

“Khoisan” classification and early population history in southern Africa

Tom Güldemann
University of Zurich and MPI-EVAN Leipzig

1. Linguistic classification

1.1. Classification according to features identifying genealogical language sets

- early classifications replaced in the 1950s by linguistically-oriented approaches:
- a) "splitting": more than half a dozen unrelated groups (Westphal i.a. 1962a, b, 1971)
- b) "lumping": subsumed under one genealogical unit (Greenberg 1963), internal subgrouping largely valid (based on Bleek i.a. 1929, 1956) > **Figure 1**

Figure 1: Subgrouping of "Khoisan" according to Greenberg (1963)

Hadza
Sandawe
South African Khoisan (= SAK)
 Northern Khoisan (= *Ju*)
 Central Khoisan (= *Khoe*)
 Southern Khoisan (= *Tuu*)

- > flawed (Güldemann forth. c), but formative for perception among non-specialists
- present approach: in between "splitters" and "lumpers", counts with up to a maximum of 6, but not less than 3/4 lineages (cf. Güldemann and Vossen 2000)
- data still insufficient to provide conclusive classification
- > three pragmatically oriented language groups:
- a) two East African isolate languages as two lineages
- b) fairly substantial lineage Khoe-Kwadi
- c) typologically defined set Non-Khoe comprising three lineages
- "Khoisan" = click languages unrelated to other families, linguistically vacuous > "Non-Bantu"

1.1.a. East African isolates

- Sandawe and especially Hadza with few, if any, clear indication of a relation to each other or to SAK (Sands 1998)
- Sandawe with typological affinities to SAK (Güldemann forth. a) and promising genealogical relationship to Khoe-Kwadi (Elderkin 1986, 1989, Güldemann and Eld. forth.)

1.1.b. Khoe-Kwadi

- Khoe with "individual-identifying features" (in the sense of Nichols 1996) - Vossen (1997)
- a) basically head-final in clause and noun phrase, though deviant patterns widespread
- b) rich verb derivation system with suffixes (largely reconstructed to Proto-Khoe)
- c) some languages with verb suffixes cross-referencing objects (but not subjects)
- d) many other grammatical functions in the verb phrase encoded by particles
- e) nominal morphology characterized by integration of (partly bound) markers of person, gender, and number (largely reconstructed to Proto-Khoe); marking on the noun and agreement often not obligatory and exploited for derivational functions
- Kwadi with considerably deviant structure, but genealogically related (Güldemann 2004, Güldemann and Elderkin forth.)
- > sub-classification > **Figure 2**

Figure 2: Subgrouping of Khoe-Kwadi († = extinct, DC = dialect cluster)

<i>Kwadi</i> :	single language [†]
<i>Khoe</i> (= Central Khoisan)	
Kalahari	
West:	Kxoe, Buga, Ani (DC); Naro (DC); G ana, G ui, †Haba (DC)
East:	Shua, Ts'ixa, Danisi, Xaise, Deti [†] (DC); Kua-Tsua (DC)
Khoekhoe	
North:	Eini [†] , Nama-Dama, Hai 'om, †Aakhoe (DC)
South:	!Ora [†] (DC); Cape Khoekhoe [†] (DC)

- in certain domains, also pronounced differences between and within Kalahari and Khoekhoe
> typological affinity to East African languages (Heine and Voßen 1981, Güldemann forth. a)

1.1.c. Non-Khoe

- basic structure surprisingly homogeneous, historical significance unclear
 - a) SVO clause order, head-initial noun phrase except head-final genitive
 - b) little morphology, importance of constituent order, particles, analytical constructions
 - c) verb serialization encompassing encoding of participants, predication operators, etc.
 - d) special type of relational gram as a default marker of valence-external participants
 - e) complex and irregular number marking in both nominal and predicative expressions
 - f) special type of noun classification
 - g) general inclusive-exclusive opposition in 1st-person pronouns
- > internal grouping > **Figure 3**

Figure 3: Constituency of Non-Khoe († = extinct, DC = dialect cluster)

1. **Ju** (= Northern Khoisan, DC)

<i>Northwest</i> :	!O!Xūu, !Xūu
<i>Southeast</i> :	Ju 'hoan, †Kx'au 'en
2. **†Hōa**: single language (probably related to Ju)
3. **Tuu** (= Southern Khoisan)

<i>Taa-Lower Nossob</i> :	East including East !Xōo, West including West !Xōo (DC); Lower Nossob including !'Auni [†] , Haasi [†]
<i>!Ui</i> :	Xam (DC) [†] ; N ng including N huki (DC); †Ungkue [†] ; Xegwi [†]

- very promising genealogical unit Ju-†Hōa (Westphal 1974, Sands 2003, Güldemann 2003, Honken forth.)

+ major problems arising from genealogical classification:

- a) Khoe lineage internally much more diverse than Non-Khoe with a greater time depth
- b) homogeneity across larger areas (e.g., |Xam in the Karoo)

1.2. Classification according to features identifying areal language sets

- convergence processes widely attested
 - lexical isoglosses, but often bilateral (Köhler 1973/4, Snyman 1974, Traill 1986)
 - some linguistic subareas in SAK discernible - promising candidates, e.g.:

1.2.a. Central Kalahari

- Traill (1980), Traill and Nakagawa (2000), Honken (forth.)
- East !Xōo (Tuu), †Hōa (undetermined Non-Khoe), G|ui (Khoe) - exceptionally high phonological complexity, lexical isoglosses

1.2.b. Cape

- Güldemann (2002, 2006)
- Khoekhoe (Khoe), !Ui (Tuu): geographical inclusion of an entire lineage in area of another
 - a) comparably small size of consonant inventory, but high phonological load on clicks
 - b) inclusive/exclusive distinction in pronominal system
 - c) similar semantics, morph type, and position of grams marking tense, aspect, etc.
 - d) lexically complex predicates
 - e) clausal pronoun pivot
 - f) syntactically, rather than semantically triggered marking of participants
- > possible substrate explanation for distinct character of Khoekhoe vis-à-vis Kalahari branch

1.2.c. SAK

- "Kalahari Basin" (Güldemann 1998): ?linguistic area before Bantu expansion
- features typological, rather than defining a genealogical unit
 - a) high reliance on clicks as phonemic speech sounds, backbone of consonant system
 - b) root formation with preferred phonotactic pattern: $C_1V_1C_2V_2$ (clicks in C_1)
 - c) register tone languages
 - d) mostly host-final morphology
 - e) head-final genitive despite different clause word order, grammatically productive noun compounding (> nominal suffixes)
 - f) neutral alignment for pronoun and noun inflection
 - g) no subject cross-reference on the verb
- > areal concept gives the term SA "K(hoisan)" a different meaning

2. Survey of basic non-linguistic factors in the SAK area**2.1. Genetics****2.1.a. General introduction**

- early recognition of "biological uniqueness" in the Cape > Schultze's (1928) term "Khoisan"
- > great influence on linguistic and other classifications: propagated later with a wider geographical extension and as a linguistic unity
- shift from phenotypical to genetic markers: maternal mtDNA, paternal Y-chromosome
- Africa with highest genetic diversity in the world (Watson et al. 1997, Scozzari et al. 1999)
- major phylogenetic three-way mtDNA split of African (and world) populations (Soodyall and Jenkins 1998, Chen et al. 2000)
- Pygmy and Khoisan as most ancient distinct populations vs. all others in- and outside Africa
- genetic Khoisan profile with unique features (Gm groups; ABO and Rhesus blood group systems; mtDNA types) > supports Schultze's concept
- > *Khoisan* best used in this original biological sense, but excludes some non-Bantu click-speaking groups!!! > **Figure 4**

Figure 4: Distribution of Non-Bantu over major genetic populations in Africa

Pygmy	None
Khoisan	all Non-Khoe, Pastoral Khoekhoe, southwestern Kalahari Khoe (Naro, G ana, G ui)
Other	Khoekhoe-speaking Dama, most Kalahari Khoe, Kwadi, Sandawe, Hadza

- but still no general classificatory picture, only few sample groups: Ju (two samples from Angola and Botswana), Kxoe, Namibian Nama, Dama

2.1.b. Non-Khoe

- consistently within Khoisan

2.1.c. Khoe-Kwadi

- general geographical north-south cline from "Other (African)" > Khoisan
 - + Dama: overall like "Other African", little Khoisan admixture
 - + Kwadi: phenotypically "Other African", ?close to Dama
 - + Kxoe-Buga-||Ani and East Kalahari Khoe: overall like "Other African"
 - + southern Kalahari Khoe West (Naro, G||ana, G|ui): overall Khoisan
 - + pastoral Khoekhoe: overall close to other Khoisan; but also differences; genetic substrate in South Africa, but different in Namibia
- + "Khoisan" as a wider concept genetically more diverse than all non-Khoisan populations on earth, because it comprises Khoisan and "Other African" (see above)
- > Non-Bantu languages not at all tied to any specific genetic type
 - > suggests earlier "Other African" population in southern Africa not speaking Bantu; evidence for shared history with indigenous Khoisan (and later colonizing groups like Bantu)

2.2. Culture and history**2.2.a. Rough pre-colonial culture sequence**

- Stone-age foraging (> San)
 - avoidance practices - retention of inherited lexicon (Traill 1998)
 - small bands associated with a territory, individual mobility and exchange networks
 - > variable, but sustained local bilingualism bridges a border between linguistic lineages
 - frequently enter client relationship to pastoralists and agriculturalists
 - > language shift: Khoekhoe; Bantu of zone S and R
 - > unilateral gene flow from San groups into non-San groups (Jenkins 1986, 1988)
 - > linguistic affiliation not necessarily indicative of early history
- Stone-age small stock pastoralism from about 2000 BP
 - archaeological + historical records for distinct foraging and pastoralist identities (Smith 1996, pace Elphick 1977)
 - Khoekhoe pastoralism: cattle + sheep, not reliant on agriculture, strong foraging component
- Iron-age agro-pastoral subsistence slightly later
 - seemingly with cattle from early on
 - apparently correlates linguistically with Bantu
 - never reached the Cape

2.2.b. Non-Khoe

- correlates consistently with cultural type forager ~ client

2.2.c. Khoe-Kwadi

- culturally diverse:
 - forager: all Kalahari Khoe; non-pastoral Khoekhoe (Dama, Hai||'om, †Aakhoe)
 - pastoralist: Cape Khoekhoe, !Ora, Eini, Nama (classical "Hottentots"); Kwadi
- (pastoral) food production possibly more salient in some modern forager groups
 - pastoralist Khoe-speakers in northern Kalahari (Cashdan 1986, Denbow 1986)
 - possible agriculture (Köhler 1986)
 - Proto-Khoe with relevant reconstructed terms - sheep pastoralism (Voßen 1997, 2007)
 - sheep ritually more important than economically essential cattle in attested Khoekhoe

2.3. Natural environment

- environmental conditions determine modes of subsistence and thus the distribution of certain populations, varied considerably:
 - a) in space: large arid/semi-arid areas unsuitable for agriculture and even pastoralism (e.g., interior of Kalahari, Karoo system, coastal Namib desert)
 - b) in time: climatic changes influenced settlement in general and distribution of culture groups in particular, e.g.:
 - > dry period 7500-4500 BP: i.a. interior Cape (Karoo) largely uninhabited, end associated by change from "Wilton" to "Smithfield" LSA culture (Deacon and Deacon 1999: 126)
 - > considerably more humid period 2500-1500 BP: northern Kalahari (Okavango, Makgadikgadi) (Denbow 1986) - around the advent and expansion of pastoralism

3. Synopsis

3.1. Introduction

- + if "Khoisan" is taken as a wider population type, it is characterized by an enormous diversity in biological, linguistic, and cultural terms
- + synchronic diversity can be the result of different historical scenarios:
 - divergence processes in a more homogeneous population
 - convergence processes between different populations
- + previous scenarios mostly based on linguistic hypothesis of "Khoisan" language family
 - > predominantly assume internal divergence within alleged "Khoisan" with an original profile of Khoisan+Non-Bantu+forager; modern diversity mediated by involvement of just one other population profile, namely "Other African"+Bantu+agro-pastoralist
 - > however, unlikely:
 - spurious linguistic-genealogical unity of Non-Bantu
 - degree of diversity; sometimes of a maximally possible extent on the world level
 - time depth suggests more population contact
 - discernible third population type: pastoralism, "Other African" with no clear link to Bantu
- + Westphal (i.a. 1963, 1980) as only exception, present proposal with considerable parallels

3.2. Non-Khoe

- + relatively consistent in all basic classification criteria > oldest attested population profile in southern Africa: Non-Khoe, stone-age forager, Khoisan gene type
 - > earlier existence of an area of similar populations with approximate distribution across modern Namibia, Botswana, South Africa
- + but historical dynamics also in more recent past, e.g., expansion of some forager groups:
 - a) re-population of some areas after dry period until around 5000 BP implies "recent" expansion, single group explains linguistic homogeneity, e.g. !Xam in the Karoo
 - b) language shift among hunter-gatherers, e.g. G|ui substrate in West !Xõo
 - > modern Non-Khoe groups in some areas with a far shorter history than assumed
- + linguistic character of Non-Khoe to be clarified by linguistics:
 - a) linguistic area - homogeneity due to diffusion/ convergence
 - b) very old genealogical unit - homogeneity due to inheritance, divergence into different groups - major split Ju-#Hõa vs. Tuu

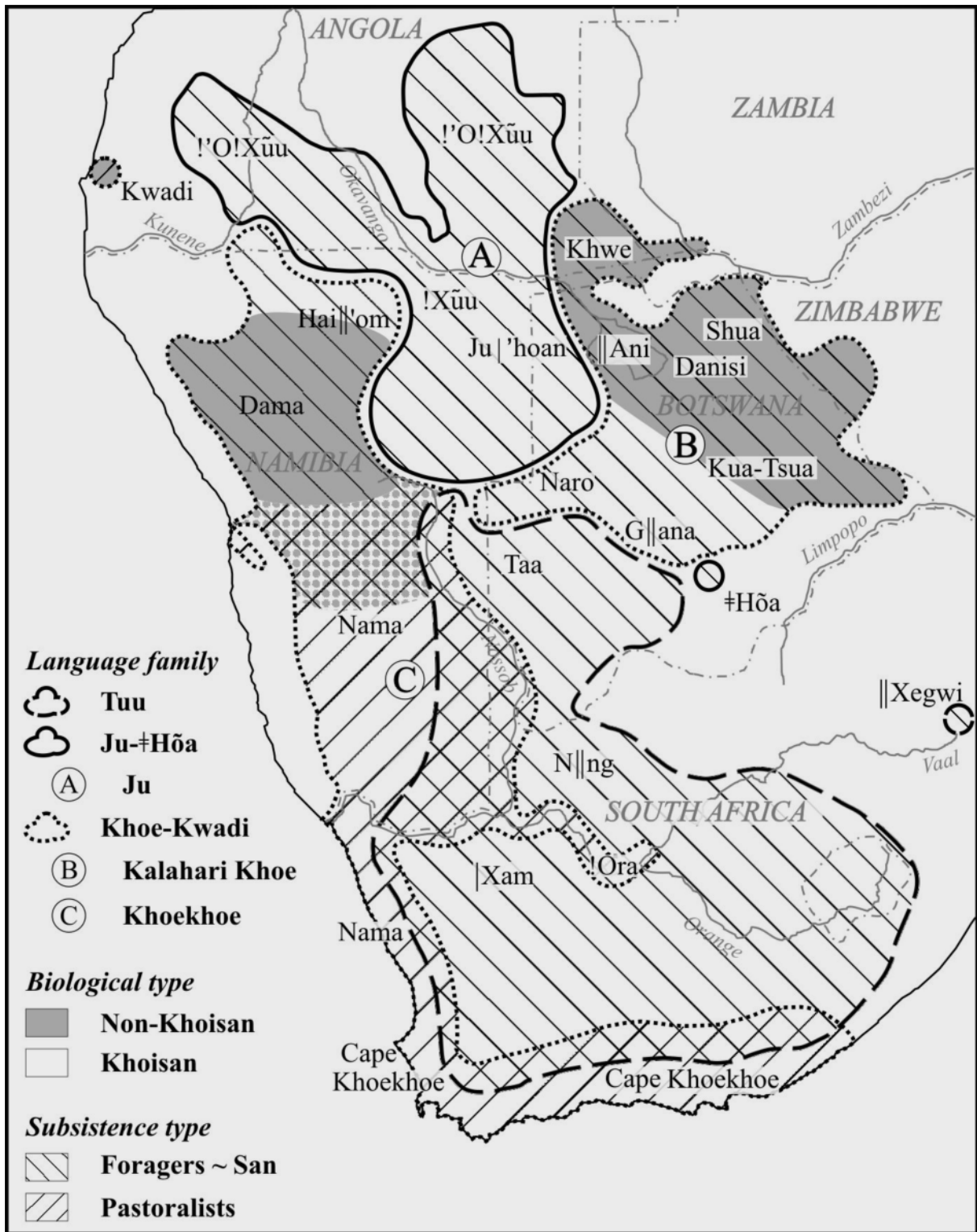
3.3. Khoe-Kwadi

- + independent linguistic lineage as clearest indicator for the involvement of a third independent population type:
 - ... it might be said that about 1000 years before the Iron Age and the advent of Bantu languages, the Bushman province of Southern Africa was invaded by Khoe speakers. These Khoe speakers introduced a cultural re-orientation into the hitherto entirely hunter gatherer sub-continent. They also introduced their language. (Westphal 1980: 70-2)
- > Khoe-Kwadi as a population colonizing the Kalahari Basin relatively recently, now based on linguistic evidence (Güldemann forth. d)
- + hypothesis for original population profile:
 - Khoe-Kwadi family, Proto-Khoe-Kwadi structurally closer to Kwadi than to Proto-Khoe
 - stone-age food-producing culture with focus on small stock pastoralism
 - "Other African" genetic type
- + probable geographical origin in East Africa
 - southern African pastoralism originates in East Africa (Smith 2005)
 - possible pre-Bantu linguistic area from East down to South Africa (clicks, laterals, etc.)
 - typological and possibly even genealogical (Sandawe) linguistic affinities
 - > possible existence of a pre-Bantu spread zone (?substratum in Bantu)
- + major modern characteristic: diverse according to all classification criteria
 - > suggests admixture in and/or shift of some groups in terms of all classification criteria in relation to the profile of the originally more homogeneous population
 - > subsequent local developments in individual Khoe-Kwadi groups as explanation for considerable synchronic discrepancies between language, culture, and genetic type
- (I) 2000 BP - rapid expansion in the northern periphery of the Kalahari Basin and the Kalahari itself, coincides with favorable climatic conditions (Westphal 1963, 1980)
- (II) separation of western group(s) > **Kwadi**, possibly includes **Dama** ancestors (Ehret 1982)
- (III) contact of eastern group(s) with San in northern Kalahari > **Proto-Khoe** with linguistic San substratum (presumably Ju-#Hōa, Güldemann forth. b); ?language shift of San to Khoe > Kalahari Khoe speaking San with Khoisan genetic type = **Naro, G||ana, G|ui**
- (IV) subsequent contact with San in southern Kalahari > **Proto-Khoekhoe**; rapid expansion into Cape (?and areas further east); retention of pastoral subsistence, but nevertheless heavy impact of San: Tuu substratum (Güldemann 2002, 2006), addition of strong foraging component, increasing shift to Khoisan genetic type
- (V) ca. 1000 BP - re-desiccation of Kalahari; retreat of pastoral subsistence but without easy back migration of people (!!!Bantu), partial shift to foraging under language maintenance > San with "Other African" genetic type = **northern and eastern Kalahari Khoe**
- (VI) from 17th century on - Khoekhoe spread into Namibia > linguistic Khoekhoeization of some indigenous populations > **Dama**, San with Khoisan genetic type (e.g., parts of **Hai||'om**), substrate languages uncertain (Ju, Tuu, Khoe-Kwadi)

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Southern African non-Bantu groups and their basic linguistic, biological (Khoisan vs. non-Khoisan), and cultural (forager vs. pastoralist) classifications

Bantu populations, who are historically distributed all over the area (except most of the wider Cape region and hyper-arid zones) and thus overlap with the groups considered, are omitted. Considerable discrepancies in basic classification features within the non-Bantu speaking populations are evident; for example, the Khoe-Kwadi language family comprises populations of both major cultural and biological types.