Changing profile when encroaching on forager territory: Towards the history of the Khoe-Kwadi family in southern Africa[1]

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1 Introduction

The history of southern African languages subsumed under "Khoisan" has been subject to a great deal of speculation, which has stemmed in large part from our ignorance about them. In the last two decades, however, our knowledge has grown considerably and a number of earlier views turned out to be misconceptions or at least weak and premature hypotheses, among them the idea of a Macro-Khoisan family. Nevertheless, some insufficiently substantiated claims are still held as conventional wisdom in and outside the field.

This paper will discuss the linguistic history of the largest lineage subsumed under "Khoisan", the Khoe-Kwadi family, and in so doing will address two frequently encountered assumptions in this research area, namely (1) that all "Khoisan" lineages in southern Africa are indigenous to the region and (2) that they have always been associated with a forager subsistence. I will present linguistic data relating to these issues and argue instead on account of this and non-linguistic evidence that the ancestor population giving rise to modern Khoe-Kwadi speaking groups colonized southern Africa relatively recently, and introduced a pastoral mode of life. The extent of diversity found among modern Khoe-Kwadi speakers in terms of linguistic, cultural, and biological traits can be explained as the result of different types of contact with the forager populations that were at the time indigenous to the area. This paper supplements Güldemann (2008a) addressing in more detail the non-linguistic aspects of the topic.

I will give a general overview over the non-Bantu languages of southern Africa in Section 2 in terms of their genealogical and typological classification. On this basis I will go on to discuss in Section 3 the linguistic history of the Khoe-Kwadi family, arguing that the available data point to a scenario which is at variance with most previous accounts of the early history of the relevant languages. The final Section 4 will evaluate the hypotheses arrived at on the basis of purely linguistic data in the light of non-linguistic information about the different modern Khoe-Kwadi speaking groups as well general facts concerning population dynamics in southern Africa.

2 The non-Bantu languages of southern Africa

Southern African population history, if viewed from a purely linguistic perspective, seemed to be a relatively straightforward matter until fairly recently. According to the widely accepted genealogical classification of African languages by Greenberg (1963), only three independent linguistic layers had to be reckoned with: first the oldest family in the region called "Khoisan", secondly the Bantu family (of the Niger-Kordofanian super-group) which

[1] I am grateful for helpful comments on an earlier draft of this article by Hirosi Nakagawa, Bonny Sands, and Andrew B. Smith. Linguistic abbreviations used are: C consonant, DIM diminutive, F feminine, I inclusive, IRR irrealis, INTENS intensifier, N nasal, P plural, S singular, V vowel.

encroached on the area since ca. 2000 years BP, and thirdly a few Indo-European languages like Portuguese, Dutch and English, which are associated with European colonization.

Specialists on the indigenous non-Bantu languages have, however, cast doubt on such a simple scenario, because they do not support Greenberg's (1963) classification hypotheses. Neither "Khoisan", which comprises all African click languages other than from Bantu and Cushitic, nor the narrow entity "South African Khoisan" is maintained by specialists (see, e.g., Westphal 1971, Traill 1986, Sands 1998, Güldemann 2008b). While "Khoisan" must not be treated as a genealogical unit, more reliable research within the historical-comparative method has established three coherent lineages, namely Khoe (a.k.a. "Central Khoisan", see Voßen 1997), Ju (a.k.a. "Northern Khoisan"; see Snyman 1997, Sands 2010), and Tuu (a.k.a. "Southern Khoisan", see Hastings 2001, Güldemann 2005). First work on higher-order affiliations strongly suggests that two languages not yet considered at the time of Greenberg can be affiliated to these units, leading to two bigger families, Khoe-Kwadi on the one hand (see Güldemann 2004, Güldemann and Elderkin 2010) and Kx'a on the other hand (see Sands 2003, Heine and Honken 2010). There is even a promising hypothesis about a genealogical relation between Khoe-Kwadi in southern Africa and Sandawe in eastern Africa (see Elderkin 1986, Güldemann and Elderkin 2010).

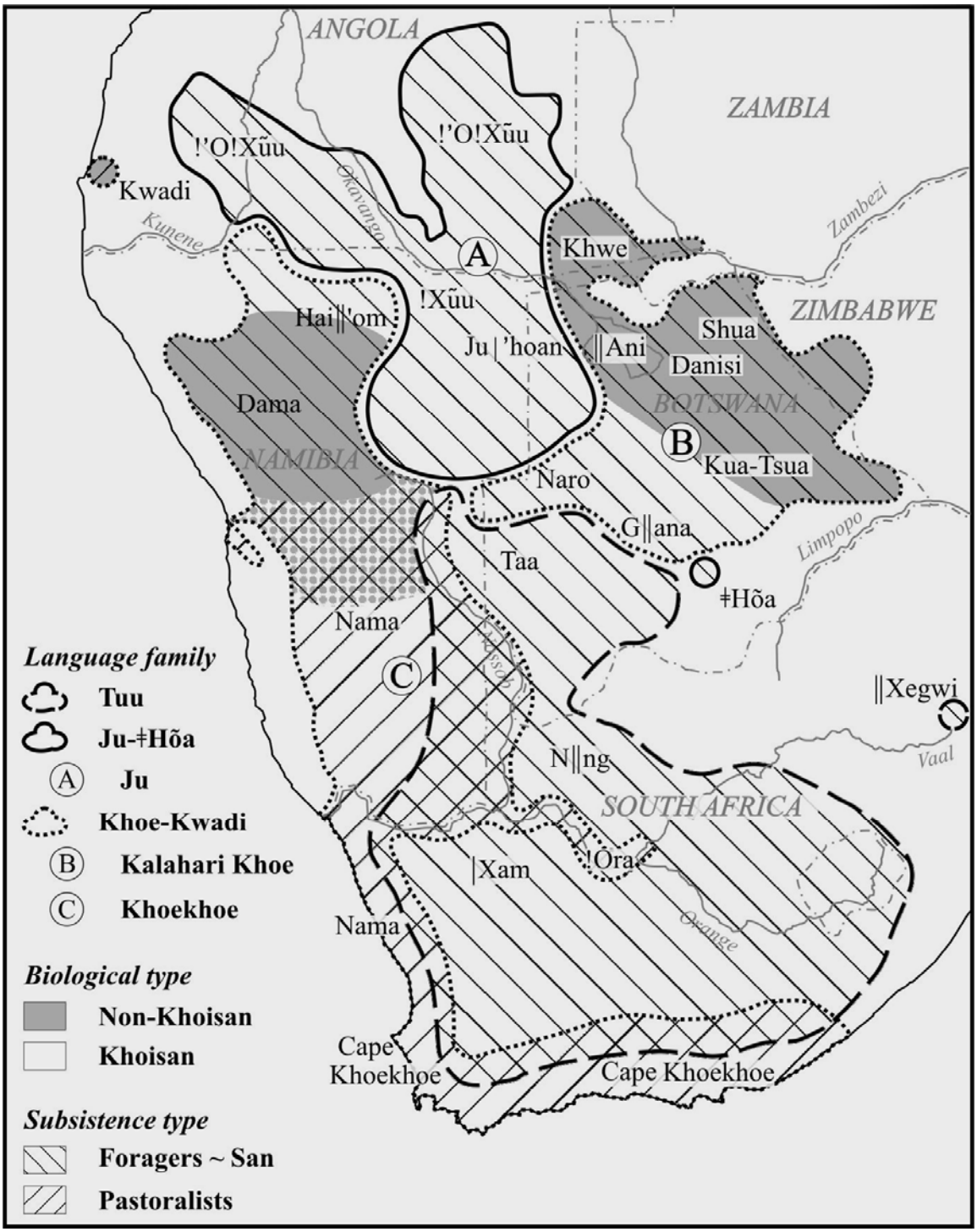
Lineages and branches	Language(s) or dialects
(1) Khoe-Kwadi	
Kwadi	single language†
Khoe	
Kalahari	
East	
Shua:	Cara, Deti†, |Xaise, Danisi, Ts'ixa, etc.
Tshwa:	Kua, Cua, Tsua, etc.
West	
Kxoe:	Khwe, ||Ani, Buga, G|anda, etc.
G||ana:	G||ana, G|ui, etc.
Naro:	Naro, ǂHaba, etc.
Khoekhoe	
North:	Eini†, Nama-Damara, Hai||om, ǂAakhoe
South:	!Ora†, Cape varieties†
(2) Kx'a	
Ju (DC)	!Xuun and Ju|'hoan varieties
ǂHoan	single language
(3) Tuu	
Taa-Lower Nossob	
Taa (DC):	West !Xoon, 'N|oha, N|amani†, East !Xoon, Kakia†
Lower Nossob:	|'Auni†, |Haasi†
!Ui:	N||ng (DC); ǂUngkue†; |Xam† (DC); ||Xegwi†

Note: DC = dialect cluster, † = extinct

Figure 1: Independent non-Bantu lineages in southern Africa and internal classification

Hence, whatever future research on southern African non-Bantu languages might reveal, for the time being it is safest to consider no less than three independent lineages;

they are outlined in Figure 1 and their approximate distribution is shown in Map 1.



Map 1: Non-Bantu populations in southern Africa

From a typological perspective, all southern African non-Bantu languages share several diagnostic features and can be grouped together against other languages in Africa

and partly on the globe (Güldemann forth. b). Linguistic commonalities across the different lineages are, for example:

(a) phonemic clicks as the backbone of the consonant systems
(b) strongly preferred phonotactic pattern of stems C(C)VCV, or derived C(C)VV and C(C)VN with strong consonants and consonant clusters in the initial C-position
(c) register tone systems different from pitch-accent systems in Bantu
(d) mostly host-final morphology
(e) head-final genitive irrespective of word order elsewhere in clauses and noun phrases
(f) grammatically productive noun compounding, development of nominal suffixes
(g) no subject cross-reference on the verb, but sporadically object cross-reference

These and presumably other features are most plausibly interpreted as the reflex of a pre-Bantu linguistic area called by Güldemann (1998) "Kalahari Basin"; this scenario implies a very different conceptualization of what is commonly called "South African Khoisan".

At the same time, there are also considerable differences between the relevant languages. Most importantly, there is a major typological split separating the Khoe-Kwadi family from the other two lineages, Kx'a and Tuu, which I have previously subsumed under the convenient term "Non-Khoe" (Güldemann 1998, forth. b). Table 1 displays a considerable list of features which distinguish the two groups in question.

Feature	**Khoe-Kwadi**	**Non-Khoe**
Object position vis-à-vis verb	object-verb	verb-object
Verb position in clause	final	medial
Head position in noun phrase	final	initial
Preposition	no	yes
Alignment in pronouns	accusative	neutral
Default relational gram	no*	yes
Verb serialization	no	yes
Verb compounding	no*	yes
Verb derivation	yes	no
First-person inclusive	no*	yes
Sex gender	yes	no
Ratio of gender-class vs. agreement-class	< 1	≥ 1
Number marking on noun	regular	irregular
Number categories on noun	3	2
Number-sensitive stem suppletion	no	yes

Note: * present in some languages due to language contact with Non-Khoe
Table 1: Typological comparison between Khoe-Kwadi and Non-Khoe

From a continental perspective there is more to say about Khoe-Kwadi, namely that its overall typological profile shows an exclusive affinity to languages in eastern Africa, as argued by Heine and Voßen (1981) on account of head-final word order, sex gender systems, accusative case alignment, and systems of suffixing verb derivation, and reiterated by Güldemann (forth. b). This observation is a first indication that this family may originate outside southern Africa.

3 Linguistic clues to early Khoe-Kwadi history

After giving a general outline of the genealogical and typological classification of the non-Bantu languages in southern Africa, I turn to the history of the Khoe-Kwadi family in more detail. As indicated above, I argue that this lineage reflects a later layer of colonization in southern Africa and that this expanding population is likely to not have been characterized by a forager subsistence. What I need to show then is how the modern Khoe-Kwadi speaking groups reached their present location and how they acquired in different ways a number of features - linguistic, anthropological, and biological - that make them more or less similar to other clearly indigenous forager groups speaking Non-Khoe languages (= Tuu + Kx'a). I will start the historical reconstruction with a discussion of the linguistic data and then go on with a demonstration that individual population profiles and historical scenarios proposed on purely linguistic grounds are largely compatible with the known non-linguistic facts.

Khoe languages in particular are well known for their complex and unique system of person-gender-number marking and the historical evaluation of this shared feature will play a central role in the following argument. Previous research tended to attribute its most complex manifestations in the modern languages to the oldest proto-stage (Voßen 1997). Central to the present topic is a different hypothesis, viz. that this domain has arguably undergone a gradual restructuring in several steps from a relatively simple stage to more and more complex systems. The data on person-gender-number marking will be accompanied by additional data from lexical comparisons and reconstructions which inform and illuminate the general scenario. Since this linguistic argument has been, or is in the process of being, published (Güldemann 2002, 2004, 2006a, 2008a, forth. a; Güldemann and Elderkin 2010), I will only repeat here the central facts, and the reader is referred to the relevant works for more detail. Therefore the approach taken here is to work from the most recent events back to earlier processes of change. That is, like peeling an onion, I will try to take off one historical layer after the other in order to arrive at the earliest reachable language state and its likely historical-geographical setting.

3.1 From Pre-Khoekhoe to Proto-Khoekhoe

One of the later changes experienced by a Khoe-Kwadi speaking group occurred in the wider Cape region concerning the Khoekhoe branch of Khoe. That is, Güldemann (2006a) argues that the distinct linguistic character of Khoekhoe vis-à-vis its sister branch, Kalahari Khoe, has a likely explanation in terms of a strong substrate of the Tuu family (particularly its !Ui branch), which is older in the area and in whose territory Khoekhoe was entirely included geographically before some groups ventured north and entered Namibia. Under this view, Proto-Khoekhoe is the result of contact of a Pre-Khoekhoe population with the indigenous forager languages of the southernmost region of the wider area.

As mentioned above, this general hypothesis can among other things be illustrated with innovations in the system of person-gender-number markers and other pronominal elements (see Güldemann 2002 for a detailed discussion). Table 2 displays the independent pronouns of !Ora which possesses the most complex system in the entire family. It can be seen that the markers in !Ora, as in other Khoekhoe varieties, are morphologically composed of two elements, a set of initial pronominal stems as the base and a set of final grams which are commonly known as PGNs (from "person-gender-number" marker). The very existence of such an elaborate inventory of complex pronouns can be related to local

language contact, because the potential substrate languages display productive pronoun modification and hence a tendency to form morphosyntactically complex pronominal expressions (Güldemann 2003).

Person		**Gender**						**Number**
		Common		**Feminine**		**Masculine**		
1st person				*ti*	*-ta*	*ti*	*-re*	Singular
2nd person				*sa*	*-s*	*sa*	*-ts*	
3rd person		***//'ãi***	*-'i*	***//'ãi***	*-s*	***//'ãi***	*-b*	
1st person	Exclusive	***si***	*-m*	***si***	*-sam*	***si***	*-kham*	Dual
1st person	Inclusive	*sa*	*-m*	*sa*	*-sam*	*sa*	*-kham*	
2nd person		*sa*	*-khao*	*sa*	*-saro*	*sa*	*-kharo*	
3rd person		***//'ãi***	*-kha*	***//'ãi***	*-sara*	***//'ãi***	*-khara*	
1st person	Exclusive	***si***	*-da*	***si***	*-sē*	***si***	*-tjē*	Plural
1st person	Inclusive	*sa*	*-da*	*sa*	*-sē*	*sa*	*-tjē*	
2nd person		*sa*	*-du*	*sa*	*-sao*	*sa*	*-kao*	
3rd person		***//'ãi***	*-n*	***//'ãi***	*-dē*	***//'ãi***	*-ku*	

Note: bold item innovation due to Tuu substrate

Table 2: The system of independent complex pronouns in !Ora (Khoekhoe, Khoe)

When compared to less complex pronominal systems in other Khoe languages two elements in Proto-Khoekhoe cannot be explained by family-internal developments, namely the 3rd-person pronoun base *||'ãi and the 1st-person exclusive pronoun base *si (boldfaced in Table 2). There is, however, a good explanation in terms of language contact: *||'ãi is a grammaticalized instance of an intensifier 'self(same)' which is ultimately a loan related to an element of this form and function in !Ui varieties; *si in turn is a borrowing of the Proto-Tuu 1st-person exclusive pronoun (the elements are illustrated by data from |Xam and boldfaced in example (1) and Table 3, respectively).

(1) |Xam (!Ui, Tuu)

i	*se*	***//ẽ:i***	*i*	*//a*	*//k''oen*	(*//ẽ:i* = [||'ãi])
1P.I	IRR	INTENS	1P.I	go	look	

... that we might ourselves go to look. (Bleek 1956: 520)

Person		**Singular**	**Plural**
1st person	Inclusive		*i*
	Exclusive	*ng*	***si***
2nd person		*a*	*u*

Table 3: The system of pronouns for participants in |Xam (!Ui, Tuu)

A list of structural features in Khoekhoe (particularly North Khoekhoe) which I have proposed to be induced by Tuu substrate interference in Güldemann (2006a) is given below (the features under (c), (e), and (h) involve most of the exceptions indicated in Table 1 above vis-à-vis the general trend in the Khoe-Kwadi family):

(a) comparably small size of consonant inventory, but high phonological load on clicks
(b) lenition of complex egressive stops, loss of velar (affricate) ejective /kx'/

(c) syntactically, rather than semantically triggered marking of participants
(d) similar semantics, morph type, and position of grams marking tense and aspect
(e) strong reliance on lexically complex predicates
(f) clausal pronoun pivot
(g) declarative marker
(h) complex pronouns and an inclusive/exclusive distinction (see above)

3.2 From Pre-Khoe to Proto-Khoe

Another major but earlier historical change to be explained concerning the Khoe-Kwadi family is the emergence of Khoe itself. Connected to this is the development of the elaborate paradigm of PGNs. These were seen in Table 2 as the suffixed elements of complex Khoekhoe pronouns, but have a far wider morphosyntactic distribution in Khoe languages as a whole and can be reconstructed as shown in Table 4.

Person	**Gender**			**Number**
	Common	**Feminine**	**Masculine**	
1st	*ti, *ta			Singular
2nd		*sa	*tsa	
3rd		*si	*bi	
1st	*(kho) -m(u)	*sa -m(u)	*kho -m(u)	Dual
2nd	*(kho) -da-o	*sa -da-o	*kho -da-o	
3rd	*(kho) -da	*sa -da	*kho -da	
1st	*ta -e	*sa -e	*!a -e	Plural
2nd	*ta -o	*sa -o	*!a -o	
3rd	*nV	*di	*!a -u (> *!u)	

Table 4: The system of person-gender-number markers in Proto-Khoe

Since such a system did not characterize the ancestor language Proto-Khoe-Kwadi (see Section 3.3), it is necessary to propose a plausible scenario how it emerged from a simpler system in the past, as undertaken by Güldemann (2004, forth. a). The major change in the overall process is again the creation of an earlier set of bimorphemic pronominal forms (all duals and 1st- and 2nd-person plurals in Table 4). The dual series in *kho are assumed to be based on a reconstructable noun stem 'person'. The feminine and common forms with the items *ta and *sa (underlined in Table 4) are thought to have arisen through analogy from the other complex forms in *kho and *!a in that the initial bases targeted 1st-person common singular *ta and 2nd-person feminine singular *sa. If one takes away these more recent innovations, one can arguably arrive at a pronoun system similar to that in Table 5 which only marked gender in 3rd-person forms.

Person		**Singular**	**Plural**	**Dual**
1st person		*ti, *ta	***e** -**!a**-**e**	*(?) -mu
2nd person		*sa	*o -**!a**-o	*o -da-o
3rd-person	Masculine	stem-*(?)-V [front]	stem-***!a**-u	*kho -da
	Feminine	stem-*sV [front]	stem-***di**	stem-*da

Note: bold item innovation due to Kx'a substrate

Table 5: The assumed system of pronouns in later Pre-Khoe

The full set of changes implied when relating the different systems of the Tables 4 and 5 are outlined in detail by Güldemann (forth. a). The crucial point in this context is that there are only three elements in the entire paradigm without a family-internal derivation (boldfaced in Table 5): 1st-person plural *e, non-feminine plural *!a, and 3rd-person feminine plural *di. This is where the second hypothesis about a contact-induced linguistic layer comes into play. I propose that Pre-Khoe spoken further north in southern Africa and encroaching onto the Kalahari Basin integrated a yet earlier language contact stratum from local forager groups affiliated to the Kx'a family.

Owing again to the phenomenon of pronoun modification which also exists in this family, in particular regarding the feature of number, the contact caused among other things the elaboration of person-gender-number marking towards a system with differentiated dual and plural forms in Proto-Khoe. The hypothesis that this was accompanied by the integration of borrowed linguistic material is based on the observation that the assumed substrate languages show markers which are comparable in form and function with the relevant items in Pre- and Proto-Khoe. Compare in this respect Table 6 and example (2) which figure the boldfaced elements 1st-person *e*, plural *!a*, and feminine *di* in Ju|'hoan.

Person		**Singular**	**Plural**	**Dual**
1st person	Inclusive		*m*(***!á***)	*m*(*tsá*)
	Exclusive	*mí*	***è*** (***!á***)	***è*** (*tsá*)
2nd person		*à*	*ì* (***!á***)	*ì* (*tsá*)
3rd person	Human gender I	*ha*	*sì*(***!á***)	*sá*

Note: (...) optional, but frequent number-specifying modifiers

Table 6: The system of pronouns for participants and gender I in Ju|'hoan (Ju, Kx'a)

(2) Ju|'hoan (Ju, Kx'a)

*ha-**di***	*ha-ma*	*ha-**di**-ma*	
1-F	1-DIM.S	1-F-DIM.S	
the female one	the small one	the small female one	(Güldemann field notes)

3.3 Proto-Khoe-Kwadi

A third important point regarding the linguistic history of Khoe-Kwadi is the justification for establishing this family in the first place. While the hypothesis about a genealogical relation between the Khoe family and Kwadi (also known under Kwepe and Kuroka) had been expressed for some time (e.g., Köhler 1981: 469), it was only through a more detailed analysis of Westphal's field notes on Kwadi and its comparison with Voßen's (1997) thorough Proto-Khoe reconstruction that this hypothesis could be substantiated empirically.

Güldemann (2004) proposed a pronominal proto-system of the minimal-augmented type, based on numerous commonalities of Proto-Khoe and Kwadi in the marking of person, gender, and number. This reconstruction is reproduced in Table 7.

Person		**-Augmented (or Minimal)**	**+Augmented**
+Speaker/+Hearer (= 1st+2nd	inclusive)	***mu**	(?)
+Speaker/-Hearer (= 1st	exclusive)	***ti**, ***ta**	(?)
-Speaker/+Hearer (= 2nd)		***sa**	***o** or **u**
-Speaker/-Hearer (= 3rd)	masculine	*stem†-(?)**V** [front] ‡	*stem†-(?)**u** ‡

-Speaker/-Hearer	(= 3rd)	feminine	*stem†-**sV** $^{[front]}$ ‡	*stem†-(?)**V** $^{[front]}$ ‡

Notes: (?) without plausible reflex in both Khoe and Kwadi
† elements like deictic *xa (Kalahari Khoe) or generic noun ***kho**
‡ also used as gender-number index on nouns

Table 7: The system of pronouns in Proto-Khoe-Kwadi

It can be seen that this system is quite comparable to that proposed for Pre-Khoe in Table 5 of Section 3.2 in terms of its structure and the form of the markers, involving half a dozen elements and the vocalic canon in the 3rd-person non-duals (boldfaced in Table 7). The major difference is that the Pre-Khoe paradigm would have changed already from the minimal-augmented system reconstructed in Table 7 to one with a genuine category of dual, exploiting the inherited 1st-person dual inclusive *mu and a suffix *da for 2nd and 3rd persons.

Table 8 shows the pronoun system of Kwadi recorded by Westphal; it is similar to that of Pre-Khoe in Table 5 and of Proto-Khoe-Kwadi in Table 7 regarding the markers (boldfaced in the table) as well as their categorial organization. Since there are two duals formed by the suffix *-wa* in addition to the 1st-person dual inclusive (*h*)*amu*, the system can be analyzed as still being on the threshold from one of the minimal-augmented type to one with three number categories, singular, dual, and plural. Note that the functionally identical elements *da of Proto-Khoe and *-wa* of Kwadi are arguably cognate.

Person		**-Augmented or Singular**	**+Augmented or Plural**	**Dual**
1st+2nd person	inclusive	(*h*)*a*-***mu***	(*h*)*ina*	(*h*)*a*-***mu***
1st person	exclusive	***tʃi***, ***ta***	*ala*	-
2nd person		***sa***	***u***	***u***-*wa*
3rd-person masculine		***ha***-*dɛ*	***ha***-*u*	***ha***-*wa*
3rd-person feminine		*hɛɛ* (< ***ha***-***e***)	***ha***-*'ɛ*	***ha***-*wa*

Table 8: The system of pronouns in Kwadi

The genealogical hypothesis of a Khoe-Kwadi family is not only based on this grammatical evidence. Güldemann and Elderkin (2010) give additional support from lexical data. Table 9 illustrates this point with a list of selected and fairly straightforward correspondences in basic vocabulary items.

Kwadi	**Proto-Khoe (unless otherwise stated)**
goe- 'cow, cattle'	*goe 'cow, cattle' (Kalahari West)
guu- 'sheep'	*gu 'sheep'
ha 'to come'	*ha 'to come'
pa- 'to bite'	*pa 'to bite'
pi-/ *bi*- 'milk, breast'	*pi 'milk, breast'
kho- 'person'	*khoe 'person'
kõ 'to go'	*!ũ, *kũ 'to go' (Kalahari East)
kuli- 'year'	*kudi, also kuri 'year'
kum (also *kũŋ*) 'to hear'	*kum 'to hear' (Kalahari)
kxo- 'skin, fur'	*kho, also kxo 'skin, fur'
kx'a 'to drink'	*kx'a 'to drink'

kx'ami- 'mouth'	*kx'am 'mouth'
k''o- [= /kx'o/] 'male'	*kx'ao 'male'
k''o- [= /kx'o/] 'meat'	*kx'o 'to eat (meat)'
mh(*u*) 'to smell'	*mm (Kalahari), *ham (Khoekhoe) 'to smell'
se 'to grasp, take'	*se 'to grasp, take'
so- 'medicine'	*tso, *so 'medicine' (Khoekhoe)
tame- 'tongue'	*dam 'tongue'
tumu- 'throat, to swallow'	*dom 'throat'
thõ, *thũ* 'illness'	*thũ 'pain'
thwii [< /thu-/] 'night'	*thu 'night'
/ui 'one'	*|ui 'one'
/'o- 'blood'	*|'ao 'blood'

Table 9: Selected lexical correspondences between Kwadi and Khoe

3.4 Towards the external genealogical relationship of Khoe-Kwadi

The linguistic evidence regarding the history of the Khoe-Kwadi family has not yet been exhausted. Several authors, in particular Elderkin (1986, 1989), have raised the question about a possible genealogical relation between the Khoe family in the south and the isolate language Sandawe in eastern Africa; if Khoe is a branch of the larger family Khoe-Kwadi, this hypothesis must, of course, involve this older lineage. In any case, its relevance for the present topic should be clear: if one group of the non-Bantu languages of southern Africa turns out to have a relative in far eastern Africa, the traditional assumption that all these languages share the same time depth in the area can no longer be maintained.

I have already pointed out in Section 2 that there is indeed a clear typological affinity of Khoe-Kwadi to languages in eastern Africa. Moreover, Güldemann (1999) has argued that shared diagnostic traits in word order and sound structure can even be identified in some geographically intervening Bantu languages which then deviate from the general trend in this family. This observation points towards the existence of a Pre-Bantu substrate which once bridged the synchronic geographical gap between Khoe-Kwadi and Sandawe.

Once the modern linguistic patterns in Khoe are seen as the potential result of innovation within the new areal context of southern Africa, the focus of investigation would have to shift towards the older structures in Proto-Khoe-Kwadi. And indeed, the pronoun systems involved under this approach reveal a closer relationship to Sandawe than would have been possible in a direct comparison of Sandawe and Proto-Khoe. This has been discussed by Güldemann and Elderkin (2010). Table 10 gives the pronoun system of Sandawe which displays a structural similarity to that of Proto-Khoe-Kwadi in Table 7 as well as several potential cognates (boldfaced in Table 10). These data do not yet prove a genealogical relationship, but they are concrete and thus more promising evidence than that which has hitherto been invoked for an alleged "Khoisan" family as a whole.

Person		**Singular**	**Plural**
1st person		***tsi***	*sũ:*
2nd person		***ha****pu*	*sĩ:*
3rd person	Masculine	***he-we***	***he****-so*
3rd person	Feminine	***he-s****u*	***he****-so*

Table 10: The system of Sandawe pronouns

Comparisons of vocabulary between Sandawe, Kwadi, and Khoe also show a still ambiguous picture, which is complicated by the very limited material available for Kwadi. Surely, there are salient differences in lexical structure, but remarkably not necessarily between Sandawe and Kwadi. For example, it is rather Sandawe and Kwadi together which show a relatively low proportion of click words in the lexicon and thus differ from the Khoe family which overall shows a considerably higher amount of such lexemes (in many languages more than 50%). Also, the typical southern African phonotactic root pattern (see Section 2) seems to be reconstructable to Proto-Khoe, while it is not attested in this strict form in Sandawe. Kwadi also deviates in this respect; but this fact is hard to interpret, because it could reflect an older situation or be the result of language contact and death.

Nevertheless, Tables 11 and 12 (abbreviations: Ka = Kalahari Khoe, N = Naro, (N)Kk = (Namibian) Khoekhoe) demonstrate that there also exist lexical affinities between Sandawe in eastern Africa and Khoe-Kwadi in southern Africa (see Güldemann and Elderkin 2010 for more discussion).

Sandawe	**Proto-Khoe (unless otherwise stated)**
ké*ké* ‘ear’	*ǂàé ‘ear’
kŭ: ‘red hot coals’	*ǂòm̀ (*ǂùm̀)‘charcoal’
tlíné ‘to build’	*‖ ãũ ‘to fence’
ɬô*kù* (*-kù* causative) ‘to pour’	*‖ óé ‘to lie down’
*//**’ǻ́:***kí* ‘to fight’	*‖’ǻ́ǻ̀ ‘to fight’
//’íné ‘to be ripe’	*‖’ání ‘to ripen’
//’ô ‘to sleep’	*‖’óm̀ ‘to sleep’
!ŏ: ‘to get’, ***!ŏ:****kí* ‘to meet’	*!óá ‘to meet’ (NKk+N)
!ó:mé ‘to fill’	*!óḿ ‘(to be) heavy’
!wă: ‘place, opportunity’	*!^{x}áì ‘place, matter’ (NKk+N)
/*ă:* ‘leaf’	*g|ana, *g|ǎǻ́ ‘leaf, grass’
/***ǻ́:***tímà* ‘fly (musca)’	*g|ani ‘fly’
/*èẃ* ‘buffalo’	*|áò ‘buffalo’
/*wê:* ‘eye’	*ǂ^{x}áí ‘eye, (to wake up)’
/*’ắ:kù* ‘above’	*ǂ’ám̀(ki) ‘top (of)’
/*’ĕ:* ‘to see’	*ǂ’áń ‘to know’

Table 11: Potential cognates between Sandawe and Khoe involving clicks

Table 11 shows probable correspondences between words involving clicks between Sandawe and Proto-Khoe; given the very restricted click inventory of Kwadi (Güldemann forth. c), it should not surprise too much that this language is hardly ever involved in potential correspondences of this kind. In the comparisons of words without clicks given in Table 12 Kwadi does, however, show good candidates for cognates and some items link in fact all three units.

Sandawe	**Kwadi**	**Proto-Khoe (unless otherwise stated)**
hàká ‘four’		*haka ‘four’
hàwé ‘to draw water’		*hàdè ‘to fetch (water), pick’
hìmé ‘to smell’	*mh*(*u*) ‘to smell’	*mm (Ka),*ham (Kk) ‘to smell’
k’é: ‘to cry’		*kx’àí ‘to cry’
k’ú*ts^{h}è* ‘raw’		***kx’ò**rà ‘raw’ (NKk+N)
k’àw*àʔé* ‘ferment, turn sour’		*kx’àú ‘bitter’
pě: ‘to put (singular object)’	*pɛ* ‘to put’	
síé ‘to take’	*se* ‘to take’	*séè ‘to take, grasp’ (Ka)
tímɲ̀ ‘to swallow’	*tumu*- ‘to swallow, throat’	*tómɲ̀ ‘to swallow’
t^{h}ŭ: ‘darkness’	*thwii* (< /thu-/) ‘night’	*t^{h}ùú ‘night’
t^{h}ɪˇm ‘to cook’	*sẽ* (also *θẽ*) ‘to cook’	*tsâ̰(i)- ‘to cook’ (Ka)
t^{h}ě: ‘tree’	*ʧhi*- ‘tree’	
ts^{h}ô ‘excrement’		*tsuu ‘excrement’
tsě: ‘head’	*tshẽ* ‘head’	

Table 12: Potential cognates between Sandawe, Kwadi and Khoe not involving clicks

The pattern of a relatively higher amount of shared words without clicks may not be coincidental: under the hypothesis of a strong Kx’a substrate in Pre-Khoe (see Section 3.2), it can be hypothesized that this contact situation is also responsible for an increase in click words which then could not be reconstructed back to Proto-Khoe-Kwadi. Different lexical loan strata in Khoe languages, first from Kx’a and later from Tuu, compounded by the problem of historically younger, but geographically widespread borrowing from prestigious Khoekhoe varieties into many forager languages might in fact account largely for the vocabulary that is shared across southern African non-Bantu languages. While these have traditionally been invoked as evidence for “Khoisan” as a language family, they could turn out to reflect different layers of contact phenomena between the three linguistic lineages involved. A first exploration of “Pan-Khoisan” vocabulary in the domain of body parts by Güldemann and Loughnane (forth.) is fully compatible with this line of thinking.

3.5 Linguistic evidence for the reconstruction of Proto-Khoe-Kwadi culture

Lexical data also throw light on another question, namely which cultural type most likely characterized the population that spoke the earliest reconstructed language state of the Khoe-Kwadi family. The most common current assumption is that all southern African non-Bantu lineages are originally associated with a foraging subsistence and only a small group at the northern fringe of the Kalahai Basin, the ancestors of the Khoekhoe, adopted a pastoral mode of life through contact with another population colonizing the wider area from the north (Elphick 1977, Ehret 1982, 1998: 82–5, 212–22).

The first important point is that the Kwadi, whose language appears to be close to Proto-Khoe-Kwadi and thus the most conservative in the family, are reported to have possessed a culture involving animal husbandry (Estermann 1959, Guerreiro 1971). This cannot be reconciled easily with a generalized foraging origin of Khoe-Kwadi speakers,

unless one assumes again the same scenario of a cultural shift.

What then about Proto-Khoe culture? The primary source to address this question from a linguistic angle is Voßen's (1997) extensive reconstructions involving several hundred lexical items (Voßen 2007 is a more recent summary of the lexical domain at issue here). Tables 13 and 14 will show that these data, too, cast doubt on the assumption about an original stone-age foraging subsistence of Proto-Khoe speakers; they suggest instead a food-producing culture. While the linguistic facts have been known for a long time (cf. Voßen 1984, Köhler 1986), their implications for a general historical reconstruction have never been acknowledged in their full potential.

Table 13 shows that Proto-Khoe speakers - not just the Khoekhoe pastoralists in the Cape and their direct ancestors - are likely to have had a partly sedentary life style and been familiar with domesticated animals, just like the Kwadi. Given that there is only a robust proto-form for 'sheep', but not for 'cattle' (see Voßen 1997: 478), animal husbandry could have been based on small stock.

Form	**Meaning**	**Page number in Voßen (1997)**
*n‖ubu	‘to churn, (shake)’	427
*‖ãu	‘to fence in’	430
*|kx’ao ~ *ts’ao	‘to milk in container’	466
*gu	‘sheep’	483
*‖’an(i)	‘to dwell, build’	508

Table 13: Proto-Khoe reconstructions atypical for a foraging subsistence

Sets of lexical proto-forms which are atypical for an ancient stone-age culture, but confined to individual Khoe subgroups are possibly even more significant. While such proto-forms as *!hana ‘field, garden’ and *!hada ‘(cattle) kraal’ (Voßen 1997: 434, 503) may not be too surprising for Khoekhoe pastoralists, those restricted to Kalahari Khoe as displayed in Table 14 are quite unexpected, because the relevant groups are synchronically all characterized by a predominantly foraging subsistence. This reiterates the apparent contradiction between historical linguistic data and modern facts from cultural anthropology.

Form	**Meaning**	**Page number in Voßen (1997)**
*kom(a)	‘bellows’ (Kxoe and Shua)	424
*‖hada	‘field, garden’	434
*‖hao	‘hoe, (plough)/ to plough’	446
*tsxom	‘to milk in the mouth’	466
*kada	‘kraal’	503
*‖’ae	‘settlement’	508

Table 14: Proto-Kalahari Khoe reconstructions atypical for a foraging subsistence

Given that some lexical reconstructions in Table 14 even indicate a form of small scale agriculture, it is also significant that Köhler (1986) shows the Kalahari Khoe language Kxoe to possess a considerable component of agricultural vocabulary that cannot be explained by borrowing from Bantu. Since Bantu is widely associated with the introduction of agriculture to the area, the relevant terms in Kalahari Khoe, some of them with clicks, must even more raise the suspicion about a pre-Bantu population with food production.

4 Towards a history of the Khoe-Kwadi family

4.1 The general population profile of non-Bantu language groups in southern Africa

I have presented in Section 3 linguistic evidence which suggests several important points regarding the history of the largest southern African language family subsumed under "Khoisan". First, it is possible to identify several historical layers in the development of person-gender-number marking. These layers correlate with a geographical pattern: the more a linguistic sub-group deviates from the most conservative language state of Khoe-Kwadi the further south it is located. This observation can in turn be related to proposed situations of contact with indigenous languages of the respective areas, namely Kx'a in the north and centre of the Kalahari Basin and Tuu in its southern parts up to the southern tip of the continent. Second, Khoe-Kwadi has a clear linguistic leaning to eastern Africa from a typological and possibly even genealogical perspective. Third and finally, the linguistic reflexes of the earlier language states of the family do not necessarily indicate an origin in a pristine forager population, but could well have been associated with a food-producing subsistence. In the following I will relate these linguistic findings to facts concerning the non-linguistic population profile of the relevant southern African groups and some other aspects of the early history of the area.

The first step to this end is a brief non-linguistic characterization of the peoples speaking Non-Khoe languages. In Section 2 I have mentioned the considerable degree of linguistic-typological homogeneity of this grouping which comprises two different language families. The historical significance of this observation is unclear: the Non-Khoe unity could result from areal convergence over a long time span or it could spring from a very old common ancestor language which cannot yet be demonstrated by accepted linguistic methodology. Whatever the final answer to this question, the speakers of Non-Khoe languages also display a considerable amount of homogeneity in non-linguistic terms. First, they are consistently associated with a hunting-gathering subsistence (warranting in the region the traditional label "San") and, as far as data are available, this shows continuity with the early archaeological records in the respective area. Second and just as important is the fact that there is also a common genetic-biological trait across Non-Khoe. Human populations show an early tripartite phylogeny in mitochondrial DNA lineages associated by a very biased distribution over modern populations (Soodyall and Jenkins 1998, Chen et al. 2000). In a very simplified way this can be translated in a three-way split between modern regional population groups, whereby the first two exclusively African groups involve the most ancient and geographically restricted genetic lineages:

(a) "Pygmy" in central Africa
(b) "Khoisan" in southern Africa
(c) other African (traditionally often called "Negro") and the rest of the world

Note that the term "Khoisan" was originally coined for a purely anthropo-biological entity by Schultze (1928); since this concept is the only connotation with empirical substance the term without quotation marks will from now on be used in this sense. The important fact for the present topic is that Non-Khoe groups consistently show the strongest affiliation with genetic Khoisan traits (and lack the typical features of Pygmies). Taking the linguistic, cultural and genetic facts together, it can be concluded that groups speaking Kx'a and Tuu

languages are relatively homogeneous in showing a clear profile of old and local southern African population traits.

This general observation stands in striking contrast to the groups speaking Khoe-Kwadi languages. Consider first that this family is the largest non-Bantu lineage in southern Africa with considerable internal sub-branching (cf. Figure 1) and the widest geographical range (cf. Map 1); this itself suggests the importance of processes of historical expansion and accompanying divergence. This is indeed corroborated by a high degree of internal differentiation in terms of all basic population features considered here. Linguistically speaking, although Khoe-Kwadi is a clear genealogical language group and thus involves by all measures a shorter time depth than Non-Khoe, it is as a whole structurally as diverse as, or even more diverse than Non-Khoe, irrespective of the ultimate historical nature of that unit. In cultural-ethnological terms, Khoe-Kwadi speakers comprise historically not only foragers a.k.a "San" but also pastoralists. Finally, Khoe-Kwadi groups differ tremendously in genetic-biological profile and, like parts of the linguistic differentiation, this can be correlated with a kind of geographical cline: while the groups in the north and northwest show a clear affiliation with non-Khoisan groups subsumed here under "other African", the groups further south have a far stronger Khoisan profile; notably the southernmost pastoral Khoekhoe display in spite of their strong phenotypical Khoisan appearance an important non-Khoisan component. The overall diversity among groups speaking Khoe-Kwadi languages is summarized in a simplified form in Table 15 (cf. also Map 1).

	Group	**Language (group)**	**Subsistence**	**Genetics**
1	Kwadi	Kwadi	Pastoralists	Other African
2	Damara	Namibian Khoekhoe, formerly distinct	Khoekhoe clients < ?	Other African
3	North-eastern Kalahari Khoe	Kxoe, Shua, Tshwa	"San"	Other African
4	Hai||om, ǂAakhoe	Distinct Namibian Khoekhoe varieties	"San"	?Khoisan + other African
5	Southwestern Kalahari Khoe	Naro, G||ana	"San"	Khoisan
6	Pastoral Khoekhoe	Khoekhoe	Pastoralists	Predominantly Khoisan

Table 15: Population diversity among Khoe-Kwadi speaking groups

4.2 Towards the precolonial historical sequence in southern Africa

Based on the above information I will try in this section to place the different non-Bantu groups in the general population sequence of southern Africa. As a base line for the present purpose, one can make a simplified distinction between three major pre-colonial population layers according to the archaeological and historical records (Deacon and Deacon 1999, Mitchell 2002). These are in chronological order:

(I) various stone age cultures, based on hunting and gathering
(II) late stone age culture from about 2000 BP, based on sheep pastoralism (only partial correlation with first pottery)

(III) iron age culture from a few centuries later, based on agriculture and pastoralism

Most recent research has followed two assumptions, viz. about (a) a considerable linguistic homogeneity across non-Bantu groups in southern Africa (a.k.a "Khoisan") and (b) their generalized original association with a foraging subsistence. Consequently, the earliest hunting-gathering phase is coupled with "Khoisan" as a whole, while all food-producing layers were usually tied in one way or another to the Bantu expansion. However, the first food-producing phase under (II) in particular posed considerable problems, because the archaeological records as well as its most direct modern reflex in the form of early Khoekhoe pastoralism lack essential ingredients of a Bantu population profile. The solution to this was the assumption that local foraging non-Bantu groups "borrowed" pastoralism from Bantu at the northern fringe of the Kalahari Basin and then expanded across the region further south. This hypothesis largely ignored an essential problem, namely that foragers, at least in South Africa, have not been shown to shift easily to a food-producing subsistence and its important regalia in ideology and social structure (Smith 1990, 1996, 2005a, b; Barnard 2002, 2007).

Based on more reliable linguistic data and the historical interpretation proposed in Section 3, I will develop a different scenario on pre-colonial southern African population history. It will become clear that this overlaps considerably with Westphal's (1963, 1980) ideas, but importantly is now backed up by better linguistic evidence. It is based on the plausible possibility to associate the three linguistic groups identified above, Non-Khoe, Khoe-Kwadi, and Bantu, with the three basic population layers just outlined.

The speakers of Non-Khoe languages (comprising Tuu and Kx'a) constitute the oldest southern African population cluster under (I) above. This can be reconstructed to have had originally (a) Khoisan genetic profile, (b) forager subsistence and (c) considerable linguistic homogeneity, due to a long areal and/or genealogical relationship. Taking aside the changes arising in the later contact with incoming populations, this general profile can still be discerned for these groups today.

Second and most importantly here, the Khoe-Kwadi family is proposed to be the modern linguistic reflex of the new cultural sequence under (II), which marks the introduction of food production into this part of Africa from about 2000 BP on (Smith 2005a). That is early Khoe-Kwadi speakers can with some probability be linked to pastoralism with a particular focus on sheep, while the role of 'cattle' remains unresolved, this for the following reasons: (a) the word *gu 'sheep' can be reconstructed for the entire family (see Section 3.5); (b) this very word has been borrowed widely into Bantu languages whose animal husbandry focused more on cattle and goats (see, e.g., Westphal 1963: 253-6). Khoe-Kwadi herders spread relatively rapidly from a general northern direction throughout southern Africa, eventually up to the southernmost area of the Cape. It is important to consider at this point the general importance of climatic dynamics for regional population changes. That is, the advent and expansion of pastoralism in southern Africa coincided with a precipitation peak in summer rainfall areas around 3000-2000 BP which in turn lead to an extension of surface water, forests, etc. and a far more humid Kalahari around 2500-1500 BP (Denbow 1986). Hence, this spread would not have had to skirt all the dry interior of modern times. Following Smith (1996) and pace Elphick (1977), in spite of intensive and geographically wide and diverse contacts between incoming pastoral groups and indigenous forager populations, the different modes of life can be shown to have remained distinct in both historical and modern times. In summary, at the earliest

historical stage, the original population initiating the above change is assumed to have (a) possessed a non-Khoisan genetic profile, (b) subsisted at least on small-stock pastoralism, and (c) spoken an early chronolect of Khoe-Kwadi. All these population characteristics are compatible with or even specifically suggest an ultimate origin of Khoe-Kwadi in eastern Africa.

The final arrival of the iron-age culture based on a more diversified economy happened only slightly later. This event can be associated without much controversy with the last population layer under (III) that emerged in connection with the Bantu expansion. For the later history of Non-Khoe and Khoe-Kwadi groups, this meant their large-scale obliteration as distinct entities, except for the interior Kalahari Basin and adjacent dry areas in the west and south. This can largely explain that Khoe-Kwadi speaking groups, just like Non-Khoe groups, give today the impression of relic populations. Also, if the genealogical link between Khoe-Kwadi and eastern African Sandawe is real, the Bantu expansion would have obliterated the likely earlier geographical connection between them (see Oliver (1978: 376) for such a hypothesis, which at the time was linguistically entirely unsubstantiated, however). To put it differently in the context of the present scenario, modern Khoe-Kwadi as a whole reflects an earlier, geographically marginalized population spread supplanted by the later Bantu expansion.

4.3 A scenario of Khoe-Kwadi expansion and diversification

When speaking here of a "population", it should be clear that this refers first of all to a group in more or less specific space and time. As soon as the term refers to a more abstract classificatory category historical change and diversification come into play. Hence, the relation between the features of a reconstructed population and any type of modern group can only be mediated indirectly by means of individual historical processes. As is well known, these can change a population profile tremendously in one or more features. For the present purpose, this requires one to show how the earlier Khoe-Kwadi profile reconstructed in the previous section gave rise to the great diversity displayed by the modern groups outlined in Section 4.1.

Before doing this, it should, however, be taken into account that it will only provide a tiny part of the entire history of Khoe-Kwadi groups in southern Africa. It is important to keep in mind that Bantu groups encroached onto the wider area only slightly later and obliterated previous populations as distinct entities. One clear indication of this claim has already been given, namely that Bantu groups all over southern Africa must have been confronted with sheep pastoralism of the Khoe-Kwadi type, because a reflex of the reconstructed Khoe-Kwadi form *gu 'sheep' is found widely as a borrowing in areas where we no longer have clear evidence for the presence of the donor culture itself. Thus, it is very probable that Khoe-Kwadi had a wider geographical distribution in the past and other such groups existed at least in Zimbabwe and the eastern parts of Botswana and South Africa where they gave way to incoming Bantu.

The present reference parameter is the linguistic genealogical classification of the area at issue. It is therefore also important to recall another point: there are two ways how an attested ethnic group may have come to speak a language of a particular family, here Khoe-Kwadi, namely by language maintenance or by language shift. This means that the following perspective is first of all how an abstract LINGUISTIC entity has changed and, so to speak, spread over population types identified by other criteria.

Accordingly, I can start from the different linguistic layers in the Khoe-Kwadi

family identified in Section 3 and, if relevant, their associated types of contact interference argued for on linguistic and topological grounds. For this purpose, I summarize the reconstructed events of linguistic divergence and convergence processes in this family in the schema of Figure 2.

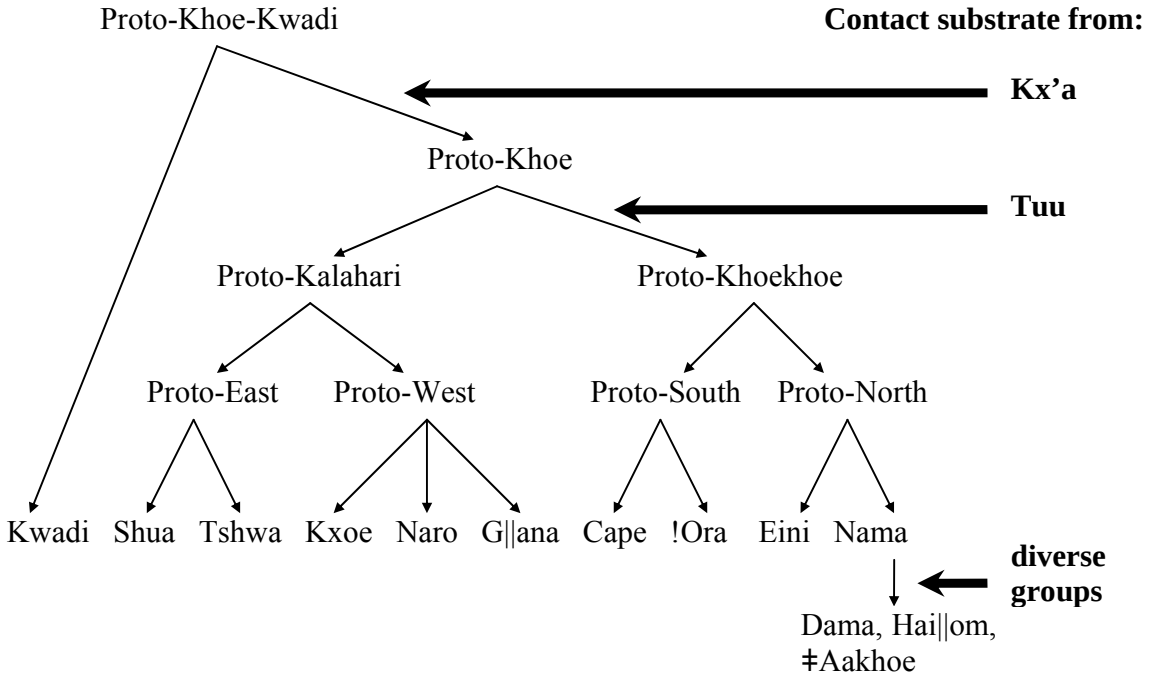


Figure 2: Proposed historical development of the Khoe-Kwadi family

The first major event was the arrival of a Pre-Khoe-Kwadi population in the northern periphery of southern Africa. As mentioned above, this stands a good chance to be related historically to groups in eastern Africa (cf. Section 3.4 for the linguistic evidence). A likely point of immigration would be somewhere close to the wider area where Zambia, Zimbabwe, Botswana, and Namibia border on each other, because this seems to be the best staging point for explaining the location of modern related languages. The historical state after the arrival but before the subsequent dispersal would coincide with the linguistically assumed chronolect Proto-Khoe-Kwadi (cf. Section 3.3).

In a second important step, a Pre-Kwadi group expanded westwards into southern Angola and eventually became separated from the rest of the family, most likely through language replacement in the intermediate areas. Comparing the population profile of the historically attested Kwadi with that assigned to early Khoe-Kwadi speakers in Section 4.2 it can be seen that it remained largely unchanged.

This is not the case with the Pre-Khoe who expanded south into the northern Kalahari. Because of the linguistic Kx'a substrate in Proto-Khoe proposed in Section 3.2, I assume a period of intensive contact with local foragers. On account of their geographical location modern groups speaking Kalahari Khoe languages could be expected to be the most direct reflex of an early stage of Khoe. However, if comparing them to the reconstructed early Khoe-Kwadi profile, it becomes clear that these must have changed

considerably.

This becomes clear from the internal diversity in Kalahari Khoe, because there is an important cline in this linguistic unit from a "north-eastern" to a "southeastern" cluster. Speakers of the north-eastern cluster roughly comprising Kalahari Khoe East as well as the Kxoe group of Kalahari Khoe West have been observed to appear biologically more non-Khoisan than Khoisan (hence their common designation "Black Bushmen"); also, although being mostly foragers in the recent past, they show various ethnographic features which are atypical for the more ancient foraging tradition in southern Africa (see Cashdan 1986). The major difference of the modern north-eastern Kalahari Khoe to my early Khoe-Kwadi profile is their foraging subsistence. The other southeastern cluster comprising the Naro and G||ana groups of Kalahari Khoe West has a quite different profile: these groups are overall close in genetic and anthropological terms to Non-Khoe; the puzzling point here is that they speak Khoe instead of Non-Khoe languages.

How can these contradicting facts be fitted into a plausible history? Regarding the last-mentioned southeastern cluster my hypothesis is an early language shift by local groups of Non-Khoe foragers to a Khoe language under maintenance of their ethnic and cultural autonomy; this would fully explain their modern population profile. Recent genetic studies like Pickrell et al. (2012) are indeed compatible with this hypothesis. While the exact location and date of the shift as well as processes subsequent to it remain unclear, the most plausible historical scenario would in my view run parallel to the history of such forager groups as the central African Pygmies and the Philippine Negritos after coming in contact for the first time with food-producing groups. This hypothesis would at least suggest a time when the early pastoral Khoe economy was still viable in the wider area.

Today most locations where Kalahari Khoe languages are spoken either do not support a pastoral subsistence or have become dominated socio-politically by Bantu speakers. This leads to my hypothesis regarding the other, north-eastern, cluster of Kalahari Khoe. I have pointed out in Section 4.2 that the spread of pastoralism, arguably through Pre-Khoe immigration, coincided with wetter conditions in the Kalahari Basin; it is just as important to recognize that this phase was followed by desiccation and environmental deterioration, leading eventually to the modern conditions in the Kalahari in which traditional forms of pastoralism are difficult or even impossible. Since the Bantu spread closely followed the supposed Khoe spread, the Khoe in the interior were "trapped" between the re-desertifying Kalahari and its northern fringes occupied in the meantime by Bantu, as argued convincingly by Denbow (1986). In an admittedly very simplified way, there would have been two basic options for these Khoe pastoralists in the long term. One would be to amalgamate with Bantu groups, the evidence for which would have to be sought among the Bantu of the area in the form of a Khoe substrate. The second solution would be to adopt a forager economy.

The reflex of this second scenario turns out to be far more visible under the present hypothesis in that it can be associated with the so-called "Black Bushmen". That is, they should be viewed as representing to a large extent pastoral Khoe of the northern parts of the Kalahari Basin who first interacted intimately with local foragers and then devolved to a foraging economy when pastoralism was no longer viable. This would explain the linguistic Non-Khoe substrate as well as the genetic Khoisan admixture. Note that this "devolution" theory is not a new idea (cf. Köhler 1960: 76-7, Nurse and Jenkins 1977, Cashdan 1986: 174-5); new is, however, its explicit association with non-Bantu groups - in the past these "Khoisan" peoples were viewed by default as indigenous foragers.

The assumed cultural shift is not without potential traces of the earlier identity. First, as mentioned, some cultural features of north-eastern Kalahari Khoe groups are not typical for the local forager tradition and can be assumed to continue Khoe-Kwadi traits. Second, when European explorers contacted these groups for the first time in northeastern Botswana some were in fact herding peoples (cf. Livingstone 1851: 23-4, 1858), although the significance of this fact is admittedly difficult to evaluate, given their long previous contact with neighboring Bantu.

I will now turn to the profile of the Khoekhoe further south. I assume that Khoe pastoralists could successfully traverse the wider area during the wetter climatic phase so that some groups - among them the Pre-Khoekhoe - expanded into regions south of the Kalahari. Here and on their way they first of all encountered foragers speaking Tuu languages. As argued by Güldemann (2006a), this contact changed the profile of the Pre-Khoekhoe tremendously. Linguistically, it contributed strongly to the emergence of Proto-Khoekhoe which is characterized by a heavy Tuu substrate as outlined briefly in Section 3.1. Genetically, it implied socially upward, and thus unilateral gene flow and lead to yet more Khoisan admixture; this regularly motivates early and modern scholars to lump the Khoekhoe together with other indigenous groups in biological terms (see Schultze 1928). Culturally, it further increased their subsistence component of hunting and gathering making them the seemingly only pastoral group in Africa that could be entirely independent of any exchange with agricultural food producers. The exact trajectory of the spread of this Khoe fraction and its geographical extent in the past remain unclear. It should in fact not be implied that the colonization of these southernmost parts must be tied to a single group and a single point in time; it cannot be excluded that there were different waves. However, it is certain that the Khoe spread reached the Cape area and gave rise to the different groups of pastoral Khoekhoe in South Africa which, it should be stated, are linguistically quite homogeneous. With the re-desertification of the Kalahari as well as with the southward spread of Bantu peoples the earlier geographical link between the diversifying Khoe languages was interrupted, leading to the modern picture of two geographically separate branches of the family – Kalahari Khoe and Khoekhoe.

The last major historical shift concerning modern Khoe-Kwadi speaking groups, namely the expansion of a subgroup of pastoral Khoekhoe, the Nama, from south of the Orange River northward into Namibia is the reason why both Khoe branches are today in contact with each other. This spread seems to have occurred from the 17th century on and was eventually checked by their encounter of another pastoralist group encroaching on Namibian territory from the north, the Bantu-speaking Herero (Vedder 1934, Budack 1986). The Nama migration led to yet other types of population contact and, due to the prestige of the incoming herder language, to the widespread linguistic Khoekhoeization of indigenous groups. Their original languages cannot always be identified securely because of the scarcity of linguistic data. In southern Namibia they can be assumed to have been of the Tuu family (cf. Güldemann 2006b). In northern Namibia at least some groups subsumed today under Hai||om and ǂAakhoe may have spoken Ju varieties (cf. Werner 1906). A particularly enigmatic case is posed by the Damara, many of which were Nama clients, who possess a genetic non-Khoisan profile very different from that of the early Nama. It is well possible but so far not supported by linguistic evidence that the Damara are remnants of the western thrust of the early Khoe-Kwadi expansion and thus do have a closer historical link to the Kwadi, as hypothesized by Ehret (1982: 169-70). All the non-pastoralist groups who speak today some variety of Namibian Khoekhoe seem to have been

involved in the socially upward, unilateral gene flow which affected the Namibian Nama (see i.a. Soodyall and Jenkins 1992: 321).

My hypotheses for reconciling the population profile of the major Khoe-Kwadi speaking groups of the recent past with that of the early Khoe-Kwadi speakers who are supposed to have been non-Khoisan pastoralists are summarized in Table 16.

	Group	**Language**	**Subsistence**	**Genetics**
1	Kwadi	Maintenance	Maintenance of pastoralism	Maintenance of non-Khoisan profile
2	Damara	Shift to Khoekhoe ?from Khoe-Kwadi	?	Maintenance of non-Khoisan profile
3	North-eastern Kalahari Khoe	Maintenance with Non-Khoe substrate	Shift to foraging	Maintenance of non-Khoisan profile
4	Hai||om, ǂAakhoe	Shift to Khoekhoe from Non-Khoe + ?	Maintenance of foraging	?
5	Southwestern Kalahari Khoe	Shift to Khoe from Non-Khoe	Maintenance of foraging	Maintenance of Khoisan profile
6	Pastoral Khoekhoe	Maintenance with Non-Khoe substrate	Maintenance of pastoralism	"Relative" shift to Khoisan profile

Table 16: Assumed major historical trajectories of Khoe-Kwadi speaking groups

5 Conclusions

This paper has traced the history of Khoe-Kwadi, the largest family subsumed under the spurious concept "Khoisan", by discussing its external and internal relations and proposing historical scenarios of how the different groups came into being. The linguistic argument relied heavily on evidence from pronoun systems and their historical evaluation. This shows their potential importance for research on both non-apparent genealogical relationships as well as areal contact, provided the proposed associations involve both the matching of individual elements in form and function and the typologically plausible changes from one system to another.

The results of the linguistic analysis in conjunction with the evaluation of non-linguistic evidence provide a very different perspective on the history of this part of the African continent. I argue against the common assumptions that (a) Khoe-Kwadi is an old lineage in the southern African interior and that (b) all its speakers were originally foragers. I propose instead that the Proto-Khoe-Kwadi population colonized southern Africa relatively recently as a pastoralist group and was thus responsible for the first introduction of food production into this region. That is, not all populations lumped together under "Khoisan" have emerged entirely in southern Africa and represent "pristine" foragers.

The differences to the supposed early Khoe-Kwadi as well as the great internal diversity which modern groups display in anthropological, biological and linguistic terms are explained by the complex dynamics of interacting populations which involved in particular the intimate contact between incoming Khoe-Kwadi groups with foragers indigenous to the respective area: either a Khoe-Kwadi group changed its population profile in one or more major aspects under the new conditions it was in (in particular, language change through borrowing and shift-induced substrate interference, cultural reorientation and shift, and genetic admixture) or entire groups of other linguistic affiliation shifted to a

Khoe-Kwadi language. This can resolve the paradox that modern groups which today constitute the Khoe-Kwadi family are in many ways more heterogeneous than the Non-Khoe groups which do not form a family (or at best form a family that is far older).

This historical scenario, if substantiated in future research, is also relevant for early population history in general. It would provide a quite dramatic case of an areal "blending-in" of a colonizing population to the extent that it has been classified as "indigenous" to its present area. What is of prime importance in the context of this book is the strong influence of indigenous foragers on incoming food-producers, involving in particular a heavy linguistic substrate in the colonizing layer. This possibility should be considered in other areas of the world and might warrant a different perspective on the emergence of more "global" macro-areal profiles.

What remains to be determined in this respect is to what extent the Khoe-Kwadi case can be generalized. It must be taken into account that it involves two quite specific constellations, namely contact of foragers with (a) the FIRST wave of food-producers and who (b) were primarily PASTORALISTS. Future research on other relevant cases must show whether one or both of these conditions make it particularly likely that foragers can have a major impact on a colonizing population.

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