

**HEAD-INITIAL MEETS HEAD-FINAL:  
NOMINAL SUFFIXES IN EASTERN AND SOUTHERN BANTU  
FROM A HISTORICAL PERSPECTIVE\***

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Bantu languages in eastern and southern Africa possess nominal suffixes which serve to express locative relations or derive nominal stems. As these grammemes are final to their noun hosts, they are markedly distinct from canonic prefix morphology in Bantu nouns. Moreover, nominal syntagms are head-initial and canonic grammaticalization in this domain can be expected to yield prefixes. The elements under discussion are suffixes, yet they developed in Bantu from inherited nominal lexemes. Thus, they are unusual from a morphotactic viewpoint and cannot easily be accounted for by exclusively language-internal developments. For this reason, it is plausible to investigate the hypothesis that the nominal suffixes emerged due to interference from languages having a different grammatical structure. For this purpose, a sample of non-Bantu languages from the relevant geographic area in Africa is established and analyzed in order to test whether there are languages or entire groups with head-final and suffixing patterns that could have influenced the process of suffix emergence in Bantu.

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## 1. Introduction

The Bantu family is, in spite of its vast geographic region and enormous number of member languages, a typologically homogeneous genetic unit. This also holds for its clause structure: Wherever a constituent is semanto-syntactically dependent on another unit it is consistently postposed. Such an order of endo-centric nucleus-satellite relations, surfacing mostly in the noun phrase, is often called head-initial. In a concrete language structure, this organization is reflected on the syntactic level by the postposition of modifiers. Research in grammaticalization processes has shown that a head-initial organization of the noun phrase frequently leaves its imprint in morphological structure: Such a language predominantly develops prefixes. This is indeed the case for Bantu on an overall family level.

In view of this situation, it is all the more striking that certain grammatical phenomena in southern and eastern Bantu languages do not conform to the above-mentioned pattern. A widely known characteristic, presented in section 2, is a set of suffixes encoding such categories as locative, diminutive, and feminine/augmentative. The development of these grammemes must have occurred in a relatively late stage of Bantu dispersion, as is indicated, firstly, by their fairly limited distribution and, secondly, by the fact that all of the morphemes seem to be, with high probability, derivable from still existing lexical items.

Starting from the assumption that the suffixes are the results of canonic language-internal grammaticalization processes, one would have to explain at least some of these suffixes as having developed out of head-final nominal syntagms. However, section 3 will demonstrate that this is not a tenable explanation for Bantu.

Although an alternative explanation invoking contact of southern Bantu languages with South African Khoisan has already been considered by various scholars (see section 5.1), the whole problem has not yet been tackled systematically. This paper will offer a first attempt in this direction, discussing the noun suffix phenomenon for the Bantu family as a whole and evaluating the possibility of contact with languages in a larger geographic area. For this purpose a sample of non-Bantu languages is set up and evaluated in section 4 with regard to the hypothesis of a contact-induced emergence of the Bantu suffixes. Section 5 discusses the evidence for this contact explanation. It explores, on the one hand, positive arguments for the Khoisan hypothesis, on the other, various aspects of the problem which point to the possibility that the emergence of nominal suffixes in Bantu is a more global phenomenon in the family, connected with its spread into eastern and southern Africa and with its recurrent encounter of head-final languages in general. Some questions for future research conclude the paper.

## 2. Nominal suffixes in eastern and southern Bantu

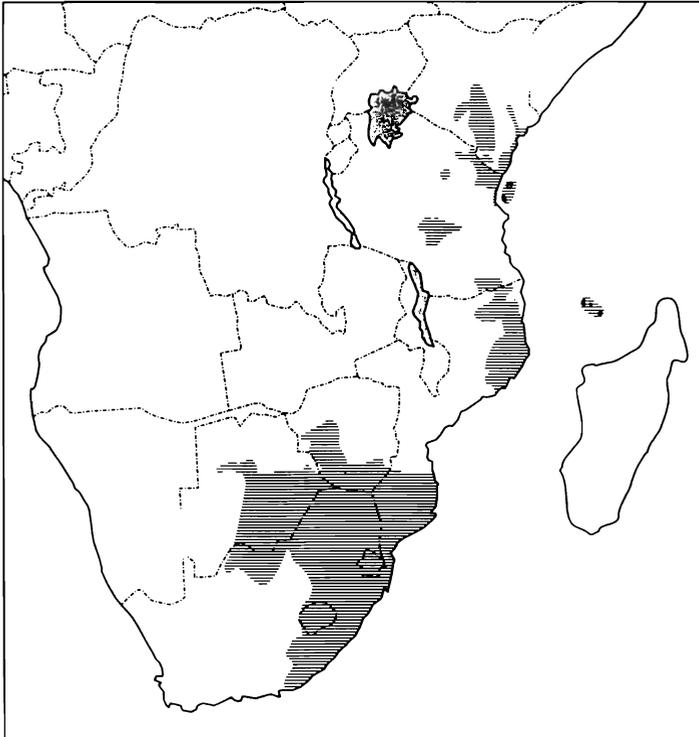
The nominal suffixes found in Bantu languages of eastern and southern Africa belong to two different functional domains and will thus be presented in two separate sections. They serve, on the one hand, to express locative relations and,

on the other hand, to derive nouns with respect to features like size and natural sex.

## 2.1. The locative suffixes

**2.1.1. The inessive/locative suffix from *\*-jini* ‘liver’.** Only one of the suffixes to be treated has a relatively wide geographic distribution (see Map 1 in comparison with Map 6 of the appendix showing the zonal affiliation of the affected languages). It was reconstructed by Guthrie [1967-71] as a Common Bantu form *\*-jini* (CS.2272). Růžička [1959/60] and Grégoire [1975] provide surveys of this locative suffix across the Bantu family. Samson and Schadeberg [1994] have convincingly shown that it has emerged via grammaticalization from a nominal lexeme meaning ‘liver’. This explanation has invalidated the hypothesis by Meinhof [1941/2], who viewed *\*-jini* as being derived from the class concord *\*mu* of the inherited inessive noun class 18. The questions involved will not be discussed here as they are conveniently laid out in the cited sources.

Map 1: Distribution of the inessive/locative suffix from *\*-jini* ‘liver’



The grammatical importance of the suffix differs from language to language. Sometimes the inherited locative classes have been retained and may cooccur with the locative suffix as, for example, in Lomwe (P32), as shown in (1).<sup>1</sup>

(1) Lomwe P32 [Bawman 1949:17]

<i>vemachani</i>	<	<i>va-i-macha-ni</i>
‘nos jardins (hortas)’		16-10-garden-LOC
‘in the vegetable/fruit gardens’		

In those languages which have lost the class prefixes as a productive means to mark locative relations and use *-ini* as their dominant locative marker, the latter has sometimes entered other functional domains. This indicates that it has become entrenched in the language more deeply. Compare the examples from Pokomo (E71) and Tswana (S31) where the suffix is used in tense-aspect marking and relative clauses, respectively:

(2) Pokomo E71 [Geider 1990:432, 441]

a. <i>nyumba-ni</i>	b. <i>kw-a-haala-ni</i>
9.house-LOC	2S-?-take-LOC
‘in das Haus [into the house]’	‘du bist am nehmen [you are taking]’

(3) Tswana S31 [Cole 1955:343, 178]

a. <i>thabêng</i>	<	<i>thaba-ing</i>
‘on/at the mountain’		mountain-LOC
b. <i>di-kgômo tsê-di-fula-ng</i>		
10-cattle	10.REL-10-graze.PRES-LOC	
‘the cattle which are grazing’		

The suffix *-ini* was originally a marker of inessive relations and only subsequently developed into a general locative. In addition to the arguments brought forward by Samson and Schadeberg [1994], this claim can be

<sup>1</sup> Abbreviations:

ABL	ablative	D	dual	MA	manner
ADE	adessive	DEM	demonstrative	MPO	multi-purpose oblique
ALL	allative	DIM	diminutive	P	plural
ASS	associative	F	feminine gender	PRES	present
ATTR	attributor	FEM	feminine derivation	RED	reduplication
AUG	augmentative	INE	inessive	REL	relative
C	common gender	INF	infinitive	S	singular
COM	comitative	LOC	locative	SUPE	suppressive
COP	copula	M	masculine gender		

Arabic numbers indicate noun classes, except if directly followed by the gloss S, where a personal category is meant. The source is given in brackets in the translation line.

convincingly supported by cases where the suffix today interacts paradigmatically with another postposed locative marker.

**2.1.2. The superessive/locative suffix from *\*-gudu/-judu* ‘sky’, ‘top’.** Růžička [1959/60:648f] was the first to treat a locative suffix other than *\*-jini* from a comparative viewpoint. At this stage, only Ngazija (G44a) was known to have a second locative suffix *-ju* with a superessive meaning. Later, Rombi [1983] gave an attestation of this marker in another Comorian language, Maore (G44b), where it has a superessive or a more general adessive function. She derived it etymologically from a noun appearing in Guthrie [1967-71] as the starred forms *\*-gudu/-judu* ‘sky’, ‘top’ (C.S. 880, 881, 886, 959).<sup>2</sup>

Rombi also mentions a semantic contrast between this locative marker and the suffix *\*-jini*, shedding light on the more concrete meaning of the two items in the past. It supports the idea that the latter was originally an inessive marker, as in (4).

(4) Maore G44b [Rombi 1983:81]

<i>mu-ri-ni</i>	vs.	<i>mu-ri-žu</i>
3-tree-INE		3-tree-SUPE
‘dans l’arbre’		‘au-dessus de l’arbre’

So far, the existence of the superessive marker appeared to be an isolated feature of Comorian Bantu. However, taking data from Tonga-Inhambane (S62) into account, the possibility arises that this may not have always been the case in the past. This language has, in addition to inherited locative prefixes, a reflex of *\*-jini* and another locative suffix *-tunu*:

(5) Tonga-Inhambane S62 [Lanham 1955:209]

<i>nyumba-ni</i>	vs.	<i>nyumba-tunu</i>
house-INE		house-LOC
‘in the house’		‘at the house’ (implying the vicinity thereof, e.g., in the garden)

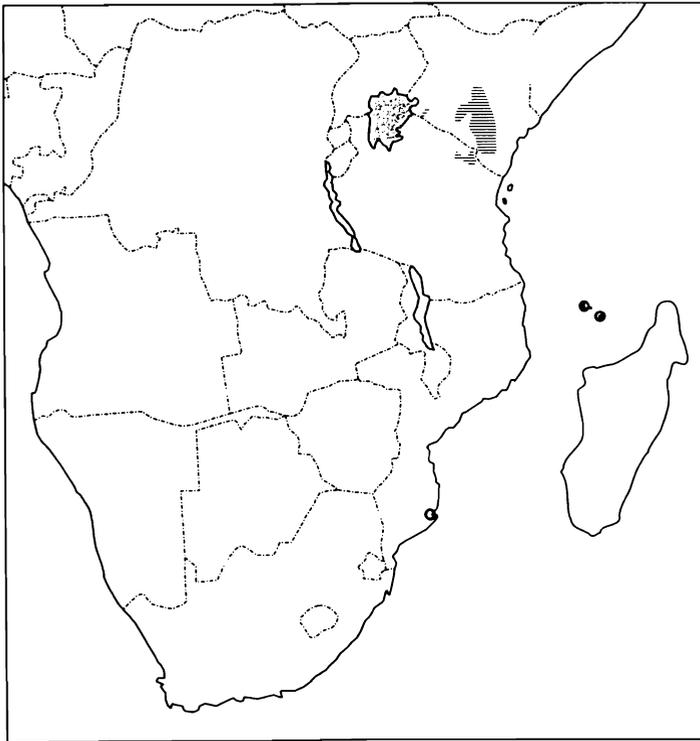
<sup>2</sup> Interestingly, toponyms that are obviously or possibly parallel to the grammatical pattern noun-SUPE occasionally appear all over the Swahili culture area. This was partly observed already by Rombi [1983:81]. Compare the following place names:

Maore (G44b)	<i>Momo-žu</i>	[Rombi 1983:82]
Ngazija (G44a)	<i>Manga-juu</i>	[Aujas 1920:55]
Rural Zanzibar (G43c)	<i>Bwe-juu</i>	(according to oral traditions founded by Comorians) [R. Krieglér, p.c.]
Vumba (G43e)	? <i>Pungutia-yu</i>	[Hollis 1900:PlateXXXVIII]
Siyu-Pate-Amu (G42a)	? <i>Si-yu</i>	
Mwiini (G41)	<i>Kis(i)ma-yu</i>	[Rombi 1983:81], <i>Kiwa-yu</i> (? < <i>Kisiwa-yu</i> )

It cannot be discussed here how the onomastic and the grammatical phenomenon are related to each other, let alone what historical interpretations possible answers would foster.

At first glance, Tonga-Inhambane *-tunu* and Maore superessive *-žu* do not seem to have much in common. Yet, if one considers that the two languages share the inessive/locative suffix and that they show a regular sound correspondence between /t/ and /ž/, a possible relation between the seemingly isolated suffixes emerges. Given the possibility that the /n/ in *-tunu* could be a reflex of \*d,<sup>3</sup> the Tonga-Inhambane suffix even seems to be fairly close in sound shape to its possible source *\*-gudu/-judu* ‘sky’, ‘top’ in that it would not have dropped the second syllable. From a semantic viewpoint, however, *-tunu* would be further away from its lexical source because it is not a superessive marker but has a more general locative meaning. Note that the opposition between the suffixes exemplified in (5) above reveals again the bias of *\*-jini* toward an inessive meaning. Map 2 gives the location of the three languages with an assumed reflex of the superessive suffix.

Map 2: Distribution of the superessive/locative suffix *\*-gudu/-judu* ‘sky; top’ (circles) and other host-final locative markers (hatching)



<sup>3</sup> I owe this observation to R. Bailey and R. Botne who both suggested it independently.

**2.1.3. Other host-final locative markers.** There exist a few other cases of locative markers postposed on the noun in East African Bantu languages whose geographic position is also given in Map 2. Interestingly, they refer to the same spatial relations of inessive and superessive that are assumed to have been the original functions of the two grammatical suffixes and partly employ even the same linguistic material. This seems to indicate that both the functions and their lexical sources are particularly prone to grammaticalization.

I cannot discuss these cases in any detail. I only mention them here and will briefly return to them in section 5.3. They are a superessive suffix *i(h)u* in Chaga varieties (E60) and an inessive postposition *imi* in Gusii (E42) (see Grégoire [1975:186f]). Furthermore, Bantu languages of central Kenya like Kikuyu (E51) and Kamba (E55) can place a restricted number of relational nouns behind the host noun to render a locative expression. In Kikuyu, for example, this behavior is confined to the three relational nouns *igūrū* ‘top’, *gatagafī* ‘middle’, *thīinī* ‘inside’. Thus, they can serve both as a postposition and as the initial head of an associative construction, illustrated in (6).

(6) Kikuyu E51 [Barlow 1951:200ff]

- |                         |                           |
|-------------------------|---------------------------|
| a. <i>mū-ŭi igūrū</i>   | b. <i>igūrū rīa mī-ŭi</i> |
| 3-tree 5.top            | 5.top 5.ASS 4-tree        |
| ‘from [above] the tree’ | ‘above the trees’         |

Postposing relational nouns is not only atypical from an overall genetic viewpoint, but also exceptional language-internally. The Kamba postpositions, for example, do not belong to the phrasal tone unit of their nominal hosts [D. Odden, p.c.].

## 2.2. The derivational suffixes

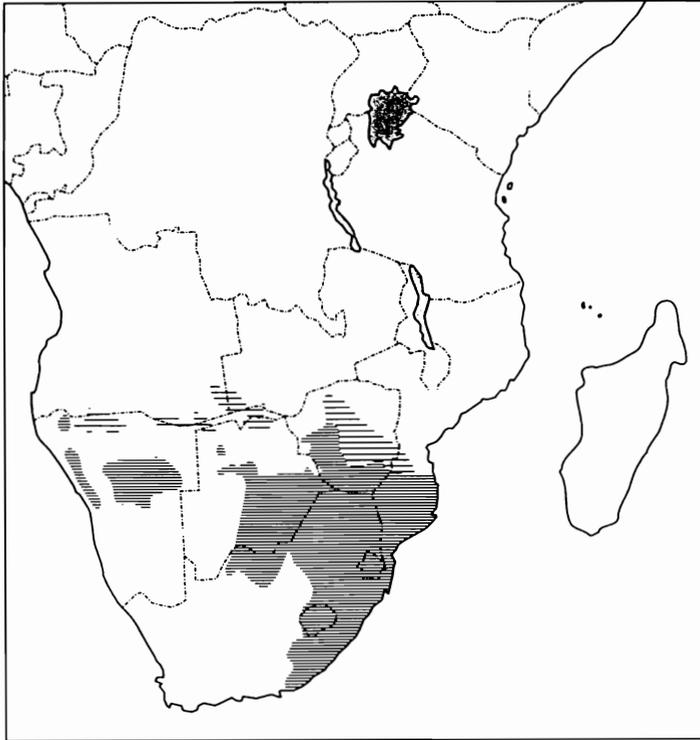
**2.2.1. The diminutive suffix from \*-yana ‘child’.** Many southern Bantu languages have a diminutive suffix typically of the form *-ana*. The origin of this element in the lexeme *\*-yana* ‘child’ (Guthrie’s C.S.1922) is straightforward and extensively discussed in Poulos [1986:288ff]. In contrast to the locative suffix *\*-jini*, the geographic distribution of the diminutive suffix is far more restricted. It is confined to southern languages, mainly of zone R and S.

Parallel to the behavior of the locative suffixes, the diminutive suffix can intimately interact semantically with inherited diminutive prefixes. Compare two examples from Herero (R31) and Venda (S20), respectively. In other languages it occurs without any diminutive prefix as in Tonga-Inhambane (S62).

(7) Herero R31 [Engelbrecht 1925:96]

- |                        |   |                                     |
|------------------------|---|-------------------------------------|
| <i>om-bahu</i>         | > | <i>oka-pahona</i>                   |
| 9-locust               |   | 13:DIM-locust.DIM                   |
| ‘Heuschrecke [locust]’ |   | ‘kleine Heuschrecke [small locust]’ |

Map 3: Distribution of the diminutive suffix from \*-yana 'child'  
(narrow hatching: increased productivity)



(8) Venda S20 [Poulos 1990:87]

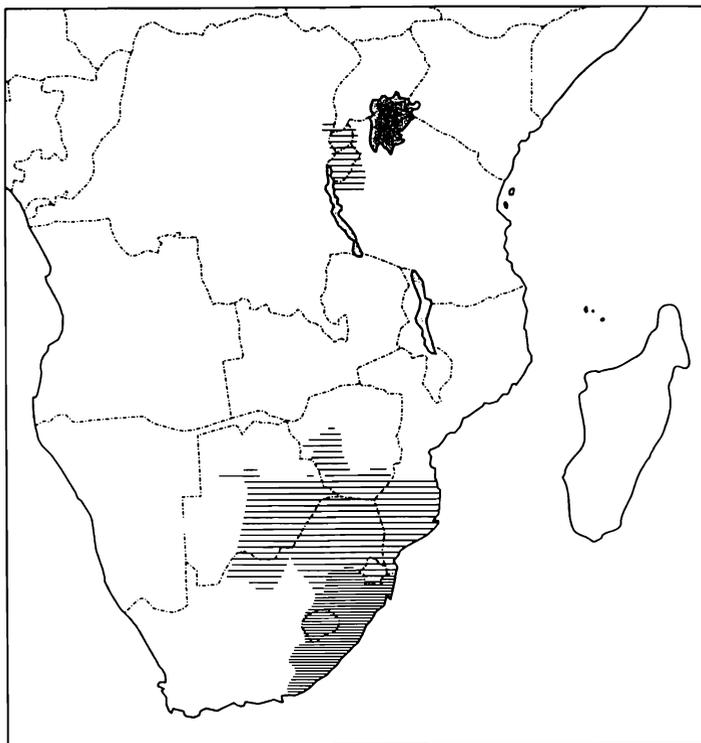
<i>tshi-kali</i>	>	<i>tshi-kalana</i>
7:DIM-clay pot		7:DIM-claypot.DIM
'small clay pot'		'very small clay pot'
(somewhat broadish)		

(9) Tonga-Inhambane S62 [Lanham 1955:107]

<i>yim-bwa</i>	>	<i>yim-bwana</i>
9-dog		9-dog.DIM
'dog'		'puppy'

**2.2.2. The feminine/augmentative suffix from \*-kadj 'wife', 'woman', 'female'.** The feminine derivation suffix apparently originated in a Common Bantu root \*-kadj 'wife', 'woman', 'female' (compare Guthrie's C.S.986). Map 4 shows that it is also geographically restricted in being confined basically to languages of zone S.

Map 4: Distribution of the feminine/augmentative suffix from \*-kadj ‘wife; woman; female’ (narrow hatching: increased productivity)



Moreover, in the majority of languages, it applies to a very a limited set of lexical items. Here follow some relevant comments regarding this derivational device in various languages of this zone: Cole [1955:110] for Tswana (S31)—originally ‘rare’, Ziervogel and Mabuza [1976:39] for Swati (S43)—‘have become stereotyped’, Ribeiro [1965:478] for Tonga-Shangaan (S53a)—‘algumas palavras importadas do zulu’ [some loan words from Zulu], and Lanham [1955:108] for Tonga-Inhambane (S62)—‘restricted group of personal nouns only’. This characterization also holds for its isolated occurrence in zone J languages. The following examples are from Hunde (J51) and Tsonga (S53b), respectively:

(10) Hunde J51 [Mateene 1992:121]

a. *mu-tambo-katsi*  
1-chief-FEM  
‘cheftaine’

b. *mu-twá-katsi*  
1-pygmy-FEM  
‘femme pygmée’

c. *im-bwá-katsi*  
9-dog-FEM  
‘chienne’

## (11) Tsonga S53b [Baumbach 1987:182]

<i>m-hala</i>	>	<i>m-hala-kati</i>
9-impala		9-impala-FEM
'impala'		'impala ewe'

\*-*kadi* occurs as a fairly productive suffix only in Xhosa (S41) and Zulu (S42), henceforth, Southern Nguni, and Sotho (S33). In these languages, it quite regularly derives the feminine counterpart of an animate noun. It can also convey an augmentative or derogatory connotation and thus behave occasionally in opposition to the diminutive suffix. Compare the examples from Sotho (S33).

## Sotho S33 [Guma 1971:71, 72]

- |      |               |   |                    |
|------|---------------|---|--------------------|
| (12) | <i>mo-roa</i> | > | <i>mo-roa-hali</i> |
|      | 1-bushman     |   | 1-bushman-FEM      |
|      | 'Bushman'     |   | 'Bushwoman'        |
- 
- |         |                     |    |                    |
|---------|---------------------|----|--------------------|
| (13) a. | <i>mo-lomo-hali</i> | b. | <i>mo-nna-hali</i> |
|         | 3-mouth-AUG         |    | 1-man-AUG          |
|         | 'big mouth'         |    | 'big, huge man'    |

### 3. Canonic Bantu structure

It can be observed above that the existence of nominal suffixes is a fairly restricted feature geographically within Bantu. It appears to be even more exceptional if one considers the fact that the normal morphotactic pattern in this language family is not suffixing but prefixing. It will be shown now that Bantu languages usually have quite different means at their disposal for expressing the above functions and that their inherited grammatical structure cannot, for the most part, be held responsible for the grammaticalization development of the above suffixes from their assumed lexical sources.

**3.1. Locative relations.** With regard to details about locative marking in Bantu, we confine our discussion here to some very basic information. More extensive treatments can be found in Růžička [1959/60], Ziervogel [1971], and Grégoire [1975].

Locative concepts are partially accounted for by the inherited noun class system. Four such locative classes with their respective noun prefixes have been reconstructed for Bantu: the adessive class 16 \**pa-*, the general locative class 17 \**ku-*, the inessive class 18 \**mu-*, and the far less widespread locative class 25 \**e-*. Semantically, more specific locative relations are regularly expressed by prepositional phrases, which are based on a relational locative noun in an associative or occasionally comitative construction. This strategy, sometimes with the same lexical items that developed into suffixes, is also present in those languages which

have lost the locative noun classes. The following example from Maore (G44b) should be compared with (4) above.

(14) Maore G44b [Rombi 1983:86]

*sembea la užu na ilatabu*  
 5:knife 5:COP above COM table  
 ‘le couteau est sur la table’

### 3.2. Derivational categories

**3.2.1. Diminutive/augmentative.** The majority of Bantu languages possess also one or more noun classes which, exclusively or inter alia, bear a diminutive or augmentative connotation, although there is considerable variation across the family as to which particular class serves this function. Noun classes frequently used in the expression of diminutives are the class pair 7 \**ki*-/ 8 \**bi*-, the class pair 12 \**ka*-/ 13 \**tu*-, and class 19 \**pi*-. There is good evidence that the last prefix is related to a nominal root ‘child’ widely attested in Niger-Congo (compare Kähler-Meyer [1971]). This indicates that the emergence of prefix morphology via grammaticalization of former syntactic heads is a Bantu feature that can be traced back to its higher order genetic unit.

The source construction, where a compound or associative syntagm with a head noun ‘child’ expresses a diminutive meaning, is still evident today in Bantoid languages like Tikar [Stanley 1991:432f] or Tiv [Jockers 1991:43], and also in Rainforest Bantu. The host-initial derivational elements of these languages are cognate with the stem that developed into a diminutive suffix in southern Bantu. Consider Londo (A11a).

(15) Londo A11a [Kuperus 1985:228]

a. <i>nw-áná-mù-ínà</i>	b. <i>nw-áná-mò-kòrí</i>
1-child-1-male	1-child-3-hill
‘boy’	‘small hill’

**3.2.2. Natural sex.** The expression of natural sex is, vis-à-vis previous functions, structurally partly different. One distinction is that it cannot be accounted for by features of the noun class system.

The most frequently found strategy, apart from the restricted role of lexical suppletion, is an associative phrase where—as a second difference—a host-final modifier conveys the meaning ‘female’/‘male’. Consider an example from Lwena (K14).

(16) Lwena K14 [Horton 1949:62]

a. <i>mw-ana wa-lunga</i>	b. <i>ngombe wa-ci-pwevo</i>
1-child 1.ASS-male	1.cattle 1.ASS-7:MA-female
‘a male child’	‘cow’

Two strategies, though of restricted importance, are structurally more reminiscent of locative and diminutive marking as presented above. First, associative phrases can also have the head noun bearing the semantic feature of natural sex, as in Tsonga (S53b).

(17) Tsonga S53b [Baumbach 1987:181]

- |                                                                |                                                                  |
|----------------------------------------------------------------|------------------------------------------------------------------|
| a. <i>n-kati wa nghala</i><br>1-female 1.ASS lion<br>'lioness' | b. <i>matsune wa nghala</i><br>1: male 1.ASS lion<br>'male lion' |
|----------------------------------------------------------------|------------------------------------------------------------------|

In some languages like Lwena (K14), there exist nominal prefixes which are historically derived from former head nouns with semantically inherent natural sex. However, these are often lexically restricted and always express a more specific semantic notion than just sex.

(18) Lwena K14 [Horton 1949:62]

- |                                                                            |                                                          |
|----------------------------------------------------------------------------|----------------------------------------------------------|
| a. <i>sa-ku-waha</i><br>father-INF-be nice<br>'man of pleasing appearance' | b. <i>nya-kaswa</i><br>mother-termite<br>'queen termite' |
|----------------------------------------------------------------------------|----------------------------------------------------------|

**3.2.3. Lexically restricted strategies.** There is additional data that must be considered in a comparison between the derivational suffixes in southern Bantu and canonic Bantu expressions.

First, a comparative study by Knappert [1965] shows that Bantu has a widespread pattern of nominal compounding whereby an initial head noun and another modifying item are simply juxtaposed. The modifiers can pertain to different lexical categories such as nouns, adjectives, adverbs, or infinitives. What is important is that the initial and the final constituent can serve as a variable to form a kind of compound series. Consider Unguja-Swahili (G42d).

Unguja Swahili G42d [Knappert 1965: 213, 214]

- |                                                                |                                                         |                                                                     |
|----------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------|
| (19) a. <i>mw-ana-soka</i><br>1-child-9:soccer<br>'footballer' | b. <i>mw-ana-n-chi</i><br>1-child-9-country<br>'native' | c. <i>mw-ana-soko-ni</i><br>1-child-9:market-LOC<br>'market vendor' |
| (20) a. <i>ma-ji-m-oto</i><br>6-water-3-fire<br>'hot water'    | b. <i>siku-m-oto</i><br>9:day-3-fire<br>'hot day'       | c. <i>kazi-m-oto</i><br>9:work-3-fire<br>'hot work'                 |

Given a situation such as that in (20), it can be imagined that one and the same nominal modifier may become attached to a greater set of nouns in a more regular fashion. Then, an apparent parallel to a derivational suffix emerges, even if such a modifier as *moto* in (20) still bears a noun prefix while *-yana* and *-kadji* do not.

Another relevant fact is that a few terms of kin and social relations across the family show *inter alia* the very suffixes that have become diminutive and feminine-augmentative markers in southern Bantu—here, without any structural difference to the latter. This lexical phenomenon was treated extensively by Angenot-Bastin [1971]. Examples are given here from Luba-Katanga (L33) and Herero (R31).

(21) Luba-Katanga L33 [Angenot-Bastin 1971:25f]

- |                                                               |                                                                 |
|---------------------------------------------------------------|-----------------------------------------------------------------|
| a. <i>-kazi-ana</i><br>-woman-X<br>'jeune fille, jeune femme' | b. <i>-lumi-ana</i><br>-male-X<br>'un garçon fort pour son âge' |
|---------------------------------------------------------------|-----------------------------------------------------------------|

(22) Herero R31 [Angenot-Bastin 1971:10]

- kulu-kazi*  
-aged-X  
'vieille femme'

**3.3. Canonic Bantu structure as an insufficient explanation for noun suffix evolution.** There is a considerable debate as to whether there exists a historically interpretable correlation between phrasal word order and word-internal morpheme order. The answer to this question is important for the general research on grammaticalization. Controversial arguments on this topic can be found, for example, in Givón [1971], Comrie [1980], Haspelmath [1992], and Harris and Campbell [1995:199ff]. I cannot discuss here this issue in detail. Suffice it to say that there are innumerable attested cases where the synchronic morphotactic pattern does conform to an earlier syntactic one. Compared to this, the available counterexamples are few and may turn out to be restricted to special morphological domains. Thus, a positive answer to the above question is always a useful working hypothesis, while coming to firmer conclusions in a particular case is, to a large extent, an empirical issue. With regard to Bantu as a family, my experience is that it has, diachronically and synchronically, features typical of a consistent head-initial language, and cases where a non-correlation between inherited syntax and today's morphotaxis is discernible should be subjected to a more careful examination. Bearing this in mind, one must ask the following question: How do Bantu-typical structural means expressing locative relations and derivational noun categories relate historically to the suffixes under discussion? While answering this question two factors must be taken into account.

With regard to the structural issue, one needs to determine what kind of grammatical input should be assumed for the emergence of the grammaticalized suffixes. In this respect, one must consider basically the following three parameters: noun phrase syntax + word formation processes, the word category of the lexical source items, and the morphotactic feature of the resulting grammemes.

If the source structure at the beginning of the grammaticalization process is assumed to have been an endocentric associative or compound phrase whereby the nominal head developed into a grammeme, neither of the suffixes could be the outcome of Bantu internal processes. There is no evidence that there has ever

existed a productive head-final nominal syntagm in the Bantu family. On the contrary, the syntactic basis for relevant grammatical and lexical strategies is a head-initial noun phrase. This is in accordance with the attested creation in Bantu of nominal prefixes through the grammaticalization of earlier noun heads.

Assuming, alternatively, that the suffixes developed out of modifiers in associative or compound-like structures, the above conclusion still holds for the locative suffixes, as the lexical source items in question must have been structural heads. This is not the case for the derivational suffixes. The lexeme *-kadj* 'wife', 'female' and perhaps also *-yana* 'child' in the initial stage of grammaticalization can be viewed alternatively as canonically postposed modifiers. For this model of suffix evolution, one finds Bantu-internal structure templates. First, there are the compound noun pattern and the lexicalized suffixes *-yana* and *-kadj* with human nouns, as described in 3.2.3. Second, one could imagine a process of contraction of the attested associative phrase with a sex-denoting modifier, exemplified in 3.2.2. However, the latter data lose their explanatory power for suffix emergence if the second, functional aspect is considered. The mere existence of these structures is a sufficient, but not a necessary, condition for suffix evolution. In other words, it must also be evaluated as to whether a relevant structure is, vis-à-vis the function of a modern suffix, prominent enough in a canonic Bantu language to plausibly qualify as the exclusive source of grammaticalization. My answer is: Neither of the candidates is. An associative phrase with a sex-denoting modifier, though a recurrent construction type across Bantu, appears to be an analytical ad-hoc formation without showing a notable tendency to undergo phonetic concatenation toward a morphological word formation pattern. So far, I have not found any real case for such a scenario.

With respect to the second relevant structure—the noun suffixes described by Angenot-Bastin [1971]—all of them, including *-yana* and *-kadj*, occur with a very restricted set of items and are thus a phenomenon in the lexicon. They must be kept distinct in qualitative terms from the same suffixes as productive grammatical items in southern Bantu, especially Nguni and Sotho.

One might still be inclined to disregard these considerations and view family-internal strategies as the ultimate source of grammaticalization. However, it must be borne in mind that this approach falls short of answering an important question: Why should southern Bantu as a group cease to make use of inherited expressions with host-initial marking and activate instead a construction which, in the first case, does not seem to be particularly prone to grammaticalization and, in the second, was originally very restricted.

To sum up, although all nominal suffixes have a transparent lexical source within Bantu regarding both meaning and word category, there is no plausible family-internal scenario for the development of locative suffixes. The few derivational Bantu patterns resembling a presumable source structure may have fostered the overall grammaticalization process, but were hardly its only cause. Consequently, it appears untenable to explain the genesis of the suffixes in terms of a complete, functionally motivated grammaticalization cycle from a syntactic construction toward a polymorphemic word form, that is, Givón's concept of 'today's morphology is yesterday's syntax'.

#### **4. Genetic and structural profile of the test language sample**

If the inherited structural features of Bantu cannot account satisfyingly for the emergence of the suffixal noun morphology, an attractive explanation would be to assume external linguistic influence by non-Bantu languages with head-final and suffixing features that could have served for Bantu as templates for structural calquing (compare inter alia Harris & Campbell [1995:199ff]). This could have occurred in a situation of sociolinguistic contact and resulting interference prevailing at the time when Bantu languages successively expanded into their present eastern and southern areas of distribution. In the following section, I outline principled and some not so principled circumstances that led to the establishment of a test language sample for investigating such an alternative historical explanation and discuss the results obtained in this survey.

**4.1. Principles of choice and classification of test languages.** The following ideas stand behind the design of the sample. From the fact that the noun-suffix phenomenon is relatively widespread in eastern and southern Bantu languages, I conclude that its development is not a local and recent innovation, but a fairly old and global process in this area with the possibility of subsequent Bantu internal diffusion. This makes it necessary to include in the necessary time depth all still extant genetic lineages that could have been present in a probable contact area. Whether or not a lineage meets these criteria was determined in accord with its assumed historical range of influence and/or in accord with the present distribution of its extant member languages. This is to insure that the genetic and structural variation encountered by the southward expanding Bantu family is sufficiently represented. I also tried to include members from all still extant branches of a chosen lineage in order to cover its synchronic and thus its possible diachronic structural variation.

These general principles preclude certain restrictions on the choice of an individual test language as the synchronic representative of a genetic lineage to be included. Thus, a test language itself need not be located in a probable contact region. I included, for example, geographically quite remote Cushitic languages like Awngi and Oromo because this family as a lineage has a long historical standing in eastern Africa, shows considerable internal branching, and is, according to Allen [1993], assumed to have played a role in the origin of Swahili culture. Also, a test language need not have more than a geographically restricted importance. For example, the fact that Comorian Bantu possesses an almost genuine locative suffix is sufficient reason to include Malagasy in the sample, although the latter can so far not be shown to have been in contact with Bantu languages on the mainland. In general, it is not implied that an individual test language has itself ever been in contact with a Bantu language.

Of course, the genetic exhaustiveness to be aimed at can only be a relative one because of an important, but uncontrollable factor. One must make the principal reservation that any sample can only reflect the synchronic situation of a given geographic area. However, the possibility should not be underestimated that whole non-Bantu lineages or at least important branches of still extant ones, which would

have to be included according to the above principles, were completely obliterated in the course of time.

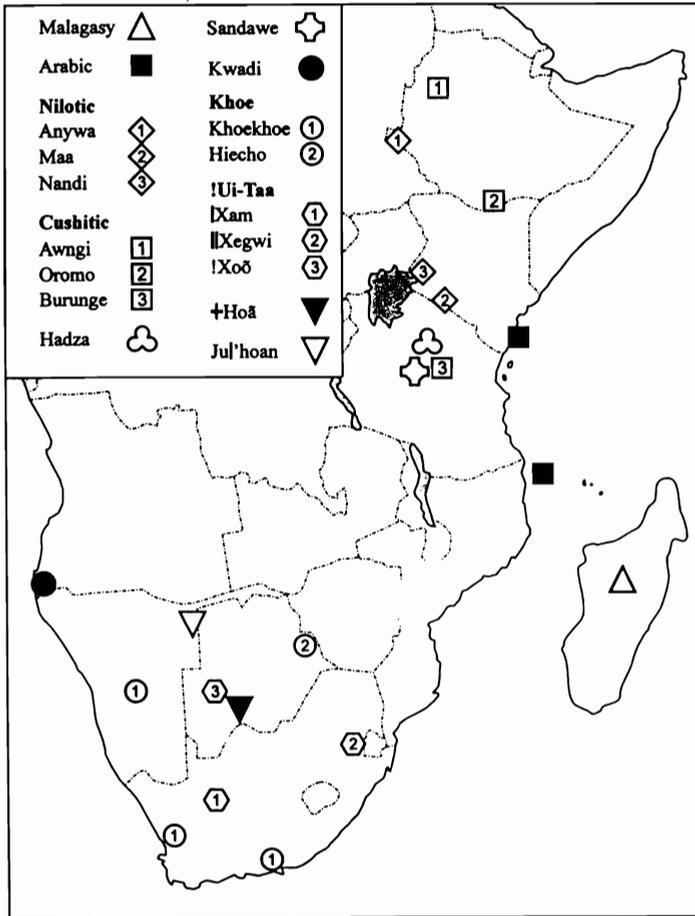
All the above reasons led me to include Arabic and Malagasy from among the candidates not indigenous to Africa. I did not consider Portuguese, English, or—if at all applicable—Persian and various Indian languages because of ill-fitting time depths and/or sociolinguistic contact patterns. African lineages of the survey are Nilotic, Cushitic, and all those subsumed under the label Khoisan. Table 1 lists the test languages, their assumed genetic affiliation and the sources providing the data. Map 5 shows their rough geographic position.

With regard to the genetic classification, only those units are accepted that are or obviously could be established in the present state of research via standard comparative methodology. Therefore, Khoisan is, counter the common Africanist tradition, not treated as a genetic unit, and the various subgroups are provisionally viewed as isolates or isolate families. The terms Khoisan and South African Khoisan (henceforth SAK) are used, but only with the meaning of non-genetic sets of click languages not related to another genetic lineage. In a parallel fashion, the term Non-Khoe is a preliminary, non-genetic cover term that distinguishes a typologically closer group of SAK languages from the Khoe family and Kwadi (compare Güldemann [1998] and Güldemann & Voßen [forthcoming] for some discussion).

Table 1: Sample of test languages

	<i>Family</i>	<i>Branch</i>	<i>Language</i>	<i>Data source(s)</i>
1	Barito	—	Malagasy	Malzac [1926]
2	Semitic	—	Arabic	Fischer [1972]
3	Nilotic	West	Anywa	Reh [1997, p.c.]
4	Nilotic	East	Maa	Tucker & Mpaayei [1955]
5	Nilotic	South	Nandi	Hollis [1909], Creider & Creider [1989]
6	Cushitic	Central	Awngi	Hetzron [1978]
7	Cushitic	East	Oromo	Stroomer [1995]
8	Cushitic	South	Burunge	Kießling [1994, p.c.]
9	Isolate	—	Hadza	Bleek [1931], Voogt [1992], B. Sands [p.c.]
10	Isolate	—	Sandawe	Dempwolff [1916], Kagaya [1993] E. Elderkin [p.c.]
11	Isolate	—	Kwadi	Westphal [1971, field notes]
12	Khoe	Khoekhoe	Nama, !Ora	Meinhof [1930], Hagman [1977], Haacke [1995]
13	Khoe	Kalahari	Hiecho	Dorman [1917]
14	!Ui-Taa	West !Ui	!Xam	Meriggi [1928/9], Bleek [1928-30]
15	!Ui-Taa	East !Ui	!Xegui	Ziervogel [1955], Lanham & Hallows [1956a,b]
16	!Ui-Taa	Taa	!Xoõ	Dickens & Traill [1977], Traill [1994]
17	Isolate	—	≠Hoã	Gruber [1973, 1975], C. Collins [p.c.]
18	Ju	—	Jul'hoan	Snyman [1970], Dickens [n.d.]

Map 5. Distribution of test languages



**4.2. From test language to possible contact language.** Every test language was investigated in two respects. Firstly, possible source structures in relevant grammatical domains, that is, nominal attribution and compounding, were checked. Secondly, a survey was conducted of how the functions covered by the Bantu suffixes, i.e., locative relations, diminutives, and natural sex, are expressed in a given test language. An additional distinction was made here between grammatical and lexical strategies.

Regarding the comparability of data, it has to be kept in mind that the available sources are highly divergent both in quantity and quality. Moreover, there still exists a considerable lack of data on various test languages, in particular languages currently classified as Khoisan, although some of the lacunae could be filled with the help of specialists.

Table 2 contains the information that is necessary to evaluate whether a linguistic expression in a test language makes a good candidate to be a possible interference pattern in the assumed contact-induced development of noun suffixes in Bantu. It is not possible here to discuss every piece of data as this would go far beyond the space of this article. I must refer the reader to the sources given in Table 1 in order to compare whether my classificatory interpretations do justice to the facts as presented there.

The above theoretical considerations allow a fairly precise analysis as to whether an expression in a given test language is, with regard to the achieved target pattern, a good candidate for a source pattern or not. This will be demonstrated by way of representative examples from the data of the test language sample. The following distinctions are made: If a respective marker conveying a relevant function is initial vis-a-vis the nominal host, the construction was viewed as negative. Compare the following examples from Burunge, Oromo, and Kwadi, with proposed marking of location, sex, and size, respectively.

(23) Burunge [Kießling 1994:194]

*cina da 'ong-e*  
 top:F F:ATTR mountain-ALL  
 'auf dem Berg [on (top of) the mountain]'

(24) Oromo [Stroomer 1995:39]

*korma lukuu*  
 male chicken:ATTR  
 'cock (lit.: a male of chicken)'

(25) Kwadi [Westphal n.d.]

a. <i>ŋ/wiʃi ya-de</i> small.? thing-M:S '(one) small thing'	b. <i>lá kyè.nà 'i-wà</i> two big egg-M:D 'two big eggs'
--------------------------------------------------------------------	----------------------------------------------------------------

A neutral pattern, though in general rare, is a construction where the respective marker is detached from the nominal host. This is the case with a serial verb construction, which in Non-Khoe languages like !Xam (26) appears to be a major expression for locative relations.

(26) !Xam [Bleek 1928-30:97]

*hiŋ le: s'o lneiŋ*  
 they enter sit house  
 'they sat in the house'

Cases where the position of the marker conforms to the morphotactic feature of the Bantu noun suffixes, that is, when it is final vis-à-vis its host, are considered to be positive. This holds, for example, for the suffixes marking location in Hadza, size (and sex-gender) in Namibian Khoekhoe, and sex-gender in Sandawe.



(27) Hadza [Voogt 1992: 13]

*maku-nina*  
 pot-in  
 'in the pot'

(28) Khoekhoe [Hagman 1977:26f]

a. *tátá-ró-p*  
 father-DIM-M:S  
 'the little father'

b. *'om-kàra-s*  
 house-AUG-F:S  
 'the enormous house'

(29) Sandawe [Dempwolff 1916:27]

*!'ane*  
 parent in law  
 'Schwiegevater'  
 [father-in-law]

vs.

*!'ane-su*  
 parent in law-F  
 'Schwiegermutter'  
 [mother-in-law]

Among positive patterns, one can further determine a subset that meets the criteria for a susceptible source to an even higher degree. A pattern is a more likely source the more it has phonetic integrity (regular shape, less fused with its host, etc.), semantic specificity, or even lexical transparency—in other, though admittedly simplistic, words—the lower its degree of grammaticalization. The first two of the following examples demonstrate postposed relational nouns in Awngi and Jul'hoan, respectively. The last two examples show that Hiecho derives diminutives by means of the postposed noun 'child' and that !Xoõ expresses natural sex through the postposed nouns 'father'/'mother'.

(30) Awngi [Hetzron 1978:125ff]

a. *X-ampá-da*  
 X-top-LOC  
 'on, onto X'

b. *X-aya-des*  
 X-interior-ABL  
 'from inside X'

(31) Jul'hoan [Dickens n.d.:48,49]

a. *sì g!hòóá dà'á tzi*  
 they sit fire outside  
 'They are sitting around the fire.'

b. *ha hoa gòqrú kò n!om din*  
 he find lizard MPO stone buttock  
 'He found the lizard under the stone.'

(32) Hiecho [Dornan 1917:99, 97, 93]

a. *ju lkwa*  
 sheep child  
 'a lamb'

b. *hi lkwa*  
 tree child  
 'a bush or shrub'

c. *l!gaiehe lkwa*  
 chief child  
 'prince'

(33) !Xoõ [Traill 1994:154, 174]

a. <i>tâa</i>	<i>àa</i>	b. <i>tâa</i>	<i>qáe</i>	c. <i>gùmi</i>	<i>àa</i>	d. <i>gúmi</i>	<i>qáe</i>
person	father	person	mother	cattle	father	cattle	mother
'man'		'woman'		'ox'		'cow'	

These evaluation principles, when applied to the data of Table 2, yield the simplified presentation in Table 3. Its interpretation will be obvious: The more positive symbols a test language has, the higher it ranks on a scale of theoretically probable candidates with structural input for a contact induced change in Bantu, and vice versa. Provided a test language is a good representative of its lineage, one would have a first preliminary means for delimiting the range of genetic units to which the assumed contact languages belonged.

According to this line of reasoning, it will become apparent that certain groups can be excluded from a more qualitatively oriented evaluation. All languages considered not indigenous to Africa, i.e., Arabic and Malagasy, and the whole of Nilotic, show a very low degree of structural similarity with a language design that can explain the suffix emergence within a contact explanation. However, Cushitic, except for its southern branch, and the various Khoisan lineages conform to a considerable degree to the theoretically determined structure of a probable contact language. In the light of the above findings, the remaining part of this article discusses the already available contact hypothesis concerning SAK and outlines some additional ideas and tasks for future research.

## 5. Contact interference as an explanation for noun suffix evolution

**5.1. Previous research on South African Khoisan interference in southern Bantu.** Presently, Khoisan languages are characterized by very low social prestige and any linguistic impact they have on Bantu languages can at best be a local phenomenon. However, it is safe to assume that this situation was different in the past, especially at the time when the first Bantu speakers immigrated in small groups into southern Africa. It has been common ground for a long time in both linguistic and non-linguistic research that the peoples speaking southern Bantu and SAK languages interacted intimately. The wealth of archaeological, historical, ethnographical, biological, and linguistic evidence will not be repeated here. Suffice it to say that sociolinguistic contacts were so extensive and varied that both borrowing and interference through shift (compare Thomason & Kaufman [1991:35ff]) must be viewed as relevant for early influence of Khoisan on Bantu.

In the linguistic literature, this idea has been entertained on a fairly profound empirical basis in terms of contacts between Khoekhoe and the whole of Southern Nguni, despite the fact that actual interaction is historically attested only for Xhosa. Studies considering Khoisan languages other than Khoekhoe were deficient in various respects. On the one hand, scholars had to rely until very recently on insufficient or unsystematically presented data. On the other hand, an explicit or implicit assumption of an unproven genetic unity of Khoisan in general and/or a structural homogeneity of languages subsumed under the linguistically vacuous

Table 3. Test languages and evaluation of their linguistic structures as possible borrowing templates

	ATTR	COMP	LOC		DIM		NS	
			GR	LEX	GR	LEX	GR	LEX
Malagasy	-	-	-	-	-	-		(+)
Arabic	-	-	-				(+)	
Anywa	-	-	-	-	(-)	(+)	-	-/(+)
Maa	-	-	-	-	-		-	
Nandi	-	-/+	-	-/+	-		-	
Awngi	+	+	+	+	+		+	
Oromo	-	-	+	+	+		(+)	-/(+)
Burunge	-	-	+	-	(-)	(+)	(+)	(-)
Hadza	-		+/-		+/(+)		(+)	
Sandawe	+	+	+	+		+/(+)	+	(-)
Kwadi	+	+	+			(-)	+	(-)
Khoekhoe	+	+	+	+	+		+	(-)
Hiecho	+	+	+	+		+		(+)/(+)
!Xam	+	+	(-)	+		+		+
!Xegwi	+/-	+	(-)	+		+		+
!Xoõ	+	+	(-)	+		+		+
‡Hoã	+	+	(-)	+	+		(+)	
Jul'hoan	+	+	(-)	+		+		+

Note: boldly framed columns mark the expression types more apt to borrowing

+ positive [FH/(FM)/PO/EC/SF]  
 blank neutral [RED/IF/D/-] or no info [?]  
 - negative [IH/(IM)/PR/PF]

(...) uncertain information or a characteristic of the source pattern weakening its possible positive or negative impact

term "Bushman" languages often biased the conclusions.

The bulk of previous work, such as Meinhof [1905], Bourquin [1951], Lanham [1962], Louw [1974, 1976, 1977a,b,c, 1979, 1986], Argyle [1986a,b], Herbert [1990], Sommer and Voßen [1992], and Voßen [1997], is primarily oriented towards direct borrowing on the part of Bantu in phonology, morphology, and the lexicon. Lickey [1985] is one of the very few that explicitly tried to find evidence for the plausible assumption that the great influence of SAK in southern Bantu languages, especially in their phonology, should be accompanied by interference in

the grammatical domain. She concluded, however, that her prediction was not borne out by the empirical facts considered in her analysis.

In general, the outcome of previous linguistic research presents, on the one hand, the established notion of an important linguistic impact of Khoekhoe on Nguni via direct borrowing, but, on the other hand, a quite vague picture about inter-lineage interference for the rest of SAK and southern Bantu. The available research results will now be combined with the findings of this investigation regarding nominal suffixes in Bantu.

## **5.2. Derivational suffixes with special reference to South African Khoisan.**

For reasons which will become apparent below, the derivational suffixes will be discussed apart from the locative ones. Here, the work by Engelbrecht [1925] must be mentioned separately, as it is exceptional when compared to the treatments listed in 5.1, which mostly deal with borrowing of linguistic substance. Engelbrecht's article discusses extensively the suffixes *-kadj* and *-yana* in view of the attested language contact with Khoekhoe varieties and attributes their existence to what in modern terms would be called a process of structural calquing. This idea was briefly entertained again by Bill [1974:75f].

Engelbrecht's argument that the development of derivational suffixes in Bantu is closely tied to the historical interaction with SAK languages will now be substantiated and completed. The following observations are drawn mostly from the results of the present investigation.

1. The geographic distribution of the derivational suffixes given in Maps 3 and 4 can be characterized as the southern periphery of the Bantu speaking area. This region is almost coextensive with a region that can safely be said to have been inhabited prior to the Bantu spread by populations speaking languages related to synchronically attested SAK lineages like Khoe, Kwadi, !Ui-Taa, Ju, and †Hoã. In this sense, the geographic distribution of the structures to be explained via family-external interference coincides nicely with the area where the sociolinguistic contact with the assumed linguistic substratum could, and in sufficiently many cases has been proved to, have taken place.

2. The simple fact that regular devices to express natural sex with animates and diminutives have been described in SAK languages since the first short grammar sketches were published is remarkable. In view of the extremely restricted knowledge we possess even today for great parts of their linguistic structure, one wonders why early scholars so often commented upon these features. Admittedly, the concentration of early comparative work in this area on grammatical gender and alternative expressions for natural sex certainly plays a role. However, this is unlikely to be the only factor. There is at least one other point to be considered: Khoisan peoples in southern Africa have in common that breeding of livestock and/or hunting play a central role in their economic subsistence. This conceptual orientation toward animals suggests that such closely associated features as sex and size are prone to be expressed linguistically. Their regular and semantically transparent encoding, in turn, would make them probable targets for contact interference in southern Bantu languages, even more so, as their speakers share at least



are integrated in their grammar is highly reminiscent of the use of parallel markers in SAK.

The following facts lead to this generalization: First, in contrast to such southern Bantu languages as, for example, Herero and Venda (compare (7) and (8) in 2.2.1 above), Southern Nguni and Sotho no longer have recourse to the inherited diminutive marking by means of prefixes. Furthermore they are the only languages that have the feminine suffix as well as the diminutive suffix as a fairly productive derivational device. Another piece of evidence for claiming that these suffixes are more deeply entrenched in the grammar of these languages is that they can combine to a limited extent in a compound suffix, as in Zulu (36)

(36) Zulu [Doke 1992:§210]

*isi-bhuz-azana*  
7-goat-FEM.DIM  
'young female goat not yet kidded'

In Nguni, there are still stronger signs of grammaticalization of these suffixes. First, both can be used not only with nouns, but also with adjectives and so-called relative stems, as in (37). This fact is parallel to the use of diminutive suffixes with predicates and nominal attributes as attested at least in !Ui and Khoekhoe, illustrated by the examples from !Xam and Nama (38-39).

(37) Zulu [Doke 1992: §199, 283]

- |                                                                               |                                                                             |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| a. <i>umu-ntu om-khulu-kazi</i><br>1-person REL:1-big-AUG<br>'a very big man' | b. <i>len-kabi e-bomvana</i><br>DEM.9-ox REL:9-red.DIM<br>'this reddish ox' |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------|

(38) !Xam [Meriggi 1928/9:146]

*!kwǎ ǎ #ěńni-Opǔǎ*  
child REL small-DIM  
'ein kleines Kind [a small child]'

(39) Nama [Hagman 1977: 33, 74]

- |                                                                                        |                                                       |
|----------------------------------------------------------------------------------------|-------------------------------------------------------|
| a. <i>!óm-ró      tào-p</i><br>difficult-DIM path-M:S<br>'the slightly difficult road' | b. <i>!hóá-ró</i><br>converse-DIM<br>'converse a bit' |
|----------------------------------------------------------------------------------------|-------------------------------------------------------|

With the possibility in Nguni of attaching a derivational suffix to an adjective, even an incipient suffix agreement between the head noun and its modifier has emerged, as illustrated in (40). Moreover, there is possible reduplication of the diminutive marker, as shown in (41).

Zulu [Doke 1992: §273, 274; §208]

- (40) a. *imi-shana emi-bilana*                      b. *um-fazi om-de-kazi*  
 4-tree.DIM REL.4-two.DIM                      1-woman REL:1-tall-FEM  
 'two little trees'                                      'a tall woman'
- (41) a. *in-ja*                      b. *in-jana*                      c. *in-janyana*                      d. *in-janyanyana*  
 9-dog                      9-dog.DIM                      9-dog.RED.DIM                      9-dog.RED.DIM  
 'dog'                      'little dog'                      'very little dog'                      'exceedingly tiny dog'

The implication of these data from the most southerly languages, and Nguni in particular, for the hypothesis of SAK interference in the development of derivational suffixes is clear: The fact that, and the way, these suffixes gain in grammatical importance the more languages have geographically encroached upon areas previously populated by SAK peoples can be motivated by the plausible assumption that such languages had the greatest chance of acquiring linguistic features of the languages they were presumably in contact with.

This conclusion is also borne out when the functional expansion of the derivational suffixes in Nguni and Sotho is considered. One finds again clear parallels to the grammatical characteristics of the assumed linguistic adstratum. For example, paucality with mass and non-count nouns is expressed with the help of a diminutive marker both in Southern Nguni and at least some Khoe languages, for example, Khoekhoe and presumably also Hiecho. Again, Zulu and Nama provide illustrative examples.

(42) Zulu [Doke 1992:§200]

*ama-zwi*     >     *ama-zwana*  
 6-word                      6-word.DIM  
 'words'                      'a few words'

(43) Nama [Hagman 1977:26]

*||amí-ró-'i*  
 water-DIM-C:S  
 'a little bit of water'

Admittedly, phenomena of this kind are surely universal tendencies, as Jurafsky [1996] has shown that the use of a diminutive marker with adjectives and verbs, or in the expression of paucality, can be frequently observed cross-linguistically. However, "universal tendency" in grammaticalization does not mean "necessary development". After all, inherited diminutive prefixes of Bantu did not undergo such processes. Moreover, apparent similarities between southern Bantu and Khoisan languages in the functional load of derivational devices cannot always be attributed to universal trends. Recall in this respect that the feminine suffix in Nguni and Sotho can have an augmentative and/or derogatory connotation, as shown in (44) in two further examples from Zulu.

(44) Zulu [Doke 1992: §199]

- |    |                                                   |    |                                                                 |
|----|---------------------------------------------------|----|-----------------------------------------------------------------|
| a. | <i>um-thi-kazi</i><br>3-tree-AUG<br>'a huge tree' | b. | <i>um-fazi-kazi</i><br>1-woman-AUG<br>'a great hulk of a woman' |
|----|---------------------------------------------------|----|-----------------------------------------------------------------|

This is certainly not universal. On the contrary, the association of feminine sex with small size appears to be the cross-linguistically more frequent pattern. Languages of the test sample like Awngi, Oromo, and presumably also Hadza belong here and this makes them, in connection with the problem mentioned, less likely contact candidates. The typologically infrequent behavior of the feminine marker in the respective Bantu languages has, however, parallels in SAK.

A possibly relevant case may be found in Khoe. The manipulation of sex genders for semantic and pragmatic purposes is a general phenomenon of this family, observed, for example, in Kxoe [Köhler 1981:515] and Naro [Westphal 1962:41]. Hagman [1977:23f] describes the process of exchanging the unmarked gender of a noun by its opposite with more precision in Namibian Khoekhoe. Although, according to W. Haacke [p.c.], the data may not be valid for all varieties, it throws light on the general conceptual nature of grammatical gender in Khoe. Hagman [ibid.] writes:

“... gender replacement conveys the meaning “largeness of size with derogation” when largeness is an undesirable characteristic of the referent of the noun stem, it conveys simply “largeness of size” when largeness is neither desirable nor undesirable, and it may even convey the meaning “smallness of size” if smallness is undesirable.”

(45) Nama [Hagman 1977:23]

- |    |                                          |   |                                                    |
|----|------------------------------------------|---|----------------------------------------------------|
| a. | <i>'om-s</i><br>house-F:S<br>'the house' | > | <i>'om -i</i><br>house-M:S<br>'the big house'      |
| b. | <i>pén-i</i><br>pen-M:S<br>'the pen'     | > | <i>pén-s</i><br>pen-F:S<br>'the unusually fat pen' |

Important for the present discussion is the fact that not only each member of the gender opposition, but also the switch between them is associated with a function, that is, in the majority of cases augmentation and derogation. In the Bantu languages Nguni and Sotho, such a manipulation of a marker of sex would be possible in only one direction, that is, replacing the unmarked form without a suffix by its marked feminine counterpart. The possible effect of the feminine marker in these Bantu languages on the meaning of the noun, that is, augmentation and derogation, is identical to Hagman's characterization of gender replacement. Considering the fact that with the suffix *-yana* these languages also have a means at their disposal to derive diminutives, it is conceivable that an

exclusive association between the feminine marker and an augmentative reading may have come into being.

Yet, there is even a clearer case of a conceptual connection between feminine sex and large size in SAK. Traill [1994:177] observes in !Xóǝ, a !Ui-Taa language, that the stem *qáe* meaning ‘mother’, ‘female’ (compare (33) in 4.2 above) has, in addition to its use as a feminine marker, the following derivational meaning:

“When suffixed to plant names it signifies a broader-leaved more substantial variety; with certain other objects it signifies more substantial size, weight.”

The fact that a relatively rare semantic phenomenon is shared by languages of both southern Bantu and SAK strongly suggests that there is a historical connection between the feminine suffix in the two compared groups.

6. A final argument is that there exists evidence according to which some of the Bantu languages discussed above have borrowed directly from Khoe languages in the relevant functional domain of noun derivation and compounding. The conclusion is clear: If borrowing is attested, it can safely be assumed that the contact situation provided for structural calquing, too. According to Louw [1976:90f], the suffix *-s(h)e* used to derive female proper names in Southern Nguni and, in Xhosa only, some other human nouns, has its most probable origin in the 3rd person feminine singular suffix *-s* of Khoekhoe. Another Xhosa suffix *-rha* used to derive nominals with a similitive, approximative, or derogatory connotation Louw [1976:92f] relates to the Khoekhoe adjective suffix *-xa*. Note that both elements are features of Khoe in general: The gender suffix is reconstructed by Voßen [1997b:342] as Proto-Khoe *-sa*; the suffix *-xa* exists at least in Kxoe, a Khoe language of the Kalahari branch (see Köhler [1981:511]). Thus, the ultimate origin of the Nguni borrowings cannot yet be tied conclusively to the historically most recent contact with varieties of the Khoekhoe branch.

Engelbrecht [1925:99f] demonstrated that Herero has also been influenced by Namibian Khoekhoe in a structural domain relevant for the discussion. He lists a considerable number of obvious loan-translations from Khoekhoe compound nouns which are structurally distinct from the Bantu-typical head-initial pattern. In light of contact between Herero and non-Bantu languages, it would be interesting to investigate whether the very marked phenomenon of head-internal subject relatives in Herero (see Haacke [1985]) could receive at least partial motivation because a parallel to non-Bantu head-final structures is apparent.

All the above arguments taken together strongly suggest that the SAK hypothesis is relevant when trying to account for the emergence of the derivational suffixes in southern Bantu. The following provisions should be made relating to this general conclusion: Unquestionable Khoisan interference in the relevant domain can be observed in Southern Nguni and Herero and can be attributed in part to their historically attested contact with Khoekhoe varieties. However, the Khoisan source should not be restricted to one genetic lineage only. Already, previous studies had observed that non-Bantu features in southern Bantu cannot be related completely to modern Khoekhoe sources. In fact, most directly bor-

rowed lexical items in Southern Nguni do not have counterparts in this subfamily of Khoe and sociolinguistic contact between Zulu and Khoekhoe varieties could only be inferred from linguistic facts.

This observation is also valid for the discussion of the emergence of nominal suffixes. Recall that a head-final noun phrase and its resulting structure templates are not restricted to Khoekhoe but represent an areal feature of pre-Bantu southern Africa. Other Khoe and Non-Khoe languages with their often lexically transparent constructions may also have played an important role in this process. Also, some Bantu languages, especially Nguni and Sotho, may have been secondary sources for the proliferation of derivational suffixes in southern Bantu because ethnic groups speaking these languages were particularly involved in the historical events of the Mfecane in the last century that affected the whole of southern Africa and even places much further north.

It is unclear so far whether there is any direct relation between the use of the feminine suffix *\*-kadi* in some zone J languages and its grammatical function in Nguni and Sotho. Apparently, the phenomenon in zone J cannot be accounted for by invoking Khoisan contact and must remain unexplained. If at all relevant for the question in southern Bantu, one should consider it in line with the ideas brought forward in 3.3 above to be an internal feature, which, at best, may have fostered grammaticalization but was hardly its trigger.

**5.3. The locative suffixes in relation to the derivational suffixes.** That the Khoisan hypothesis in its above form is not a tenable explanation for the emergence of locative suffixes will become clear from their geographic distribution also in areas far outside the historically attested range of SAK languages (see Map 1 and 2).

One possible solution to this problem is to follow the implicit thinking prevailing up to now - implicit in the sense that the suffixes have only rarely been discussed in terms of the specific historical circumstances of their emergence, so that this approach is rather a non-approach. Up to now, no association whatsoever was made between the development of derivational suffixes on the one hand and locative suffixes on the other. The derivational grammemes *\*-yana* and *\*-kadi* are viewed in accordance with the findings in 5.2 as markers that presumably came into being in southern Bantu. While the superessive/locative suffix has not yet been discussed at all from this perspective, the origin of inessive/locative *\*-ini* is placed according to the most explicit account by Samson & Schadeberg [1994] in the northeastern hemisphere of the family.

Support from the above empirical findings for the hypothesis regarding *\*-ini* is twofold. First, as mentioned in 2.1.3, this locative suffix is not an isolated phenomenon in northeastern Bantu. Instead one observes another concentration of host-final, though usually less grammaticalized locative markers in various languages of zone E, which are loosely distributed along the border between Tanzania and Kenya. It is significant in this respect that in the same area at least the South Nilotic language Nandi also shows a family-atypical behavior with respect to locative marking. Like Bantu, Nilotic as a family has a consistent head-initial noun phrase (compare Table 2). Nandi, however, besides making use of canonical

prepositions and preposed relational nouns, possesses compound-like locative structures that have the relational noun final to the nominal host (compare, *inter alia*, Creider & Creider 1989:70]. Thus, reflexes of a head-final noun phrase structure not being easily explained by family-internal development is found in a relatively confined area in languages of two genetically unrelated families. A suggestive historical hypothesis for this kind of host-final locative marking is to assume that the affected languages of Bantu and Nilotic have an external linguistic adstratum in common. As these two families were presumably the latest to enter this geographic area, this source was almost certainly a substratal one (see Ehret [1971, 1974] and Heine [1979] for overviews and more details on the early linguistic history in eastern Africa).

With regard to such a substratum, the second consideration comes into play. The data in Table 3 reveal that other attested lineages in eastern Africa partially possess structural features in locative constructions that could have served as possible sources for calquing. A plausible candidate in particular, besides such isolated remnant languages as Sandawe and partly Hadza, are Cushitic languages. Note that a similar concept of an early Cushitic substratum in eastern Africa called Proto-Baz and assigned to its eastern branch is invoked by Heine et al. [1979].

Speech forms structurally close to modern South Cushitic are, however, an unlikely source for host-final locative marking, as this group has synchronically, for whatever reasons, a fairly consistent head-initial noun phrase order. The fact that relational nouns in many languages of Central and East Cushitic are host-final indicates that modern South Cushitic might not be very representative as far as noun phrase syntax of early Cushitic is concerned. Thus, consider example (30) from Awngi (repeated below) and example (46) from Oromo.

[(30)] Awngi

- |                                                  |                                                          |
|--------------------------------------------------|----------------------------------------------------------|
| a. <i>X-ampá-da</i><br>X-top-LOC<br>'on, onto X' | b. <i>X-aya-des</i><br>X-interior-ABL<br>'from inside X' |
|--------------------------------------------------|----------------------------------------------------------|

(46) Oromo [Stroomer 1995: 99, 52, 100]

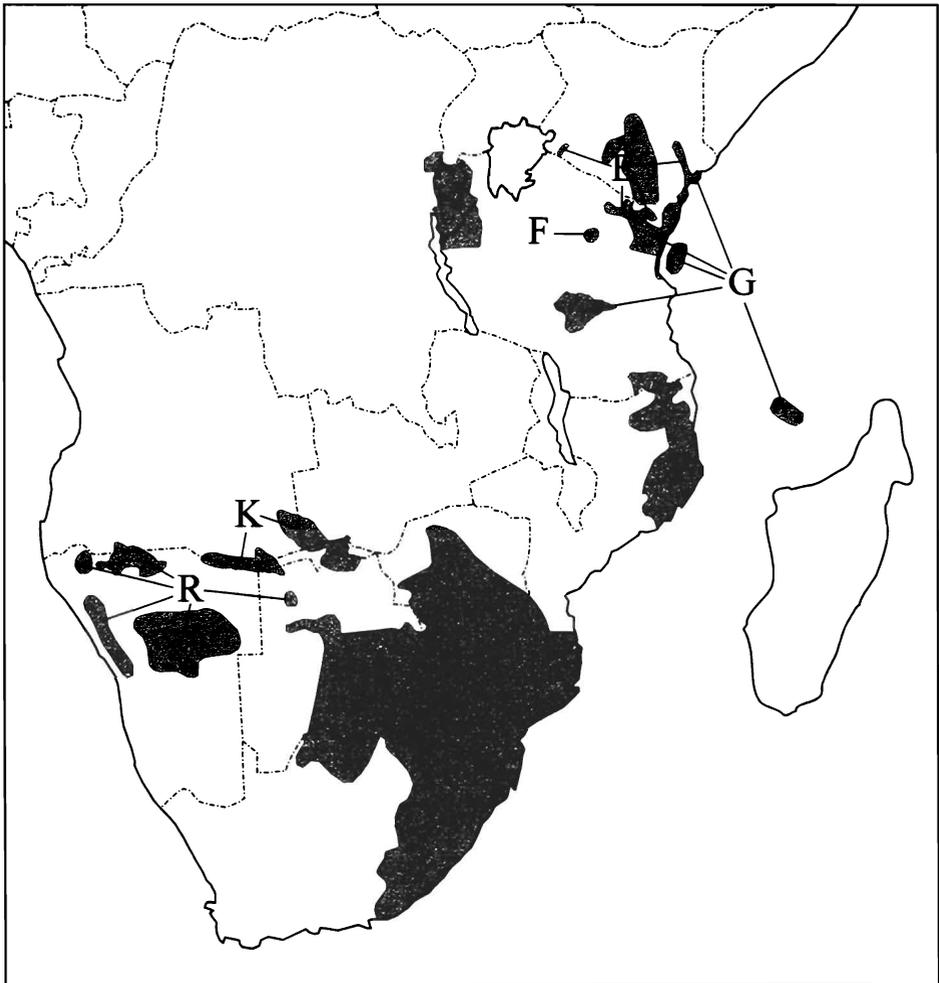
- |                                                    |                                                           |
|----------------------------------------------------|-----------------------------------------------------------|
| a. <i>mina keesa</i><br>house in<br>'in the house' | b. <i>farda irraa</i><br>horse on.ABL<br>'from the horse' |
|----------------------------------------------------|-----------------------------------------------------------|

The above considerations support an origin of locative \**-jini* that is geographically independent of external Bantu contacts in southern Africa. However, the assumption that the emergence of derivational and locative suffixes is spatially and/or temporally unrelated also has disadvantages. An empirical problem is that the hypothesis of a separate northern origin of the suffix \**-jini* falls short of explaining why Bantu zone S—as the center of derivational suffixes—is also the most compact distribution area of this locative suffix with no peripheral coastal bias as found in the northern area (see Map 1). Moreover, with Tonga-Inhambane, this

of locative *\*-jini* found as far north as southwestern Tanzania originated in Nguni varieties situated at the extreme southern end of the Bantu area. In general, there is ample room left for scientific imagination that addresses the still too rarely entertained concept of Bantu as a group of languages that emerged and continuously changed in a specific areal setting and which can thus not be sufficiently explained historically in terms of unilinear divergence processes.

APPENDIX

Map 6. Bantu speaking areas with nominal suffixes and other host-final markers according to reference zones



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