The history of adnominal gender-number suffixes in Niger-Congo

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1 Introduction

+ Greenberg (1977, 1978):
  class markers not yet bound to the noun root in the proto-state:

"Our answer, then, to the question posed in the title of this paper is that the class marker was neither a prefix nor a suffix but varied in its order and became fixed as it developed into an article, ..." (Greenberg (1977: 102)

- synchronic cases recur across Niger-Congo where:

a) class markers are erroneously analyzed as affixes (cf. Creissels 2015: 21 on some Atlantic)

b) noun roots clearly occur without any classifying affixes

> our starting point: modern class marking originates in a late classifier system as per Kießling (2013), Güldemann and Fiedler (2021), Güldemann and Merrill (in prep.)

1 Introduction

+ considerable diversity of morphological and syntactic features of the class system

> similar surface phenomena from distinct histories, e.g., co-occurrence of pre- and suffixes

(1) Kagoro (Plateau Central, BENUE-KWA)   **see §2.1**

    a.   *ù-túk(-ká) / ù-tùk(-nà)*   '(the) night/s' (Gerhardt 1967: 179)
    b.   *b-**u**-li-ə-tyo-moto-**ka***   'to the house of the car-owner'
        to-5-house-1-man-car-5DEF

                         (Gerhardt 1983: 159)

1 Introduction

(2) Mbelime (Eastern Oti-Volta, GUR)   **see §2.3**

   a.   *fɛ̄-sɛ̄-fɛ̂ / ɨ̄-síɛ́*   '(the) snake' (Neukom 2004: 39)

   b.   … *à*   *sɛ̄-fɛ̂*   *hɛ̆́*   *n̄*   *bòtɔ̀*

        and   snake-FE   NEG   1SG.OBJ   bite

    '(Mon ami m'a empêché) d'être mordu par un serpent.'

                       (Neukom 2004: 55)

1 Introduction

(3)   Sherbro (Mel, ATLANTIC)   **see cf. 2.4**

   a.   *li-kẹn*   'knife' (Pichl 1964: 54)

   b.   *kén-dì*   *mí-ɛ̀*   *lɔ̀*   *lì-bòm*

          knife-11   POSS.1SG-DET   11.PRO   11-big

          'My knife is big.' (Rogers 1967: 115)

1 Introduction

\+ we argue for different "suffix" language types with respect to diachronic status:

§2.1   Prefixation to circum-/suffixation

§2.2   No affixation to suffixation

§2.3   Suffixation to circum-/prefixation

§2.4   "Affixation" as cliticization

1 Introduction

+ we argue for at least two types of suffixes (possibly in any of the above language types)

a) classifier-cum-determiner (as per Greenberg)

b) classifier

(4)   Sherbro (Mel, ATLANTIC)

    a. *kén-dò*

       knife-11:PROX.DEM

       'this knife'

    b. *kén-dì*   *mí-ɛ̀*   *lɔ̀*   *lì-bòm*

       knife-11   POSS.1SG-DET   11.PRO   11-big

       'My knife is big.' (Rogers 1967: 125, 115)

1 Introduction

+ Niger-Congo constituency not according to Greenberg (1963) but based on "mainstream" evidence for genealogical relationship as per Güldemann (2018)

> not included in Niger-Congo here: Kru, Siamou, Dogon, Bangime, Kordofanian, Mande

> remaining units not viewed as genuine families but rather as genealogical pools which potentially subsume separate sub-lineages: Ubangi (10), Adamawa (14), Gur (7), Atlantic (7), Benue-Kwa (>20)

1 Introduction

+ strong tendency in Niger-Congo studies to analyze any nominal affix as a reflex of the inherited class system,

cf. already Greenberg's (1963) well-known misanalyses of:

- Kadu: affixes of complex tripartite number marking

           > today no longer Niger-Congo

- Bandaic: vowel prefixes induced by word minimality constraints

- Mbaic: prefixes borrowed from Bantu

1 Introduction

+ no comparison of superficial look-alikes

- focus on paradigms that are likely cognate with the proto-system

> excludes various types of other non-cognate noun affixes, e.g.:

      - grammaticalized compounds with generic nouns
          e.g., Kebi-Benue (Elders 2006)

      - historically opaque prefixes
          e.g., Ma, Mba, Ndunga of Mbaic (Pasch 1986)

2 Types of gender-number suffixes

There are Niger-Congo languages with adnominal gender-number "suffixes" that:

1. co-occur(red) with previously developed prefixes,

   §2.1 Prefixation to subsequent circum-/suffixation

2. are the first and only bound elements,

   §2.2 Zero to suffixation

3. co-occur(red) with subsequently developed prefixes,

   §2.3 Suffixation to subsequent circum-/prefixation

4. are synchronically clitics, as are potentially co-occurring prefixes.

   §2.4 Affixes that are clitics

2.1 Prefixation to circum-/suffixation

+ recurrent occurrence of circumfixes

- original situation: Prost (1964: 14), Welmers (1973: 209), Westermann (1913)
-secondary development: Williamson (1989: 31-7)

"There is, in fact, considerable evidence that prefixes are older than suffixes in Niger-Congo." (Williamson 1989: 33, cf. also de Wolf 1967)

PF-N → **PF-N-SF** → **N-SF**

+ but suffix preference:

Bybee et al. (1990),   vs.   Williamson hypothesis
Himmelmann (2014)

"The change from prefixing to suffixing cannot be seen as a single common innovation, …" (Williamson 1989: 37)

2.1 Prefixation to circum-/suffixation

Yao (P21, Bantu, Bantoid, BENUE-KWA)

Whiteley (1966: 32-3) about demonstratives:

"A large number of these occur, all of which consist of some kind of stem, usually monosyllabic, preceded or followed by a single or reduplicated affix. Some are unstable in the sense that they only occur in immediate association with a preceding word, others may occur initially in the sentence or in isolation, and are referred to as stable. […] Where only this [the unstable] form occurs, there is, at the semantic level, little demonstrative force, especially in Masasi, and it may best be translated by the definite article."

2.1 Prefixation to circum-/suffixation

Yao (P21, Bantu, Bantoid, BENUE-KWA)

(5) a.   *mu-ndú-jú*   [*mundú:jú*]
        1-man-**1PROX.DEM**
        'the man'

   b.   *aju*   *mú-ndú-jú*
        1PROX.DEM   1-man-**1PROX.DEM**
        'this man'

   c.   *m-nendó-jo*
        1-stranger-**1REF.DEM**
        'the stranger in question' (Whiteley 1966: 33)

2.1 Prefixation to circum-/suffixation

Akebu (Ka-Togo, GTM, BENUE-KWA)

 + most GTM languages have prefixes only, Akebu has developed additional suffixes

 + prefixes (Makeeva and Shluinsky 2018)

- inherited residual system, no relation to AGR

- in some NF classes: lost segmental prefix reflected in voicing of the onset plosive of the nominal base (consonant mutation)

- all plural NF's show a segmental prefix, but not all singular NF's

- agreement with numerals is obtained by prefixes parallel to nominal prefixes

(6)	*ø-pɪ́ɪ̃-yɔ́*	*ø-cēŋcēŋ*	'one child'
	kɔ̀-fʋ̄ɛ̄ɛ̄-kɔ̄	*kɔ̀-cēŋcēŋ*	'one book'
	wɔ̀-ʈàà-kpɔ̄	*wɔ̀-cēŋcēŋ*	'one market'
	záá-ʈɔ́	*ɟēŋcēŋ*	'one chair' (mutation: cf. root of chair *sáá*)
			(Makeeva and Shluinsky 2018: 20)

2.1 Prefixation to circum-/suffixation

Akebu (Ka-Togo, GTM, BENUE-KWA)

 + suffixes

- formally identical to AGR forms (object pronouns) (except for AGR *ŋʊ*)

- agreement restricted to referential domain: subject and object indices, free pronouns, possessive pronouns, no agreement with nominal modifiers

- noun with affixes can have definite and indefinite reading

(7) a. *ná-ɲìŋ*   *à-pɔ̄ŋ-pə̄*.
        1SG.PFV-see   A-oil-**PƏ.2**
        'I saw the oil.'

   b. *ná-ɲìŋ*   *pə̄*.
        1SG.PFV-see   **2**
        'I saw it.' (Makeeva and Shluinsky 2018: 13)

2.1 Prefixation to circum-/suffixation

Akebu (Ka-Togo, GTM, BENUE-KWA)

- suffix can be omitted in rare contexts (wh-question, focus)

(8)   *àlō*   *lá*   *kà-fūɛ̄ɛ̄(-kā)*   *wá*   *ālō-fá?*

      who   POSS   KƏ-paper**(-KƏ)**   FOC   2SG.PFV-take

      'Whose book have you taken? (Makeeva and Shluinsky 2018: 6)

- suffixes are detached from the noun when noun is modified by an adjective (also participle) or ordinal numeral

(9)   *ɖ̄ū-pálə́ŋpálə́ŋ-ʈə̄*

      stone-round**-TƏ**

      'round stone' (Makeeva and Shluinsky 2018: 8)

2.1 Prefixation to circum-/suffixation

Other similar cases

a) Kagoro (Plateau, BENUE-KWA)   Gerhardt (1983, 1967/68)

   PF-N → PF-N (MOD)=CLF:DEM

- nominal prefixes strongly reduced to vowel, phrasal enclitic often with
  determiner function, but also occurring in citation form

b) Foodo (Guang, BENUE-KWA)   Plunkett (2009), Fiedler (f.n.)

   PF-N → PF-N-SF

c) Fula (Atlantic)   Creissels (2015: 21-22)

   PF-N → N-SF

2.2 Zero to suffixation

Mba (Mbaic, UBANGI)

+ noun class system of Mbaic is innovation within Ubangi

- in principal suffixing language

- suffixes seem to be cognate to NC affixes

- trigger formal agreement with modifiers

(10) *là-lè / là-sè*   'eye/s'

njánjá-ê̂ / njánjà-zè   'fly/flies'

- Pasch reconstructs the suffixes in Mbaic with vowel *o (Pasch 1986: 366), which is realized as unspecific vowel *E* in Mba (and Ndunga)

> probably determining function of this vocalic morpheme > CL.DEM

2.2 Zero to suffixation

Longuda (ADAMAWA)

\+ Adamawa languages basically show suffixes
\+ two different class markers in Longuda (cf. Elstermann et al. 2021)

    A-form   consists of classifier + DEM –a > CL.DEM
    T-form   consists only of classifier (thematic consonant/vowel)

"We hypothesize that
T-forms are preferred on nouns in fixed morphological contexts and/or with low referentiality,
while A-forms tend to occur at the closure of a noun phrase and/or on nouns with at least specific reference."

<div align="right">(Elstermann et al. 2021: 336-7)</div>

2.2 Zero to suffixation

Longuda (ADAMAWA)

(11)   N-CL (MOD-CL)=DEM

   a.   *[chiba-w]=a*

      slave-**U.3**=**a**

      '(the) slave' (Meek 1931, vol. 2: 363)

   b.   *[chiba-u   mer-w]=a*

      slave-**U.3**   1PL-**3**=**a**

      'our slave' (Meek 1931, vol. 2: 363)

2.2 Zero to suffixation

Longuda (ADAMAWA)

+ in some dialects (esp. Deele), noun roots can occur without a class marker in complex modified noun phrases

(12) N   MOD-CL＝DEM

      [pɔ̄   kāl̄ī-l]＝ā

      thigh.5   one-**5**＝**a**

      'one thigh' (Vigeland 2019: 11)

2.2 Zero to suffixation

Other similar cases

a) Buli, Konni, etc. (Central Gur, GUR)   Schwarz (2012)

     N-CL.SF(-CL.DEM)

b) Yom (Oti-Volta, Central Gur, GUR)   Fiedler (2012)

     N-CL.SF

> determiner vs. plain class marker

2.3 Suffixation to circum-/prefixation

 + Gur languages have primarily suffixes

-some of them developed secondary prefixes, cf. example (2)

-resulting structure is superficially identical to the one in §2.1 (Akebu), but has different historical background

<div align="center">

N-SF → **PF-N(-SF)**

</div>

Manessy (1965-6)

 + secondary prefixes can be explained either as

- result of deverbal nominalization + contact (Tem)

- class-marking pronoun with definite meaning (Ditammari)

- compounds with verbs and nouns meaning 'thing', 'place' etc. in (Senufo) or pronouns (Kirma, Tyurama)

2.3 Suffixation to circum-/prefixation

Ditammari (Central Gur, GUR)

 + synchronically circumfixes (Reineke, to appear)

- prefixes and suffixes not in all cases congruent, partly lexicalized

- erosion of the original nominal marking by suffixes

- prefixes are formally identical to class pronouns / agreement markers

- prefixes as a secondary development took over the grammatical-syntactic
  function from the suffixes by becoming decisive in all agreement processes

(13)   CL.PF-N-CL.SF
       dī-yètĭ-rĭ / yā-yèt-à   'name/s'
       *kū-*bà-*kù / ɨ-*bà-*kà*   'branch/es' (Reineke, to appear)

2.3 Suffixation to circum-/prefixation

Ditammari (Central Gur, GUR)

+ no prefix in some constructions, e.g. in possessive constructions, when noun is determined by other elements in the noun phrase

(14)a.   *ō*   *bí-rà*
         1:POSS   child-**20**
         'his/her child'
    b.   *ō*   *kó*   *dā-bí-rà*
         1:POSS   ASS   **20**-child-**20**
         'his/her child' (Reineke, to appear)

2.3 Suffixation to circum-/prefixation

Ndunga (Mbaic, Ubangi)

+ Ndunga is basically suffixing language (cf. also Mba)

- old vocalic prefixes without function (Pasch 1986: 32f.)

- secondary prefixes via borrowing from Bantu

- double affixation only concerns nominal forms, not agreement

2.3 Suffixation to circum-/prefixation

Ndunga (Mbaic, Ubangi)

(15)a. prefix *mo-* reanalyzed as part of the stem

      mo.*konzi* / **mo.***konzi-yɛ*   'Häuptling [chief]'

            < Lingala *mo-konji* 'chief'

      mò.*búnò-mè*   'Preis' [price]'

            < Ngombe *mo-búno* 'price'

    b. *i-pepela-le* / **ma-***pepela-se*   'Guajave [guava]'

            < Lingala li-/ma.pela   (Pasch 1986: 36, 60)

2.3 Suffixation to circum-/prefixation

Other similar cases

a) Syer, Kar (Senufo, GUR)   Dombrowsky-Hahn (2015, to appear)

    (CL.DEM) N-SF

b) Supyire (Senufo, GUR)   Carlson (1994)

    CL.DEM=N-SF:DEF

c) Tula (Tula-Waja, ADAMAWA)   Kleinewillinghöfer (f.n.), Elstermann (Ms.)

    (PF-)N-SF

2.4 "Affixation" as cliticization

Gola (ATLANTIC)

+ two class markers of special importance (Koroma 1994: 26, 59):

    - **"prefix"** (formally identical with subject pronoun)

    - **"clitic"**

- "prefix" and "clitic" are optional markers, bare stem as default/citation form of nouns (Koroma 1994: 25; Fachner 1990: 9)

- **"clitic"** after last modifying element within a noun phrase, expresses **definiteness** (Koroma 1994: 25, 30-34)

- **"prefix"** precedes head noun, expresses **"referentiality"** (Koroma 1994: 25, 30-34)

2.4 "Affixation" as cliticization

Gola (ATLANTIC)

(16)   Bare noun stem ("non-referential" ~ non-specific use as attribute)
  ojɔa   ***jɔ̃***   ***kanda*** *fa*
  o=jɔa ***jɔ̃u*** ***kana*** *fɔa*
  1=child woman chief die
  'The chief's daughter died.' (Koroma 1994: 31)

(17)   "Prefix" ~ proclitic and "clitic" ~ enclitic present ("referential" ~ specific definite)
  yee *o*   *nã* *tie*   *mãkpɔ mã*
  yee *o*   *na* *ti-e*   ***ma=kpɔ=ma***
  and 1SBJ NAR drink-MK **5**=gravy=**5**
  'And he drank the gravy.' (Koroma 1994: 32)

2.4 "Affixation" as cliticization

Gola (ATLANTIC)

(18)   Only "prefix" ~ proclitic present ("referential" ~ specific indefinite)

a	*nã*	*yɛmbɛ*	*otuo*		*a*	*nã*	*ũ*	*jiwe*	*[…]*
a	*na*	*yɛmɛ*	**o**=*tuo*		*a*	*na*	*ũ*	*jiwe*	*[…]*
2SBJ	NAR	see	**1**=black.deer		2SBJ	NAR	1OBJ	kill	[…]

'They saw a black deer and killed him […]' (Koroma 1994: 32)

> Koroma's "prefix" has to be reanalyzed as **proclitic**, the "clitic" subsequently renamed as **enclitic**

- optional use and phrasal scope of Gola class markers: parallels to classifier   system

2.4 "Affixation" as cliticization

C'lela (Kainji-Platoid, BENUE-KWA)

+ different kinds of affixes (Hoffmann 1967)

- overt nominal class marking has a largely phrasal character

- the nominal prefix is restricted to contexts where no other class marking occurs, notably when occurring in isolation (citation form)

- grammatically conditioned use of classifying elements, not prefix loss!

2.4 "Affixation" as cliticization

C'lela (Kainji-Platoid, BENUE-KWA)

(19) a. *k-tɛ̀lɛ̀* 'bone'

     b. *tɛ̀l*   *kə-hnà*   *tɛ̀l*   *kə-nè*

         bone **CL**-DEM   bone   **CL**-DEF

         'this bone' 'the bone'

     c. *tɛ̀l*   *kâ-d-cìnə̀*   *tɛ̀l*   *kə́n*   *tɔ̀rɔ́*

         bone **CL:GEN**-**CL**-back   bone   **CL:COMPD**   neck

         'spine' [lit.: bone of the back]   'collar-bone'

(Hoffmann 1967: 244, 247, 249, 250, 251)

2.4 "Affixation" as cliticization

Kisi (Mel, ATLANTIC)

+ class-specific "suffix"

- occurs in most morphosyntactic environments (Childs 1995: 150), synchronically no function as determiner (see Childs 1995)

- in extended noun phrases, the head noun is followed by a postnominal "class pronoun" which "replaces the suffix when the suffix has been removed" (see Childs 1995: 150-151)

2.4 "Affixation" as cliticization

Kisi (Mel, ATLANTIC)

(20) *mèŋndáŋ*
      mèŋ = ndáŋ
      water = 7
      'water' (Childs 1995: 151)

(21) *lèɛn-là*   *yùwɛ́í-láŋ*
      [lèɛn = [là   yùwɛ́í]] = láŋ]
      cutlass = 4   old = 4
      'old cutlasses' (Childs 1995: 150)

2.4 "Affixation" as cliticization

Kisi (Mel, ATLANTIC)

+ class-specific "pronoun" "prefixed to the noun":
occurs in very restricted morphosyntactic environments, mutually exclusive with the "suffix" (see Childs 1995)

(21)a. *càléŋ*

     *cà=**léŋ***

     pumpkin=**3**

     'pumpkin' (Childs 1995: 159)

   b. *ò*   *có*   *lé-cá*   *lé*

     ò   *có*   ***lé**=cá*   *lé*

     1SBJ   COP   **3**=pumpkin   NEG

     'It's not a pumpkin.' (Childs 1995: 159)

2.4 "Affixation" as cliticization

Kisi (Mel, ATLANTIC)

+ revision of Childs' (1995) analysis

- "suffixes" analyzed as **phrasal enclitics with** formal similarity to demonstratives

> demonstrative origin of the enclitics

- postnominal and prenominal "class pronouns" analyzed as **postnominal classifiers** and **nominal proclitics** respectively

- hints that nominal proclitics are used in noun phrases with non-specific reference while phrasal enclitics appear in noun phrases with specific reference

> postnominal classifiers and nominal proclitics are classifier-like elements

- possibly, these structures can be traced back to Proto-Southern-Mel or even Proto-Mel

2.4 "Affixation" as cliticization

Other similar cases

a) Sherbro (Mel, ATLANTIC) Rogers (1967)

CLF-N

CLF-N CLF-MOD

N CLF MOD (N=CLF MOD or N CLF=MOD)

b) Aghem (Ring, Grassfields, BENUE-KWA)　　　　　Hyman (1979, 2010)
　Isu (Ring, Grassfields, BENUE-KWA)　　　　　Kießling (2010)

PF-N

N CL=MOD

N=CL:DEM

(no prefix loss assumed by us)

3 Summary/conclusions

3.1 Origins of (host-final) gender-number markers

+ more than just one scenario of suffix~enclitic origin

       Greenberg's (1977, 1978): demonstrative scenario

       Hoffmann's (1967): prefix-to-suffix-realignment scenario

       New: classifier-to-affix scenario

Greenberg's demonstrative scenario

"… the class marker was neither a prefix nor a suffix but varied in its order and became fixed as it developed into an article, just as in the Romance languages. The Latin example is suggestive for another reason. It was noted earlier that the article which renewed the class marker in the languages like Gurma is generally synchronically considered either identical with, or obviously related to, the pronominal subject markers of the verb. In the Romance languages, the article is similar to, or identical with, verb subject or object pronouns, but not with the present demonstratives … But historically both the article and the pronoun have a common origin in the Latin demonstrative." (Greenberg 1977: 102)

Greenberg's demonstrative scenario

+ assumed first change:

   NUM.CLF > [NUM.CLF DEM] > CL-DEM

> expected (and indeed often seen) to be reflected in the emerging class marker by an invariable element reflecting the earlier demonstrative, normally a single vowel

-subsequent **parallel** grammaticalization of classificatory demonstratives, explaining isomorphy of class pronoun and adnominal affix

CL.DEM ⟶ [N CL.ART] ⟶ **N-CL.SF**   (or host-initial pattern)

CL.DEM ⟶ CL.PRO
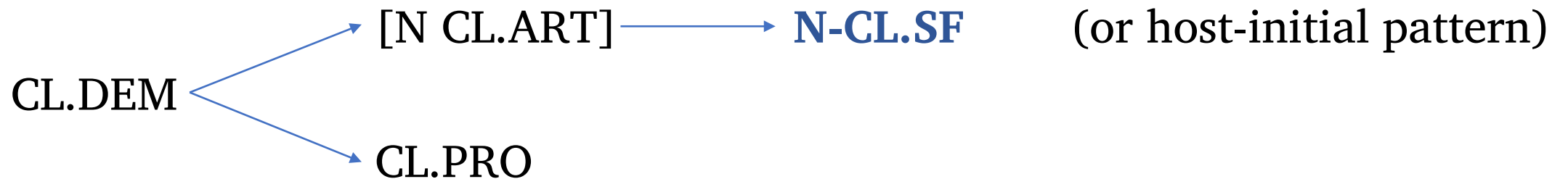
Greenberg's demonstrative scenario

+ can apply to various types of noun lexemes:

    - on root without class marker

        > genuine innovation of adnominal class marking

    - on the same side of lexicalized class marker

        > class marker stacking

        > prefixes (Bantu augment), suffixes (Gur, Senufo)

    - on the opposite side of lexicalized class marker

        > class circumfixation

> cyclic renewal of class marking indeed recurrently attested with predictable effects of different patterns: Akebu (§2.1), Ditammari (§2.3)

Hoffmann's prefix-to-suffix-realignment scenario

"Whether the loss of the prefix in the head noun is to be regarded as a kind of dissimilation caused by the subsequent concord, or simply as an economy in marking certain grammatical categories, does not very much matter, the result is the same, viz. that the element marking the nominal groups as a member of a particular class is now following the noun stem and no longer preceding it. … Such a morphological restructuring of the extended nominal group might then eventually lead to a reshaping of the isolated noun with the class marker now attached to it as a suffix, and the change from a prefix system to a suffix system would have been completed." (Hoffmann 1967: 253-4)

Hoffmann's prefix-to-suffix-realignment scenario

➤at least two changes implied in very different domains:

a)   realignment in syntactic phrase:

     tɛ̀l   **kɔ-*hnà***   'this bone'

     [N [CL.PF-MOD]]   > [**[N-CL.SF]** MOD]

b) analogical change in lexical noun:

     CL.PF-N   >   **N-CL.SF**

> complex scenario, so far unattested except for one potential incipient case in Kisi (§2.4)

New: classifier-to-affix scenario

+ adnominal class markers across Niger-Congo in two variants:

a) with invariable vowel presumably reflecting an earlier deictic element

b) with variable vowel reflecting the thematic vocalic segment of a distinct class marker

Position\Form	a) CL-V (V = DEM)	b) CL-Ø
Host-initial	Temne (Mel), ?Joola (Bak)	Benue-Kwa, Mutation Atlantic
Host-final	Mba, ?Cangin, many others!!!	Gur, Adamawa

Table: Lexicalized adnominal class marking across Niger-Congo

New: classifier-to-affix scenario

\+ variable vowel of a specific class marker reflects variation in a classifier system

\- **parallel** grammaticalization of classifier, explaining isomorphy of class pronoun and adnominal affix

$$\text{CLF} \nearrow \text{[N CLF]} \longrightarrow \textbf{N-CL.SF} \qquad \text{(or host-initial pattern)}$$
$$\searrow \text{CL.PRO}$$
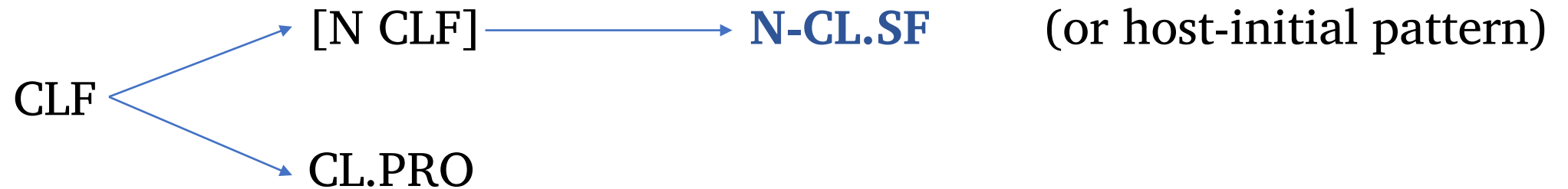
\+ classifier position possibly related (partly) to earlier NP structure

a) CLF N ~ head-initial: Benue-Kwa, Atlantic

b) N CLF ~ head-final: Gur

3.2 Niger-Congo distribution

 + Greenberg (1977: 97) on family-internal distribution:

"As far as prefixing and suffixing is concerned, the distribution agrees broadly with major subgroupings. The West-Atlantic, Kwa and Benue-Congo branches are prefixing. […] Finally almost every branch of Niger-Congo […] has some languages that are simultaneously prefixing and suffixing."

1. BANTOID, KAINJI-PLATOID, GHANA-TOGO-MOUNTAIN, Guang (BENUE-KWA), Fula (ATLANTIC)

2. Mbaic (UBANGI), ADAMAWA, GUR

3. Mbaic (UBANGI), ADAMAWA, GUR

4. Mel (ATLANTIC), Ring (Grassfields, BENUE-KWA)

3.2 Niger-Congo distribution

+ small-scale areal patterns and contact-induced change:

  - prefixes in Ndunga ~ contact with Bantu

  - circumfixation area:

    Gurma, Eastern Gurunsi, Eastern Oti-Volta (Gur),

    Akebu (Ka-Togo)

    Fodoo (Guang)

Thank you!

Referenzen

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