: thus if we are dealing with a prepositional language, we have the pattern shown by the English example (11a); and if we have a language in which these meanings are realized as case-suffixes on the nominal, we have the pattern shown by Lezgian (11b):

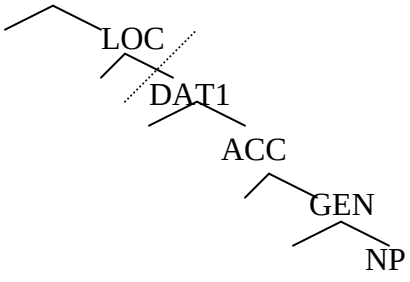
(11) a. from behind the tree
PATH PLACE NP

b. (Lezgian – Haspelmath 1993)
NP – qh – aj 'from behind NP' (lit. 'NP-behind-from')
PLACE PATH

Malayalam shows the expected pattern (the pattern of Lezgian) if we take DAT2 to be an exemplar of PATH – which supports our analysis.

If we place DAT2 > LOC above the structure shown in (3), we get:

(12)



The cases GEN, ACC and DAT1 – the cases below the dotted line in (12) – appear to be structural cases, in the sense that they seem to be generated for a purely syntactic reason. Importantly, they have no meaning of their own.[4] This has long been recognized in the case of GEN: it has been suggested that GEN simply signals a 'relation' between two entities and nothing more.[5] It is also generally granted that ACC is a structural case that can stand for various semantic relations and has no meaning of its own. But it needs to be pointed out that the same is true of the dative case. This case is traditionally associated

[4] Structural cases could be just 'linkers' in the sense of den Dikken (2005) (see also Jayaseelan 2007b). Inherent cases, like LOC/PLACE or PATH, carry meaning.
[5] See Szabolcsi (1994) for a forceful presentation of this point.

with the Goal argument of the double object construction, and is therefore thought to be meaningful. But note how, in the following Korean example of a "possessor dative," the dative NP is the Source (not the Goal) of a transfer of possession:

(13) (Korean – Pylkkänen 2002:21)

Totuk-i	Mary-hanthey	panci-lul	humchi-ess-ta
thief-NOM	Mary-DAT	ring-ACC	steal-PAST-PLAIN

'The thief stole a ring from Mary.'

In many languages, the object of a locative preposition is dative. It seems necessary (therefore) to consider DAT1 as being essentially neutral in meaning. But DAT2 is clearly meaningful: it signifies direction.

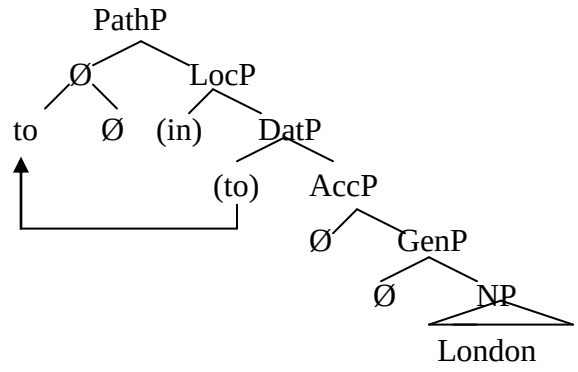
It is interesting that English too instantiates the two datives. The dative case is realized as the preposition 'to' in English. There is a meaningless 'to' which figures in the English infinitive ('to VP')[6], and – I would suggest – in the dative alternant of the double object construction in English ('give NP_1 to NP_2'). This, we must assume, is DAT1. There is also another 'to,' which takes an expression denoting a place as its complement ('to London'), and which has the meaning of direction.

2. Unifying the two datives

2.1. But why should languages have two datives, which differ in their position in the Case Hierarchy and in meaning?

I wish to argue that there is only one dative, and that what looks like DAT2 is the result of an abstract head of PathP attracting DAT1 to it:

(14)



[6] This 'to' is a preposition, see Kayne 2003/2005:232.

There is a "silent" locative preposition here: the claim is that 'to London' is 'to (in) London'. In a 'case language' like Malayalam, the locative surfaces: *London-il-eek'k'ə* 'London-LOC-DAT.'

The idea of a null head of PathP attracting some element to it is by no means new: it has been proposed by Koopman (2000), den Dikken (2010), Caha (2007). Our proposal differs from these only about what element it is that is attracted.

2.2. The movement of DAT1 to the head of PathP appears to be an affix-induced movement: the head of PathP, when it is null, seems to need a case-head to 'lean onto'. This is argued by the fact that when the head of PathP is not null, it does not induce this movement, see below. Now morphologically motivated movements have the following property (Jayaseelan 2005, 2008, 2010): they are "roll-up" movements, i.e. they are movements from the bottom of the tree. And this entails the following: when the head which is to be moved is in the middle of the tree, its complement is 'stacked' above the phrase projected by the head; then the phrase is moved – by remnant movement – to the immediate left of the affix. The remnant movement has two options:

(i) strand the stacked material; or

(ii) pied-pipe the stacked material.

The exercise of this option gives rise to word order differences between languages (and within languages); see Jayaseelan (2010) for more discussion and details.[7]

In the next section we show that three European languages – English, Dutch and German – exercise the above-mentioned option in interesting ways when they generate Dative movement to the head of PathP.

[7] For some antecedents of these ideas, see Starke (2003) who argues that there are "evacuating movements" that are not driven by the need to check features or satisfy EPP, but only by the need to "create constituents." (An example of "creating constituents" would be bringing together a stem and its suffix.) The idea has been implemented in slightly different ways by Koopman & Szabolcsi (2000), and Jayaseelan (2005, 2008, 2010).

3. Expressing the locative/ directional distinction in English, Dutch and German

3.1. The three Germanic languages English, Dutch and German show an interesting contrast in the way they express the locative/ directional distinction in meaning.

Consider the sentences:

(15) a. I sit on the chair. (location)

b. I climb onto the chair. (direction)

Contrast these sentences with the following:

(16) a. I stand behind the chair. (location)

b. I come from behind the chair. (direction)

A widely accepted analysis is that in English, just in case PathP is headed by 'to,' the head of LocP adjoins to it:

(15b') I climb on–to (on) the chair

This is "visible"' only when the locative preposition is 'in' or 'on;' but even in a sentence like (17b), we can say that a phonetically null 'to' attracts the locative preposition to it, so the popular analysis can be extended to such cases too.

(17) a. I stand behind the chair. (location)

b. I go behind the chair. (direction)

3.2. The straightforward way to describe the adjunction would appear to be to appeal to head movement. But now consider the following Dutch data:

(18) (Dutch – den Dikken to appear)

a. Hij zit in de stoel. (location)
he sits in the chair
'He sits in the chair.'

b. Hij klimt de stoel in. (direction)
he climbs the chair in
'He climbs onto the chair.'

In (18), the locative/ directional distinction is expressed solely by a change in word order: the locative sentence has a prepositional phrase, and the directional sentence has a postpositional phrase. How do we account for the additional directional meaning of (18b) (as compared to (18a))?

Let us adopt the proposal of Koopman (2000) that the underlying representation of a sentence like (18b) has a PathP above LocP, and that the PathP has a null head. We propose to account for (18b) in terms of two assumptions:

(19) *Assumption 1*

A null head of PathP always attracts the dative case to it.

We have already appealed to this movement in our account of what we called DAT2. What is special about (18b) is that the head of the dative phrase is also null; but this (we suggest) makes no difference to the movement: what seems to be crucial is that the head of PathP be null.

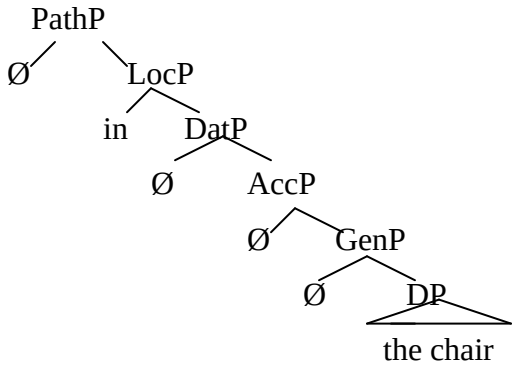
The other assumption is also not new but a basic premise of our analysis:

(20) *Assumption 2*

There is no head movement, only phrasal movement, in the case of stem-to-affix movement.

Now consider the following structure:

(21)



For the dative case to be contiguous (string adjacent) to the head of PathP, we need two (sequential) movements:

(i) a stacking movement, which stacks the complement of the dative case above DatP – which we can represent as movement into the Spec of an XP above DatP; and

(ii) a movement of ('remnant') DatP to the Spec of PathP.

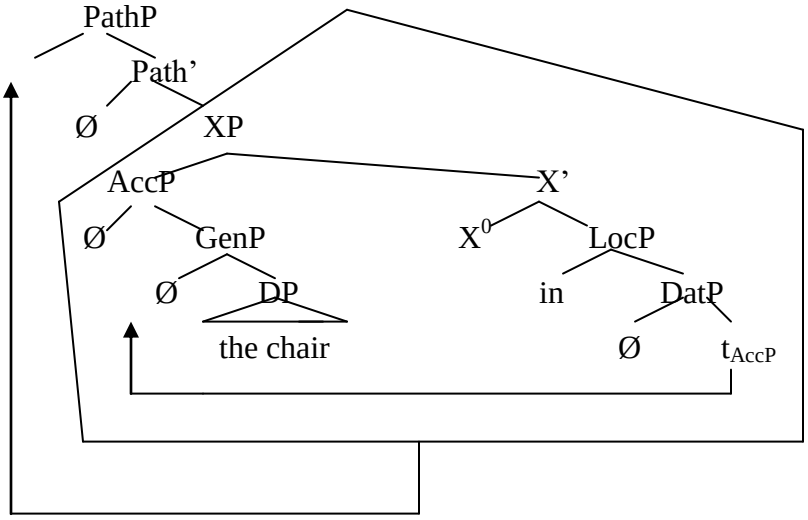
The second movement, namely the movement of DatP to Spec,PathP, has two options:

(i) it can move by itself, stranding the stacked material; alternatively,

(ii) it can pied-pipe the stacked material.

Languages differ in their choices here: English strands the stacked material (invariably); so it is a head-initial language. Dutch shows variable behavior: its auxiliary VPs are head-initial, but its lexical VP is head-final. In the present case, i.e. in generating the directional PP illustrated in (18b), it pied-pipes the stacked material. We can represent the two movements in (18b) as follows:

(22)



The resulting string is:

(23) $Ø_{Acc}$ – $Ø_{Gen}$ – **the chair** – X^0 – **in**$_{Loc}$ – $Ø_{Dat}$ – (t_{AccP}) – $Ø_{Path}$ – (t_{XP})

Here Dative and Path are adjacent (ignoring an intervening trace), fulfilling the requirement of the null head of PathP. And we get the postpositional order.

We have shown the complement of DatP as being stacked, not immediately above DatP which would be the shortest possible movement, but above the next higher phrase,

namely LocP. But it appears that there can be some variation (perhaps language particular) as regards the target of stacking, that there are some instances of "somewhat long" stacking movements. We note a known instance of this in the case of remnant VP movement: if there is a FocP above VP, stacking takes place "across" the FocP. Possibly, in the present case, the LocP above DatP is treated like the FocP above VP.

In fact, Dutch apparently allows stacking across an even longer distance than shown in (22). Consider a measure phrase which can be generated above LocP to modify it, as in the English phrase '(stand) ten meters behind the chair.' In Dutch postpositional PPs (which are always directional), the DP complement of the locative P can show up on either side of the measure phrase, cf. (24) (= den Dikken (2010), exx. 30)):

(24) a. [tien meter de boom in] is Jan geklommen
ten metre the tree in is Jan climbed

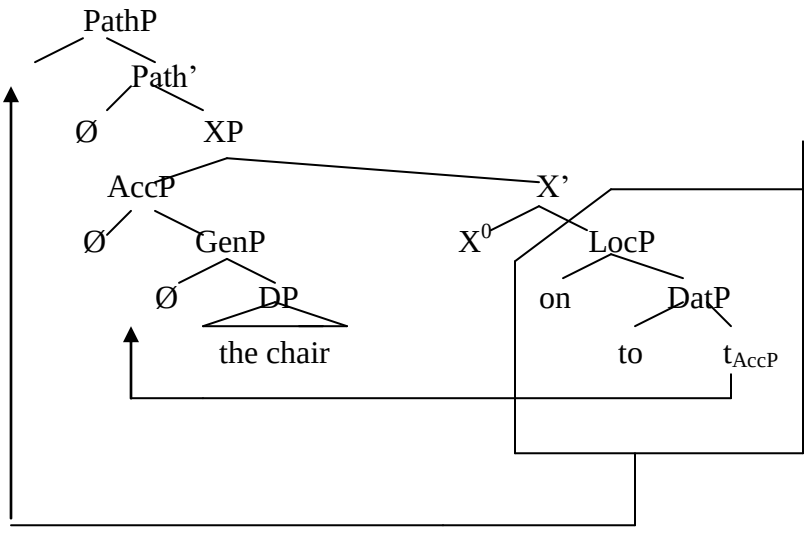
b. [de boom tien meter in] is Jan geklommen
the tree ten metre in is Jan climbed

In (24a), stacking seems to target a position immediately above LocP; but in (24b), it seems to target a position above both LocP and the measure phrase.

3.3. The derivation of the English sentence (25) differs from that of the Dutch sentence (18b) only in the second movement: the stacked material is stranded.

(25) He climbs onto the chair.

(26)



The string we get is:

(27) **on**$_{Loc}$ – **to**$_{Dat}$ – (t_{AccP}) – $Ø_{Path}$ – $Ø_{Acc}$ – $Ø_{Gen}$ – **the chair** – X^0 – (t_{LocP})

Here we get the prepositional order. Incidentally note that in our analysis, the form 'onto' simply reflects the base order of the two prepositions; there is no need for a rule that adjoins 'on' to 'to'.[8]

We now note that as a matter of fact, Dutch also has a stranding derivation exactly parallel to English, with the only difference that (unlike in English) the dative preposition is null. The result is a directional PP which is *pre*positional:

(28) hij klimt in de stoel (directional)
he climbs in(to) the chair

(Many prepositional PPs in Dutch are ambiguous between a locative and a directional reading, their meaning determined only by the syntactic context.)

Let us also note that the dative preposition is not always null in Dutch. The Dutch cognate of English 'to' is *tot* (or *toe*).[9] In its original position – the position of what we called DAT1 – it is (as we predict) simply a structural dative case and is "meaningless"; cf. its use with an infinitival VP as in (29) (den Dikken, 2010: ex. 25):

(29) hij komt niet tot werken
he comes not to work-INF

There is another preposition *naar* which is apparently often "paired" with *tot*, and which is arguably generated in LocP; although it seems to have lost any locative meaning. (Den Dikken translates *naar* as 'to', and generates it as the head of PathP; he translates *tot* as 'up-to'.) In a directional construction, the DP complement of *tot* can be stacked "in between" these two prepositions, and the resulting '*naar* – DP – *tot*' can then be pied-piped to Spec,PathP, cf. (30) (= den Dikken, 2010: ex. (75a)):

[8] When the English VP, after the stacking of V's complement, moves to Spec,InfP for V to pick up its inflection, it strands everything above it – including the Focus Phrase above VP (Jayaseelan 2008, 2010). It is therefore a bit surprising that in the derivation of PPs, like in (25), the language exhibits partial pied-piping – stranding the stacked phrase but taking along the LocP. English here behaves like Hungarian: the Hungarian remnant VP, when it moves to Spec,InfP for V to pick up its inflection, strands the stacked material but pied-pipes the FocP above VP, see Koopman & Szabolcsi (2000).

[9] *Toe* is the allomorphic variant of *tot* when the preposition is used intransitively or when its complement has been moved away (i.e. when it is followed by a trace) (den Dikken, 2010: fn. 13).

(30) hij rijdt naar de stad toe
he drives to the city up-to

In this context, *tot* may also be unpronounced, cf. (31) (see den Dikken, 2010: ex. (24a)):

(31) hij rijdt naar de stad
he drives to the city

In (32), *tot* appears as a preposition, as a result (we suggest) of stacking the complement of Dat^0 immediately above DatP, followed by a stranding movement of DatP to Spec,PathP:

(32) (Caha 2007: ex. 101a)
Hij is tot achter de grens gereden
he is till behind the border driven
'He has driven up to the place behind the border.'

3.4. German illustrates yet another way in which the locative/ directional distinction is expressed by languages. Consider (33):

(33) (German – Zwarts 2006: 2a & 2b, cited in Caha 2007: exx. (84))
a. Alex tanzte in den Zimmer.
Alex danced in the.DAT room
'Alex danced in the room.' (locative)
b. Alex tanzte in das Zimmer.
Alex danced in the.ACC room
'Alex danced into the room.' (directional)

The complement of a locative preposition has the dative case in German; but if a directional meaning is added to the predicate, the case of the complement changes to accusative. I.e., superficially, the meaning difference is encoded simply by a change in the case of the locative preposition's complement.

The device of using the accusative case to express directionality is in fact found in many languages. Cf.[10]

[10] The Czech instrumental case shares part of the domain of the German dative case, as Caha (2007) points out; but I am ignorant of whether a similar thing can be said about the ablative case of Latin.

(34) (Latin – Hale & Buck 1903: 433, 381, cited in Caha 2007: exx. (81))

a. sub mont-e consedit
under mountain-ABL.SG encamped
'encamped under the mountain' (locative)

b. Sub nostr-am aci-em success-eru-nt
under our-ACC.SG line-ACC.SG come up-PERF.IND-3.PL
'They came up under our line.' (directional)

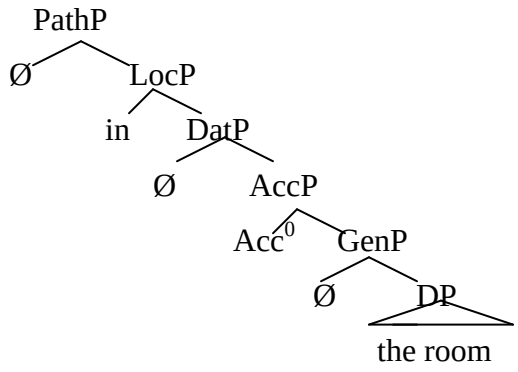
(35) (Coll. Czech – Caha 2007: exx. (73))

a. mezi růž-ema
among roses-INS.PL
'among the roses' (locative)

b. mezi růž-e
among roses-ACC.PL
'among the roses' (directional)

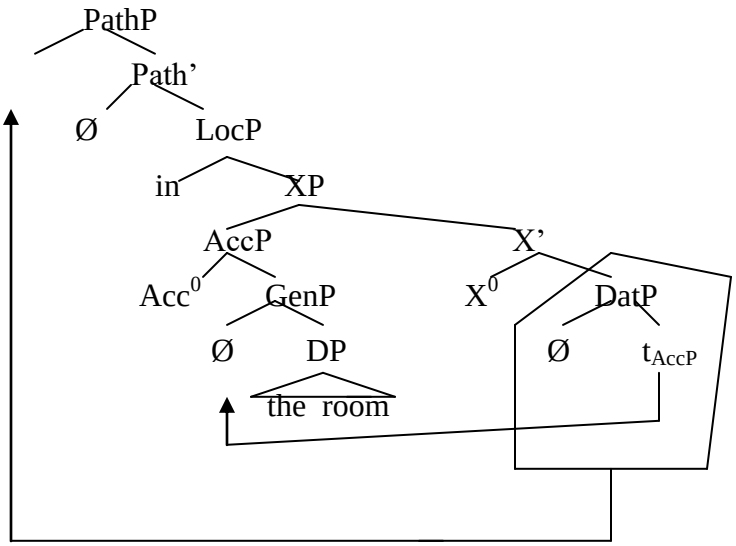
Taking the German alternation as the paradigm, let us ask how we can account for it. German VPs are all head-final, which argues that in its VP-syntax, German is a pied-piping language. But German CP is head-initial, and it has prepositions. So we must conclude that in its adpositional syntax, German is a 'stranding' language like English. Given this conclusion, our account of the accusative case in directional PPs is straightforward. We start with the structure:

(36)

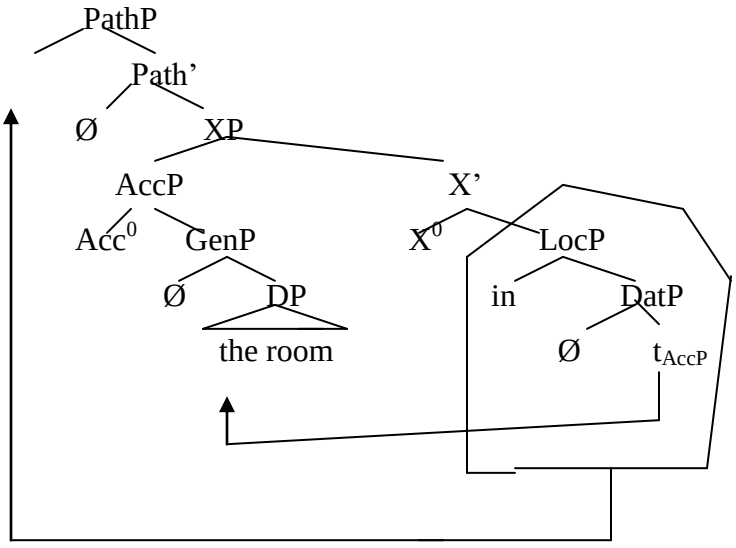


The null Path head must "affix" to dative case. In order to make Dat^0 string-adjacent to $Path^0$, the complement of Dat^0 is stacked above DatP. In the case of German, it is unclear whether the stacking targets (i) a position immediately above DatP, or (ii) a position above LocP. If German behaves like English here, cf. (25)/(26), it probably chooses option (ii). In any case, DatP then moves to Spec,PathP, stranding the entire structure above it (if we adopt option (i)), or pied-piping just the LocP immediately above it (if we adopt option (ii)):

(37) a. (option (i))



b. (option (ii))



Unlike English and Dutch, German is a language which has overt marking for dative and accusative case. Therefore, what happens in (37) is transparent: in effect, the layer of the dative case is removed from the DP 'the room', "revealing" the next lower layer, namely the layer of the accusative case. At this point we would like to recall that in § 1.1., we promised to provide an argument to justify our postulation of the hierarchical order DAT > ACC > GEN > DP – more specifically, of the order DAT-above-ACC – see (3). We now wish to claim that our analysis of the German data above constitutes such an argument.[11]

Our analysis makes a prediction. It is a null Path head (we said) that attracts the Dative case to it. Now if the Path head is filled by a lexical (non-null) element, as when 'from' is generated in that position, we predict that the Dative case will not be attracted to PathP and it should surface on the DP. This is indeed the case, cf. the following sentences:[12]

(38) (German)

a. Ich stehe hinter dem Stuhl. (Dative)
I stand behind the.DAT chair
'I stand behind the chair.'

b. Ich gehe hinter den Stuhl. (Accusative)
I go behind the.ACC chair
'I go behind the chair.'

c. Ich komme von hinter dem Stuhl. (Dative)
I come from behind the.DAT chair
'I come from behind the chair.'

In (38a), the PathP is not generated; so the Dative case stays in situ and is realized on the adpositional complement. In (38b), the null head of PathP attracts the Dative case to it

[11] If we had adopted (i) (= (7)) as the universal hierarchy:
(i) dative > genitive > accusative
we would expect the Genitive (and not Accusative) as the next lower layer that surfaces on the prepositional complement. So, here we have an additional argument against (7).

[12] Thanks to Miriam Butt (p.c.) for these data.

and the DP surfaces with Accusative case. In (38c), the PathP has a lexical head *von* 'from', and the Dative case again stays in situ and surfaces on the DP complement.[13]

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