

## Shape-based and orientation-based meronymy in Wan (Mande, Côte d'Ivoire)

The Mande languages of West Africa are similar to Mesoamerican languages in their prominent use of meronyms in descriptions of spatial relations. Besides serving as the major source of spatial postpositions, meronyms are frequently used in contexts that do not require reference to object parts in European languages (cf. the examples in 1a,b).

In Wan (Southeastern Mande), two different conceptual systems underlie the assignment of different types of meronym: some meronyms are assigned based on shape (on analogy with parts of the human body), while others are assigned based on spatial orientation. Shape-based meronyms are widely used outside the domain of spatial expression, for describing object parts that resemble parts of the human body: the same meronym is used to refer to a human hand, foot, and a leaf, to a human mouth and any kind of entrance, to human buttocks and an object's bottom (2). Consistent with that assignment system, shape-based meronyms only apply to parts of a rather restricted set of objects, i. e. to asymmetrical objects with internal parts that resemble parts of the human body.

Orientation-based meronyms, on the other hand, are assigned independently of the object part's shape, and can therefore be applied to a much wider set of objects. Such meronyms refer to the part's location relative to the rest of the object, in terms of Levinson's "fixed armatures" model.

Examples (4a,b) illustrate the difference in the interpretation of two seemingly synonymous meronyms, *pɛŋ* 'top' (shape-based) vs. *tā* 'upper surface' (orientation-based). While the shape-based meronym picks out the same functional part of the object independently of its orientation, the orientation-based meronym always refers to the part of the object that happens to be located above all others at that particular moment.

The difference between shape-based and orientation-based meronyms is correlated in Wan with a difference in the meronyms' formal properties. In particular, orientation-based meronyms in general are grammaticalized to a greater degree than human-body based meronyms (Nikitina 2008). All orientation-based meronyms, but only a few shape-based ones, have corresponding spatial postpositions. Among the meronym-derived postpositions, only those derived from orientation-based meronyms can be selected by specific verbs to introduce arguments devoid of any spatial meaning (5). Orientation-based meronyms also appear as parts of verbal compounds, describing the part of the object that is primarily affected by the event (6). The differences in grammaticalization patterns suggest that orientation-based meronyms are strongly associated with abstract spatial meaning, while for shape-based meronyms, spatial meaning is secondary.

More generally, the case study of meronymy in Wan illustrates how two different systems of meronym assignment can co-exist in the same language, and suggests that orientation-based meronyms are more likely to develop into fully grammaticalized spatial relators than shape-based ones.

(1) Wan

- a. *à mḗ kāṅ é tā glògò má*  
3SG head hair DEF upper.surface smooth PRED  
'Her hair is smooth.' (Lit., 'The upper surface of her hair is smooth.')
- b. *klòṅ kē é gó yí nrà ǒ*  
well this DEF inside water good NEG  
'Water from this well does not taste good.' (Lit., 'water of the inside of this well')
- c. *té gbani é gbò é mi tílá*  
fire smoke DEF pot DEF external.surface make.black  
'The smoke blackens the pot.' (Lit., 'the pot's external surface')

(2) a. *lāṅ* 'leaf' – *ṣ lāṅ* 'hand' ('arm's leaf') – *cḗ lāṅ* 'foot' ('leg's leaf')

b. *lāgá* 'mouth' – *kú lāgá* 'building's entrance' ('house's mouth') –  
*wlāṅwā lāgá* 'a shirt's collar' ('shirt's mouth')

c. *sà* 'buttocks' – *péli gbò sà* 'pot's bottom'

(3) a. *ṣ mi gblòṅ* 'bracelet' ('ring of the hand's external surface')

b. *wlāṅwā lé krō* 'shirt's button' ('button of the edge of the cloth')

(4) a. *yré é pēṅ lígī*  
tree DEF top burned

'The top of the tree burned down.'

(the canonical top, independent of whether the tree is standing upright or lying on its side)

b. *yré é tā lígī*  
tree DEF upper.surface burned

'The upper surface of the tree's trunk burned down.'

(the tree is lying on its side, and the upper surface of the trunk is burned down)

(5) *è pàá ú wó lé*  
3SG be.capable wine make of  
'He is capable of making wine.'

(6) *kó tã-kó pilòṅ*  
1DU surface-cut two  
'Let's cut it in two.'