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Structural isoglosses between Khoekhoe and Tuu: the Cape as a linguistic area[1]

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ABSTRACT

In historical times, the wider Cape region including the Orange river area hosted languages of two very different Khoisan language families, namely of Tuu (specifically its !Ui branch) and of Khoe (specifically its Khoekhoe branch). Khoekhoe displays a number of linguistic features, which do not exist in languages of its genealogical sister, the Kalahari branch of Khoe. A comparison beyond the limits of this family shows that the innovative structures in Khoekhoe often have a great similarity to properties of the Tuu family, particularly its !Ui branch. This observation leads to the hypothesis that the genuine linguistic character of Khoekhoe vis-à-vis Kalahari Khoe is to a considerable extent the result of contact with Tuu languages, which have been in the relevant area for a longer time. The paper will (a) outline briefly the historical context of the contact situation, (b) identify commonalities of the two groups, with a particular focus on the assumed Tuu substrate interference in the morphosyntax of Khoekhoe, and (c) discuss a few implications of the data for the population history in southern Africa and for historical and contact linguistics in general.

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1 This paper was presented on the following occasions: '14. Deutscher Afrikanistentag' at Hamburg (11/10/2000); '23. Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft' at Leipzig (01/03/2001); 'Substrate Workshop' at the Max-Planck-Institut für Evolutionäre Anthropologie Leipzig (20/10/2001); 'Annual Conference of the North West Centre for Linguistics (NWCL): Linguistic areas, convergence and language change' at Manchester (02/11/2002); and 'International Symposium on Khoisan Languages and Linguistics in memory of Jan W. Snyman' at Riezlern (06/01/2003). Thanks to W. Haacke for his comments on a draft version. Examples are cited in the original orthography, except for !Ui languages for which I use a modified transliteration. The abbreviations in glosses are: AD addressee, APPL applicative, C common, COMP complementizer, CONN clause connector, COP copula, D dual, DECL declarative, DEI deictic, DIM diminutive, DSBJ deposed subject, E exclusive, F feminine, FUT future, IPFV imperfective, M masculine, MPO multipurpose oblique, NEG negative, OBJ object, OBL obligation, P plural, PASS passive, PQ polar question, PRO pronoun, PROP proper name, PST past, Q question, QUOT quotative, REL relative, RELV relevance, S singular, SBJ subject, SP speaker, SUBJ subjunctive, STAT stative, TR transitive.

1 Khoisan-internal language contact in the Cape

Khoisan research started to focus on areal and contact linguistics only recently (cf., e.g., Güldemann 1998, Traill & Nakagawa 2000); this mainly because Greenberg's (1963) hypothesis of a genealogical Macro-Khoisan unit has overshadowed the discipline as far as historical aspects of the languages were concerned and has thus diverted the interests of scholars from non-genealogical approaches. While a "Khoisan language family" is generally accepted among non-specialists, most Khoisan linguists, including me, do not consider the proposed evidence to support this view (cf. Güldemann & Vossen 2000, Güldemann forthcoming d);[2] I pursue instead the idea that commonalities across certain click language groups in southern Africa are mediated by language contact rather than by inheritance from a common ancestor. Embedded in this general approach, this paper will focus on a sub-part of southern Africa, namely the Cape including the region along the Orange River.

1.1 Languages, classification, and data

In historical times, the Cape hosted languages from two genealogically unrelated groups: Tuu (alias Southern Khoisan, see Güldemann (2004b) for the new terminology) and Khoe (alias Central Khoisan). Khoe is the core of a higher-order family Khoe-Kwadi, proposed by Güldemann (2004a) and Güldemann & Elderkin (forthcoming). The Tuu family, together with the language complex Ju (alias Northern Khoisan) and the still isolated language ǂHõa, is subsumed under the non-genealogical, typological grouping called 'Non-Khoe' on account of considerable morphosyntactic similarities between the three units (see, e.g., Güldemann & Vossen 2000). Map 1 shows the geographical distribution of all southern African Khoisan lineages.

The member languages of Khoe-Kwadi and Tuu and their sub-grouping, as far as they are known, are given in Figures 1 and 2, respectively (DC = dialect cluster; † = extinct); groups and languages which are of higher relevance for the present discussion and for which sufficient data are available are set in bold.

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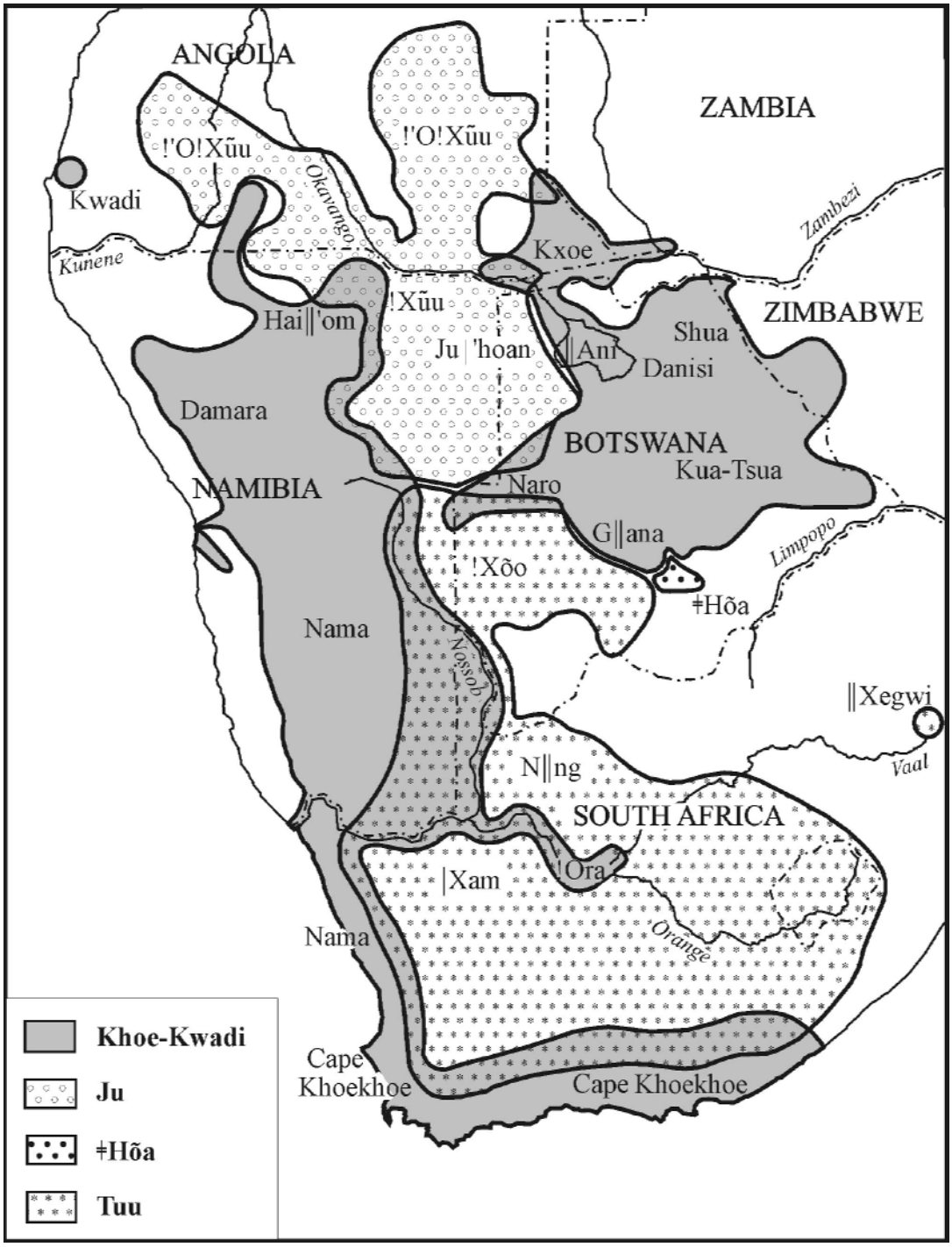
2 Accordingly, the term 'Khoisan' is used here in a neutral, non-genealogical sense for click languages that do not belong to such securely established African language groups as Bantu or Cushitic.



Map: Distribution of Khoisan lineages in the early colonial period

KHOE-KWADI

Kwadi single language

Khoe

Kalahari

East

Shua: Cara, Deti†, |Xaise, Danisi, Ts'ixa, etc.

Tshwa: Kua, Cua, Tsua, etc.

West

Kxoe: Kxoe, ||Ani, Buga, G|anda, etc.

G||ana: G||ana, G|ui, ǂHaba, etc.

Naro: Naro, etc.

Khoekhoe

North: Eini (DC)†, **Nama-Damara (= Standard Khoekhoe)**, Hai||'om (DC)

South: Cape varieties (DC)†, **!Ora** (DC)†

Figure 1: Genealogical classification of Khoe-Kwadi

TUU

!Ui: |**Xam** (DC)†; **N||ng** (DC including ǂKhomani, N|huki); **ǂUngkue**†; ||Xegwi†

Taa: !Xõo (DC including N|amani†, N|u||'en†, Kakia†); Lower Nosop (|'Auni, |Haasi)†

Figure 2: Genealogical classification of Tuu

Unfortunately, the general access to linguistic data on the languages of the Cape is severely restricted in various respects. Most importantly, the majority of relevant varieties are extinct today without having been documented at all or at least not sufficiently and according to modern standards. From some regions, especially the southern- and westernmost parts of the Cape, the available material comprises at best the names of ethnic groups and short word lists in highly defective transcriptions. This also means that the picture regarding language and dialect geography is very scanty. It cannot even be stated with confidence that San languages spoken along the coast belonged to the Tuu family.

Of the extinct languages and dialect clusters there are only three on which a more extensive or even sizeable amount of linguistic data are available, namely !Ora on the Khoekhoe side and ǂUngkue and |Xam on the !Ui side, all recorded in the 19th and early 20th century. A drawback of these materials is that they display considerable lacunae and are not accompanied by a full linguistic analysis.

Only two of the languages at issue are still spoken to this day within the area: the Richtersveld in the very north-western corner of South Africa still hosts a few thousand speakers of Nama (Khoekhoe) and less than twenty old people who are scattered over the Northern Cape north of the Orange River retain a knowledge of one or more N||ng varieties (!Ui). Both Nama and N||ng in South Africa are not documented sufficiently so that the linguistic material used in this study is defective, too. Information on Nama only comes from varieties north of the Orange River, the use of which is problematic for reasons given below. The available N||ng data, figuring in the literature under such language names as ǂKhomani and N|huki, are limited in terms of size and quality.

A final problem of the accessible data concerns the complex processes involving some speech communities in their more recent history. In order to ascertain the result of assumed linguistic contacts between Khoekhoe and Tuu varieties, they should ideally not have undergone considerable linguistic changes and secondary interferences later. However, the situation is at least for Khoekhoe far more complicated in that we have no direct access to a variety that is unambiguously either South or North Khoekhoe.

The data on North Khoekhoe is largely confined to modern Standard Namibian Khoekhoe and its dialects; this is also known as Nama-Damara and was codified to a considerable extent through missionary activities. The core of this language are the varieties of the pastoral Nama on both sides of the Lower Orange River who expanded from the 17~18th century on into the large region north of the river and west of the Kalahari, into what is today Namibia (Vedder 1934, Budack 1986). However, it also received input from at least two other sources: (a) the unidentified language(s) spoken by the Damara before their linguistic assimilation to the pastoral Nama,[3] and (b) the Khoekhoe varieties of the Orlam groups who were displaced from South Africa and incorporated a considerable number of South Khoekhoe speakers from the Cape.

Since the Cape varieties have not been documented sufficiently, the closest we can get to genuine South Khoekhoe is the !Ora dialect chain. It is certain that an essential

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3 Today, central Nama and Damara varieties are linguistically virtually indistinguishable. There is evidence, however, that early Damara differed from Nama (cf. Vedder 1923). While the affiliation of early Damara remains unclear, on account of lexical data (Haacke, Eiseb & Namaseb 1997), it is possible that it was a Khoe language; but in my view outside the Khoekhoe branch.

component of the !Ora, who finally settled around the confluence of the Vaal and Orange Rivers, were Cape Khoekhoe who from the 17th century on tried to escape the European colonization emanating from the south. It is equally clear, however, that these mixed with other people on their way to and in their final abodes; of particular relevance here is the attested contact with North Khoekhoe-speaking pastoralists like the Nama of the Lower Orange and upriver the Eini between Augrabies and Upington (these are commonly, but inappropriately subsumed under the !Ora).

1.2 The language contact situation

According to everything we know from non-linguistic evidence, the San with a foraging mode of life are the oldest attested ethno-historical layer in southern Africa. In the Cape, this cultural classificatory entity correlates with the linguistic unit !Ui. From about 2000-2500 years ago on, archaeological findings register a new cultural type in southern Africa based to a large extent on animal husbandry. In the Cape this correlates with a distinct linguistic group -- the Khoekhoe. The Cape is thus characterized by a fairly neat correspondence of a linguistic dichotomy of Khoekhoe vs. !Ui with a cultural dichotomy of larger pastoralist tribes vs. small bands of hunter-gatherers alias San.

Therefore, it has been assumed for a long time that the new pastoral culture was introduced by an immigrating population along with a new linguistic tradition -- an idea I follow here. The trajectory of the pastoral expansion in the archaeological record and the fact that the closest linguistic relatives of Khoekhoe are found today in the north, in Botswana, Namibia, and Angola, would suggest that the pre-Khoekhoe entered the Cape from a more northern, rather than eastern direction.

Pastoralism did not cover the entire area under consideration: in having to skip dry, ecologically unsuitable zones like the Kalahari, Karoo, etc. it remained restricted to the neighbourhood of the coast and great rivers. In these areas we can assume a cohabitation of !Ui-speaking San and Khoekhoe-speaking pastoralists for about two millennia with regional differences (cf. Yates, Manhire & Parkington 1994; Webley 1998). While a population distinction involving subsistence, social organization, and language (epitomized in the old 'Bushman'-'Hottentot' dichotomy) is synchronically irrelevant on a larger geographical scale, it does apply to the Cape from early on up to recent historical times; despite the possible inter-group mobility of individuals and/or small social units.

Compared to other cases of language contact between different Khoisan language groups, the situation in the Cape is unique. Usually, contact across marked linguistic boundaries is relevant at the periphery of language territories and subsequent diffusion of borrowed features into neighbouring areas would be relatively slow. The territory of Khoekhoe, however, was originally entirely WITHIN the confines of the Tuu-speaking area (comparable, e.g., to the case of Ethiosemitic within the Cushitic-speaking area), so that language contact between the two populations in the Cape was intensive and sustained over a long time, and Khoekhoe was affected as a whole.

The intensity and character of social interaction between the more territorial San bands and the larger and more mobile pastoral groups varied over space and time, so that different sociolinguistic patterns are relevant for the linguistic contact. As a generalization, two idealized patterns should be distinguished.

When Khoekhoe newly entered an area populated by San and/or settled in small numbers, the relation between the two groups was more or less equilibrated and the language contact was characterized by mutual bilingualism and borrowing. While this is especially relevant for the historically remote, initial stage of Khoekhoe colonization in the Cape, it is still attested in some areas for the colonial period.[4]

With the permanent settlement of pastoral groups in certain zones, the development of an asymmetric contact pattern, often in the form of a client relationship of San towards pastoralists, must be assumed. This could be followed by the incorporation of San individuals or even whole social units into Khoekhoe-speaking ethnic groups. In the final stage, Khoekhoe would have been the target of complete language shift on the part of the San. This is attested for many places in the wider Cape area and such cases are still evident in the 20th century, for example, with speakers of N||ng varieties in the southern Kalahari. The linguistic effect of such a contact pattern would have been interference of the !Ui substrate in the respective Khoekhoe variety.

In the following sections, I will try to show that Khoekhoe is untypical for its family Khoe in a number of respects and that the Khoekhoe-specific features have counterparts

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4 For example, the source of Krönlein's material on a !Ui variety known in the literature as N|usa was a Khoekhoe-speaking Orlam.

in the Tuu family, in particular its !Ui branch. The observation that many isoglosses are properties of the entire Tuu family (or larger parts thereof), but not of Khoe clearly suggests that Tuu languages have stayed relatively stable, but Khoekhoe has innovated vis-à-vis the Kalahari branch. This leads to the central hypothesis of this paper, namely that Khoekhoe was in its distribution area south of the Kalahari -- as presumably already its ancestor on the movement there -- subject to linguistic interference from Tuu which, as a family, has been present there for a much longer period.

1.3 Identifying isoglosses

The above hypothesis stresses that Khoekhoe has changed under Tuu influence. Such innovations are identified in particular in the domain of morphosyntax and constitute the main body of this paper (cf. Section 4). This is not to say that Tuu languages were not affected by the contact; rather, the influences were bilateral and the entire range of isoglosses, be they lexical, phonetic-phonological, or morphosyntactic, most probably define a linguistic sub-area in the wider geographical context of Khoisan southern Africa. The focus on the assumed Tuu substrate in Khoekhoe morphosyntax is in part due to insufficient comparative data regarding phonetics-phonology and lexicon, so that it is still difficult to determine here the direction of borrowing and interference.

Regarding the profile and evaluation of the isoglosses, several remarks are in order. Ideally, a linguistic feature proposed for the Cape should be found in !Ui and Khoekhoe, but should exclude languages outside this area, in particular those of the Kalahari branch of Khoe outside the Tuu influence. Being able to present such a clear cut picture here, however, is rather the exception than the norm.

A general problem is the present lack of a full comparative picture for southern Africa as a whole due to the overall poor documentation of Khoisan languages. I have already pointed out the serious gaps in the languages directly concerned; but such lacunae are also relevant for Kalahari Khoe as the essential tertium comparationis for Khoekhoe as well as for Tuu and other Non-Khoe languages outside the Cape.

A number of supposedly transferred features only concern a structural principle, but no linguistic substance. A few of these also seem to affect certain Kalahari Khoe languages, sometimes in a more incipient form. Such a situation does not necessarily exclude the Tuu substrate hypothesis for Khoekhoe. The groups for which this is

relevant so far, namely Naro and possibly G||ana, are located in the south-western periphery of Kalahari Khoe and are in direct contact with Non-Khoe languages (Naro is in fact geographically sandwiched between Ju in the north and Tuu in the south). With such a picture, it is possible to argue that the relevant feature in Khoe displays a north-south cline of increasing change towards the Non-Khoe pattern, corresponding to the historical encroachment of Khoe onto Non-Khoe speaking areas. The particular salience of the feature in Khoekhoe could then still be attributed to its longest and/or most intimate contact with Tuu.

A related point is the fact that some features proposed as Khoekhoe innovations through contact with Tuu have in fact a greater areal distribution in southern Africa in that they are more widespread in Non-Khoe as a whole. In such cases it is mainly for the greater plausibility in historical and geographical terms that the influence is ascribed to Tuu. However, this does not exclude the possibility of yet earlier influences on pre-Khoekhoe by some Non-Khoe language(s) other than from the Tuu family (cf., e.g., Güldemann forthcoming e).

In general, in cases where no transfer of linguistic substance is involved, it is hard to tell whether Khoekhoe (partially) acquired them before or after it entered the Cape. That is, the substrate in Khoekhoe cannot always be pinned down to the !Ui languages it was in contact with last. Also, some isoglosses seem to hold only for sub-parts of Khoekhoe and/or !Ui; in particular, linguistic similarities appear to be especially strong between languages of the Lower Orange River area, i.e. North Khoekhoe and |Xam. While such a picture might well reflect the real situation, it cannot (yet) be excluded that it is in fact an artefact of the better availability of data in this sub-region.

In general, the list of isoglosses discussed here is not intended to be exhaustive or final, but represents work in progress that will have to be modified with more comparative data becoming available. It is well possible that the list can be extended, but also that a feature to be given below turns out later not to single out Khoekhoe against Kalahari Khoe and/or not to be related to a structure in Tuu.

A final point relates to the degree of similarity between the compared features of the two groups. My analysis here will be guided by the assumption that a feature transfer from a source to a target language should not be expected to yield a complete identity of the associated linguistic structures (cf., e.g., Boretzky (1983) for a similar view

regarding African substrates in Atlantic creoles). Instead of requiring that the transferred feature turns up in Khoekhoe as a neat copy of the Tuu original, it may be sufficient to show that it has been integrated as a basic structural pattern/principle, provided this identifies Tuu as the most probable donor in the genealogical and geographical context. While this may sound vague for the time being, this idea will hopefully become clearer when discussing the individual isoglosses.

2 Phonological isoglosses between !Ui and Khoekhoe

To begin with, I will discuss structural similarities in the phonological inventories of !Ui and Khoekhoe. As indicated above, there are serious gaps in the documentation of most languages of the Cape and this concerns in particular the sound systems of the extinct languages recorded in the 19th and early 20th century. However, the data on the consonant systems of at least |Xam[5] and !Ora seem to allow an approximate comparison between parts of the two language groups.

Tables 1 and 2 display the consonants of Khoekhoe (conflating Namibian Standard Khoekhoe and !Ora) and |Xam, respectively. For a better comparison, the phonemes are given in a unitary transliteration. The phonological features are abbreviated as: Al alveolar, As aspiration, Dt dental, E egressive (= non-click), Gl glottal(ization), I ingressive (= click), Lb labial, Lt lateral, Pl palatal, Vl velar.

5 The sound structure of |Xam is not completely recoverable from the available transcriptions. However, this concerns first of all vowel features; the consonant inventory is more secure.

(17 + 28)	**E Lb**	**E Al**	**I Lt**	**I Dt**	**I Al**	**I Pl**	**E Vl**	**E Gl**
Non-nasal sonorants (1)								
Plain		r~l						
Fricatives (3)								
Plain		s					x	h
Simple stops (7 + 8)								
Plain	p	t	‖	|	!	ǂ	k	'
Voiced	(b)	(d)	(g‖)	(g|)	(g!)	(gǂ)	(g)	
Complex stops (4 + 8)								
Plain + Gl		(ts')	‖'	|'	!'	ǂ'	(kx')	
Plain + As		(th)~ts	‖h	|h	!h	ǂh	(kh)~kx	
Stop clusters (0 + 8)								
Plain + /x/			‖x	|x	!x	ǂx		
Plain + /k'/~[kx']			(‖kx')	(|kx')	(!kx')	(ǂkx')		
Nasals (2 + 4)								
Plain	m	n	n‖	n|	n!	nǂ		

Note: phonemes in parentheses restricted to !Ora

Table 1: The Khoekhoe consonant system

(21 + 37)	**E Lb**	**E Al**	**I Lt**	**I Dt**	**I Al**	**I Pl**	**I Lb**	**E Vl**	**E Gl**
Non-nasal sonorants (3)									
Plain	w	r~l	y						
Fricatives (3)									
Plain		s						x	h
Simple stops (7 + 10)									
Plain	(p)	t	‖	|	!	ǂ	ʘ	k	'
Voiced	b	d	g‖	g|	g!	gǂ	gʘ	g	
Complex stops (4 + 10)									
Plain + Gl		t'~ts'	‖'	|'	!'	ǂ'	ʘ'	kx'	
Plain + As		$ts^{(h)}$	‖h	|h	!h	ǂh	ʘh	kx	
Stop clusters (1 + 12)									
Plain + /x/		tx~tsx	‖x	|x	!x	ǂx			
Plain + /k'/~[kx']			‖kx'	|kx'	!kx'	ǂkx'			
Plain + /kh/~[kx]			‖kh	|kh	!kh	ǂkh			
Nasals (3 + 5)									
Plain	m	n	n‖	n|	n!	nǂ	nʘ	ng	

Table 2: The |Xam consonant system (preliminary)

The consonant systems of Khoekhoe and |Xam have an overall similar organization. The major difference concerns the inventory size, which, however, can be explained by just three salient distinctions: early Khoekhoe (like !Ora) lacks the egressive non-homorganic cluster *t(s)x*, the labial click influx ʘ, and the click accompaniment *kh*.[6]

There are still other similarities between the attested !Ui and Khoekhoe varieties of the Cape which single them out against the rest of their respective families. In order to demonstrate this, I present a comparison of the size of the consonant inventory and the proportion of non-clicks vs. clicks across Khoe (Table 3) and Tuu (Table 4).

	Kalahari			**Khoekhoe**	
	North Kua	**Kxoe**	**Naro**	***!Ora***	***Nama***
1 Non-clicks	36	33	24	17	12
2 Clicks	30	36	32	28	20
3 Total	66	69	56	45	32
4 Proportion 1/2	1.20	0.90	0.75	0.61	0.60

Table 3: Consonant inventories across the Khoe family

	Taa	**!Ui**		
	East !Xõo	**‖Xegwi**	***ǂKhomani***	***/Xam***
1 Non-clicks	43	48	27	21
2 Clicks	83	22	41	37
3 Total	126	70	68	58
4 Proportion 1/2	0.52	2.18	0.66	0.57

Table 4: Consonant inventories across the Tuu family

Comparing Tables 3 and 4, a first commonality between !Ui and Khoekhoe in the Cape (in italics) is that the size of their consonant inventories is smaller vis-à-vis their

6 It is in fact possible that Khoekhoe, too, had initially this accompaniment and, thus, three instead of two click clusters. The aspirated velar plosive /kh/ is phonetically affricated [kx] (see below). This segment as a cluster offset might then be hard to distinguish from the fricative /x/, which could have lead to the merger of two originally distinct phoneme series, click+/kh/~[kx] and click+/x/. For the record, the orthography of the series click+/x/ in Standard Khoekhoe is actually //*kh*, /*kh*, *!kh*, *ǂkh*.

respective genealogical relatives (see line 3 in the tables), whereby the lowest figures are found in the Lower Orange area with Nama on the Khoe side and |Xam on the Tuu side. This phenomenon is in particular due to a restricted system of egressive (= non-click) consonants (see line 1).

Despite the relatively small consonant inventory, clicks as a segment type have a high phonological load in languages of the Cape, which can inter alia be seen at the proportion of non-click vs. click phonemes (see line 4, low figure = high click load and vice versa). Table 3 shows that Khoekhoe has the lowest figures within the Khoe family and approaches the generally low figures of the Tuu family in Table 4[7] -- an observation already made by Traill (1980: 170-1).

A possible historical explanation for these two shared features is that !Ui languages of the area had a more limited consonant inventory, especially of egressive non-clicks vis-à-vis ingressive clicks. In contact with these languages, Khoekhoe developed in a similar direction: it decreased the number of phonemes, but more so in the domain of egressives, and thereby increased the importance of click phonemes.

A possible Khoekhoe-!Ui isogloss relating to the observation that aspirated alveolar /th/ and velar /kh/ are virtually universal across Khoisan might exist in the sub-area of the Cape around the Lower and Middle Orange River. Nama (like Standard Khoekhoe and in part Eini) lacks clearly aspirated egressives. However, Beach (1938: 218-21) has shown that these sounds are present from a historical perspective in that the plosives /th/ and /kh/ attested in !Ora have undergone lenition to the affricates /ts/ and /kx/ in North Khoekhoe. This seems to have a partial parallel in !Ui varieties of the |Xam and N||ng clusters on both sides of the Orange River (Güldemann forthcoming c). The lack of aspirates has been observed by Traill (1997: 7) as an anomaly in ǂKhomani. For |Xam, it can be assumed that at least some affricates go back to earlier aspirates, because there are cognate pairs like |Xam *tsaa* vs. East !Xõo *thaa* 'thing'.

The change of /th/ > /ts/ (via /ts^{h}/) and /kh/ > /kx/ (via /kx^{h}/) is not the only case of the fricativizing lenition of certain egressive stops. Ejective egressive consonants in

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7 ||Xegwi is exceptional within Tuu in that it was subject to extensive click loss, apparently associated with the intimate contact with Bantu languages (cf. Traill & Voßen 1997).

!Ora and |Xam are also affricates (the presence of /kx'/ instead of /k'/ is in fact the normal case in Khoisan as a whole). Ejectives and aspirates can be seen within Khoisan as a natural class (called in Tables 1 and 2 'complex' stops) in that they are in terms of phonetic elaboration in between 'simple' and 'cluster' segments. It seems then that languages along the Lower Orange River have extended fricative lenition to all complex plosives, irrespective of their place of articulation (alveolar and velar) and elaboration gesture (aspiration and glottalization), thereby replacing in a more or less complete fashion ejective and aspirated plosives by ejective and aspirated affricates.

A final trait shared by Nama and |Xam but not yet reported in other languages relates to the sound system outside the normal language register. Both languages use typical speech styles for representing some animal characters in their oral literature; in these special registers, certain phonemes are replaced in a regular way by other sounds, some of them not occurring in the normal phoneme system (cf. Schultze (1907: 390-1) for Nama and Bleek (1936) for |Xam).

3 Lexical influences of Tuu in Khoekhoe

Affinities in vocabulary between certain varieties of Khoekhoe and Tuu have been observed since the earliest research on Khoisan; at that time, these were predominantly viewed as the result of borrowing from Khoekhoe into San languages. However, I have remarked above that lexical comparisons in the area at issue suffer seriously from the lack of representative and reliable data and, as a result of this, from the difficulty to determine conclusively the direction of transfer. That is, the above interpretation may be relevant for certain lexical isoglosses, but is not stipulated by the data by default.

I will not attempt here an extensive and detailed analysis of lexical data, but will confine myself to presenting evidence that the opposite borrowing direction is relevant, too. In other words, pace Köhler (1973/4: 192), there are good indications that a certain portion of the Khoekhoe lexicon can plausibly be explained in line with the present Tuu substrate hypothesis. Table 5 gives a selection of such lexical items.

		Khoekhoe		Tuu			
		North	South	!Ui			Taa
	Lexeme	**Nama/Eini**	**!Ora**	**N‖ng**	**|Xam**	**ǂUngkue**	**East !Xõo**
1	again, also	‖xa-	‖xa-	-	‖xa(m) (vb.)	-	‖xale (vb.)
2	beard	n|om (vb.)	n|um-	n|um	n|um	-	n|um
3	cheetah	!'aru-(ru)-	!'aru-ru-	!kx'aru	!kx'auru	-	-
4	come, go to	sii	sii	si, sa	si, saa	see, saa	sii, sa-
5	do, make	dii	dii	-	di	tii	-
6	help	hui	hui	-	nhu'i	uie	uhi
7	knock	!hũu *pound*	!hũu	-	-	!hun'a *hit*	!hũu-!hũu
8	monkey, small	‖'ore-	‖xori-	‖kx'ore	-	‖hore	-
9	mosquito	ts'uru-ru-	ts'uru-ru-	-	ts'utu	-	-
10	sense, feel	tsã	thã	tj^{h}a'n	tãa	thã	t̪a̪a

Table 5: Probable lexical borrowings of Khoekhoe from Tuu

There are different reasons for assuming that the items in Table 5 were borrowed from Tuu into Khoekhoe and not the other way around. More generally, these lexemes have not been reconstructed for Kalahari Khoe (cf. Voßen 1997), while their forms in Khoekhoe are largely homogeneous; these observations suggest that the items are Proto-Khoekhoe innovations. East !Xõo from the Tuu family is geographically far from the Cape and Namibia and is thus unlikely to have been subject to considerable Khoekhoe influence. Hence, all lexical series involving this language (cf. lines 1, 2, 4, 6, 7, 10) favour a reconstruction of the word for Proto-Tuu, making Khoekhoe rather a receiver than a donor. In the cases where a reflex of a given word is found in more than one !Ui language (cf. lines 2-6, 8, 10), it is also more plausible to reconstruct a Proto-!Ui form rather than assuming that the relevant languages borrowed the same item independently from Khoekhoe.

There are also structural considerations in support of the Tuu substrate hypothesis. Sometimes the Tuu forms have a more complex sound shape than the Khoekhoe ones, which could be motivated by phonetic simplification during the nativization of loans in Khoekhoe (cf. lines 3 and 8 where an original click cluster *//kx′*, as attested in !Ui, has been simplified to *//′* or *//x* in Khoekhoe -- a common process in some varieties). In other cases, the Tuu forms are morphologically more complex, which would be difficult

to explain, if they had a shallow history in the respective languages (cf. line 1 where the Tuu forms have endings which are semantically not transparent, or line 4 where across the whole family the Tuu forms participate in a regular stem alternation). Another even clearer indication for the validity of the explanation proposed here exists when Khoekhoe forms display a suffix *-RV* (cf. lines 3, 9); this element attested so far in Eini and !Ora identifies borrowings in general (i.e., also Bantu loans) and has clearly been added in the above cases to a more simple Tuu form.

These few examples will suffice to show that lexical evidence does support the general hypothesis of a Tuu substrate in Khoekhoe.

4 Morphosyntactic Khoekhoe innovations and their explanation in terms of substrate interference from Tuu

As mentioned above, the morphosyntax of Khoekhoe is viewed here as the domain where linguistic influences by Tuu languages can be felt most strongly. The following section presents a number of isoglosses in support of this hypothesis. They pertain to such different areas as pronominal, nominal, and verbal morphology; phrase and clause syntax; and clause linkage. Their sheer number, the fact that many of them are independent from each other, and the observation that several involve similarity in linguistic substance make it unlikely that the present substrate hypothesis is spurious.

4.1 Pronominal system

A first domain where linguistic interference from Tuu into Khoekhoe can be diagnosed has been treated already by Güldemann (2002) and concerns the pronoun system. Pronominal marking in Khoekhoe is fairly complex in that there are three paradigms of markers each of which occurs in its particular array of morphosyntactic contexts: (a) an elaborate system of person-gender-number enclitics (henceforth just PGNs), inherited from Proto-Khoe; (b) a smaller set of four pronoun bases, two of which can be traced back to Proto-Khoe; and (c) a paradigm of free pronouns, which are formed by the combination of an initial pronoun base and a final PGN and behave syntactically like nouns (see inter alia Haacke (1977), Voßen (1997), Güldemann (2004a) for more information on synchronic and diachronic aspects of all the markers).

Table 6 gives the free pronouns of !Ora (the overall situation in North Khoekhoe is identical). Such an elaborate set of complex forms cannot be reconstructed for Proto-

Khoe; it can be observed instead that the relevance of this pronoun type increases within Khoe according to a north-south cline, with the climax found in the Khoekhoe branch. This seems to be related to the wide-spread presence in Non-Khoe of complex pronominals which are achieved by so-called 'pronoun modification' (see Güldemann forthcoming a). The way Khoekhoe may have been influenced by this phenomenon will not be discussed here, however. Of relevance for the present discussion are (a) the pronoun bases for 1st-person exclusive and 3rd-person forms (highlighted in bold) and (b) the way the exclusive~inclusive distinction is expressed (cf. 1st and 2nd column).

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

Table 6: Free, morphologically complex pronouns of !Ora (Meinhof 1930: 43)

Firm Proto-Khoe reconstructions only exist for two of the four pronoun bases in Khoekhoe, **ti* encoding speaker and **sa* encoding addressee. The 1st-person exclusive **si* is virtually restricted to Khoekhoe and the 3rd-person *//*'ãi* absolutely so; and both occur only in the complex free pronouns given in Table 6. Güldemann (2002), to which the reader is referred for more details, argues that both *//*'ãi* and **si* were borrowed by Proto-Khoekhoe from a Tuu language, most probably of the !Ui branch.

The 3rd-person pronoun base *//*'ãi*, which today functions mostly as an unmarked anaphoric pronominal, can be shown within Khoekhoe to derive from a reflexive and discourse-anaphoric intensifier 'same, self'. Precisely such an element is attested in the !Ui language |Xam. That the borrowing went from !Ui into Khoekhoe can inter alia be discerned from the fact that the intensifier in !Ui can in turn be traced back to a verb 'have, own' in Proto-Tuu.

The Khoekhoe pronoun base **sii* for 1st-person exclusive is viewed as a borrowing of the Proto-Tuu 1st-person exclusive pronoun **si*. As can be seen in Table 6, **sii* is intimately associated with the exclusive-inclusive opposition, because this arises, and only there, between two complex pronoun series sharing the 1st-person non-singular PGN enclitics: exclusive [**sii* + PGN] vs. inclusive [**saa* + PGN]. Since **saa* comes from Proto-Khoe **sa* encoding the addressee, the relevant complexes are literally INCLUSIVE 'you + we'; the Tuu borrowing **sii* as pronoun base, on the other hand, renders complexes which are literally 'exclusive we + we'.

In general, formal and systemic properties of free complex pronouns suggest strongly that Khoekhoe not only innovated the categorial opposition exclusive-inclusive, but also borrowed linguistic substance from Tuu, integrating it creatively in its inherited system.

4.2 Nominal gender

The Kalahari and Khoekhoe branches of Khoe differ in their functional and formal properties of grammatical gender. In Kalahari Khoe gender can be expressed on nouns by means of 3rd-person PGNs, but this is far from obligatory; in some languages, PGNs on nouns are in fact rare and the association between a noun and a gender is exploited for derivational processes (cf. Voßen (1986) on Naro; Kilian-Hatz & Heine (1998) and Heine (2000) on Kxoe). While the derivational use of gender has been retained in Khoekhoe, there is a clear tendency for a lexeme to have a default gender and the PGN marking on nouns as such has become virtually obligatory (with the exception of a restricted and motivated set of contexts).

I propose that the increased fixation of gender with noun lexemes vis-à-vis Kalahari Khoe is due to contact with Tuu. These languages, as far as they possess a gender system, have lexically fixed gender. Khoekhoe would have taken over this principle, thereby grammaticalizing also the regular PGN marking on nouns.

There is also a concrete semantic detail in Khoekhoe which seems to corroborate this hypothesis. Cross-linguistically as well as in some Kalahari Khoe languages (cf. Voßen (1986) for Naro), feminine gender is associated with small size -- a feature exploited for deriving diminutive nouns by means of feminine gender assignment. The situation is more complicated in Khoekhoe as discussed by Güldemann (1999): the mere switch of the default gender can denote that the referent of a given noun lexeme has some unusual

property (e.g., in size/shape), and feminine gender can thus also come to express an entity that is large or voluminous, as shown in (1).

(1) Standard Khoekhoe

pén-i	vs.	*pén-s*
pen-M.S		pen-F.S
the pen		the unusually fat pen (Hagman 1977: 23)

The possible semantic connection between feminine and great size seems to be influenced by a phenomenon attested at least in the Tuu language East !Xõo, but which might well be of more general importance in the area. Traill (1994: 177) writes regarding the feminine marker *qáe*: 'When suffixed to plant names it signifies a broader-leaved more substantial variety; with certain other objects it signifies more substantial size, weight.' The presence of this linguistic property in contact languages can be assumed to have facilitated the acceptance in Khoekhoe of a typologically highly unusual association between feminine gender and greater size.

4.3 Nominal derivation

Another feature distinguishing at least North Khoekhoe from Kalahari Khoe is an extended use of derivation usually reserved for nouns. Example (2) demonstrates that the diminutive suffix *-ro* also occurs on adjectival, verbal, and pronominal hosts.[8]

(2) Standard Khoekhoe

a. *!ómí-**ró***	*tào-p*	b. *!hóá-**ró***	c. *tií-**ro**-ta*
difficult-DIM	path-M.S	converse-DIM	SP-DIM-1S
the slightly difficult road		converse a bit	little me (Hagman 1977: 33, 74, 45)

Nominal derivation markers are also found in !Ui to apply to hosts other than nouns. The diminutive suffix *-ʘua* (derived from a Proto-Tuu noun for 'child'; cf. Bleek (1928-30: 97, 1956: 243)) is used in |Xam on attributive adnominal predicates and in the form

8 The diminutive suffix in !Ora is *-da*. Since Khoekhoe has a noun *daro* 'child', it is worth investigating in the future whether both *-da* and *-ro* are grammaticalized forms of this lexeme whereby the stem's truncation during grammaticalization targeted different segments in South and North Khoekhoe. In any case, the extended use of North Khoekhoe *-ro* seems to have emerged later than the primary development in the domain of noun phrases from a compound [noun-*daro*] -- the likely source structure -- to a word form [noun-*ro*].

tamʘua also with sentential predicates, as shown in (3).

(3) |Xam

a. *!wãa aa ǂeni-**ʘua***

child.1 1REL be.small-DIM

ein kleines Kind [a child which is smallish] (Meriggi 1928/9: 146)

b. */ǔa-/ǔa-ten tam**ʘua** ǂxii-a*

P-star-P DIM shine-STAT

... the Stars shine a little. (Bleek & Lloyd 1911: 74-5)

The phenomenon of pronoun modification in Non-Khoe has been mentioned above. It reflects the similar treatment of nouns and pronouns, including derivational suffixing. The example in (4) from a northern N||ng variety (!Ui), where a feminine marker *xae* modifies the 1st-person singular pronoun, suggests that pronoun derivation also applies to some Tuu languages. This would mean that the whole range of non-canonical uses of the diminutive suffix *-ro* in North Khoekhoe have partial precedents in Tuu.

(4) N|huki

*n **xae** ke dyǧ'an*

1S F DECL walk

I (feminine) go (Westphal field notes)

4.4 Nominal coordination

Nominal coordination in Khoekhoe is characterized by the following morphosyntactic structure: [Nominal-(PGN) *tsʹĩ* Nominal-(PGN) *tsʹĩ*-PGN] in which the final PGN refers to the referential sum of the conjunct (cf. Hagman (1977: 48-50) and Haacke (1992) for Standard Khoekhoe and Meinhof (1930: 44-5) for !Ora). The examples below involve the coordination of both pronouns and nouns (the crucial PGN is highlighted in bold).

(5) Standard Khoekhoe

a. *tií-ta tsʹĩ saá-ts tsʹĩ-**mì***

SP-1S and AD-2M.S and-1C.D

I and you (masc., female speaker) (Hagman 1977: 49)

b. *'áo-p tsʹĩ tará-s tsʹĩ-**rà***

man-M.S and woman-F.S and-3C.D

the man and the woman (Hagman 1977: 48)

This fairly complex strategy is apparently a combination of two features which are in principle independent from each other. The first phenomenon is the possibility of plural pronominals to appear in a so-called 'inclusory' use (Lichtenberk 2000). This seems to be a more widespread trait in the area, especially in dual conjunctions (cf. Dickens (n.d.: 33) for the Ju language Ju|'hoan and Heine (1999: 68) for the Kalahari Khoe language ||Ani). It also applies to Khoekhoe, as shown in (6).

(6) !Ora

*ti tara-s tsĩ-**kham***

1S woman-F.S and-1M.D

meine Frau und ich [my wife and I, not: my wife and we two] (Meinhof 1930: 45)

This use of inclusory pronouns seems to have been generalized in Khoekhoe to all types of nominal coordination. This process can be motivated by interference from a coordination pattern that is described repeatedly from !Ui languages. Bleek (1928-30: 172) reports for |Xam: 'Where there are several subjects they are first enumerated, then repeated by a pronoun.' Meinhof (1929: 169) mentions the same pattern in ǂUngkue and gives the example under (7) (the pronoun referring to the entire conjunct is *n*).

(7) ǂUngkue

!hoeti naŋ̊ koro nan tuē ***n*** *a //'a*

lion and jackal and ostrich 3P ?PST go

der Löwe und der Schakal und der Strauß sie gingen [lion, jackal, and ostrich they went] (Meinhof 1929: 169)

For the complex Khoekhoe structure, it can be assumed that the inclusory pronouns, presumably established before, were extended to non-dual coordination in line with the final "summarizing" pronouns found in nominal conjuncts of !Ui languages.

4.5 Verbal derivation

The verbal derivation system of Proto-Khoe has been reconstructed to a considerable extent by Voßen (1997: 349-55). For the present discussion it is relevant that verb root reduplication served to derive iterative and causative forms. Causative reduplication, which is also found in the area outside the Khoe family, existed side by side with a suffix **-ka(xu)*, which is presumably older.

The situation in Khoekhoe deviates from this picture in several respects. First of all,

verb root reduplication has an overall higher functional load in derivation. For North Khoekhoe, Haacke (1999: 133-9) identifies several types of reduplication distinguished by their suprasegmental patterns; their functions are causative, intransitive inchoative 'become', and (in combination with reflexive *-sen*) pretense 'make oneself as if'. Moreover, causativization is encoded only by means of reduplication and a more lexicalized device not found in Kalahari Khoe, namely the suffix *-(s)i* (cf. Haacke (1999: 144-5) for Standard Khoekhoe and Meinhof (1930: 48) for !Ora); the Proto-Khoe *ka*-causative is not attested in Khoekhoe.

Although the data are still insufficient to state this with more confidence, it is probable that the formal shift in verbal derivation in Khoekhoe can also be attributed to Tuu influence. First, !Ui varieties like |Xam show an ubiquitous use of reduplication, most probably involving also different tonal patterns; functions attested so far are (a) nominal plural, (b) deverbal nominalization, (c) verbal causative, and (d) verbal iterative-intensive. Second, East !Xõo possesses a postverbal and a preverbal *sí* (*sV*) which are both transitivizing (Traill 1994: 30, 185); it is worth investigating whether a cognate of such an element in Tuu was the source of the innovated Khoekhoe causative *-(s)i*. This new suffix and, even more so, the increased use of reduplication might have ousted in Khoekhoe the older Khoe causative in *-ka*.

4.6 Predicate operators

The predicate marking of time displays considerable differences between Kalahari Khoe and Khoekhoe regarding type and position of grams as well as their basic functions. Old Damara varieties also deviated significantly from the modern Khoekhoe pattern (Vedder 1923: 159-60). That Damara was different before its contact with the language(s) of the pastoral Khoekhoe suggests that the modern predicate marking reflects the original situation in Nama and other more southern Khoekhoe varieties.

Time encoding of the predicate is achieved in Kalahari Khoe mainly by verbal suffixes (involving the so-called 'juncture' morphemes) and phrase-final auxiliaries. As opposed to this, Khoekhoe makes exclusive use of particles which, with one important exception, occur in unmarked clauses before the verb phrase.

In terms of functional distinctions, only tense, but not aspect has been reconstructed for Proto-Khoe (Voßen 1997: 360-5, Güldemann & Vossen 2000: 116), while

Khoekhoe clearly displays an aspect distinction with the pattern of unmarked perfective vs. marked imperfective.[9] The unmarked position of the imperfective gram is after the tense particles, but before the verb phrase. Moreover, there is one consistently phrase-final marker, the stative-relevance particle *hã*, which goes back to the existential verb 'stay, be (t)here, exist'. Beach (1938: 192, footnote 2) reports that *hã* directly after the verb was reduced by some !Ora speakers to *-a*.

This profile of time marking in Khoekhoe matches fairly closely the patterns in the better-known Tuu languages East !Xõo and |Xam. Here, one also finds an opposition between a zero perfective and an overt imperfective, the latter placed between tense gram and verb, as well as a postverbal stative-resultative particle derived from a verb meaning 'be present, be (t)here, exist'.

The structural parallels between Khoekhoe and Tuu can be seen in Table 7, where the three basic categories and their marking are displayed for the four better known languages. Compare also the formal proximity between postverbal *-a* in !Ora on the one hand and in |Xam (and other !Ui varieties) on the other hand.

Language	**Perfective**	**Imperfective**	**Relevance/Stative**
Nama	Tense Ø Verb phrase	Tense *ra* Verb phrase	Tense Verb phrase *hã*
!Ora	Tense Ø Verb phrase	Tense *na* Verb phrase	Tense Verb phrase *hã*/*-a*
|Xam	Tense Ø Verb phrase	Tense *n*/*e* Verb phrase	Tense Verb *-a*
East !Xõo	Tense Ø Verb phrase	Tense *ba* Verb phrase	Tense Verb (phrase) */îi*

Table 7: Basic time marking in selected Khoekhoe and Tuu languages

4.7 Predicate formation

As opposed to canonical Kalahari Khoe languages, Khoekhoe is characterized by a heavy reliance on lexically complex predicates. That is, an extensive portion of the verbal lexicon is made up of compound verbs; they are mostly binary (hence Maingard's (1962: 30) term 'double verb'), but three and more verb stems can also occur. This

9 The form in North Khoekhoe is *ra*, changing to *re* and *ro* after the past grams *ke* and *ko*, respectively. The !Ora form *na* (with an allomorph *ra*, see Maingard 1962: 5, 25) is not, as sometimes stated, a present marker, but is functionally similar to North Khoekhoe *ra* (in spite of certain grammaticalized uses). The probable reconstruction of the Proto-Khoekhoe imperfective is thus **da*.

phenomenon is a powerful addition to already existing strategies inherited from Khoe for the expression of lexical concepts and the marking of grammatical relations, namely verbal derivation and postpositional phrases.[10]

The compound verb formation in Khoekhoe can be directly related to ubiquitous verb serialization and verb compounding in Tuu languages (a general feature of Non-Khoe) in that different predicate types in the Tuu substrate developed in Khoekhoe in a more restricted direction, namely lexicalized compound verbs. The variability of these complex predicates, however, eclipses that of their Tuu model, since compound verbs in Khoekhoe can also incorporate nouns, adpositions, and adverbs (cf. Haacke 1995).

While it is conceivable to identify calqued patterns and loan translations, examples as in (8) might be viewed as non-diagnostic for a specifically Khoekhoe-Tuu contact, because they are arguably universal; more cross-linguistic research is needed here.

(8)

	Khoekhoe			**!Ui**		
bury	*khao-ǂaa*	dig-put.in	(Nama)	*//au /'ee*	dig put.in	(N|huki)
take out	*uu-ǂ'ui*	take-out	(Nama)	*/ii /hing*	take go.out	(|Xam)
bring	*uu-haa*	take-come	(!Ora)	*/ii tsaa*	take come	(|Xam)

However, the parallels also include more marked predicate types. Thus North Khoekhoe and |Xam share a pattern which is thus far unprecedented in the rest of Khoe (including !Ora) and Tuu. Haacke (1995) reports for Namibian Standard Khoekhoe a type of mono-clausal sentence exemplified in (9): an intransitive verb (here, *!goaxa* 'approach') is incorporated in a higher verb (*mû* 'see') and the subject of the former (*audos* 'car') becomes the object of the main predicate. The remarkable phenomenon is that the matrix is a perception verb so that this form of subject raising is not causative.

(9) Standard Khoekhoe

audo-s-a	*ra*	***mû***	***!goaxa***
car-F.S-OBJ	IPFV	see	approach

see a car approaching (Haacke 1995: 357)

The origin of this structure can be explained by calquing from |Xam where verb

10 Note that some Kalahari Khoe languages do have this feature, e.g. Naro (Visser 2003). This may also be due to contact with Non-Khoe languages (see Section 1.3).

serialization is of the 'nuclear' or 'root' type (as opposed to 'core' serialization, cf. Foley & Van Valin 1984).[11] That is, all verb stems create an uninterrupted chain followed by all nominal non-subject terms (Güldemann forthcoming b). Thus, a meaning 'see X doing' is expressed in a surface sequence [see do X] as in (10).

(10) |Xam

si	*tang*	*//'a-ng*	*dǫ'a*	***n/ǂi***	***tẽe***	*!k'waa*	*aa*	*/uuk-a*
1P.E	?	go-?	?	see	lie	hartebeest.1	1REL	die-STAT

We did see a dead hartebeest lying there! (Bleek & Lloyd 1911: 10-1)

A comparison of the structure schemas in (11) makes the similarities and differences between Khoekhoe and |Xam more transparent.

(11)

	Xam	**[see do]** X		
	Khoekhoe	X **[see do]**		
	German	see [X do]	or	[X do] see

The two relevant order patterns available in German are also given in (11) in order to show the distinctness of the Lower Orange languages, namely that the primary constituent is formed by the two verbs, not -- as in German -- by the lower verb and its subject. The position of this noun phrase is the major difference between the Khoekhoe and |Xam structures. This is not surprising, though: Standard Khoekhoe conforms to the verb-final word order inherited from Khoe, while |Xam is consistently verb-medial like all Tuu languages. On a more abstract level, then, the structures in the two languages are identical. The pattern in North Khoekhoe, which is typologically rare, is historically the result of reanalysis of a verb serialization type in |Xam towards a fixed compound.

4.8 Clause syntax and sentence-type marking

Little is known as yet about the clause syntax of Kalahari Khoe languages. It is certain, however, that Khoekhoe represents a syntactic type of its own. This is particularly clear in North Khoekhoe. Here, a marked configuration has been generalized to the structure of basic clauses: a PGN-enclitic referring to the subject, often in conjunction with following sentence type markers, serves as a syntactic pivot establishing a clause-second position of the 'Wackernagel' type (set in bold in the examples). This results in

11 This type is also found in other language groups of Non-Khoe like the Ju family.

an obligatory bisection of the clause into a prefield and a postfield. One salient function of the prefield is to host pragmatically sensitive constituents like contrastive or assertive foci, topics, and subject topics (cf. Dempwolff 1927).

The following examples demonstrate several variants of this theme. In (12)a., the prefield contains a focused object followed by the subject PGN *da*. In examples (12)b. and c., the subject PGNs *-s* and *-ta* precede the highly grammaticalized declarative marker *ge~gye* (cf. Hagman 1977: 53-4); the prefield fillers are respectively a focused verb and, as a default, a subject topic. Finally, (12)d. displays the sequence of a subject PGN *-p* and the question marker *kha* [*kxa*], an emphatic supplement to interrogative intonation and in complementary distribution with *ge~gye* (Hagman 1977: 139-44).

(12) Standard Khoekhoe

a. *xū-e* ***da*** *dī* *toma*
thing-C.S:OBJ **1C.P.SBJ** do NEG
Wir tun NICHTS. [we do NOTHING] (Dempwolff 1934/5: 91)

b. *//oo-**s*** ***ge*** *go*
die-**3F.S.SBJ** **DECL** PST
she DIED. (Haacke & Güldemann field notes)

c. *ti-**ta*** ***gye*** *//ō* *tite*
1S-**1S.SBJ** **DECL** die NEG.FUT
Ich werde nicht sterben. [I won't die] (Dempwolff 1934/5: 53)

d. *ǂ'ŭ̃u-**p*** ***kxa*** *kè* *//'ǖ-p-à* *//án-'è*
eat-**3M.S.SBJ** **PQ** PST 3-3M.S-DSBJ meat-3C.S:OBJ
Did he eat the meat? (Hagman 1977: 143)

The structure with a clause-second pivot was not fully developed in Proto-Khoekhoe, but seems, in this rigid form, to be an innovation of North Khoekhoe. In !Ora, it is present but far less salient, because (a) several frequent clause patterns display a deletion of the subject and (b) the particle *kye~tye*, the cognate of the Nama declarative marker, did not grammaticalize in the same way; according to Wallmann (1857: 33), the latter fact also applies to the speech varieties of the Orlam who contained a large portion of South Khoekhoe speakers and merged with the Nama in Namibia. The following examples show, however, that !Ora does display a latent clause-second position (cf. the subject PGNs in bold) and that the constituents in the prefield have a similar profile to that in North Khoekhoe: a focused object in (13)a., an interrogative word in the

constituent question of (13)b., a verb in the polar question of (13)c., and a verb in the obligation clause of (13)d. (which is a context where the particle *kye~tye* is obligatory).

(13) !Ora

a. *!xo-bi-**r*** *na* *ǂae*
pipe-M.S-**1M.S.SBJ** IPFV smoke
eine PFEIFE rauche ich [I smoke a PIPE] (Meinhof 1930: 60)

b. *hama-**ts*** *koko* *ǂʼũ-b* *ho* *hã*
where-**2M.S.SBJ** PST eat-M.S find RELV
wo hast du Speise gefunden? [where have you found food?] (Meinhof 1930: 61)

c. *!hami* *!ũ* ***kao*** *ka* *na*
hunt go **2C.D.SBJ** want IPFV
wollt ihr jagen gehen? [do you want to go hunting?] (Meinhof 1930: 61)

d. *//xara-e-**b*** ***tje*** *ni*
punish-PASS-**3M.S.SBJ** **DECL** OBL
er muß bestraft werden [he has to be PUNISHED] (Meinhof 1930: 53)

Vedder (1923: 159, 161) reports that clause bisection and a declarative marker of the Nama type were not present in early Damara varieties of Namibia, which suggests again that modern speech varieties of the Damara are the result of Khoekhoeization.

Clause structures which are reminiscent of the North Khoekhoe pattern can be identified in Tuu, significantly with a geographical peak in !Ui along the Lower Orange, the original distribution area of Nama. According to Güldemann (forthcoming b), sentence-type markers establish in |Xam a clause-second position in unmarked sentences; see the grammaticalized declarative marker *ken~gen* in (14)a. and the interrogative particle *ba* in (14)b. (cf. also *xa* in (15)b.).

(14) |Xam

a. *au* *too-**gen*** *n|e* *!ii-ya*
CONN red.ochre-**DECL** IPFV be.red-STAT
But ochre is red. (Bleek & Lloyd 1911: 346-7)

b. *a* ***ba*** */ʼuru-wa* *ha* *!khwãa*
2S **PQ** forget-STAT 1DEI child.1
hast thou forgotten this child? (Bleek 1928-30: 167)

|Xam also possesses a type of bisected clause -- fairly frequent in discourse -- in

which a special pronominal occurs in clause-second position; this agrees with a pragmatically sensitive constituent in the prefield. This is shown in (15)a. and b.; the second clause demonstrates that the pronoun can cooccur with an adjacent sentence type marker, here interrogative *xa*.

(15) |Xam

a. *au* *!u-koo* ***aa*** *se* *//xam-ki* */u-wa* *ha* *ãa* *//hara*
CONN person.1-other **1PRO** SUBJ do.also-? put-TR 1PRO MPO:1PRO specularite.2
THE OTHER ONE$_x$ should in turn put aside for him$_y$ his$_x$ specularite (Bleek & Lloyd 1911: 376-7)

b. *!udi* ***xa*** ***aa*** *n/aa* *!utau*
who.1 **Q** **1PRO** see sirius
WHO was it who saw Sirius? (Bleek & Lloyd 1911: 338-9)

Thus, it can be diagnosed that a pronoun is used as the syntactic pivot in bisected clauses with a marked information structure. This can be compared to the occurrence of subject PGNs in the 'Wackernagel' position of Khoekhoe, a structural pattern which, looking at the !Ora data, was also used originally for fronting marked constituents.

Similar evidence emerges from !Ui varieties of the N||ng cluster north of the Orange. Westphal's field notes on N|huki reveal that declarative and interrogative particles also occur in clause-second position, thus, *ke* after the subject topic *ǂou a* 'this man' in (16)a. and *xae* after the question word *ki dya* 'where' in (16)b.

(16) N|huki

a. *ǂou* *a* ***ke*** *ǂhoa* *n/a* *n* *anci*
man this **DECL** speak with 1S father
this man speaks with my father (Westphal field notes)

b. *ki dya* ***xae*** *Dorki* *n//a*
where **Q** PROP stay
where is Dorkie? (Westphal field notes)

I argue here that sentence type markers and pronouns placed after subjects or fronted constituents in !Ui languages served as important structural input for the emergence of the 'Wackernagel' phenomena in Khoekhoe. Moreover, its declarative marker is a probable borrowing of !Ui *ke(n)*.

For the latter hypothesis, there exists concrete evidence: declarative *ke(n)* has a plausible grammaticalization history in !Ui which would be untenable if the borrowing

direction was from Khoekhoe to !Ui; *ke(n)* presumably goes back to an identificational copula as shown in the following example from N||ng.

(17) N|huki

n/u tyu ***ke***
diviner COP
it is a diviner (Westphal field notes)

4.9 Marking of nominal participants

Another remarkable feature restricted to North Khoekhoe might also be influenced by syntactic properties of Tuu languages. Virtually all noun phrases in the postfield after the subject PGN are marked in Standard Khoekhoe by a suffix *-a*. This applies irrespective of the semantic role, i.e., to objects, obliques, adverbial adjuncts, and even so-called 'nachlaufende'/ 'deposed' nominal subjects. This principle, exemplified in (18), can be schematized as [Prefield - Wackernagel slot - **NP-*a*** - **NP-*a*** - ... - Verb].

(18) Standard Khoekhoe

o-gu *gye* ***/gawi-priester-ga*** ***mari-te*** *ū* (*ga* < *gu-**a**, te* < *ti-**a***)
then-3M.P.SBJ DECL high-priest-M.P:DSBJ money-F.P:OBJ take
Da nahmen sie, die Hohepriester, das Geld ... [then they, the high priests took the money] (Dempwolff 1934/5: 90)

This is parallel to the equally stringent, syntax-sensitive marking of grammatical relations in Tuu (and other Non-Khoe for that matter, cf. Güldemann & Vossen 2000). Here, the following basic pattern applies to all postverbal nominals (= all non-subjects including adverbials of place and time; subjects are always preverbal): irrespective of the semantic role, the first noun phrase is unmarked, while every following one is preceded by a so-called multipurpose oblique (MPO) marker. This gram in |Xam is *au* so that the predicate pattern is [Verb - NP - ***au*** **NP** - ***au*** **NP** - ...], as in (19).

(19) |Xam

hi-ng */ũeng-ki* */'ee* *//xauken* ***au*** ***/ǫ'a*** ***au*** ***hĩ*** ***/kx'aa***
2PRO-DECL do.thus-? enter blood MPO stomach MPO 2PRO hand
They put the blood in the stomach with their hands like this. (Bleek & Lloyd 1911: 278-9)

The structures in Khoekhoe and Tuu are certainly not identical; they are, however, parallel in one important respect: the morphological treatment of nominal participants is exclusively steered by their linear, syntactic position instead of their semantic role.

4.10 Proposition type clauses

A final case where Khoekhoe seems to have innovated vis-à-vis Kalahari Khoe due to interference from Tuu concerns the grams involved in sentential complementation and reported discourse. Conforming with the general head-final syntax of Khoe, the relevant clause linkers, the complementizer *!xai-* in (20)a. and the quotative marker *ti* in (20)b., are postposed to the associated lower clause.

(20) Standard Khoekhoe

a. *tsĩí* *//'ĩí-p-à-kxm̀* *ke* *kè* *mĩí-pa* **CLAUSE** ***!xáis-a***
and 3-3M.S-OBJ-1M.D.SBJ DECL PST say-APPL COMP-OBJ
And we told him that ... (Hagman 1977: 138)

b. **CLAUSE** ***ti-b*** *ge* *go* *mî-ba-he*
QUOT-3M.S.SBJ DECL PST say-APPL-PASS
...,' he is told (Haacke & Güldemann field notes)

The complementizer *!xai-* is transparently derived from the noun 'place, matter' (marked in (20)a. by the 3rd-person feminine singular PGN *-s*). The quotative gram *ti* is synchronically a similative marker 'like' and, when preceded by the demonstrative *nee* 'this', can also occur in this context as a manner deictic 'this way, thus, so'. While different in their syntax, these grams are related to elements found in Tuu in general and !Ui in particular, because East !Xõo and |Xam have quotatives-complementizers with precisely such an etymological origin (Güldemann 2001, forthcoming b).

The default introducer of reported discourse in East !Xõo is *té'ẽ*; this is likely to originate in a deictic *té'àã* 'this place, this way, thus', which consists of the class-2 noun *te* and the proximal demonstrative *'VV* agreeing with it in class.

The parallel between Khoekhoe and |Xam not only concerns the grammaticalization history, but the very origin of one marker concerned. The quotative-complementizer *ti (ee)* of |Xam is also a noun 'place, way, matter'; it is usually followed by the agreeing relative pronoun *ee*, as shown in (21)a. and b. I assume that !Ui *ti* was borrowed into Khoekhoe as the similative-quotative marker *ti*.

(21) |Xam

a. *hi-ng* *ǂaken* ***ti*** ***ee*** **CLAUSE**
2PRO-DECL say matter.2 2REL
They spoke thus, '... (Bleek & Lloyd 1911: 4-5)

b. *u* *g//kx'o'en-a* *ha* ***ti*** ***ee*** **CLAUSE**
2P look-TR 1PRO matter.2 2REL
... you have looked at him whether ... (Bleek & Lloyd 1911: 46-7)

A piece of evidence in support of the borrowing hypothesis, which is independent from the clause-linkage domain, is that !Ora has a manner deictic *heti* 'like this'. This is identical in form and function with |Xam *he ti* in which the deictic pronoun *he* precedes and agrees in class with the noun *ti*, thus 'this matter, this way'. Example (22) shows this phrase as part of a |Xam discourse connector conveying 'that's why, therefore, so'.

(22) ***he*** ***ti****-ken* *ee* ...
2DEI matter.2-DECL 2REL
lit.: that (matter) is which ... > that's why, therefore, so ...

In summary, I propose to identify two types of interference from Tuu languages in the domain of sentential complementation and reported discourse of Khoekhoe. First, the recruitment as a clause linker of a noun 'place, way, matter' with a semantic component of similarity and manner has been calqued from Tuu (note that although this grammaticalization path is attested cross-linguistically, it is not the default pattern in the wider area). Second, Khoekhoe has directly borrowed the !Ui element *ti* in its more grammaticalized use as a similative and quotative marker.

5 Conclusions

The linguistic data presented in Sections 2-4 are considered here as good evidence for the hypothesis stated in Section 1 that Khoisan languages from two distinct families, Tuu and Khoe, form a linguistic area in the Cape and in particular that Khoekhoe as a whole contains a strong linguistic substrate from the indigenous Tuu languages. Even if after more research individual isoglosses identified here turned out to be invalid, the hypothesis is unlikely to be falsified as a whole. So the results of this investigation have important implications for the reconstruction of the early linguistic history in southern Africa before the Bantu expansion as well as for contact linguistics in general.

The degree to which Khoekhoe has changed due to Tuu influence vis-à-vis its closest relatives in the Kalahari is so high that only a special historical and sociolinguistic scenario can explain it. Apart from this purely linguistic consideration, there are other indications concerning non-linguistic characteristics of the Khoekhoe population which support this idea; many of them have been noted and discussed in the past (cf., e.g.,

Schapera 1926). I will confine myself to mentioning two such features. First, it has been observed that the Khoekhoe are biologically close to their San neighbours.[12] This is significant because Khoe-speaking groups of the northern- and easternmost branches (Shua, Tshwa, and Kxoe) do not go in terms of genetics with other Khoisan-speaking groups further south and west, but rather with their Bantu neighbours. Second, the pastoral Khoekhoe are in terms of their subsistence similar to San groups in a major aspect: traditionally, they heavily relied in their diet on the gathering of wild food plants and hunting; this strong foraging component made them one of the few pastoral populations in Africa -- possibly the only one -- that used to be fully independent from agricultural food production.

There are not many scenarios which can explain these salient commonalities between the Khoekhoe and their Tuu-speaking San neighbours. My hypothesis is that the widely assumed expansion of a Khoe-speaking pastoralist population over southern Africa took place at its southernmost frontier according to a pattern in which the incorporation of features of the indigenous population played an essential role not only in linguistic terms but also in other respects. I assume that the Khoe movement at its very periphery relied heavily on the interaction with the original inhabitants of the newly colonized areas. As pioneers, these "vanguard" Khoe will have required the local know-how for using the resources of the new territory.

Moreover, considering more recent social relations in pastoralist-San interaction as well as patterns of pastoral food production in southern Africa, it is quite probable that San women in particular were incorporated into Khoe ethnic units; and these would have acted as major mediators of features which the historically attested Khoekhoe and !Ui groups have in common. Hahn's (1870: 7) metaphorical view of 'Buschmänner und Hottentotten [als] Geschwister derselben Mutter, aber ethnisch grundverschiedene Charactere' [Bushmen (alias San) and Hottentots (alias Khoekhoe) as siblings of one mother, but ethnically entirely different characters] would then have a very real background in history.

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12 This was in fact the principal reason that Schultze (1928) subsumed both population groups under one entity and coined the term 'Khoisan' (see inter alia Jenkins et al. (1971) for modern genetic data). Only later did 'Khoisan' also gain the connotation of a linguistic unit.

One factor will have been the cultural prestige of pastoralists in general and the frequent status of San as their clients. In attested cases of intermarriage between foraging and food-producing groups, this and other factors lead to a pattern in which San women become espoused in the prestige group and are integrated there together with their children, but not the other way around. As a result, the gene flow is predominantly unilateral, namely from the San population into the population of the other group, in the case at issue the Pre-Khoekhoe.[13] Another factor might have been the important role of stock posts in the periphery of pastoral settlement areas. These would have been occupied predominantly by men tending the stock and looking for new pastures. In such an environment, the role of San women might even have been greater than in the normal contact situation.

Clearly, large parts of the historical development briefly sketched above must remain speculative, but some components thereof might be testable in future research (e.g., the above prediction regarding biological profiles through population genetics). For the time being, this scenario is a good fit of the empirical facts and thus serves as a promising working hypothesis. It can account for the strong biological affinity between the two populations, the important subsistence mode of hunting and gathering in both groups, and, last but not least, the fact that the striking linguistic deviation of Khoekhoe from the rest of the Khoe family is explained in a plausible way as the result of borrowing and interference through shift from Tuu languages.[14]

If the present hypothesis is not severely weakened in future research, it is of great importance for the evaluation of the linguistic history of the Khoe family and Khoisan in general. Khoekhoe is a very distinctive sub-group within Khoe, which was plausibly interpreted in the family tree model as the result of a primary branching in the group (cf. Voßen 1997). Under the above scenario, however, this differentiation is to a large extent

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13 The historically more recent case of Nama-Damara relations in Namibia has yielded very similar results. According to Nurse, Lane & Jenkins (1976) and Soodyall & Jenkins (1992), there is little genetic influence of the pastoral Nama on their former Damara clients, but a clear genetic contribution from the Damara in the Nama.

14 Note that the historically much later emergence of the Baster groups from the social interaction between indigenous Khoekhoe and colonizing Boer farmers, especially in the frontier zone of the Cape colony, is surprisingly parallel to the present case in its overall scenario and result.

due to Tuu-mediated innovations in Khoekhoe. Hence, it is possible that the split-off of the Khoekhoe group is a later event in the divergence history of Khoe. That is, a heavy, but historically secondary linguistic substrate might skew the modern picture in a family to the extent that other, earlier processes of divergence become less salient. This phenomenon may well be relevant for language families in other parts of the globe. From a general Khoisan perspective, the present case is a first concrete indicator that even a large amount of linguistic similarity between different lineages in this group can be explained in terms of contact rather than inheritance from a common ancestor.

Some conclusions from this study are also relevant for the research on language contact in general. Khoekhoe has retained a wide array of structural devices inherited from Khoe, such as the PGN system (Section 4.1), the inventory of verbal derivation suffixes (Sections 4.5 and 4.7), and verb-final clause order after the subject pivot (Section 4.8), to mention just a few. In fact, there is no clear case as yet that a novel, contact-induced structure has entirely replaced an older one. As a corollary, Khoekhoe displays a canonical genealogical affiliation with other Khoe languages, which implies that there has been no interrupted language transmission in the history of this group.

In many isoglosses identified above, the interference feature was added to and combined with pre-existing structure. In other words, the transfer was not a simple take-over, but a creative incorporation of the new feature. For example, this can be observed with the complex pronouns with borrowed exclusive *sii* which contrast with an equally innovative inclusive series based on inherited Khoe material (Section 4.1). Also, in North Khoekhoe the inherited verb-final syntax with a considerable flexibility according to pragmatic functions has been reconciled with the rigid constituent order of Tuu, yielding the structure [Prefield s (S) O V][15] (Section 4.8). Thus, one cannot diagnose a word-order homogenization, which in general is a fairly typical contact-induced change. Another case in point would be the borrowing of the quotative marker *ti* but its position after the clause as opposed to the source item in !Ui (Section 4.10).

Sometimes it appears that a linguistic structure or principle established in Khoekhoe

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15 Small and capital 's' mean pronominal PGN subject and nominal 'deposed' subject, respectively. Recall, however, that a nominal subject can also surface when the prefield is filled by a nominal stem coreferential with the subject PGN.

by contact-induced change is "optimized" and becomes more productive than in the source language -- a phenomenon also discussed in other studies on language contact (cf. Thomason & Kaufman 1988: 129-146). This means that the subsequent language-internal dynamics are in principle independent from the source structure and the original linguistic interference need not give an exhaustive account for the modern properties of an innovation. Several examples can be given for this. The grammaticalization of the intensifier *//'ãi* to a marker of plain anaphoric reference is a purely Khoekhoe-internal development, which in fact obscures the historical relation to the !Ui source (Section 4.1). Compared to Tuu, the formation of complex predicates by compounding has been diversified in Khoekhoe, involving the possible incorporation of elements other than verbs (Section 4.7). The prefield before the clause-second position is exploited in Khoekhoe for all kinds of constituents while it seems to be restricted in !Ui to nominal participants (Section 4.8). Finally, both Tuu and North Khoekhoe possess a default participant marker; however, these have a different scope, applying in Tuu to every valence-external (mostly all but the first) nominal after the verb, but in North Khoekhoe to every nominal after the subject PGN (including even subjects) (Section 4.9).

The interrelatedness of different contact-induced phenomena had a cumulative effect for Khoekhoe-internal processes. For example, a subject PGN in the Wackernagel slot combines with a coreferential pronoun base in the prefield as a subject topic to create a central context for complex independent pronouns (Sections 4.1 and 4.8). Also, the subject PGN and the sentence type markers simultaneously enhance the Wackernagel position, while the two marker types in |Xam are largely complementary (Section 4.8).

The overall result of these mechanisms can be summarized as follows: Khoekhoe displays a marked distinction from its sister languages of the Kalahari branch of Khoe as well as from its contact languages of the Tuu family. That is, the considerable restructuring of Khoekhoe has not lead to a notable alignment with/ convergence to the linguistic type of the substrate.[16] Instead, Khoekhoe developed a characteristic structural

16 It is possible that the distinct culture and identity of Khoekhoe pastoralists and San and the fact that their social relations became over time increasingly asymmetric were favorable circumstances for the maintenance of the linguistic distinctness of the languages, which before the contact were distant anyway (as mentioned in Section 1, the languages are not related genealogically and also represent the major typological split in Khoisan Southern Africa of Khoe-Kwadi vs. Non-Khoe).

profile that is different from both input languages before the contact. In some domains, this is accompanied by a considerable increase in complexity -- an observation made also in other cases of language contact (cf. Thomason & Kaufman 1988: 22-34).

It was mentioned in Sections 4.6 and 4.8 that the sparse linguistic data point to a significant linguistic deviation of older Damara varieties from the Khoekhoe spoken by this population today and that this suggests its linguistic "Khoekhoeization". This leads to another point worth mentioning, namely that the substrate in Khoekhoe has been transferred to a geographic area where the original contact explanation is not feasible -- a phenomenon which tends to obscure the actual historical processes.

I have briefly mentioned in Section 3 that heretofore linguistic similarities between Khoekhoe and !Ui languages have often received a historical explanation different from that entertained here, namely that they are due to the borrowing of Khoekhoe features into San languages. I have also indicated in Section 1.2 that this transfer direction is indeed relevant; however, rather for the more recent than the early history. As a generalized interpretation, this scenario is unfounded and is clearly influenced by the prejudice that foragers are unlikely to have a major impact on a "culturally superior" pastoral society, be it linguistic or otherwise. This paper tries to give evidence that the opposite is the case. Hunter-gatherers can profoundly influence the language of newcomers, in this case even to the extent that the resulting language group Khoekhoe is classified as a primary unit within its higher order unit Khoe.

Since the Khoekhoe expansion into the extreme south of Africa was from all we know the first introduction of food production into this part of the continent, this case is significant from a more general perspective; it is a potential test case for the possible linguistic results of this type of population shift on a global scale. This study indicates that one must not underestimate for the early linguistic history the impact of languages spoken by hunting-gathering populations (today often obliterated) on the languages of the first food-producing immigrants of a certain area.

The extent to which such historical processes might have shaped the modern distribution of linguistic features on the globe can be discerned in yet another way. In the Cape region and areas further east, some substrate features from Tuu seem to have diffused into still later linguistic arrivals, i.e. several Bantu languages and Afrikaans.

Thus, Güldemann (1999) identifies in Nguni languages the typologically marked semantic association of feminine gender with large size (Section 4.2) and the use of a diminutive suffix on less common hosts like adjectives and predicates (Section 4.3).

In the historical study of Afrikaans, several of its features are explained in part by substrate influence from other languages, whereby Khoekhoe has been playing an increasingly important role in the discussion. With the growing knowledge on San languages of the area, the exclusive focus on Khoekhoe turns out to be inappropriate. Just to mention two examples, the existence in Afrikaans of an associative plural form and, in view of its status as a "creoloid", its surprising retention from Dutch of a complex clause-second syntax has been ascribed partially to substrate interference from Khoekhoe (cf. Besten 2001 and 2002, respectively). However, both features also have parallels in !Ui languages, which should also be evaluated as possible contributors.[17]

Due to the enormous gaps of linguistic documentation in the area regarding Khoisan languages as well as their contact with Bantu and Dutch-Afrikaans, it will never be possible to determine conclusively the exact historical scenario for an innovation in these later linguistic arrivals in southern Africa. Clearly, direct contact with San languages has played a role and must not be underestimated; at the same time, it is possible that a !Ui substrate has, so to speak, "seeped up" into these languages via Khoekhoe, which acquired a number of linguistic features from Tuu in earlier periods.

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17 See Section 4.8 for the clause-second phenomena in !Ui. An associative plural in !Ui is attested with |Xam *-gu* (Bleek 1928-30: 92). This is reminiscent of the 3rd-person masculine plural PGN *-gu* of Khoekhoe, which is also prominent in the associative plural of Namibian Khoekhoe (see Hagman 1977: 29), so that one might be tempted to view |Xam *-gu* as a borrowing. However, the history of associative plurals in Khoisan languages of the Cape is far from clear. There are also !Ui-internal explanations for the |Xam suffix in view of potential grammaticalization sources in related languages such as ǂUngkue *gu* (plural: *gu-kn*) 'creature' and N||ng *gau* (plural: *gu-ke* or *gon*) 'thing'.

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