

Spatial adpositions in sign languages

In the literature, it is commonly assumed that sign languages (SLs) lack spatial adpositions because information about the spatial location of referents can be encoded within the predicate sign. For instance, in (1), from SL of the Netherlands, the feature [location] of the predicate BE-LOCATED expresses the location of the figure CUP in relation to the ground TABLE (note that the right (dominant) and the left (non-dominant) hand are glossed on separate lines).

[NGT]

(1)

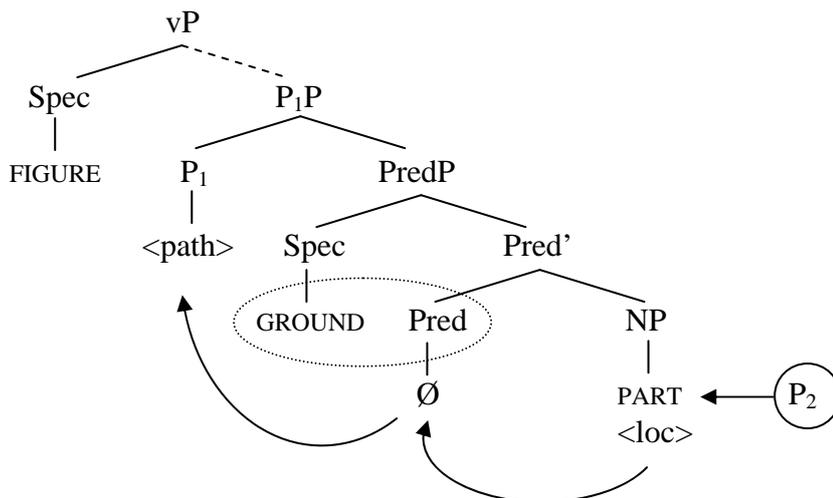


rh:	TABLE _{loc(x)}	MILK
lh:	TABLE _{loc(x)}	MILK

‘A glass of milk is on (top of) the table.’

We suggest that such propositions, despite their apparent modality-specific properties, exploit modality-independent structures. In particular, we will argue that the clause in (1) involves the structure in (2). Following Talmy’s (2000) theory of cognitive semantics, we assume that a preposition establishes a relation between a Ground and its Part. Moreover, we adopt Aboh’s (2010) idea that spatial expressions generally involve a complex predicate phrase embedded under a preposition P_1 which encodes path (goal). Cross-linguistically, it has been shown that P_1 often derives from verbs. In (1), P_1 is part of the predicate BE-LOCATED. In contrast, the NP within PredP encodes location and may grammaticalize into P_2 . In Talmy’s terms, this NP encodes (the relevant) Part of the Ground

(2)



Aboh (2010) shows that this structure allows for a straightforward account of spatial expressions in many West African languages, which involve complex structures including two types of adpositions (i.e. P_1 and P_2). In the Gungbe example in (3), for instance, P_1 *dó*

(grammaticalized from the verb ‘have’) and P₂ *kɔ̀n* (grammaticalized from the noun *nùkɔ̀n* ‘forehead’) frame the Ground NP.

- (3) Kòjò zé gò ló **dó** [DP àkpótín ló] **kɔ̀n** [Gungbe]
 Kojò take bottle DET P₁ box DET P₂
 ‘Kojò put the bottle beside the box [lit. at the side of the box].’

As for the SL example in (1), we assume the following derivation, also depicted in (2). In the syntax, the head of the PART-NP raises to the (zero) predicate head, where spatial agreement with the GROUND is established under Spec-head agreement. Subsequently, PART adjoins to P₁. In (1), PART (P₂) will be spelled out by a hold-morpheme (reflecting the Part of the Ground, e.g. in (1) the surface of the table), while P₁ is realized by a zero (or default) movement. Occasionally, in particular, in less prototypical spatial configurations, PART may be spelled out by a lexeme (e.g. SURFACE, SIDE) which is articulated simultaneously by the non-dominant hand (H2), as illustrated in (4).

- (4) rh: TABLE_{loc(x)} BOY BE-LOCATED_{top-of-loc(x)} [NGT]
 lh: TABLE_{loc(x)} SURFACE_(x)
 ‘A boy is standing on a/the table.’

We take this as evidence that there are indeed two elements involved in the structure, one that locates the Figure in relation to the Ground (P₁) and one that reflects the Part of the Ground (P₂) – be it directly (by H2) or indirectly (by a hold). In other words, the sign glossed as BE-LOCATED is actually a morphologically complex form consisting of P₁, P₂, agreement, and other morphemes neglected in the present context (e.g. classifiers). Finally, as is commonly the case in SLs, the GROUND topicalizes to SpecTopP and thus surfaces sentence-initially.

In our presentation, we will add to the picture other spatial relations such as *next to* and *inside (of)* that can be accounted for along similar lines. In addition, the discussion of SL examples will be supplemented by comparative data from typologically diverse spoken languages. As a way of illustration, the following examples from Sranan (a Surinamese Creole) exemplify different steps in the derivation (Bruyn 2001). In (5a), P₂ remains in situ, while in (5b), P₂ raises past the ground *tobbo* via the predicate head, where it picks up the genitive marker. This movement then yields the sequence P₁ > P₂ > POSS, also found in English complex prepositions, such as *inside (of)* and *in front of*, where *in* equals P₁ and *side/front* equals P₂ (also cf. French *à côté de*) (Aboh 2010).

- (5) a. Sinsi a kómm **na** hósso **inni** [Sranan]
 since 3.SG come P₁ house P₂
 ‘Since she entered the house ...’
 b. A trueh watra **na inni** vo wan tobbo
 3.SG throw water P₁ P₂ POSS DET tub
 ‘He threw water into a tub.’

References

- Aboh, E.O. (2010), The P route. In: Cinque, G. & L. Rizzi (eds.), *Mapping spatial PPs (The cartography of syntactic structures, Volume 6)*. Oxford: Oxford University Press, 225-260.
 Bruyn, A. (2001), Grammaticalization, reanalysis, and substrate influence – some cases from Sranan. Manuscript, University of Leiden.
 Talmy, L. (2000), *Toward a cognitive semantics*. Cambridge, MA: MIT Press.