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

1.   Introduction

The Mande languages of West Africa are similar to Mesoamerican languages in their prominent use of meronyms in descriptions of spatial relations:

–   nouns describing parts of objects are a major source of specialized spatial relators (noun > spatial postposition, cf. Svorou 1993);
–   outside specialized spatial expressions, meronyms appear frequently in contexts where a speaker of a European language would not expect them.

(1)   tā   'upper surface':

a.   à   mɛ́   kā̰ŋ   é   tā   glɔ̀gɔ̀   ma̰
     3SG   head hair   DEF   upper.surface   smooth   PRED
     'Her hair is smooth.'

b.   blà̰ŋ é   tā   bī   tētē ɓé   à   tā   á   ɓlī   lé
     lake DEF   upper.surface   PAST calm then 3SG upper.surface   COP   shine PROG
     'The lake was calm and shiny.'

(2)   mì   'external surface'

a.   gbɔ̄   kɛ̄   é   mì   glɔ̀gɔ̀   ma̰
     pot   this DEF   external.surface   smooth   PRED
     'This pot is well-polished.'

b.   té   gbà̰ní   é   gbɔ̄   é   mì   tīlá   má̰
     fire   smoke   DEF   pot   DEF   external.surface make.black   HAB
     'The smoke renders the pot black.'

(3)   lé   'edge; surface (2D)'

a.   séŋgè   kɛ̄   é   lé   bī   ɔ́
     knife   this DEF   edge there.is   NEG
     'This knife is blunt.'

b.   è   wlā̰ŋwā   é   lé   króɔ̄   é   lélō
     3SG   shirt   DEF   edge button   DEF   opened
     'She unbuttoned the shirt.'

(4)   káò   'inside'

gbɔ̄-dḭ̀ŋ-yɔ̰̀ŋ   é   gbɔ̄   káò   é   glɔ̄gɔ̄
pot-maker   DEF   pot   inside   DEF   polished
'The pot-maker polished the inside of the pot.'

(5)   gò   'inside'

a.   é   gà   ɓé   lā   plētī mū é   gò   gò
     IMPER   go   then 2SG plate PL   DEF   insideclean
     'Go clean the plates.'

b.   klɔ̀ŋ kɛ̄   é   gò   yí   nrà̰ ɔ́
     well this DEF   inside   water   good NEG
     'Water from this well does not taste good.'

c.   yrɛ̄   gó   yí   á   pā   lé   trɔ̄   mì
     tree inside   water   COP   rain PROG ground   at
     'Water is dripping from the tree.'

d. è   kɔ́ŋglɔ̀   é   wā ɓé è à gò   bɔ̰̀ɔ̰̀   é lɔ̄

3SG bone   DEF broke then 3SG 3SG inside   marrow   DEF ate

'He broke the bone and ate the marrow.'

2.   Types of meronym assignment

2.1. Function-based meronyms

In some cases, meronyms appear to be assigned based on the object part's function:

(6) a.   nà̰à̰   sógò   cɛ́ é   kpāgā

          1SG.ALN   bicycle   leg DEF got.stuck

          'The tire of my bicycle is stuck.'

    b.   cɛ́ òlí   foot + neck   'ankle'

Such meronyms are derived mostly from terms for body parts and are associated with the body part's characteristic function (human legs ~ bicycle's wheels, etc.).

(7) Possible non-body-part function-based meronym:

    a.   yré klɔ̄ŋ   tree + shell   'tree bark'

          dèŋnèlí klɔ̄ŋ   snail + shell   'shell of a snail'

          kpɔ́ klɔ̄ŋ   fish + shell   'scales of a fish'

          ɓlè klɔ̄ŋ   snake + shell   'snake's skin'

          blà̰ŋ klɔ̄ŋ   banana + shell   'skin of a banana'

    b.   lɛ̄ yí   á à lɛ̄ klɔ̄ŋ gó

          eye water   COP 3SG eye shell in

          'She has tears in her eyes.'

2.2. Shape-based meronyms

Typically, meronyms are assigned based on shape, provided that the object's part resembles a part of the human body or a part of a tree.

(8) a.   kú lāgá   house + mouth   'building's entrance'

          wlāŋwā lāgá   shirt + mouth   'shirt's collar'

          wlāŋwā ōlí   shirt + neck 'shirt's collar'

          wlāŋwā ɔ̄   shirt + arm   'shirt's sleeve'

    b.   gbɔ̄ sà   pot + bottom   'pot's bottom'

    c.   cɛ́ ló̰ŋ   foot + eye   'patella'

    d.   kú káò   building + belly   'room'

(9) a.   ɔ̄ lāŋ   arm + leaf   'hand'

          cɛ́ lāŋ   leg + leaf   'foot'

    b.   ɔ̄ yrɛ̄   arm + trunk   'arm'

    c.   tɔ́ ɓálè gbɛ̄   river + branch   'branch of a river'

2.3. Orientation-based meronyms

A special set of meronyms are assigned based on spatial orientation, independently of the object part's shape or function (applied to a much wider set of objects, including objects devoid of physical/functional similarity to humans or plants). Such meronyms refer to the part's location relative to the rest of the object, in terms of Levinson's "fixed armatures" model (2003).

(10) a.   ɔ̄ mì gblɔ̀ŋ   hand + external surface + ring   'bracelet'

          cɛ́ mì pɔ̄   foot + external surface + thing   'foot ring'

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b.	péŋ gó pɔ̄	ear + inside+ thing	'earrings'
c.	wlāŋwā lē krō	shirt + edge + button	'shirt's button'
d.	cɛ́ klā	foot + behind/around	'shin'

e. è   kú   é   klā   mù   é   kɔ̄
   3SG house DEF behind PL   DEF cut
   'He clears the area around the house.'

f.	tā pɔ̄	upper surface + thing	'clothing'
	lé tā pɔ̄	eye + upper surface + thing	'eyeglasses'
g.	mī trāgá	man + middle	'hip'
	ɔ́ní trāgá ɔ̄ní	finger + middle + finger	'middle finger'

Orientation-based meronyms refer predominantly to parts of inanimate objects.

3. Conventionalization of orientation-based meronymy
3.1. Intrinsic front and back

With terms for 'front' and 'back', the orientation can be interpreted in intrinsic (if the object has an internal asymmetry) or in relative terms:

(11) 'back of a car'   >   conventional interpretation (intrinsic)
      'back of a tree'   >   situational interpretation (relative to observer)
      'back of a boat'   >   conventional (if the boat is asymmetric) or
                              situational (relative to observer or direction of motion)

Correlation with the interpretation in terms of internal part vs. external area:

(12) é   yí   tā   gòŋ é   kúlà gò
      IMPER water   upper surface   boat DEF back clean
      'Clean the back of the boat' (intrinsic) or 'Clean the area behind the boat' (relative)

2.3.1. Conventional "up"

(13) Conventional "top" (shape-based):

      gɔ̀ŋ pēŋ   mountain+ top   'top of a mountain'
      kú é pēŋ   house + DEF + top   'roof of a house'
      yrɛ é pēŋ   tree + def + top   'top of a tree'

(14) Part of the object located above all others at a particular moment (orientation-based):

      a. yré   é   pēŋ   ligī
          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   ligī
          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)

4. Meronyms grammaticalized
4.1. Description of distant spatial relation

Meronyms that are used as spatial relators describe localization in contact with or at a distance from the reference object:

(15) kɔ̄ŋ   é   kúlà   'the back part of the village' (intrinsic)
      village DEF behind   or 'the area behind the village' (relative)

4.2. Meronym-based postpositions

Orientation-based meronyms are more grammaticalized in the function of postpositions than shape-based meronyms (Nikitina 2008): higher frequency; more abstract relational meaning.

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

Postpositions derived from shape-based meronyms do not maintain the shape-based restrictions:

(17) a. kpɔ́ mù á   glùŋ lé   yí   é   tā
         fish PL COP jump PROG water DEF upper surface
         'Fish is jumping out of the water.'

     b. kpɔ́ mù á   glùŋ lé   yí   é   pēŋ
         fish PL COP jump PROG water DEF top

(18) A special "body part" construction where body part terms do not require a postposition:

     a. è   kpāgē   dō yā é   pēŋ
         3SG head.ring one put REFL head
         'She put a carrier's ring on her head.'

     b. lē   é   bī   màŋ wiá   lé   nɛ́   lāgá
         woman DEF PAST rice enter PROG child mouth
         'The woman is feeding the child by putting rice in his mouth'

     c. kpɔ́ kɔ́ŋglɔ̀ é   gbàī   à   lɔ̀ŋà
         fish bone   DEF got.stuck 3SG throat
         'A fish bone got stuck in his throat.'

4.3. Lexicalization of verb phrases

Orientation-based meronyms appear in verbal compounds, describing the part of the object that is primarily affected by the event (19).

(19) kó tā-kɔ́   pīlɔ̄ŋ
     1DU surface-cut two
     'Let's cut it in two.'

5. Conclusions

➢ Two different systems of meronym assignment co-exist in the same language:
   – shape-based meronyms: terms for body parts and plant parts;
   – orientation-based meronyms: terms for object parts

➢ Orientation-based meronyms develop more easily into fully grammaticalized spatial relators.

➢ Postpositions derived from body part terms lose their original shape-based interpretation (no shape restrictions; projection of regions).

➢ In a special intermediate type of construction, body part terms retain their original meaning but function syntactically as postpositions. Syntactic behavior (nominal vs. postpositional) is not directly related to interpretation (meronym vs. spatial relator):
   – object parts can, in one specific construction, function as postpositions;
   – spatial meanings can be encoded by orientation-based meronyms.

References

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