# Is Harakmbut a classifier language?
Answers from noun modification, noun incorporation and word formation

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1. Introduction

- Harakmbut is a language from the Peruvian Amazon, spoken in 'native communities' in the departamentos of Madre de Dios and Cusco

- *Harakmbut* means 'person, people'; it etymologically refers to the warrior ethos of its speakers (*-arak* 'kill' + *mbut*, which appears in *mbuttinda* 'truth' (cf. Helberg In prep))

- Genetic affiliation:
  - Formerly classified as an **Arawakan** or **Maipuran** language by McQuown (1955) (see Hart 1963: 6) and Matteson (1972); but this has found little acceptance (Adelaar 2007: 39).
  - Wise (1999: 307) states that Harakmbut is commonly accepted to be a (single language) **isolate** (cf. WALS; Fonseca Solís 2002; Vergara 2007)
  - Adelaar (2000, 2007) proposes that it is genetically related to the Brazilian **Katukina** family (included in Guaporé-Mamoré linguistic area), which may be further linked to Macro-Ge
  - Some grammatical features are shared with Ese Eja and Cavineña (Tacanan family) (Pozzi-Escot 1998: 93; Van linden In prep), which are proposed to belong to the **Guaporé-Mamoré** linguistic area in southwest Brazil and eastern Bolivia, close to the border with Peru (Crevels & van der Voort 2008)
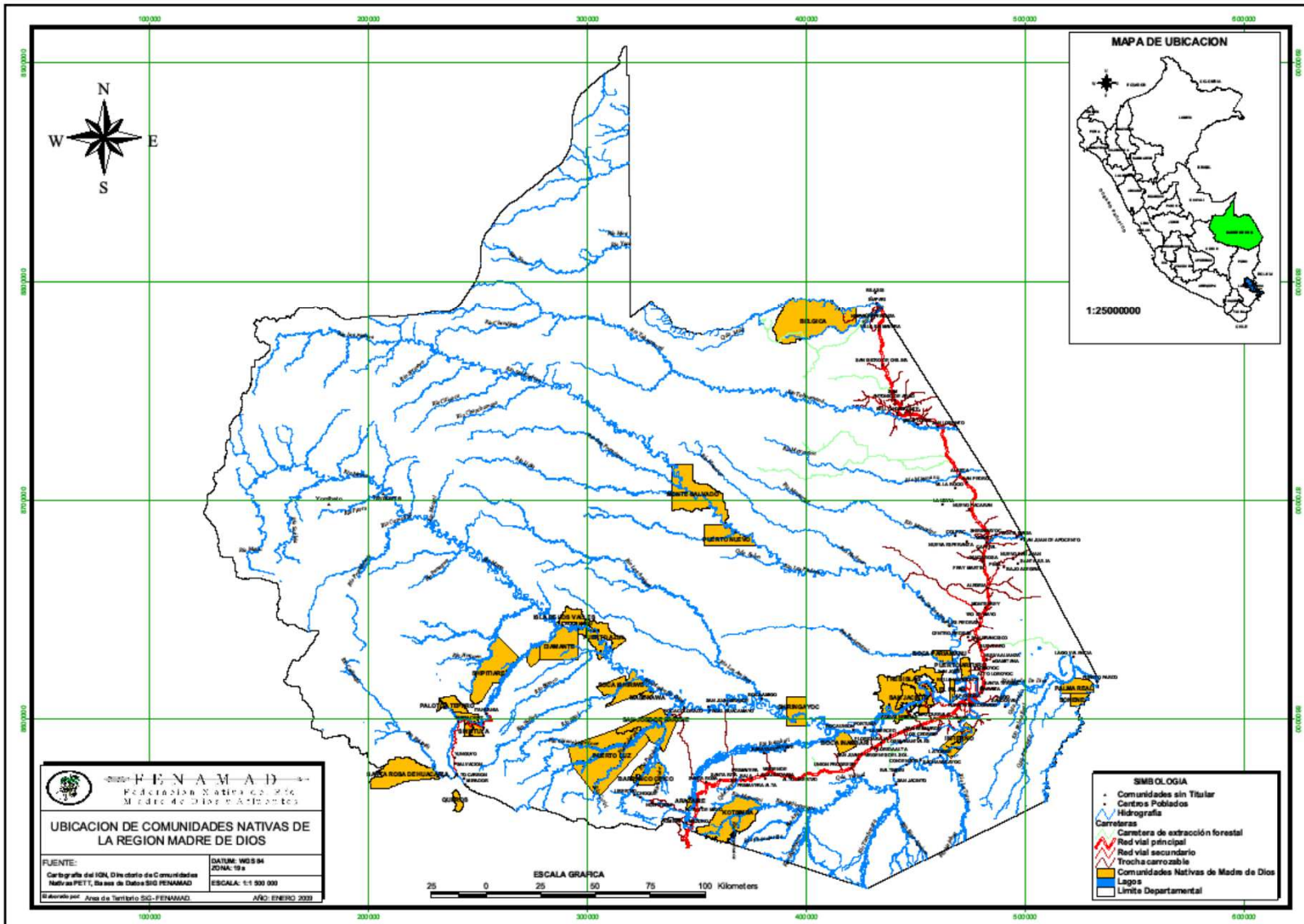
- in 'native communities': patches of land entitled to them by the government
- subtropical climate
- around tributaries of the Madre de Dios River, which eventually flows into the Amazon River;
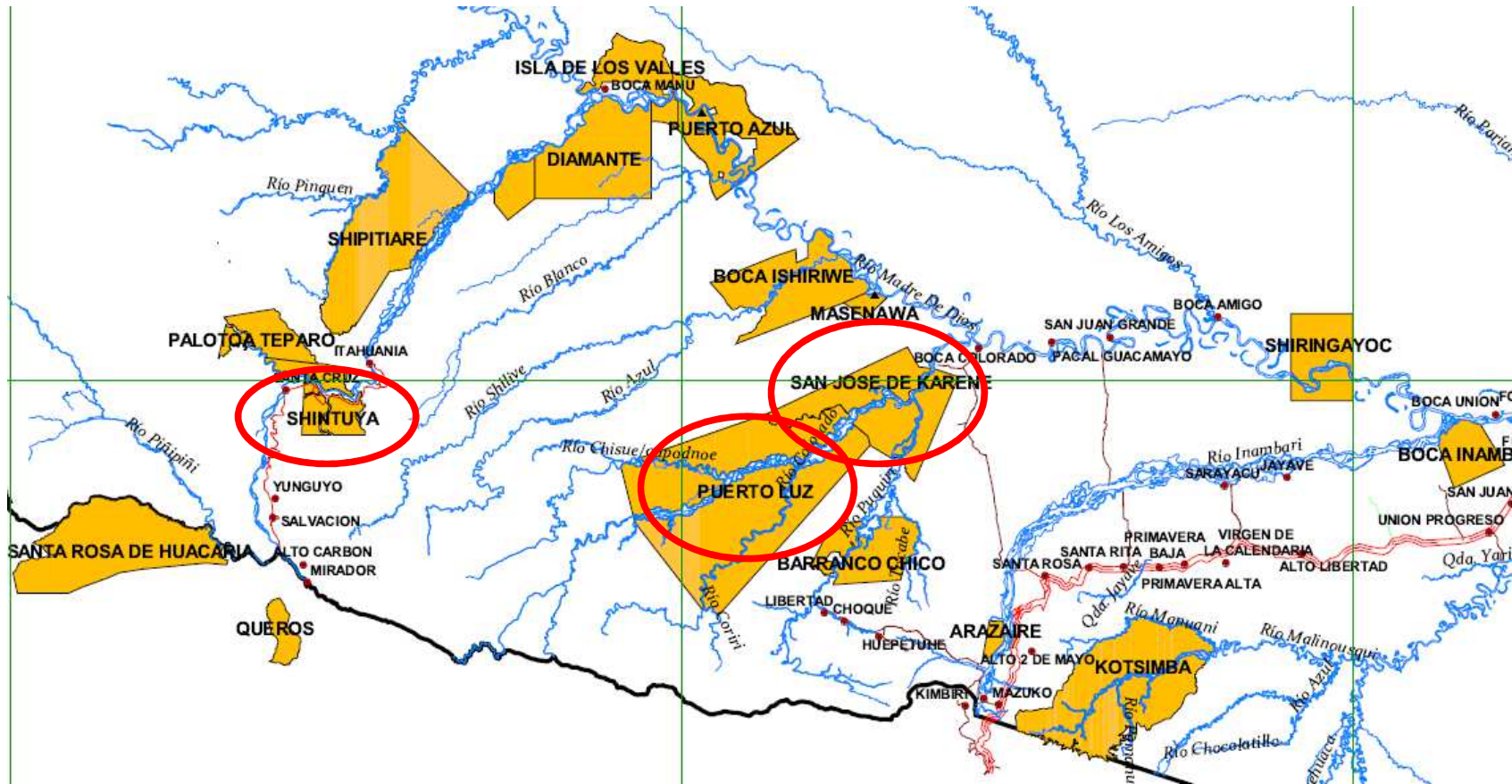
I stayed in Puerto Luz (PL), San Jose de Karene (SJ) and Shintuya (S)

1. Introduction

- Previous linguistic work: focus on Amarakaeri dialect (Hart 1963; Helberg 1984, 1990; Tripp 1976ab, 1995)

- Own work: audio recording during 3 fieldwork stays in Puerto Luz, San José and Shintuya (all Amarakaeri informants): Jul-Aug 2010, Aug-Sept 2011, Aug 2016

- Orthographic conventions: <'>: glottal stop; <¨>: nasal vowel; underlined sounds carry word stress

today's TOPIC: **Is Harakmbut a classifier language?**

- Yes, Harakmbut has a set of classifiers, but my analysis differs from earlier work

- Evidence from noun modification, noun incorporation and word formation

- My proposal:
  - two morphologically distinct classes of common nouns
  - classifiers form a subset of one class of nouns

Outline

1. Introduction
2. Noun modification
3. Noun incorporation
4. Word formation
5. Conclusion

2. Noun modification

(1)   *mbe'-edn ÿä-tä-ë*   *in*   **kuwa**   *uru-nda?*
who-GEN   3SG.DUB-POSS-be   PROX   dog   beautiful-NDA
'Whose is this beautiful dog?' [110819-nil_interrogativas_0037]

(2)   *Ih-yok-i*   *mbotta'* **kuwa**   *Luis-ta*
1SG-give-1.IND   two   dog   Luis-ACC
'I give two dogs to Luis.' [110824-luc_nombres_0018]

Compare: numeral classifiers in Mojeño Trinitario (Arawak, Bolivia, Rose 2015):

   (a)   éto-**gi**   (b)   éto-**si**
           one-CLF:cylindrical   one-CLF:round
           'one (e.g. tree)'   'one (e.g. calabash)'

→ Harakmbut does not use classifiers (typology of classifiers cf. Aikhenvald (2000: 204-207)):

- in possessive modifier environments
- in demonstrative modifier environments
- in adjectival modifier environments
- in numeral modifier environments
- as noun classifier

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2. Noun modification

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- in demonstrative modifier environments
- in adjectival modifier environments
- in numeral modifier environments
- as noun classifier

this goes against:

- Derbyshire & Payne's (1990: 260) claim that Amarakaeri has a primarily verb-incorporated classifier system (I agree), *but the single set of classifiers also functions as a nongender concordial system*
- Aikhenvald's (2000: 123) claim that languages of the "Harakmbet" family have large sets of numeral classifiers

2. Noun modification

Where do these claims come from?

All of these claims go back to Hart's (1963:1) description of **shape morphemes** in Amarakaeri:

- "morphemes which classify objects and actions according to the particular shape or combinations of shapes inherent in the item or action under focus." (Hart 1963: 1)

- Shape elements ("shape stems") can be morphologically complex

- Semantics:
    - semantic component of basic body part (many examples)
    - basic shapes or qualities (not represented in the body), e.g. liquid, powder, cluster, channel, stinger

Shape elements are adopted by Helberg (1984: 243), and analysed as classifiers by Payne (1987)

My proposal: "shape elements" form a morphologically defined subclass of common nouns, i.e. **obligatorily bound nouns, only a subset of which function as (verbal) classifiers**

2. Noun modification

- common nouns divide into two morphologically defined classes: **potentially free** vs. **obligatorily bound nouns**

	potentially free nouns	obligatorily bound nouns
Morphological status	can stand on their own as a word form	require a nominalizing prefix to obtain independent nominal status (*wa-* or *e-*)
With prenominal modifiers	One construction type: two prosodic words	Two construction types: (i) two prosodic words (with nominalizing prefix) (ii) one prosodic word (without nominalizing prefix)
Semantics	Semantically heterogeneous	refer to **parts of entities**, such as body parts, plant parts, and landscape parts (cf. the class of *e*-nouns in Cavineña as described by Guillaume (2008: 409-416)), as well as **basic shapes or qualities** of entities
Noun incorporation	Generally not incorporable into the verb (2 exceptions; NI type I only)	incorporable into the verb (all four types of NI)

2. Noun modification

(a) Morphological status:

- *wa-* and *e-* are semantically empty nominalizers that derive independent nouns from bound ones

  (AREALITY: less frequent prefix *e-* has the same form and function (in noun-based nominalization) as the dummy noun prefix *e-* in Cavineña and other Tacanan languages (Guillaume 2008: 409-416); cf. also semantically empty root *e-* in Kwaza, which serves as "a noun formative to lend independent status to classifiers" (Van der Voort 2005: 397))

- *wa-* and *e-* also serve in verb-based nominalization (see Van linden Subm.)

- In (3), bound root *–mba'* gives rise to two distinct independent nouns whose referents show a similarity in shape and form an upper extremity of a living body (cf. Helberg 1984: 254, 437).

(3)　　(a)　　*wa-mba'*　　　　　　　(b)　　*e-mba'*
　　　　　　　NMLZ-hand　　　　　　　　　　　NMLZ-hand
　　　　　　　'hand' [100813-voc_0498]　　　　'leaf' [100812-voc_0063]

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2. Noun modification

(b) Morphosyntactic behaviour in prenominal modifier constructions:

- when combined with adnominal modifiers that obligatorily precede the nominal head when fully integrated in the NP (i.e. excluding discontinuous NPs):
  - free nouns show a single construction type: modifier and head noun form two prosodic words
  - bound nouns show two construction types:

    (i) one in which they attach to a nominalizing prefix and follow the modifier like free nouns

    (ii) one without a nominalizing prefix, in which they form one prosodic word with the modifier

2. Noun modification

- bound nouns show two construction types:

    (i) one in which they attach to a nominalizing prefix and follow the modifier like free nouns

    (ii) one without a nominalizing prefix, in which they form one prosodic word with the modifier

e.g. with interrogative modifier *kate?*, cf. (4)-(5)

(4)   *k<u>a</u>te*   *<u>ay</u>po*   *i'-pak-ika-Ø*?
         what   food   2SG-want-HAB-DUB
         'What sort of food do you (sg) like?' [110914-lis_interrogativas_0042]

(5)   (a)   *k<u>a</u>te*   *w<u>a</u>-ndik*   *i'-ë-Ø?*
                  what   NMLZ-name   2SG-be-DUB
                  'What is your name?' [fieldnotes 9/09/2010, Lisbeth Patiachi Vise]

         (b)   *kat<u>e</u>-ndik*   *i'-ë-Ø?*
                  what-name   2SG-be-DUB
                  'What is your name?' [fieldnotes 9/09/2010, Lisbeth Patiachi Vise]

2. Noun modification

- bound nouns show two construction types:
  - (i) one in which they attach to a nominalizing prefix and follow the modifier like free nouns
  - (ii) one without a nominalizing prefix, in which they form one prosodic word with the modifier

e.g. with numeral modifier *mbotta* 'two', cf. (6)-(7)

(6) Ih-yok-i   mbotta' kuwa Luis-ta
   1SG-give-1.IND two   dog   Luis-ACC
   'I give two dogs to Luis.' [110824-luc_nombres_0018]

(7) (a) ïh-tö-ë-ÿ   mbotta' wa-mba'
       1SG.IND-SOC-be-1.IND two NMLZ-hand
       'I have two hands' [110824-luc_nombres_0043]

   (b) mbotta'-mba' ïh-tö-ë-ÿ
       two-hand   1SG.IND-SOC-be-1.IND
       'I have two hands' [110819-nil_nombres_0040]

2. Noun modification

e.g. with numeral modifier *mbotta* 'two', cf. (6)-(7)

(7) (a) ïh-tö-ë-ÿ   mbotta' wa-mba'
          1SG.IND-SOC-be-1.IND   two   NMLZ-hand
          'I have two hands' [110824-luc_nombres_0043]

     (b) mbotta'-mba'   ïh-tö-ë-ÿ
          two-hand   1SG.IND-SOC-be-1.IND
          'I have two hands' [110819-nil_nombres_0040]

e.g. with numeral modifier *nongtinda* 'one':
          nong-ti-'i-pih-nda
          other-on-foot-finger-NDA
          'one toe'

AREALITY: the fused pattern in Harakmbut resembles what has been observed for a number of Pre-Andine Maipuran Arawak languages: Matsigenka, Asháninka and Kakinte infix classifiers or noun roots to numerals (Payne 1987: 32-33).

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2. Noun modification

e.g. with possessive modifiers, cf. (8)-(9)-(10)

attributive possession is reflected by dependent marking: (pro)nouns denoting the possessor are marked for genitive case; the possessed noun is unmarked

(8)   *ndo'-edn*   *nang*

1SG-GEN   mother

'My mother' [100914-000_lisbeth_aguacalientes_0005]

(9)   *ndo'-edn*   *wa-nda-po*   *ö-më'-a'*

1SG-GEN   NMLZ-CLF:fruit-CLF:round   3SG.IND-liver-say

'My belly is making noise.' (lit. 'liver-says') [110922-lis_modalidad_0193]

(10)   (a)   *arakmbut-en-ndik*

people-GEN-name

'native lexical item' ('name of the people') [100806-voc2_0546]

(b)   *arakmbut*   (c)   *wa-ndik*

people;person   NMLZ-name

'people', 'person' [100813-voc_0034]   'name' [100814-voc_0037]

2. Noun modification

(c) The **semantic homogeneity** of the bound nouns: inalienably possessed entities

→alternative analysis in terms of a noun class system? (alienably vs. inalienably possessed nouns)

NO, I would say:

- the two noun types share the same construction types for all types of adnominal modifiers
- the availability of the prosodically fused construction types: directly derives from the morphologically bound nature of certain nouns

→**two morphologically distinct noun types** rather than noun class system

→Another classification of nouns draws on syntactic arguments:

→animate vs. inanimate nouns behave differently in the domain of grammatical relations, both in head marking and dependent marking patterns
(only "apparent" nominal subclasses à la Rijkhoff 2002: ch. 3)

3. Noun incorporation

- The whole set of "shape morphemes" (Hart 1963) has been analysed as classifiers by Payne (1987)

- Derbyshire & Payne (1990: 260ff) mention the number of 50 classifier forms

- However, I will argue that **only a subset** of the bound nouns also function as classifiers, i.e. nouns referring to basic shapes or qualities of entities

- Main argument comes from noun incorporation:
    - (two free noun roots: noun incorporation of type I in Mithun's (1984) typology)
    - nouns indicating parts of entities: noun incorporation of types I to III
    - 'shape/quality' nouns: noun incorporation of type IV, i.e. they function as **verbal classifiers**

3. Noun incorporation

Pf1	Pf2	Pf3	Pf4	Pf5	Verb stem
mood+agr	BEN (appl)	POSS (appl)	CLF/INCORP.N	SOC (appl)	
§5.1-5.2	§5.7	§5.7	§5.9	§5.7	§5.10

| | VPL §5.6 | VPL or ≥2 spatial pfs §5.6, §5.8 | VPL §5.6 | spatial pf §5.8 | |

Table 10: The prefix (Pf) string of Harakmbut finite verb forms

Verb stem	Sf1	Sf2	Sf3	Sf4	Sf5	Sf6	Sf7
	Asp1	TRVR	Asp2/AM	ANA	Asp3	Tense	mood+agr; mod; evid
§5.10	§5.4	§5.7	§5.4-5.5	§5.3	§5.4	§5.3	§5.1-5.3

Table 11: The suffix (Sf) string of Harakmbut finite verb forms (cf. Tripp 1976a)

3. Noun incorporation

NI of type I (lexical compounding)
- word formation mechanism
- Type I NI is found with many bound nouns, and two free nouns: *(h)ak* 'house' (cf. (11)) and *ndagn* 'path' (see also Tripp 1976a: 7)

(11)   wa-mationka-eri   o-ak-yong-me
            NMLZ-hunt-ANIM   3SG.IND-house-destroy-REC
            'The hunter hut-destroyed.' [110812-fer_agentes_0003]

transitive verb stem *-yong* + free noun *(h)ak* 'house' = intransitive verb that denotes a "name-worthy" activity of hunters (Mithun 1984: 849); IN is patient of host verb

- Type I NI with incorporated body part noun, cf. (12)

(12)   ndo'-edn   wa-nda-po   ö-më'-a'
            1SG-GEN   NMLZ-CLF:fruit-CLF:round 3SG.IND-liver-say
            'My belly is making noise.' (lit. 'liver-says') [110922-lis_modalidad_0193]

3. Noun incorporation

NI of type II (manipulation of case)

- Valency-changing mechanism: incorporation of noun "permits another argument of the clause to occupy the case role vacated by the IN" (Mithun 1984: 859)
- Type II only features bound nouns, e.g. body part noun in (13)

- This type typically involves possessors being advanced to (applied) object status, which position is vacated by the incorporated body part (cf. Mithun 1984: 857-858)

- Unlike in type I NI, the IN in (13) is identifiable; it is the speaker's head

(13)   mbe-ku-ti-kot-uy-ne   apoare'-a   ta'mba-ya
         3SG>1/2SG-head-UP-fall-DIST.PST-IND   papaya-NOM   swidden-LOC
         'A papaya fell on my head in the swidden long ago.' [110812-fer_agentes_0136]

3. Noun incorporation

NI of type III (manipulation of discourse structure)

- Type III is used "to background known or incidental information within portions of discourse" (Mithun 1984: 859)
- only features bound nouns in Harakmbut, typically with fairly general lexical reference

(14) *pera   o-n-ka   äni,   o-mbewik-po   eskalera-te,   äni*
pear(Sp) 3SG.IND-SPAT-do   FILLER   3SG.IND-go.up-DEP ladder(Sp)-LOC   FILLER
'He is picking pears, eh, going up on a ladder.' [110913-lis_pear_0006]

*o-ma-**nda**-e-a,   o-ma-**nda**-e-a   äni,   kanasta-yo,*
3SG.IND-VPL-fruit-get-TRVR   3SG.IND-VPL-fruit-get-TRVR   FILLER   basket(Sp)-LOC
'He is taking/collecting them (the fruits), eh, in a basket.' [110913-lis_pear_0007]
(spontaneous speech)

- 1st clause: 'the pears' are referred to with a full nominal
- 2nd clause: anaphoric reference to the pears through incorporated bound noun root *-nda* 'fruit' (referent of IN is identifiable by the hearer)

3. Noun incorporation

NI of type IV (classificatory noun incorporation)

- N + V can be **accompanied by a more specific external NP** which identifies the argument implied by IN (Mithun 1984: 867); these nominals are classified according to the N stem that is incorporated to qualify Vs directed at them
- In Harakmbut: only bound nouns that indicate shape/quality of substance (no body-parts, unless they have acquired a more general meaning)

(15)   mbaso   o-**pu'**-sak-on-ate
          glass(Sp)   3SG.IND-CFL:cylindrical.hollow-break-MOM.UNCONTROLLED-NVIS
          'The drinking glass broke.' [110823-luc_causation1_0003]

(16)   men   kösö   ya-**po'**-sak-on?
          which   pot   3SG.DUB-CLF:round-break-MOM.UNCONTROLLED
          'Which pot is breaking?' [110922-lis_modalidad_0159]

IN specifies the shape of the S-argument (broken object) in (15)-(16)

3. Noun incorporation

NI of type IV (classificatory noun incorporation)

- In Harakmbut: only bound nouns that indicate shape/quality of substance
- body-part noun root –*mba* in (17): two-dimensional object (more general meaning than 'hand/leaf')

(17)   O-ta-**mba**-to'-tiak-me-ne   e-ma-mbo-e-a
         1<>2SG-POSS-CFL:two.dimensional-SOC-come-REC.VIS-IND   NMLZ-VPL-stand-ITER-TRVR
         'I brought your photograph'
         (no reference to hand/leaf, but shape of photograph)
         (only one photograph; mba- does not function as VPL)

IN specifies the shape of the (applied) O-argument (brought object) in (17)

3. Noun incorporation

Conclusion

Except for *hak* and *ndang* – morphological boundness is the formal prerequisite for nouns to be incorporable. While body parts regularly occur in types I and II NI, it is only more general N stems that are found in types III and IV, specifically those referring to basic shapes or qualities of entities.

→ only these elements belong to the category of classifiers

4. Word formation

- compounding, i.e. the combination of two independent nouns giving rise to a new lexical item

(17)   ndumba-kuwa
         forest-dog
         'bush dog' [Speothos venaticus, AVL] (Helberg 1984: 252; Tripp 1995: 194)

- how about (18abc): compounding or derivation? Final morphemes: bound noun roots or classifiers?

(18)   (a)   tar<u>e</u>'-mba'
                 manioc-hand
                 'manioc leaf' [110812-fer_agentes_0288]
         (b)   wa-mb<u>a</u>'-ku   (c)   p<u>e</u>ra'-po
                 NMLZ-hand-head   rubber-CFL:round
                 'finger nail' [100815-voc_0113]   '[e.g. plastic, AVL] ball' (Hart 1963: 5)

4. Word formation

- how about (18abc): compounding or derivation? Final morphemes: bound noun roots or classifiers?

(18)   (a)   tar<u>e</u>'-mba'
                manioc-hand
                'manioc leaf' [110812-fer_agentes_0288]

        (b)   wa-mb<u>a</u>'-ku   (c)   p<u>e</u>ra'-po
                NMLZ-hand-head   rubber-CFL:round
                'finger nail' [100815-voc_0113]   '[e.g. plastic, AVL] ball' (Hart 1963: 5)

- (18a)-(18b): modifier-head structures → compounding
- (18c): different semantic relation between component elements: type of material + type of shape → type of material having a particular shape
- Similar examples with *siro* 'metal, glass, plastic, machete' as first element in Hart (1963: 1)
- Payne (1987: 37) analyses the morphemes appended to *siro* as classifiers that function as derivational markers

→ these bound morphemes also occur as verbal classifiers, so I agree with Payne's (1987) analysis 27

5. Conclusion

- Harakmbut has no numeral, possessive, demonstrative, adjectival or noun classifiers
- Harakmbut has a limited set of **verbal classifiers**, which refer to the shape or general quality of entities (at least 5, but no 50!)
- These classifiers also serve as **derivational markers** in word formation
- Harakmbut has two morphologically distinct sets of common nouns, potentially free and obligatorily bound ones, which differ in terms of basic semantics, incorporability into the verb, and morphysyntactic behaviour in noun modification constructions
- The **obligatorily bound nouns** (more than 50 items) have wrongly been analysed as classifiers; in forming morphologically complex lexical items, they engage in compounding rather than derivation

5. Conclusion

Food for thought:
- One of my consultants called me "Anpi"
    - (1) *An-pi*
        PROPER.NAME-CLF:stick
        'An, who is slim and tall' → type of modifier cxn ('An' is the head)
- Another consultant explained that only persons close to you could use [prope name + CLF], almost as a term of endearment [used by a non-intimate, such a structure is felt to be an insult]
- Note, however: you cannot just attach CLF – in modifier function – to common nouns:
    - (2) *widn-po*   (3)   *keme-po*   →   (4)   *keme-siwa*
        stone-CLF:round   tapir-CLF:round   tapir-fat
        'round stone'   'round/fat tapir'   'round/fat tapir'

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