Khoemana and the Griqua: Identity at the Heart of Phonological Attrition

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Abstract

The Griqua form part of the indigenous Khoesan groups of South Africa. There are currently less than 30 speakers of Khoemana, the Khoe language spoken by the Griqua and Korana within South Africa. Many of the remaining Khoemana speakers have attrited language, particularly in their lexicon and phonology. This paper attempts to address a number of issues related to the Khoemana language. There is new evidence suggesting that what has been historically viewed as three different languages, Cape Khoe, Korana, and Griqua, all form part of the same dialect group. Furthermore, clicks, which are a socially marked feature of the language, show distinct signs of phonological attrition. These two ideas are tied together through sociolinguistic identity. The current research elaborates on previous research on click loss and attrition, suggesting that sociocultural considerations and identity issues may have a surprisingly large effect on attrition of the phonology of a language, and have further caused confusion on language terminology.

Griquan etninen ryhmä kuuluu Etelä-Afrikan Khoesanin alkuasukasryhmiin. Tällä hetkellä on olemassa vähemmän kuin 30 Khoen kielen Khoemanan puhujaa. Khoemanaa puhuvat etelä-afrikkalaiset Griquan ja Koranan etniset ryhmät. Monilla elossa olevilla Khoemanan puhujilla esiintyy kielen attritiota, varsinkin heidän sanastossaan ja fonologiassaan. Tässä tutkimuksessa keskitytään moneen Khoemanan kieleen liittyvään kysymykseen. On saatu uusia todisteita siitä, että historiallisesti kolmena eri kielenä pidetyt Cape Khoe, Korana ja Griqua ovatkin kaikki osa samaa murreryhmää. Lisäksi, maiskausäänteet, jotka ovat näiden kielten sosiaalinen erikoispiirre, ovat selvästi fonologisen attrition vaarassa. Nämä kaksi ideaa ovat sidoksissa toisiinsa sosiolingvistisen identiteetin kautta. Tämä tutkimus käsittelee aikaisempia tutkimuksia yksityiskohtaisemmin maiskausäänteiden katoamista ja attritiota, samalla viitaten siihen, että sosiokulttuuriset ja identiteettiin liittyvät seikat voivatkin vaikuttaa yllättävän paljon kielen fonologian attritioon, sekä aiheuttaa epäselvyyksiä koskien kielen terminologiaa.

Den etniska gruppen Griqua tillhör infödda Khoesan grupper i Sydafrika. För tillfället finns det mindre än 30 talare av Khoemana, som är ett Khoe språk talat av de etniska grupperna Griqua och Korana inom Sydafrika. Många av de kvarlevande Khoemana talarna lider av språkförslitning, speciellt i deras vokabulär och fonologi. Den här avhandlingen försöker ta itu med en del av problem, relaterade till Khoemana språket. Det har uppkommit nya bevis att Cape Khoe, Korana och Griqua, som har traditionellt betraktats som tre olika språk, alla tillhör samma dialektgrupp. Dessutom, klickljuder, som är språkets sociala kännetecken, ger klara fonologiska tecken av att de håller på att falla i glömska. Dessa två idéer är anknutna sinsemellan genom en sociolingvistisk identitet. Denna undersökning vidareutvecklar tidigare undersökningar om klickljudernas försvinnande och glömska. Undersökningen också antyder att sociokulturella faktorer och identitetsfrågor kan ha en överraskande stor inverkan på den fonologiska språkförslitningen av språket, samt har vidare orsakad förvirring angående språkets terminologi.

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Abbreviations and notes:

IP	Interrogative Particle
INC	Incomplete Aspect
1SG	First Person Singular
2SG	Second Person Singular
3SG	Third Person Singular
1PL	First Person Plural
2PL	Second Person Plural
3PL	Third Person Plural
CM	Case Marking
ASP	Aspect
RFL	Reflexive
IND	Indeterminate

Phonemes are marked in brackets [], phonetic realizations marked with //.

Sentences and words written in a foreign language are written in italics, and in the case of code switching, both italics and bold.

1. Introduction

Of the world's 6000 languages, UNESCO estimates that at least 3000 are endangered or at risk of language death. A disproportionate amount of these are indigenous. Language is the prime method for cultural transmission and maintenance, and with the death of languages comes an indication of a collapse of that culture. All indigenous Khoisan[1] languages in South Africa are under threat of extinction, in particular the Khoe language of Korana-Griqua, called Khoemana in this work, and the Taa language N|uu, each with under 10 fluent speakers. !Xũ, Kxoe, and Nama speakers have greater chances of survival, but all are nonetheless under a heavy threat of extinction.

Culture change is inevitable and normal. Even language shift is not a rare occurrence, historically, as people merge, change, and migrate. Yet when a community loses the power to influence the speed and nature of the change, fundamental changes to their social institutions can cause collapse. Large amounts of traditional knowledge and culture are lost, with the people ending up subordinated and impoverished. The loss of the knowledge transmitted between generations and the degeneration of institutional practices that helped transmit it is not development; it is the impoverishment of the people. Current development planning is actively reducing indigenous languages to a third rate status, stunting growth in the community economically, intellectually, and linguistically.

The Griqua are part of the indigenous peoples of South Africa. They currently predominantly speak Afrikaans, but before their language shift they spoke a southern Khoe language, still spoken currently by under 10 speakers. They historically consisted of a group of Khoe tribes which later merged into a number of larger more important tribes, thereafter merging into South African society. The situation of whether these tribes spoke the same or a different language will be addressed briefly in section 2, and further in depth in section 6.2, as there is new evidence suggesting that it is a dialect cluster rather than separate languages.

Since European invasion and settlement, there has been a historic trend to extinguish or marginalize the people, resulting in a fracturing of the identities. The immense impact of colonial economic and physical force on the indigenous peoples of the Cape caused them to abandon their languages as well as their traditional culture and values. Groups such as the ǂGonakhoe emerged with a mixed culture between Khoe and Xhosa, subsequently integrating into coloured and Xhosa identities (Boonzaier et

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1 See section 2 for an explanation of terminology use.

al., 1996: 88-89; also Traill, 1995: 3). The fracturing and regrouping has left pieces of identity scattered across the ethnic landscape of South Africa, further confusing the linguistic situation, as individuals forming part of a certain group will claim that their language is also of that group; e.g. N|uu speakers identifying with being Griqua.

1.1. Aims

This paper intends to address a number of issues regarding the linguistic situation among the Griqua, with possible theoretical implications in language attrition. I will first give a brief historical and linguistic description of the people first, as their history is complex and has been challenging to follow, and the language is not well described. Furthermore, the social background and history has linguistic implications for the language. The short phonetic and phonological description will come almost entirely from earlier sources. After discussing the background of the people, I will discuss current theories of language attrition, developing a framework suitable for investigation into the Khoe language.

Finally, I will discuss some of my own findings with the language and their implications. Amongst other things, I argue the following points:

1. The Griqua and Korana have been marginalized and persecuted since the European invasion of southern Africa. This has led to a subsequent devaluing of their culture from the people, and a shift in identity. Furthermore, identity among the Khoe-speaking people of South Africa has been in constant flux, leading to a confusion of terminology of language names. I present new evidence suggesting that the historical classification of three separate Khoe languages within South Africa is incorrect.

2. The few remaining speakers have strong ties to their social culture, participating in rites of passage and perpetuating their indigenous beliefs, resisting enculturation and identity/language shift. Because the speakers are nonetheless under great economic and social pressure to shift, including persecution, their language displays a greater amount of attrition than would be predicted.

3. Clicks are seen as a unique linguistic attribute, and a key element to the culture. This forms a

complex relationship, combining the desire to gain economic and social status with a desire to resist enculturation. The combination of trying to maintain their cultural identity while under pressure has resulted in an even greater phonological confusion and decay. These inconsistencies arise through the desire to retain clicks as part of the culture and through an unconscious recognition that clicks are a marked part of the language.

Figure 1: San and Nama Settlements in South Africa (ILO 1999) The Griqua settlements in the Northern Cape and Free State also include Korana

2. Terminology

2.1. Khoesan

The term Khoisan was coined by Leonhard Schultze (1928:211) as a biological label of 'Hottentot' and 'Bushmen' groups, indigenous groups of Southern Africa predating the Bantu expansion. In 1930, Schapera popularized the term in *The Khoisan Peoples*, the word Khoisan becoming a cultural and linguistic label as well. It reflects a common assumption of an ethnic division between two groups: the Khoe (previously written as Khoi) and the San. *Khoe* in Nama is the stem of the word 'person', requiring a number-gender suffix to stand alone grammatically. *Khoe* also means person in many related Khoe-Kwadi languages, including the indigenous South African Khoe language. The Nama and Korana were the two main herding groups under this appellation, calling themselves *Khoekhoen*, meaning 'people of people'. *Sān* is the Khoekhoe word for 'Bushmen' or foragers, generally used as an ethnic label for the foragers. However, it is often used as meaning linguistically non-Khoe, despite the fact that many foraging groups as well as herders speak Khoe-Kwadi languages, not 'San' (e.g. languages of the Ju-ǂHõa and Tuu families). Thus, some speakers of Khoekhoe languages identify themselves as San, some as Khoekhoe pastoralists, and some as non-Khoesan hunter-gatherers (e.g. the Namibian Damara). The boundary between Khoe and San is somewhat blurred, and it is not possible to divide the peoples ethnically through linguistic classifications. The English compound Khoisan, then, is an artificial word comprised of two separate compounded segments, one of which is ungrammatical in the language of origin, and mostly serves as a convenient reference.

Traill (2002) and Nienaber (1990), among others, argue that Khoisan should be spelled Khoesan, as Khoi is inaccurate in its phonetic representation of the language. Furthermore, the speakers themselves requested that the term used be Khoesan, as a standardization of the terminology. In this work, I will use Khoesan as a geographical and cultural reference. This would be akin to using the term Caucasian as a reference to the people and languages existing in the Caucasus, although there is a similar situation in which there are variety of cultures and language families. Thus, the use of this term does not imply ethnic, cultural, genetic, or linguistic homogeneity, but is simply a term of convenience. I will use the spellings Khoe and Khoekhoe as linguistic references to the Khoe branch of the Khoe-Kwadi language family, and as well as references to the people speaking these languages, and reserve Khoesan as an umbrella demonym for the groups of people.

2.2. The Khoesan language families

The Khoesan peoples are linguistically divided into 3 separate major language families which bear no linguistic relationship to the ethnic or cultural distinctions, and hold little in common with each other beyond having click consonants. The following chart is a modified list of the language families and their languages taken from the Khoesan linguistics website of Cornell University(2009):

1. ǂHũa - Juu

ǂHũa

ǂHoan	Includes dialects Sasi, ǂHoan. Also referred to as Eastern ǂɦũa to distinguish it from Western ǂɦũa which is a dialect of !Xóõ

Juu (formerly called Northern Khoesan)

Southeastern Juu

Juǀʼhoansi	Includes dialects spoken in and around Dikundu, Tsumkwe, CaeCae, Omatako, Kameeldoring, Lister Farm, Epukiro
ǂAuǁen	

North-Central Juu

!Xung	Includes dialects spoken in and around Tsintsabis, Okongo, Mpunguvlei, Ovambo, Ekoka

Central Juu

!Xung	Includes dialects spoken in and around Leeunes farm, Grootfontein

Northern Juu

!Xung, !'O!Xung	Including dialects formerly spoken in Angola, and currently in refugee areas such as Omega, Mangetti Dune, Namibia, Schmidtsdrift, South Africa)

2. !Ui-Taa (formerly called Southern Khoesan)

Taa

!Xóõ	Includes dialects: ǀNamani†, Nǀuǁ'en†, ǂHũa, Aminuis, !Xóõ, ☉Ha, Tshasi, Kakia†

!Ui

ǁXegwi †	
ǀXam †	Includes dialects labelled: Seroa, !Khuai, Nǀusan
Nǀuu	Nǀhuki, ǂKhomani, Nǁng!ke
	Other little-described dialects include: ǀHaasi†, ǀʼAuni† (ǀAuo),

‡Ungkwe†, !Gã!ne, ‖Ku‖e, ‖Kx'au, Khatia

3. Khoe- Kwadi
Kwadi
Kwadi†

Khoe (formerly called Central Khoesan)
Khoekhoe
North
Khoekhoegowab   Includes Nama/Damara, Hai‖om, ‡Aakhoe, Sesfontein
                         Damara

South
Khoemana   Includes dialects previously labeled as !Ora (Korana),
                         Griqua (Xiri), and Cape Khoekhoe varieties

Kalahari Khoe
West
Kxoe   Includes Bumakhoe, Bugakhoe, Xũkhwe. Also known as: Zama,
                         Kwengo, Mbarakwengo, etc.
‖Ani   May include ǀGanda
Naro   May include Ts'aokhoe, Qabekhoe
Gǁana   May include Tshila, ‡Haba
Gǀui

East
Southern
Shua
ǀXaise
Tshoa   May include dialects called Hietshware, Tshwa, Nata, Cua, Tyua,
                         etc.
ǀHai Khoe

Northern
Deti khoe†
Danisi   Also known as Danisana, ‖Xanisani
Tsʼixa   Also known as Handákhoe
Cara khoe
Chuma khoe
Cire-cire   Also known as Tshire-Tshire

Other distinct Eastern Kalahari Khoe lects may include: Ganade, Kua, Tsua (Tsowaa), ‖Koreekhoe, ‖'Aye, Tshaiti, G|wiokhoe, ‖Gorokhoe, Tshumakhoe, Hura, K'erekhwe, Borekhoe, Kobee-ntshori, Kwe-etshori, G‖abake Ntshori, Mohisa.

4. Sandawe
Sandawe (isolate)

5. Hadza
Hadza (isolate)

† = extinct

2.3. Korana, Griqua, and Cape Hottentot

According to Beach (1938), the Korana and Griqua names come from the stems Kora and Gri, *-na* and *-kwa* being grammatical affixes. Both names appear in early accounts of Cape Records, in a variety of spellings. When the first Europeans came to Table bay, one of the tribes living in the vicinity was likely the Kora tribe, their name recorded by the earliest writers as Kora or Gorachouqua. The root [gri] may come from the reduplicated root found in the name of Grigriqua or Chariguriqua used by some travelers in the eighteenth century to designate a tribe living along the coast of the north-western part of the Northern Cape, primarily on the Olifants River (Beach 1938). The sound /x/ was spelled in various ways by the Dutch, typically as g or ch, so the Chariguriqua word probably had the same sound for both elements. Meinhof (1930) gives the Griqua pronunciation of the root as [xri], saying that his Korana informants pronounce it as [xiri]. Beach's Korana informants pronounced it as [xri], and Beach denounced Meinhof's description. No informant of Beach or Meinhof was able to give the meaning of either root, [!ora] or [xri].

Regarding the differences between Korana and Griqua, there are conflicting descriptions. Elphick (1985) suggests that before the Europeans arrived, there were eleven closely related Cape Khoekhoe varieties spoken from the Cape of Good Hope to as far east as the Fish river. Beach (1938) did not differentiate much between Korana and Griqua, referencing only small dialectal differences. Maingard (1964) discusses various dialectal clusters under the language name Korana, avoiding the name Griqua almost entirely. Meinhof (1930) distinguishes Griqua as a language distinct from Korana, with a small dictionary of Griqua-German words, and a description of how Griqua differs from Korana, similar to that of Beach's.

After my own fieldwork and research, I would argue that there is not a language division between Korana, Griqua, or Cape Hottentot. Rather, there are dialect cluster groups spread across areas of South Africa, similar to what Maingard found, although Maingard did not investigate enough of the dialectal variation. The current three-way division of Khoe languages in South Africa is inaccurate; instead, there is a single language with multiple dialectal varieties, verifying Elphick's historical description of 11 closely related Khoe varieties found on the cape (Elphick 1979). In my analysis I discuss a comparison between 18th century Khoe words recorded from Europeans and the words which I elicited from the speakers. Many of the words are identical, leaving aside the inability of early settlers to transcribe the clicks. Individuals call their language nowadays Griqua or Korana (sometimes both) according to feelings of identity, something which plays a prominent role in explaining a number of linguistic inconsistencies. Although I did obtain some vocabulary for dialectal comparison, it is still difficult to say how distinct the current dialects are, how mutually intelligible they are, and how many dialects still remain. My analysis focuses on lexical comparison rather than morphological or syntactic, and it may end up that some of the dialects are distinct enough to be classified as a language. Further research is required before conclusions can be drawn about the Khoe language situation in South Africa.

2.4.   The Term 'Khoemana'

There is currently no term for the dialect cluster of South Africa. Most early researchers referred to the language as Korana, but I find the idea misleading, as there are peoples with different cultural identities speaking either an identical or nearly identical language. Griqua, too, although a current designation for the people, is insufficient as a language term, for much the same reason as Korana. Griqua is a recent invention, the modern group of people having incorporated numerous tribes speaking different varieties. Two people who may identify themselves as a Griqua or Korana may not necessarily have the same dialect, or possibly even a mutually understandable dialect. There were speakers I worked with, who claimed they spoke Griqua, still able to communicate with those who said they spoke !Ora. In another situation, two self-designated Griqua speakers were not able to communicate, and only after a complicated misunderstanding were they able to recognize that they had quite divergent dialectal variation. The historical splitting of Griqua and Korana do not match my findings at all, and the findings of various researchers do not even match each other.

Until further research can determine how many distinct languages are found within the Khoe languages of South Africa, I will classify them as a single dialect cluster with possible extensive variation, given the lexical evidence presented in the analysis. Although this word has never been hitherto used, I will use the compound word Khoemana as a reference to the language. *Khoe* is a designation for 'person', used by all of my informants. *Mana*, meaning 'language' or 'speech' (it also functions as the verb 'to speak', a synonym of *koba)*, was also a familiar word to all of my speakers, and they all used the word at various points as well. *Mana* exists already as both a word on its own, and as a compound in reference to other languages.

For instance, in a discussion of the Griqua language, one speaker said:

"*Die oupa praat sy* ǁ**o:s** *en* **xrikwa-mana**[2]*... kyk hier die* **birinə**[3] *dan* **i**[4] **e**[5] **bip**[6] **hʊ**[7] **kx'a**[8] -

hou kom praat hul **birimana**[9] *- die* **mana**[10] *van alles is en* **ma:mana**[11]"

"The grandfather speaks Xhosa and the Griqua language... Look here the Bantu then drink milk, why do they speak a Bantu language? The language for everyone is the mother tongue".

She mixes both Afrikaans and Khoemana substantially, so I marked the Khoe words for easy identification. Even with her mixed syntax and morphology, however, it is nonetheless evident that *mana* can be used in reference to a language. In reference to English, another speaker used the word *mana* as well:

"*dit is* ǀ**aβa**ǀ**aop-mana**"

"It is English[12]".

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2 Griqua language
3 biri-na: Bantu-3rd person plural indefinite
4 phrasal particle
5 they
6 milk
7 incomplete aspect
8 drink
9 "Bantu" language
10 language
11 mother tongue
12 literally: red neck language

The speakers use *mana* quite commonly as a reference for languages, although I never heard a speaker use the word Khoemana. Much like Khoesan languages spoken in other parts of Southern Africa, speakers of a language identify with their tribe or group, and not with other people who speak the same or a similar language. Therefore they do not necessarily have a word for their language. For other Khoesan languages as well, the nomenclature can be quite challenging, and linguists have had at times to come up with an artificial name as a reference.

Under this new name for the dialect cluster the following other terms will be subsumed: Khiri, Griekwa, Grikwa, Griqua, Xrikwa, Xirikwa, Gry, Xri, Gri, Cape Hottentot, Koranna, !Ora, !Kora, Koraqua, and Gorachouqua. Korana and Griqua are the standard spellings for the English designation of the peoples, and Griekwa the standard spelling for the Afrikaans name. When discussing specific previous research references on the language, I will use the researcher's own terms so long as they are consistent, but both terms nonetheless refer to Khoemana. Beach, Maingard, and Meinhof's dialect division remains inadequate, and while it is quite possible that the distinctions they mention do exist, it is not between only two separate dialects .

2.5. Language Attrition

Language attrition will be dealt with in more depth in section 4. As of yet there is not a generally agreed consensus on the definition of language attrition or language shift, and this should be addressed before approaching the theories, however. Language attrition will be defined here as "a gradual loss of competence in a given language", taken from Yağmur (2007). Likewise, language shift is a "change in language use", in which speakers shift from one language or dialect to a second. Language shift occurs between generations, and language attrition within a single generation.
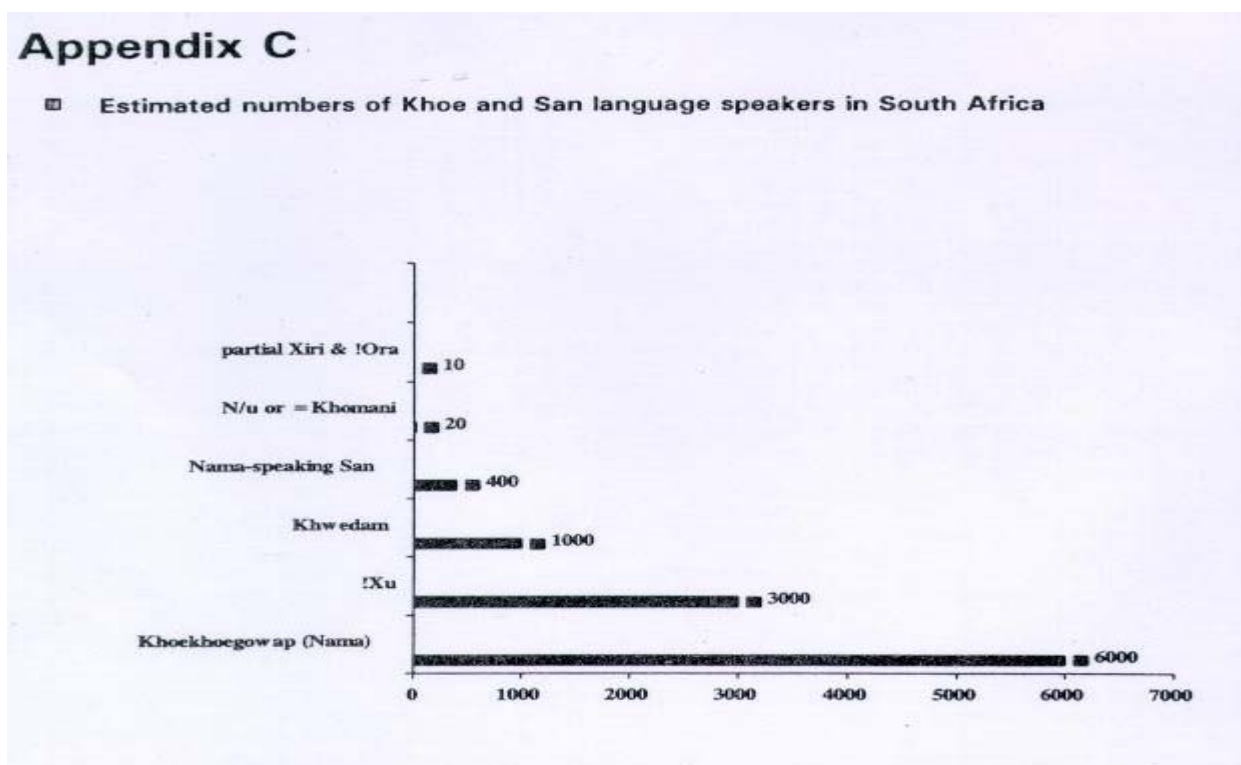
Figure 2: Estimated Number of Khoisan Speakers in South Africa (ILO 1999)

3. Background

3.1. History

The history of the people is best described in works dedicated to that very purpose. I will only summarize aspects of the history which are linguistically relevant, particularly the persecution that they faced in the Europeans' quest for land. For a more thorough overview, Barnard (1992) gives an excellent ethnographic treatise, most of his information coming from Engelbrecht's (1936) *The Korana*. Nigel Penn's (2005) *The Forgotten Frontier: Colonist and Khoisan on the Cape's Northern Frontier in the 18th Century* is a good overview of some of the history. Other researchers worth investigating are Schapera (1930), Ross (1974, 1975), Strauss (1979), Elphick (1979), Newton-King (1981), and Malherbe (1981), the last two specifically researching the Cape war during the 1700's.

3.1.1. The initial struggles of the Khoesan

"They strongly insisted that we had been appropriating more and more of their land which had been theirs all these centuries… They asked if they would be allowed to do such a thing supposing they went to Holland, and they added: 'It would be of little consequence if you people stayed at the fort, but you come right into the interior and select the best land for yourselves …"

– Jan van Riebeeck.
(Morris, M. (2004). Every Step of the Way: The Journey to Freedom in South Africa, Cape Town: HSRC Press, pp 43-44, (Commissioned by the Department of Education)).

This excerpt from Van Riebeeck's diaries describes the Khoe leaders' feelings at the peace talks of 1660, the end of the first Dutch-Khoekhoe war in the Cape. It was the first of many wars by settlers against the indigenous people, and a central question even today in South Africa, the issue of land. When the Dutch first came to South Africa they encountered the Khoe pastoralists, described by the early records as being far wealthier than the average European peasant of the same period. Whether the current Northern Cape and Free State groups were the original inhabitants of the Cape Town area or whether they were originally from the Northern Cape is still disputed, but given current evidence, it is likely that at the very least the tribes shared a similar language. The Dutch settled at first at a small post in the Western Cape, expanding over time further inland in order to get better grazing land and more water, and not long after the English arrived with much the same intentions. This brought them into conflict with the indigenous pastoralists, who were competing for the same resources.

Many wars were fought. The Korana slowly migrated northeast, under pressure from the colonialists, eventually settling in the areas between the Orange and Vaal rivers. The Griqua began migration not long after, settling just west of the Korana. The Griqua then divided into a complicated system of clans and tribes, scattering across the modern day states of the Northern Cape and Free State. Two main groups of Griqua existed at that point, the first owing allegiance to Adam Kok I and his descendants, and the second following Barend Barends. The group following Adam Kok and his descendants continued to follow more Khoekhoe customs and traditions, while the second group became more Europeanized, calling themselves Basters or Bastaards (Stow 1905). In 1804, due to pressure from British ministers of the London Missionary Society, both groups stopped wandering and settled in Klaarwater (later called Griquatown, in Khoemana: Gai ǂNas). The second group also

abandoned the name Basters under pressure from the missionaries and began calling themselves Griqua. The ministers then chose a new leader to head the civil region, Andries Waterboer, and the traditional leaders fled. Waterboer gained political influence and control over the government, including ethnic Korana and Tswana who accepted him as a "supreme chief" (Barnard 1992), but also inciting civil war. Adam Kok III, under suggestion from the Cape Governor, fled Waterboer and migrated east with a group of Griqua followers. Kok and his followers headed southeast to what became Griqualand East, the western parts of current-day KwaZulu-Natal, settling in Kokstad and surrounding areas in 1861 (Ross 1976). The Griqua of this region have since also scattered to other regions, and Beach claimed in his 1938 work that only a few speakers remained who could speak Khoemana.

By the 1860's, the Griqua had overrun most of the territory in which the Korana had lived, and most of the Griqua tribes contained numbers of Korana (Brownlee 1923). Eventually nearly all the Korana were absorbed, with their descendants often calling themselves Griqua as well. The Griqua people were dealing with their own problems however, and by this point had also become nearly completely subjugated or enculturated by the Europeans, speaking mostly Afrikaans and following many European customs. Although there remained resistance, it was ruthlessly crushed, initially by groups of armed European farmers and their slaves, and after 1811 by the British army.

Throughout this period, the Khoe and San people were seen as barbaric, and harmful to society. The state sanctioned a number of efforts to exterminate or at the very least, dispossess them.

Bryden (1893:142) commented that the Basarwa (San) in 1890 were "in a state of absolute slavery and of hopeless degradation."

> Woe betide him if the hunting season has been bad, or if the wild beasts have made havoc with flock and herd. He and his family must answer for it, in such a case, with heavy stripes, not seldom, indeed, a brutal death is the penalty. Even his children and women folk are not his own, but may be and are seized and carried away into domestic servitude or concubinage (Bryden 1893: 143).

Bryden further argued that:

The tiny aboriginal Bushmen are now very scarce; they have been exterminated or driven by the ancient system of Boer commandos almost completely from the old colony, and although they here and there are still to be found along the Orange River or in the lower portions of the Kalahari, another hundred years will probably witness their final extinction (Bryden l893:246).

During this time, there were also efforts by science to obtain, describe, measure, record, and dissect Khoesan bodies. These efforts were seen in drawings, anthropometric photographs, casts, and collections of body parts, and the images of the Bushmen were more like that of physical specimen than that of people. The Europeans had had a fascination with Khoesan anatomy, and their physical attributes made them popular in European and American exhibitions during the 19th century. For example, Farini, a former circus strongman who had traveled in the Kalahari in the 1880s brought back a group of San, which he then called 'African Earthmen.' (Babchuk & Hitchcock forthcoming). W.A. Healey, working with Farini, gained the trust of the people by offering them coffee and sugar, so that they would then follow him back to London and take part in exhibitions. When they realized what was happening, some of the individuals managed to escape and return to Cape Town. They were recaptured however, and taken back to England as the possessions of the exhibitors. (Skotnes 1996b:40, quoted in Hitchcock and Koperski 2008).

In 1909, Dr. Poch wrote to the Bechuanaland Protectorate asking if there were any "members of a pygmy tribe of Bushmen". The government responded by saying there were no Bushmen of unusually small stature, but that there were many Bushmen squatting around Moutloutse, and they could send in a 'specimen'. The Government Secretary then wrote to the Imperial Secretary of South Africa offering to send a Bushman to Dr. Poch. Although this was not followed up and no one was sent, the incident does give an indication of the extremely low status of the Khoesan peoples at the time.

In 1910, the Union of South Africa was formed, and in 1913, the Native Land Act was passed, setting aside "reserves" for indigenous peoples, mostly serving as labor pools for the white-owned farms. Africans were also then prohibited to own land anywhere outside of these reserved areas.   This became the predecessor to apartheid, becoming more codified in the 1936 Native Trust and Land Act. At the same time, a group of scientists and anthropologists from the University of the Witwatersrand in Johannesburg took up the cause of the Khoesan, proposing that a substantial part of the Kalahari be ceded over to the San (BNA file S.469/1/1).

The response from the British was sharp. The Resident Commissioner, C.F. Rey, said,

> In the first place I saw no reason whatsoever for preserving Bushmen. I can conceive no useful object to the world in spending money and energy in preserving a decadent and dying race, which is perfectly useless from any point of view, merely to enable a few theorists to carry out anthropological investigations and make money by writing misleading books which lead nowhere.
>
> (C.F. Rey, 6 November, l936, BNA file S.469/l/l, quoted in Babchuk & Hitchcock Forthcoming).

The Khoesan continued to fight back, from outright war in earlier periods to killing or stealing cattle, but by this point they were heavily subjugated, and even small resistance had heavy consequences. On April 30, 1931, a few years before the Native Trust and Land Act, The Star in Johannesburg published an article entitled "Man Skinned Alive" in which three San were flayed and tortured by Bamangwato cattle owners. It was not an unusual event for the time period, although it did get some media attention.

3.1.2. The Khoesan under Apartheid

With the 1955 apartheid legislation, all Khoe and San people were reclassified and forcibly registered as coloured. After the legislation was passed, an aggressive campaign of assimilation was established in which Khoe-speaking children were beaten for even acknowledging their language or identity. Instead, they were given an Afrikaans-speaking Christian "coloured" identity by the state, with only a few people in the remotest regions able to maintain their language or identity, and not without influences. Children were given corporal punishment if they were caught speaking their native languages in school, and forced to recant any native identities. Many Khoe and San people describe this period as extremely humiliating (ILO (Geneva) 1999). The elders were forced to hide or misrepresent their identities to their neighbors or even children.

The Griqua sought refuge in more stable "coloured" communities, and the young people began rejecting their parents' and grandparents' identities as shameful and backwards. (ILO (Geneva) 1999). With the loss of self esteem caused by poverty, marginalization, and persecution, alcohol and drug abuse increased. This then further led to domestic violence and the weakening of family ties and social institutions which transmitted information from one generation to the next. Social rituals which used to bind the communities together were banned or suppressed. Education was controlled by European or coloured farmers, who considered the people barbaric and the languages primitive. Many Khoe adults did (and still do) not have access to formal education, and illiteracy levels are high in official languages and nonexistent in native languages.

3.1.3. Modern Times

The modern situation of the South African Khoesan is difficult. With the ending of apartheid, the people were left impoverished and geographically scattered, mixed among various populations. Under apartheid many people were forced to resettle elsewhere, others moving for work or for better financial opportunities. The Khoe and San people tend to be among the most marginalized of South Africa, most living on farms or in townships[13] on the outskirts of cities. Linguistically, there is not one particular small geographical area in which higher concentrations of speakers may be found. Intense survey work will need to be conducted, but most remaining speakers are partial speakers scattered across a very wide area across eastern parts of the Northern Cape and throughout the Free State. There may be speakers left in Kwazulu-Natal as well; the area has not been surveyed as of yet.

In my own fieldwork, I was unable to find a single fluent speaker of the language. There were some fluent speakers in parts of the Free State who I did not get a chance to interview, so there may still be some completely fluent speakers remaining. I would estimate the number of fluent speakers to probably be under 10, and between 10 and 30 partial speakers of various dialects, many of whom are still uncontacted.

Until 1994, the Government of South Africa was not aware of Khoe-speaking people still inside the country, and state-sponsored education portrayed indigenous people and languages as primitive and extinct. This misinformation continues to plague even the academic community, with scholars having claimed since the 1960's that there are no native Khoesan languages left spoken in South Africa.

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13 shantytowns

Furthermore, the earlier education had promoted total assimilation of the Khoe peoples, forbidding access even to Nama language materials available in Namibia.

The South African Constitution of 1996 included the first ever reference to Khoe or San people:

Article 6(2). Recognising the historically diminished use and status of the indigenous languages of our people, the State must take practical and positive measures to elevate the status and advance the use of these languages.

Article 6(5). A Pan South African Language Board established by national legislation must-
   (a) promote and create conditions for the development and use of-
      1. the Khoi, Nama and San languages.

6(2) does not include acknowledgment of any native Khoesan languages within the South African context, and of the official languages within South Africa, no Khoesan indigenous language is mentioned. In 1999, PanSALB created a Khoi and San National Language Body, and is currently conducting vocabulary surveys in Khoesan communities, to recognize and standardize terminology.

3.2. Previous Research

Khoemana does not have a great deal of previous research, but it does not have a complete dearth of information either. There is very little modern research on the language, but a number of earlier researchers made some substantial contributions up until the 1960's. Peter Kolb was the first to write on the subject of Khoemana, writing an extensive dictionary in 1719. In the 1800's there were 2 main contributors on South African Khoe languages: W.H. Bleek working together with his wife Jemima Bleek, and Jemima's sister Lucy Lloyd. Lloyd compiled a list of Khoemana words relating to plants and animals in 1889, which Maingard then updated and worked on in 1932.

Lloyd's transcription of the words was surprisingly detailed for its time, although she unfortunately did not write down many of the tones, nor did she have a deep tonal analysis. Some words, such as *lkais*, "gemsbok", she did indicate a high tone on the word, but most do not have any mention of the tone. Lloyd also believed there to be a complicated stress system in Khoemana words, indicating

stress with acute accent marks.

The Bleeks worked quite a number of years on Khoemana; however, they had only one publication. In 1858 they wrote "The Hottentot language" for the Cape Monthly magazine. Their work was extraordinarily admirable, especially as they were more or less the first to work on the language at a time in which there was no interest whatsoever in the local population. Their focus was more on |Xam and !Kun than Khoemana, publishing fairly extensively on both languages. The Bleeks also worked with Lloyd on her *Korana Names of Animals and Plants*.

Wuras's *Vokabular der Korana-Sprache* (1920) was the first work of any significance for Khoemana, more than 40 years after the last work from the Bleeks or Lloyd. Wuras wrote an English-Khoemana dictionary with additional German translations of a few hundred words, a useful start though not without its problems. Wuras's linguistic knowledge was far more limited than the Bleeks, and his analysis subsequently suffered. Wuras had little understanding of the clicks, employing 8 click varieties such as "very broad, half broad, half round, round, etc." In his description of the other sounds he uses terms such as "deep and windpipe gutturals", "sharp and soft aspirates", and "deep and slight nasals", among others. His description of his terms is limited, some of the sounds having no description at all, and he leaves out tones entirely. With some knowledge of the language, one can guess what some of the words should be, but other words are simply incomprehensible.

Carl Meinhof also worked on Khoemana, his most predominant work being *Der Koranadialekt des Hottentottischen* (1930). Meinhof gives a fairly accurate and consistent description of certain aspects of the language. Along with Maingard and Beach, Meinhof was one of the main contributors to the language, and each individual had their strengths and weaknesses in their linguistic descriptions. L. F. Maingard was a professor of French at the university of the Witwatersrand who preferred researching Khoesan languages over French. Maingard wrote a number of articles on Khoemana, including short grammar sketches, vocabulary lists, and dialect comparisons in the 1950's and 1960's. D.M. Beach wrote one major publication: The Phonetics of the Hottentot language (1938), a phenomenally well written work for its time period, with an in depth analysis of Nama and Khoemana phonetics. Beach unfortunately showed a distinct bias in his description of Nama and Khoemana, however, and his description of Khoemana consequently suffered. He viewed what he called Korana as a small divergent dialect from Nama, and his bias influenced his work. Ponelis (1975) wrote a brief description of some problems with !Ora clicks; however, I have found a number

of substantial inaccuracies, particularly in his phoneme description. Maingard was more accurate in his descriptions, but because of his brevity it is difficult to know what he means with much of his notation or description. Furthermore, he leaves out a number of areas, and his wordlists are very short, coming almost entirely from Bleek's stories or Meinhof's interpretations. Meinhof was more thorough than either of the other two, but his analysis was not without his problems either; he leaves out a tonal analysis in his vocabulary list nearly entirely, and his description also remains mostly a sketch, similar to that of Maingard. Engelbrecht (1936) also discussed some vocabulary comparison and gives some texts and their translations, but does not otherwise study the language in depth.

Since Maingard, no work has been done on the language, although current documentation projects are in the works.

4. A Brief Phonological Sketch

The following is a very short description of the Khoemana phonology, taken mostly from Beach (1938), except in areas where Beach makes known incorrect assumptions or analyses, at which point Meinhof (1930) and Maingard (1962, 1964) are referenced. Ponelis's (1975) description of the clicks will be mentioned when discussing the click consonants, but I am hesitant to use his description for reasons discussed subsequently. All of the authors focus on what they call Korana. The only differences that Beach found between Griqua and Korana are some phonological and phonetic differences presented in section 4.1.1 and 4.1.2.

4.1. Phoneme Inventory

4.1.1. Vowels

The following vowels occur in Khoemana:
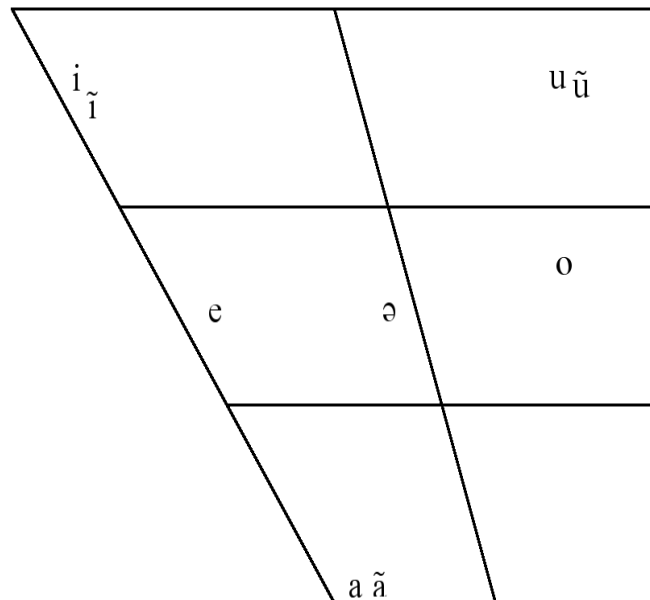
Figure 3: Khoemana Vowels

Each vowel has certain limited positions it can occupy, depending on the phonological class of the word, described in detail by Beach (1938). A short summary of the classes is in section 4.1.5. Note that the [o] phoneme has two surface forms, depending on the position. Before nasals and in roots of class 4 words, [o] is realized as /o/. As the first vowel of roots of class 2, 5, and as the second vowel of class 5, [o] is realized as /ɔ/. [ə] is a marginal phoneme found only in three strong roots and 2 weak. The nasal vowels only occur in strong roots of class 2.

There are also a number of vowel sequences possible in Khoemana, 7 oral and 4 nasal:

ai	ãĩ
ei	
oa	õã
ui	ũĩ
ae	
au	ãũ
ao	

These are more identified as vowel sequences rather than diphthongs, as each individual phoneme

takes its own toneme. The nasal vowel sequences only occur in strong roots of class 3. There is also to some extent free variation on nasalization in some roots. In Beach's description of the Griqua dialect, Griqua substitutes [e] for Korana [ai], and [oa] and [oe] are pronounced as [wa] and [we].

4.1.2. Consonants

I. Non-click

	Bilabial		Dental		Alveolar	Velar	Glottal
	vl.	vd.	vl.	vd.			
Unasp. Plosive	p	b	t	d		k	ʔʔ
Asp. Plosive			tʰ (th)[14]			kʰ (kh)[14]	
Fricative					s	x	h
Affricate ejective			ts'			kx'	
Nasal	m		n				
Trill					r		

Figure 4: Non-click Khoemana Consonants

Notes on Consonants

- The [k] phoneme is realized as the palatal /c/ before [e] and [i].
- Intervocalic [p] and [b] are sometimes realized as /β/.
- Voicing is very weak in Khoemana in casual speech, and voiced plosives can be difficult to differentiate from voiceless plosives.
- Aspirated [th] is realized as the affricate /ts/ when followed by a close front vowel [i] [ĩ] or [e], or when it is the only phoneme in a root (class 1 root as a suffix to denote second person singular masculine).

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14 Aspiration will henceforth be marked with a non-raised h.

- Aspirated [kh] is sometimes realized as [kx] by some individuals.
- According to Beach, [s] is alveolar-postalveolar when not followed by [i], [ĩ], or [e].
- [ts'] is a relatively rare sound in Khoemana, occurring in only a handful of words.
- [m] and [n] can function syllabically in Khoemana.
- The trilled [r] in Khoemana is commonly realized as a flap, although in careful speech it is usually trilled. In roots of class 1, [r] is syllabic and must be trilled.

kx'

The velar affricate [kx'] is a bit of a special sound, pronounced with what Beach calls a weak velar glottalic affricate accompanied by a scrape. A chamber is formed between the velum and the glottis by placing the back of the tongue against the velum, meanwhile closing the glottis with the vocal chords. Pressure is raised when the larynx rises, decreasing the space between the velar and glottal closures without diminishing the air. As the tongue is lowered from the velum, the compressed air escapes through the mouth. The explosion at the velum results in what Beach calls a "scrape". Before a vowel can be said, the vocal chords must be released, resulting in a glottal stop after the velar affricate. The velar glottalic affricate [kx'], then, is not precisely a normal ejective affricate, but a velar scrape plus the glottalized release.

The Griqua informants Beach worked with lowered the back of the tongue more quickly and sharply than the Korana, resulting in an ejective plosive [k'] in place of the velar ejective affricate.

II.   Clicks

There is some general confusion regarding click place of articulation and manner in general, and the same symbol has been used for various descriptions of articulation. As an example, Ladefoged and Maddieson (1996) describe [!] as alveolar, Hagman (1973) as sudden post-alveolar, Köhler (1981) as palatal retroflex, Snyman (1975) as palatal, Beach (1938) as alveolar implosive. The occlusion that occurs in a click is more than just what exists just before the release, so depending on the measurement technique, place of articulation can vary. Furthermore, auditorily similar clicks can be produced by different speakers through different means of articulation. Also, authors sometimes focus on different aspects of the clicks, resulting in their interpretation of an abrupt or fricated release.

No acoustic or phonological research has been done on Khoemana for 50 years, aside from Ponelis's

(1975) "!Ora clicks, problems, and speculations". Although Beach's phonetic description of Nama and Khoemana is good for its time period, it nonetheless predates many modern techniques of measurements. Furthermore, Beach is biased in his click description, considering it nearly the same as Nama. As stated earlier, Maingard and Meinhof give more accurate phonetic descriptions but are too brief, not giving many example words or longer descriptions of sound production.

The click summary table is taken from Maingard (1964) rather than Beach, and the description below is taken partially from Ladefoged and Maddieson (1996) in the articulatory description of clicks, and partially from Beach. My own findings did not precisely coincide with any of the early researchers, but I would argue Maingard's description to be the most accurate.

There are four possible click types in Khoemana: !, ‖, ǂ, and |, with 8 possible releases, giving 32 total clicks. The clicks of Khoemana are as follows, along with their accompaniments:

	Click Types	dental	alveolar	lateral	velar
Release accompaniments					
plain (velar stop)		|(k)	!(k)	‖(k)	ǂ(k)
nasal		|n	!n	‖n	ǂn
glottal stop				!ʔ	‖ʔ	ǂʔ
glottal fricative		|h	!h	‖h	ǂh
voiced		|g	!g	‖g	ǂg
aspirated k		|kh	!kh	‖kh	ǂkh
velar affricate		|kx	!kx	‖kx	ǂkx
velar ejective affricate		|kx'	!kx'	‖kx'	ǂkx'
velar fricative		|x	!x	‖x	ǂx
Figure 5: Khoemana Clicks					

In Ponelis (1975), Ponelis creates a division of tense and lax for some of the accompaniments, having

a total of 5 of the phonemes Maingard uses: nasal [|n], lax plain [||], tense glottalized [|ʔ], tense aspirated [|h] and lax aspirated [|ʰ]. He does not accurately define his tense-lax distinction in relation to the "aspiration", citing only that tense clicks have a longer duration than lax. He then mentions three phonetic variations: that unaspirated tense clicks [|ʔ] can vary with the ejective [|kxʼ]; that lax unaspirated clicks [||] may be voiced [|g]; and that lax aspirated clicks focus on fricativization of the aspiration, [|ʰ] becoming [|x]. In his description of !Ora and Xiri phonetic differences, he gives one of the key differences as !Ora having a phonemic difference between [|ʔ] and [|kxʼ], and Xiri having only the glottal [|ʔ].

The tense-lax distinction is an unnecessary one, and clicks are not aspirated in the same way that a plosive consonant would be. There is no release of air coming from the point of articulation; rather, the clicks are accompanied with glottalic or velar friction. This friction is not defined by its length or heightened pressure, as Ponelis suggests, but these are simply place distinctions. While my own results are far from complete in terms of a full phonemic description, his analysis seems to be not only creating unnecessary distinctions, he is at times inaccurate. For instance, Ponelis combines voiceless and voiced clicks, both falling under the category lax. Ponelis then gives evidence that there is a tendency for certain items to be predominantly voiced or voiceless. He is correct that there is potentially a tone-class relation to voicing, as in Nama, but without further evidence supporting his tense-lax distinctions, I see no reason to use Ponelis' categories. Some further discussion of his work will be described in section 6, however.

i. **Click Types**

a. **Dental**

The manner of the Khoemana dental [||] clicks is similar to that of dental clicks in other languages. The tip and blade of the tongue are placed behind the upper front teeth, with the sides of the tongue also touching the sides of the teeth and the gums. There is a relatively broad laminal contact. The back of the tongue is meanwhile raised to form a velar closure, rarefying the air. The blade of the tongue then lowers to create a partial vacuum, lowering from the front of the teeth, producing the influx of air to equalize the air pressure. The velar closure is then released.

b.   Alveolar

The alveolar [!] clicks are produced with a more abrupt release than dental clicks. Their place of articulation varies to some extent, but following Ladefoged & Maddieson (1996), I will call the Khoemana click alveolar without interpreting it too specifically.   There is some variation in placement of articulation even in individual speakers of Khoemana. Generally speaking, the tip of the tongue is placed against the alveolar ridge, with the sides against the gums and teeth. The release point can vary between post-alveolar and alveolar, but the alveolar click is always apical as opposed to laminal. The sound is similar to that of the palatal click in that they are both abrupt, but the air chamber for the alveolar click is larger than that of the palatal. It at times has been described as having a similar acoustic effect as that of a cork being drawn out of a bottle, while the palatal click has more of a flat acoustic sound.

c.   Palatal

Beach refers to the [ǂ] click as denti-alveolar, but conventional descriptions generally refer to this click as palatal. While the actual release of the click may occur at the alveolar ridge, the tongue body is against much of the palate, an important factor. The tip and blade of the tongue remain in contact with the alveolar ridge, but the forward edge of the click cavity is further back, past the alveolar ridge.   The body of the tongue is against the palate, leaving little free space for the rarefied air chamber. The release of the tongue is abrupt, giving somewhat of a flat sound because of the smaller air chamber. In terms of the actual release of the sound, it can often occur at the alveolar ridge or even post-dental, but it is distinguished from the alveolar click by having the body of the tongue against the palate and the manner laminal rather than apical. It is distinguished from the dental click by having the body of the tongue against the palate and releasing the sound more sharply than the dental click.

d.   Lateral

The lateral [ǁ] click is typically made by placing the tip of the tongue against the alveolar ridge, meanwhile moving one side of the tongue towards the molar teeth. The rest of the tongue also touches the teeth and gums, with the back of the tongue against the velum. Suction is created and

released laterally. The place of articulation can vary to some extent, occurring in dental, alveolar, or post-alveolar positions. The release of the click can occur over a considerable length of the side, giving somewhat of an affricate sound. The release is generally unilateral, i.e. on one side rather than both, although there are a minority of speakers who do use a bilateral release.

ii. **Accompaniments**

There are three types of click accompaniments: laryngeal, oro-nasal, and those associated with the back closure. 6 of the clicks in Khoemana are associated with the back closure: [k], [g], [kh], [kx], [x], and [kx']. [kx'] is also associated with laryngeal activities, as there is also a glottal accompaniment aspect, but is otherwise identical to the phoneme on its own. The glottal [h] and [ʔ] also are laryngeal, and [n] is oro-nasal. The [k], [x] [n], and [ʔ] accompaniments are similar to that of Nama, a closely related Khoekhoe language. The Nama voiceless glottal fricative accompaniment [h] generally has some velar friction, narrowly transcribed as [x]. In Khoemana however, [x] is contrastive with both [h] and [kx], resulting in two additional accompaniment types. Khoemana also has contrastive voiced clicks, adding one more click accompaniment. According to Beach, the Griqua dialect uses a glottal accompaniment in place of the velar affricate ejective in some positions.

4.1.3. Tones

According to Beach there are four tones in Khoemana, as exemplified by these words:

	Tone		Prototypical Word	English
1.	˥	High Level	/ui	"one"
2.	˦˥	High Rising	!xai	"cold"
3.	˧	Mid Level	ǁnae	"sing"
4.	˧˩	Low-mid Falling	!xae	"dark"

The high tone vacillates between a level and a slight rise, particularly in roots of class 5. At times the rise can also be found in roots of classes 3 and 4. In roots of class 2, the high tone is always level.

The high rising tone begins on a mid pitch, similar to that of the mid level, ending on a pitch slightly

lower than that of the high level tone. Class 5 roots have a pronounced rise in pitch with this toneme; roots of classes 3 and 4 have a less pronounced, more gradual rise. Roots of class 2 have a smaller interval in the rise, but still easily distinguished from the high toneme because of the noticeably higher raise in pitch. The high tone also has a much higher acoustic value than that of the high rising tone.

The mid tone varies slightly between level and slightly falling, varying indiscriminately even in an individual's speech. The slight fall in pitch is often used with roots of classes 3 and 4, but never with roots of class 2. Both the beginning and ending pitch of the mid tone is about the same pitch where the high rising begins.

The low falling tone begins at a pitch also about the same level as the mid tone, but falls considerably. In roots of class 5 words, the first syllable is usually level but lower than the mid tone, whereas the second syllable starts slightly lower than the first syllable and descends rapidly. In roots of classes 2-4 there is a more gradual portamento. Although the mid tone can fall slightly, the low falling tone is always substantially lower than the mid tone, being around the lowest pitch of the normal speaking voice.

Beach does not otherwise delve into tonetics, so it is not possible to say how these tones work together in connected discourse or morphologically. Maingard's description of tone is taken almost entirely from Bleek, and provides an inadequate account.

4.1.4. Word formation

Beach divides morphemes of Khoemana as being composed of certain roots. These roots can be divided into strong or weak roots, depending on their semantic value. Names of concrete objects, qualities, and actions are strong roots, whereas words fulfilling a grammatical function, such as tense, voice, person, number, etc. tend to fall into the weak class. Broadly speaking, strong roots often commence with a click, whereas most weak roots tend to be monosyllabic. Every strong root belongs to an inherent tone class, whereas none of the weak roots can definitively be placed in these tone classes.

Phonetically, there are 5 classes of roots in Khoemana. These roots make up the structure of the morphemes according to Beach. Some of these roots are restricted to strong or weak roots. Khoemana has a fairly restricted phonology in regards of individual phonemes in certain positions, resulting in only 5 possible root classes:

1. Roots consisting of a single consonant.
   There are only five consonants which may be used in this way: [m], [n], [p], [s], and [ts]. [p], [s], and [ts] are the only roots which do not consist of either one or two complete syllables. [m] and [n] are syllabic. These roots are all weak. Examples: *sa-m* (we, feminine inclusive), *kwe-s* (woman, nom. singular), *sa-ts* (you, masculine singular)

2. Roots consisting of a monophthongic vowel, optionally preceded by a consonant. Examples: *kxʼa* (drink), *sã* (rest), *∥xo* (sharp)

3. Roots consisting of a vowel combination, optionally preceded by a consonant. Examples: *kxʼoe* (answer), */ui* (one), */hõ̃ãp* (cat)

4. Roots consisting of a vowel plus a nasal consonant, optionally preceded by a consonant. The vowels in this class are restricted to a, ə, or o, and the final consonant m or n. Examples: *xam-i* (lion), */kxʼom* (breathe)

5. Roots consisting of a VCV arrangement, optionally preceded by a consonant. Examples: *koro* (five), *!huni* (yellow)

I.   Syllabification

Khoemana has a fairly restricted syllable structure. Roots of classes 3, 4, and 5 are typically disyllabic; the only monosyllabic roots are in class 2, and [m] and [n] of class 1. In class 3 words, the two vowels are divided into separate syllables, e.g. *kxʼo* and *e* in *kxʼoe*. Class 4 words have a division between the vowel and the word-final nasal, such as *≠xo-n* "sugar". Class 5 words have a division between the first vowel and the consonant after it, such as *ko-ro* (five).

Thus there are three types of syllables in Khoemana:

1. Those consisting solely of a nasal stop [m] or [n].
2. Those consisting of a vowel or vowel preceded by a consonant.
3. Those consisting of the above types with the following consonants: [p], [s, or [ts]. (e.g. *ms*, *nts*, *op*, *tsĩs*).

That the roots of class 3 and 4 are disyllabic is shown by the fact that more often than not the two

separate syllables have separate pitches.

5. Theoretical Frameworks

5.1. Language attrition theory

5.1.1. Background of language attrition research

Language attrition as a field attracted researchers already in the late 70's. Before the Attrition of Language conference in 1980, people mostly understood language attrition as a clinical problem. Thereafter, people began to look at it as a field in its own right, particularly with L1 attrition in language contact situations, rather than brain damage or diseases causing language failure in individuals. The initial conferences in the 1980's, mostly held in the Netherlands, looked at methodological issues and varying methods on how to conduct language attrition research. However, more than 20 years later, there are still many methodological issues which abound, clouding the issue of what it means to say that attrition has occurred within a language, or whether a language has been lost. There are numerous theories and theoretical frameworks, and depending on the methodological approach within which the researchers work, these frameworks can vary dramatically. Particularly, divergent methods of data sampling, collection, and instrumentation are still key areas which must be addressed. As such, we must focus on two main aspects within methodological issues: which frameworks and theories are affected by or work well within the particulars of the Khoemana situation, and which frameworks and theories are important enough to address yet do not necessarily fit this study.

5.1.2. Language attrition as language acquisition

One of the more widely accepted theories in language attrition dates all the way back to 1941, developed by Roman Jakobson. Jakobson proposed that language loss follows the same pattern as

language acquisition, but as a mirror image. That is, we lose the skills of a language in the same order that we would attain them. At the interlinguistic skills level, modern linguists do often support the regression hypothesis, receptive skills being acquired more rapidly than productive skills, and productive skills lost more rapidly than receptive skills. Bahrick (1984), Weltens (1987), and Yoshida et al. (1989), among others, have found support for this theory.

At the intralinguistic (such as syntactic, morphological, and phonological systems) level, documenting the stages of attrition as a reversal of acquisition becomes more difficult. That is, a universal predictable ladder for linguistic structures is still not established, and results have been controversial. Berman & Olshtain (1983) and Cohen (1975) investigated the proposal, their results suggesting that the theory holds. However, as the hypothesis was tested only on a limited amount of structures, it is difficult to draw any real conclusions.

As it currently stands, the regression hypothesis is in need of revision and reinterpretation. It makes universal claims on language attrition without taking into account the myriad components affecting language attrition. Preliminary data from some controlled studies do show some evidence for regression, but not necessarily in the same way as proposed by Jakobson, and the theory has not been applied in rigid non-pathological language attrition. We will not be using the regression hypothesis as it currently stands within the Khoemana framework.

5.1.3. Theories of language attrition

Although attrition is an individual issue, the heart of studying language attrition lies with a number of aspects of language use, both linguistic and extralinguistic. Sociolinguistic aspects are some of the most important aspects of understanding language attrition. A large framework which encompasses other phenomena of L1/L2 acquisition, language use, bilingualism, and language attitudes, therefore, is the best way to study and document language attrition. For our purpose, the most important theories relating to language attrition involve three main categories, and a number of subdivisions thereupon:

    I. Brain Mechanisms
        i. Plasticity

      ii. Activation Thresholds

      iii. Involvement of subcortical processes

  II. Social Factors

      i. Age of onset of L2 acquisition

      ii. Frequency, amount, and settings of use of the attriting language

      iii. Attitudes

      iv. Identity

  III. Language Shift Predictions

  IV. Cognitive Processes

      i. Memory

          a) Declarative and procedural memory

          b) Working Memory

The relation of these within the Griqua vary, but all of them are important enough in the literature to be addressed. For further understanding of these categories, Köpke (2007), the source of which most of these categories comes from, gives an excellent overview. The remainder of the categories come from Köpke and Schmid (2004), with some of my own division and restructuring. I will attempt to summarize the relevant categories, in order to reference them later, drawing in other pertinent theories which base themselves on the relevant subdivision.

I. Brain Mechanisms

i. Plasticity, and the Critical Period Hypothesis

In terms of brain mechanisms, plasticity is the most often biological basis cited for critical periods of language learning and/or attrition. It comes from the idea that synaptic connections in the brain do not fully mature until adolescence. This facilitates adapting quickly to new situations, but it also can cause one to lose language more easily. This period in one's life in which humans are more adept in learning language is called the Critical Period, and the idea of such a period is called the "Critical Period Hypothesis". The CPH states that age of acquisition is important for language proficiency; the older one is when he starts to learn a language, the less chance he has of learning it fluently.

However, there is a second part to the "Critical Period Hypothesis"; that an age-related decline in brain plasticity makes it increasingly difficult to learn language, both as an L1 and as an L2

(Penfields and Roberts 1959). This is distinguished by the first aspect in the following way: humans might acquire language less fluently as they age, but it might not necessarily be due to a loss of plasticity. Once the child has learned the language spoken around him, there are irreversible neural modifications which prevents the brain from learning further languages equally fluently. It is not a matter of synaptic connections then, but rather the idea that once the connections are made they cannot be unmade.

In order to determine whether this is true, one must first consider the basic precept of a special period in life in which we learn language more easily and fluently. Although we do not have any formal studies of comparisons of people who have learned their L1 after puberty, due to ethical considerations, some studies of abandoned children do show that their language skills remain limited after a certain critical period, even after language instruction (for examples see Itard (1964), Curtiss 1977). So the idea that there is at least some sort of critical period is probable.

However, is internal neural modification the only cause of the age effect? American Sign Language studies have shown this to be doubtful. Mayperry, Lock, and Kazmi (2001) compared two groups of deaf adults, one of which had learned ASL late, without having had any previous language input, the others having learned ASL later but who had still had L1 input through the form of spoken English. They were born with normal hearing, and began to grow deaf with age. In their study, Mayperry et al. found that the second group considerably outperformed the first, suggesting that while there is more than likely a critical stage for language acquisition, it is not due to internal irreversible neural modification.

Bever (1981) discussed an alternative explanation with his "exercise hypothesis". That is, there is an actual mental muscle which potentially atrophies from lack of use. Post-adolescent L2 acquisition tends to be much weaker than L1 acquisition. Bever claims that individuals who start L2 acquisition early will be able continue to acquire languages later successfully, so long as they continue to learn languages. Under Bever's system, there are two systems initially working in tandem, speech production and speech perception. As one has more and more time without language learning, the two systems drift apart and perceptive abilities outstrip productive abilities. Bever's psychogrammar is a type of mediating system during language acquisition, and develops internally as conflicts between the two perception and production systems occur. When the two systems are well aligned; that is, when internal communication between them is no longer needed, then the psychogrammar

falls into disuse. As long as one continually learns new languages, one never loses the critical period from pre-puberty, and these systems continue to work in tandem.

So what happens when someone learns an L2 after they stop speaking their L1? Pallier (2007) surveyed Korean young adults who had been adopted by French-speaking families. Most had come to France between the ages of 3 and 10. All of the people surveyed, without exception, had forgotten Korean. Pallier conducted a controlled experiment in which the adoptees heard a Korean word and had to select a translation of the word from given options, as well as listen to specific speech fragments and say whether they are part of that language. They were also played Japanese and Polish, languages they had not been exposed to. The adoptees not only did not perform any better than the French control subjects, who had no exposure to any of the given languages, but when an fMRI scan was conducted, there was no change in the cerebral activity of the adoptees (Pallier 2007). Exposure to the language in childhood was apparently not enough to maintain a solid knowledge of the language, even if the children were fluent in Korean at a particular stage. The CPH claims that neural connections are built early in life, as a result of maturation and learning. The adoptees should have displayed at least some sensitivity to the language, particularly the ones who were older, but interestingly enough they did not.

In terms of their L2 abilities, the adoptees did not show any strong differences in brain patterns compared to the control subjects. Furthermore, the adoptees did not perform any worse than the French control subjects in recognizing gender agreement mistakes or semantic anomalies. In these recognition studies there were also a group of Koreans who had arrived later in France, as adults. This group had much greater difficulties in noticing gender agreement mistakes compared to the adoptees. The adoptees performed similarly to the native French speakers, even the speakers who arrived when they were 8 or 10. This suggests that French had truly replaced Korean in some way or another, as the adoptees had equal levels of French ability but a complete lack of Korean.

Their results argue against irreversible changes in the brain within the first 10 years of life. Provided one is exposed to any language in the first years of life, the brain remains highly plastic until at least the age of 10. Pallier conjectures that it is due to interference of the L1 that L2s may be incompletely acquired, in cases where an L2 is not perfectly mastered. He also wonders what happens to language attrition in adults, when someone switches to a new language above the age of 10; as in his study, there were no speakers over 10.

ii. **Activation Thresholds**

Activation was given as an idea for a neuronal basis of memory first by Penfields and Roberts (1959). Neurons leave a "persisting facilitation", or a mark that somehow allows impulses produced in the same way to be processed more easily. Paradis' Activation Threshold theory develops this theory further, showing that a certain amount of neural input is required to achieve initial activation. The frame has shown to help account for control over competing language systems in healthy bilinguals (Paradis 1985, 1993, 2007). As activation is dependent on frequency and recency of previous activation, the most important predictor, then, for language attrition would be language use. Those L2 rules or items which are used more frequently are more easily activated than less frequently activated L1 items or rules. Köpke (2002) has researched the lexicon regarding this idea, and within that realm at least has come to the same conclusion. Concerning grammar, Gürel (2004a) demonstrated that between Turkish and English, attrition occurred in situations where there are competing forms, but not when there are no equivalent forms in each language. These findings give further credence to how important language use is in attrition.

It has been said that prolonged exposure to an L2 combined with a long-term disuse of an L1 induces a restructuring of the L1 grammar, although slowly and selectively (see Gürel, 2002, 2004a, Seliger, 1989, 1996, among others). Syntactic attrition does not occur as quickly as processes such as lexical attrition, nor are all aspects of syntax subject to the same degree as change under the L2 influence (Gürel 2004a). Trying to understand which particular changes take place in the L1 syntax has been the core of a number of studies, including Seliger and Vago (1991), Schmid et al. (2004). They attempt to characterize specific L2 structures and forms that are likely to be transferred onto the L1 system. Gürel argues that previous studies investigating predictions of which structures are typically transferred give insufficient reasons, as they based their predictions on purely linguistic factors rather than psycholinguistic factors.

Gürel argues that frequency of language use plays a greater role than linguists typically have given it credit for. In a comparison of English to Turkish speakers, each in their respectively opposite language environments, Gürel's (2002) study found that L2 language effects were only in speakers who did not regularly practice the language. The difference then becomes important to notice how much the speakers practice their L1 language skills in their L2 environment.

Paradis takes the theory of activation thresholds even further, in his 2004 study. He has a multiple-part theory, arguing that: 1. a) All else being equal, language disuse will eventually lead to language loss, b) the most frequently used parts of the L2 will eventually replace the L1 equivalents, and c) comprehension of forms will be retained longer than the ability to produce them (Paradis 2004). In effect, he is describing much of the Khoemana situation, and the implications of this will become apparent.

The rest of his theory is also related.

> "2. Elements sustained by declarative memory (e.g., vocabulary) are more vulnerable to attrition than those sustained by procedural memory (i.e., phonology, morphosyntax, lexicon). 3. These declarative items are also more susceptible to interference (and hence to attrition by substitution) than implicit items. 4. Pragmatics and conceptual representations are modified by attrition. 5. Motivation has an impact on attrition."

With extensive use of L2, the L1 threshold is raised, more for vocabulary than for the grammar of the language, but that too can be affected. As Paradis says, attrition is basically a long-term lack of stimulation. As time passes without any use in the language, the L1 starts to change. The first sign of language attrition is actually not the disappearance of certain items. Rather, it is the time span that it takes to retrieve those items. As the lack of stimulation increases, activation drops, until eventually items can no longer be retrieved. Comprehension does remain longer than production, however, and it is possible that speakers could recognize L1 words without necessarily being able to come up with them themselves. This was informally verified in my own study, where speakers who could not actively remember words were read some words from an older list, and were still able to recognize and correctly translate some of the words to Afrikaans.

In a study by Ramirez (2003), she found a strong correlation between intense L2 use and changes in the L1 usage. Permanent contact with the L1 speakers is necessary to sustain the language, and with intense use in only the L2, aspects of the L1 will eventually be lost. How these aspects are lost is modular. Each component (such as phonology, morphology, syntax, the lexicon), will have different rates and extents of attrition. Paradis 2004 suggests that prosody is likely to be attrited last, followed by phonology, syntax, and morphology. Paradis further speculates, albeit with hesitation, that languages which are distant structurally will retain more than languages more closely related, because

of the lack of cognate interference.

The remaining aspects of Paradis' theory involve motivation and pragmatic and conceptual shifts. Motivation is a key issue and will be address separately. Regarding pragmatics, this basically states that L2 metaphors and ways of addressing a particular linguistic act eventually overpower the L1. Paradis concludes his study with the idea that L1s who lose their language as an adult will never entirely lose the language; however, it may become inaccessible.

iii. Involvement of subcortical processes

Though the role of the subcortical processes is somewhat difficult to define, they also do play a role in language processing. Köpke (2007) gives an excellent summary of many of the current works in the field regarding subcortical processes. Particularly of interest for Khoemana is the idea of emotional impact on language learning, or on language attrition. Pavlenko (2005) claims that the limbic system is involved in spontaneous emotional speech, and clinical evidence may suggest that subcortical processes of the right hemisphere play a regulatory role in highly emotional speech. Information regarding emotion in language and brain processes is at the moment limited, but there is data nonetheless suggesting that strong emotions or emotional events may be a key trigger in both language learning and language attrition (Pavlenko 2005). This has some implications for the Griqua, who have dealt with some very difficult events in history, most prominently persecution, marginalization, slavery, and genocide. Strong emotional or traumatic experiences can cause the L1 to be strongly rejected. The Oro Win language, for example, has largely died off due to enslavement of the people by rubber traders in the 1950's, as the people were so scarred by the experience that they were unable to speak their language thereafter (Everett 2003).

II. Social factors

i. Age of onset of L2 acquisition

What age the speakers begin learning the L2 has a very serious consequence. Tying very closely with the idea of L2 acquisition is the age of onset of L1 attrition. Both ideas were touched on earlier regarding Pallier's study on Plasticity (2007). What age are the speakers when they start learning

the L2, and at what point do they stop using their L1? Various findings, such as that of Pallier and Kuhberg (1992) mentioned previously, have shown that children under the age of twelve can rapidly lose an L1 to the point of not being able to detect it later. Their Korean subjects in France were tested with MRI scans and did not show any signs of brain activation when Korean was spoken. Ammerlaan (1996) and Pelc (2001) both have age-related factors in regards to attrition, and both also came to the conclusion that age was their most important factor. The precise age at which attrition is more likely to occur is as of yet unknown, but these studies nonetheless indicate a general indication that as a child ages and continues to speak her L1, she is less likely to attrite entirely.

ii. Frequency, amount, and settings of use of the attriting language

The amount of use of the language is often among the more quoted factors regarding language attrition in many studies (see section ii on thresholds, for instance) but its influence is controversial. Nearly all theories and studies try to incorporate it to at least some extent. In both the ideas of inhibition and activation thresholds, for instance, amount of language use is a key factor in determining the current status of attrition of the language. The general prediction is that those speakers who use the language the least will suffer the most attrition, while those speakers who use their L1 daily will have some protection from deterioration.

Previous studies specifically on language use have again given conflicting results, however. De Bot, Gommans, and Rossing (1991) have suggested that subjects who use their L1 extremely infrequently showed more attrition over time. Jaspaert and Kroon (1989), however, gave evidence supporting that attriters who used their L1 on a daily basis actually can perform worse on certain tasks.

Schmid's "The role of L1 use for L1 attrition" (2004) is a more recent study in language use. According to Schmid, the idea of language use is not as simple as Paradis' Activation Threshold's theory suggests, as not all situations of language use impact attrition in the same way. Schmid creates a model based on Grosjean's (2001) language mode model, claiming that frequent L1 use in different modes may impact differently. This may be one of the problems of previous studies' conflicting results, as they attempted to simplify the complex possible interactions of language use into a single dichotomous claim (Schmid 2004). The quality of use, or type of interactions, also play a key role, and have not received enough attention. Are the skills productive or receptive? Is active language use necessary to keep an L1 from deteriorating, and is regular input sufficient to maintain a

language once mastered? In which situations is the speaker using the L1?

Her earlier studies shed some light on the issue. Schmid (2002) investigated German Jews in England and the US. Schmid uses four factors in both interference and proficiency to determine statistical significance: age at the time of emigration, language use, the degree of traumatization, and identification conflicts. Within all of these categories however, she found statistically significant results only with interference, not proficiency. She defined proficiency as an assessment of the overall complexity of the language, i.e. the overall data of the speakers which corresponds to the linguistic norms. Interference data, on the other hand, is seen as utterances which are felt by native speakers to be somehow deviant or unacceptable in some way. Her results suggest that even in situations where the language has severely restricted use for extended periods of time, the speakers nonetheless keep their lexical and morphological complexity, and "errors" are simply temporary accessibility problems. The study suggests that the lack of extended L1 use does not result in attrition. For her, the age at which the immigrants migrated was the most important factor.

iii.   **Attitude**

Attitudinal factors comprise a complex varieties of variables attributed to the community or social environment and its relation to language, although the internal values may differ (Köpke 2007). Nonetheless, the communal and social values do impact individual internal values, particularly on motivation to acquire and/or maintain the language(s).

Giles et al. (1977) created a framework on which linguistic strength of a group can be predicted, the Ethnolinguistic Vitality Theory. The framework specifically tried to identify that which "makes a group more likely to behave as a distinctive and active collective entity in inter-group situations" (Giles et al. (1977), quoted in Köpke and Schmid 2004). The EVT comprises the factors responsible for the feelings of identity within a group: status, demographics, institutional support, etc. Language is of course a strong symbol of a group's identity, so strong ethnolinguistic vitality would more than likely prevent attrition. Conversely, very weak ethnolinguistic vitality would suggest language shift in the presence of a dominant L2.

Findings up until this point have been inconclusive regarding attitude and attrition; Yağmur (1997) did not find a correlation between subjective EV measurements and linguistic performance, nor did

Hulsen (2000). Schmid (2002) investigated language attrition among German Jews who had emigrated from Germany during the Nazi regime, her results suggesting that longer exposure to increasingly traumatic events would lead to a greater wish among the refugees to repress and disassociate from the German language and culture. Her hypothesis becomes highly relevant in explaining the outcome of the linguistic investigation. She reports that exceptional settings (such as persecution) might generate emotional factors which could influence attrition more strongly than any other extralinguistic factor. Pavlenko (2005) found similar results.

Ben-Rafael and Schmid (2007) investigated a number of immigrants to Israel, investigating the idea that "if wanting to learn something (or wanting to be part of a community of speakers) can help with acquisition, can wanting to forget (or wanting to no longer be part of a speech community) help forget it?" (Ben Rafael & Schmid, 2007). They investigated two communities of immigrants in Israel: one originally French-speaking community who immigrated to Israel in the 1950's as a matter of ideology, viewing their immigration to Israel as a life achievement; and one originally Russian-speaking community who moved to Israel in the 1980's and 1990's, primarily motivated by practical and pragmatic concerns: improving their standard of living, looking for new life opportunities, etc.

The Francophones switched to Hebrew almost exclusively, leading parents to not pass on their L1, even preferring using terms of affection in Hebrew. They all reported a loss in L1 proficiency, expressing a feeling of loss when unable to retrieve French lexical items. Their linguistic impoverishment and lack of self-confidence made them feel particularly ill at ease when speaking French with "real Francophones", although the informants did respond that they felt they were able to recover the language after a period of continued exposure to it.

The Russophones on the other hand consistently felt that Russian was important to their identity. They learned and used Hebrew for practical reasons, but felt that Russian was their mother tongue and part of their culture, wanting to preserve both for their children. They felt less of a tie to Israel, some responding that they would have preferred to emigrate elsewhere if they could do it again.

After investigating borrowing and code-switching within the two groups, Ben-Rafael and Schmid found that there was a clear quantitative difference between the Francophone community and the Russophone community in their L1 capabilities: the Francophones used significantly more Hebrew elements in their discourse than the Russophones, and the two linguistic systems were integrated to a

much higher extent in the Francophones compared to the Russophones, the Russophones mainly using isolated borrow words. The results then do point towards a correlation between language attitude and attrition.

iv. Identity

Identity is a key aspect of language retention, arguably one of the most important. If a language is part of one's identity, then retention of said language is critical. Conversely, if an individual feels that their identity is expressed in other ways, then L1 attrition could perhaps occur more easily. Prescher (2007) examines this issue in a study on identity in regards to language attrition among German migrants in the Netherlands. Identity for Prescher is "a result of (inter)subjective memories, present events, and emotional resonances that change over time and constantly provide new configurations as well as periodic repetitions" (Haviland-Jones & Kalbaugh 2000). A particularly special role in changing and stabilizing a larger identity system is that of emotional events. For Prescher, she focuses on immigration as the major emotional event. Yoshizawa Meaders (1997) examined identity formation by immigrants, and noticed a recurring pattern of transcultural identity building, that of bridging two cultures such that biculturalism no longer is experienced as a conflict. Hong et al. (2000) examined bilingualism within a cultural context, holding that bilinguals, in addition to having acquired two languages, have also acquired and internalized two cultural personalities, each consistent with the two cultural systems. In this vein, some researchers have proposed that language shift can cause subsequent personality shift (Harzing and Maznevski 2002; Hong et al. 2000, and Ramirez-Espiraza et al. 2006, among others). In psychological research, the role of language within identity formation has been limited. However, in the process of socialization, akin to the process of individualization, language plays more of a role than might be thought, providing a means to encode and access memories, a narrative framework for organizing memory, and a modality for restoring and reevaluating a memory that might otherwise be forgotten (Prescher 2007). Language, then, is inseparable from identity, not just as a part of ourselves, but also in how we construct and tell our life-stories. Studies working with bilingualism and identity roles have found that bilinguals often connect certain memories or emotions to one of their languages, and that bilinguals tend to have a different self-concept or self-presentation depending on the language spoken (Marian & Kaushanskaya 2004). With respect to later bilinguals, how does it feel to use one's L2 as the dominant language for an extended period of time? Does it affect their perception of identity?

Prescher interviewed 20 German emigrants in the Netherlands who had left Germany as adults, living in a Dutch-speaking environment for at least 10 years, and only becoming bilingual after they initiated their residence in the Netherlands. Interestingly enough, their responses were almost identical to that of the Griqua informants I had worked with, and this will eventually become one of the most crucial aspects of the study. Particularly one interview within her study struck me as key:

A. Somehow I am afraid that it [German] isn't at my disposal as naturally as before.

Q. Do you regret that?

A. Yes.

Q. Why?

A. Because once I had it, and yes, because it is gone, because something was lost there.

However, while the L2 became their most prominent language in day to day situations, their L1 stayed more familiar. When they were particularly tired, they had difficulties recalling Dutch words or phrases, and German emerged once again. A decline of L1 skills was nonetheless reported in every single interview, and speakers had to make a conscious effort to retain apparently forgotten words, phrases, and language rules.

III. Language Shift Predictions

Myers-Scotton (2007) investigated Xhosa speakers in South Africa, a group relatively close by to the Griqua, to determine how much influence English had on their bilingualism and whether it predicts a shift in identity. She proposed a number of fairly relevant theories:

1. Within a group whose psycho-sociolinguistic profiles seem to make them vulnerable to shift, differences in their use of the target language of shift divides them into distinguishable groupings; that is, not everyone is on the same bilingual "step". Thus, in the case of the Xhosa-English bilinguals, the prediction is that in an interaction potentially including both English and Xhosa, their use of English can distinguish one sub-group from another.

2. When shift happens, it is abrupt from the grammatical point of view. That is, speakers shift from one grammatical system to another without going through a phase of incorporating grammatical elements from one language into the other. In the case of Xhosa-English bilinguals, even those speakers who show the greatest use of English, who may be on the brink of shifting to English as their main language, do not use critical grammatical morphemes from English when they are producing Xhosa-framed phrases or clauses. Critical grammatical

morphemes are those inflections and functional elements that are defined as the two types of "late" system morphemes under the 4-M model (cf. Myers-Scotton & Jake 2001, Myers-Scotton 2002). They serve either (a) to join together elements within a phrase in order to meet a language's well-formedness conditions for that phrase (e.g. English of in 'book of Laurie') or (b) to indicate grammatical relationships between phrases (e.g. subject-verb agreement affixes or clitics, as well as case markers. Under the 4-M model, the hypothesis is that, in language production, these morphemes are structurally-assigned, that is, they only become salient at the level of the formulator when the larger constituents are assembled. Thus, their production is later than that of the other two types of morphemes in the 4-M model that mainly convey content (cf. Myers-Scotton 2005). These other types are assumed to be salient at the level of the mental lexicon. These are content morphemes (e.g. nouns and verbs) and "early" system morphemes (e.g. determiners and other morphemes that add meaning to their content morpheme heads and depend on these content morphemes for information about their form).

Myers-Scotton brings up a number of interesting points. First, that not everyone is at the same stage in a language shift. In the case of Khoemana, the few remaining speakers are at the tail end of a language shift. The first people to shift were more than 200 years ago, and a massive shift happened between the early 1900's and the 1950's.

Second, not all morphemes act in the same way when language shift occurs. She gives examples from German, Croatian, and Gaelic. In Croatian, affixes marking case were retained at a high rate, whereas in German pre-nominal adjectives were more than 90% on target, and German determiners only 2.5% inaccurate. These numbers vary drastically from content-morpheme errors, in which 29% of the total utterances varied in some way from their home dialect of German. Schmid (2002) reported her findings differently, yet also stated that there is no overall reduction of the case system, contrary to the reduction hypothesis. In a later report, Schmid (2004) comments on three emigration groups, saying that one of these groups had very little change, although she did imply the other two had some reduction in their morphology (Myers-Scotton 2007).

Regarding language shift, Myers-Scotton (2007) gives three main ideas for a framework:
1. Where a language other than the speaker's L1 is socially dominant, speakers of any L1 who have access to proficiency in the dominant language will show signs of shift to that language,

at least in the public domain.

2. Progression of language shift is predicted to consist of a number of separable grammatical steps, identified by the relative use of elements from the community-dominant language; a speaker's position in terms of these steps is an indicator of that speaker's likely shift to the L2 as his or her main public language.

3. The notion that there are steps implies that shift is not gradual, but abrupt, in regards to the grammars of language.

Based on these premises, she then creates a number of theories which her results surprisingly did not support. The speakers used extensive code-switching but displayed little convergence, and Xhosa almost invariably held the grammatical frame.

IV. Cognitive Processes

i. Memory

a. Long Term Memory

Memory, as might be imagined, contributes to language attrition in a number of important ways. The most important aspect of memory to look at is long term memory, henceforth LTM. Linguistic knowledge is stored in the LTM much like any other type of knowledge. Without activation, the knowledge of the language may be forgotten, although the causes for forgetting are not necessarily simple, as there are multiple mechanisms involved in the forgetting of a language. MacLeod (1976) investigated forgetting and its relation to language attrition, with individuals memorizing words and then asked to recall them weeks later. He investigated which aspects of language are more easily retained, such as phonological form, semantic information, information the language was used in, etc. His results suggest that meaning is retained more easily than form or language information. However, MacLeod's study does not necessarily investigate language forgetting, but rather a lack of linguistic material retention. The difference between the two is a matter of declarative and procedural memory, discussed below. Ecke (2004) also discusses forgetting within language attrition, distinguishing various processes and their interrelatedness. In these two and in other studies, the

predictions for many language retention and forgetting studies are discussed in depth, suggesting that there is not a single process of language attrition, but rather a variety of processes which contribute in different ways, leading to different predictions (Köpke 2007). Cognitive psychology has divided LTM into separate and distinct categories depending on how the memory is accessed and what is being stored, and this division plays a role as well in language attrition, elucidating on these processes of language attrition. The distinction between procedural and declarative memory is of particular importance.

b. Declarative and Procedural memory

According to Ullman (2001), declarative memory is involved with knowledge about facts and events, particularly suited for arbitrarily related information via associative or contextual binding (p. 106). Procedural memory on the other hand is involved with the learning and control of cognitive and cognitive and motor skills and habits, typically based on sequences. Both systems have distinct neurofunctional and neuroanatomical systems. Linguistically speaking, the lexicon is stored in the associative structures of declarative memory, whereas procedural memory is involved with L1 and early L2 grammar acquisition, such as in bilinguals. In later L2 acquisition, declarative memory can play a larger role in grammar acquisition, as languages which are less automated are more likely to be processed declaratively. The lexicons of both later L2 acquisition and L1 acquisition tends to be approximately in the same declarative memory structures.

Assuming that interference or competition arises only from structures similar in nature (such as Myers-Scotton (2007), then the following predictions might be made (based on Köpke 2007): structures based on either declarative or procedural memory only would be more likely to have interference than those of procedural memory competing with declarative memory. That is, vocabulary would be more easily affected by competition or interference in any situation, as vocabulary is based on declarative memory in both bilinguals and later L2 language learners. Early bilinguals would also tend to have more pronounced interference in grammar, whereas late bilinguals' largely declarative L2 grammar would be less likely to interfere with the procedural L1 grammar (Köpke 2007). Such a theory might help explain Myers-Scott's lack of convergence with the Xhosa speakers, particularly if they learned English at a later stage (such as in school). These predictions are consistent with current L1 attrition data so far; studies such as Köpke (2002) suggest that the lexicon is affected more strongly by L1 attrition than the grammar in late bilinguals. In early

bilinguals, there are a number of studies on morphology and syntax interference, compared to a greater amount of studies on general features and/or lexicon in later bilinguals (e.g. Håkansson (1995) Kaufmann & Aronoff (1991) Schmitt (2004) Seliger (1991) on early bilinguals, Ben-Rafael (2004), Ammerlaan (1996), Pavlenko (2003) on later bilinguals).

c. Working Memory

The role of working memory in language processing is still currently disputed. Working memory refers to processes and structures for temporary storing and manipulation of information. In Baddeley and Hitch's (1974) model of working memory (Baddeley 2003), there are two slave systems for short term maintenance of information, with a central executive system coordinating and overseeing these systems. The first slave system, the phonological loop, stores phonological information, preventing decay by refreshing the information in an articulatory rehearsal loop. For example, a person constantly repeating a phone number would use this system. The other system is involved in visual and spatial information, such as maintaining mental images or using mental maps. The central executive system directs attention to relevant information, suppressing irrelevant information and coordinating multiple cognitive processes.

Higher working memory capacity is related to higher comprehension skills, both in listening and reading comprehension (Daneman and Carpenter 1980), but its role in language production is less well defined. As stated previously, working memory is directly involved with inhibitory processes, particularly within the central executive system, and its role within inhibition is its most relevant aspect to linguistic processing. Within language attrition, working memory's biggest role would be in language processing situations in which one language might be more accessible than another. "Strong cognitive demands arising from reduced access to the less-used L1 and its competition with the more accessible L2 would put strong demands on executive control mechanisms, resulting in processing difficulties similar to those found in L2 learners: an inability to activate automatic procedures (Norman & Shallice 1986), thereby triggering controlled strategic behavior which is much slower and characterized by dysfluencies" (Köpke 2007). According to this theory then, attrition is merely a matter of processing and accessing difficulties. Working memory's role in language attrition in the Griqua would be mainly tied in with inhibition, and will not be discussed as a separate issue.

5.2. *Literacy and its effects on the brain*

Research has suggested that literacy contributes to cognitive organization of language, as well as age effects in L1 attrition, in combination with other factors such as plasticity and memory categories (Köpke 2004a). According to Köpke, literacy helps prevent attrition in a number of ways:

1. Allowing the speaker to maintain contact with the L1 by reading, reducing the thresholds for language access,
2. Potentially enhancing motivation for L1 maintenance by allowing access to written input,
3. Contributing to the grounding of a language in memory by adding orthographic representations and synaptic connections.

Köpke theorizes that less attrition is expected in subjects who have had the opportunity to become literate in the L1, particularly if they frequently use this skill. Her discussion of literacy's affect on language attrition is confusing, correlating age and literacy effects without citation or justification, and using literacy as merely an aspect within other extralinguistic factors as support for direct contribution. While literacy might help speakers to maintain the language through language use or enhance motivation through retention, literacy's true contribution is related to her third idea, in memory, and should be investigated more thoroughly. Particularly in the case of the Griqua, as none of the speakers I worked with were literate in either their L1 or L2, the question of literacy becomes paramount: can literacy itself as an independent factor influence language attrition?

If literacy does indeed have an impact on language attrition, it would be through brain anatomy and neural and organizational restructuring, and there are a number of studies investigating this possibility, particularly on phoneme awareness and multiple phonological processing systems. Morais et al. (1979) was the first to study literacy a factor in adults of similar sociocultural backgrounds, showing that illiterates perform poorly on language games such as phoneme deletion (e.g. taking away the sound p in porto, resulting in orto). Illiterates also fared poorer in short-term verbal recall, the effect mainly due to graphically encoding segmented speech sounds in literates as compared to illiterates. Castro-Caldas et al. (1999) also investigated the idea of literacy as evidence for changing brain anatomy by comparing groups of literate and illiterate women from a small town in southern Portugal. The subjects were asked to listen to and repeat a list of words, some familiar and meaningful and others "pseudowords", theoretical words appropriate within phonological

constraints of the language yet not actually having intrinsic meaning. Their results were twofold.

First, the illiterates were shown to perform worse at listening and repeating words, particularly with the pseudowords. A statistically significant difference occurred in the repetition of both words and non-words, however. The literate women were 98% correct in the repetition of the familiar words and the illiterate women 92% correct, a small but nonetheless statistically significant difference. With the repetition of pseudowords however, the women who were illiterate made four times as many errors as compared to the literate subjects (117 and 475 errors, respectively). The literate women were 84% correct and the illiterate group 33% correct. The errors mostly involved phoneme substitution, particularly substituting phonemes which changed the pseudoword into a semantically meaningful word.

The second result involves a brain scan of the subjects while repeating these words. In a functional brain image study, Demonet et al. (1992) and Price (1997) mapped out the phonological systems of language processing in highly literate people. In the PET scan in Castro-Caldas et al.'s study, the literate subjects also activated the same system, whereas the illiterate women showed a difference in their activation. They had lesser activation in many of the areas used for phonological processing, yet greater activation in one area: the right prefrontal cortex, outside normal speech processing areas. Rather, this area is known to be active when people recall recently presented stimuli (Fletcher et al. 1997), suggesting that the non-words were treated as novel semantic information rather than novel sound processing. In contrast, the literate women remembered with greater precision the unfamiliar non-words using the phonological code induced by literacy, presumably coding them as segmentable speech sounds rather than semantic information. The activated brain areas for the literate women in nonsense words were largely the same as the activated brain areas as in the familiar words, further suggesting that speech processing automatically breaks speech sounds into constituent phonemes for literates, but not for illiterates. These different brain area activations suggest that literacy changes brain organization at a more fundamental level than just within the task of reading or writing itself. It has been suggested (Caramazza 1997) that there are two different phonological processing pathways, one related to oral and the second related to written language. The system related to written language has the effect of setting up multiple systems for processing phonological information, resulting in increased awareness of certain aspects of phonological components. Illiterates have not developed the same capacity for phonological processing, resulting in a heavier reliance on lexical-semantic systems.

If an illiterate subject is presented with a word, the first step is primarily auditory analysis, similar to literate subjects. After this auditory analysis, pattern recognition takes place. If the subject has previous experience with the verbal material, as in real words, then oral production will tend to be biased towards lexicosemantic processing, including semantic and phonetic information storage in working memory. When pseudowords are presented however, the lexicosemantic search will be unsuccessful. Consequently, oral production cannot rely on stored lexicosemantic information, but rather on efficient phonological processing. As illiterates have not developed this phonological processing system, they often produced more familiar words when asked to repeat the nonsense words. Paulesu et al. (2000) did a similar study on brain imaging in English and Italian words, finding similar results, as did Ostrosky-Solís et al.'s (2004) electrophysiological study on functional reorganization in the brain.

The brain can be understood as an organ that adapts to several types of internal and external influences (Castro-Caldas & Reis 2003). The interaction of complex stimuli throughout life creates a highly distinct biological arrangement of the brain and its consequent physiology, particularly in the highly plastic areas of language processing.

6. Analysis

6.1. Methodology

The material for the analysis comes from fieldwork conducted by myself in the Northern Cape and Free State of South Africa, in July and August of 2008. Over a period of two months, I met with eight speakers of the Khoemana language, mostly eliciting vocabulary and some sentences. Of these eight speakers, five appeared to speak the language moderately well, but all of them had evidence of attrition, and most had difficulties forming any sort of complex sentences. Elicitations from these five speakers form the bulk of my analysis. The five speakers' names are abbreviated as SW, DC, LJ, MK, MP. In terms of background, SW originally comes from the same town as MP, Douglas, but moved when she got married, moving to Kimberly, where LJ and MK also live. DC is the only person living further away, in Bloemfontein, and the only one who called his language Korana, yet there is no noticeable distinction in the way he spoke compared to the others. The three other

speakers all either had extensive attrition or had not learned the language enough to be used as a primary reference.

The vocabulary elicited during the fieldwork tended towards semantic fields which the speakers could remember, such as body parts or simple action verbs, but some speakers had semantic gaps and could not remember certain areas of vocabulary. The words and sentences were recorded using a Zoom H2 Handy Recorder in WAV pci format, with a sampling frequency of 44100 Hz in stereo sound. Editing and analysis of the sounds was done using Praat 5.0.26 and Audacity 1.3.5.

6.2.   Introduction

Before we can argue Khoemana's place in attrition theory, it is important to analyze more closely the material I gathered through my fieldwork compared to the previous research. Up until this point, I have been using Beach, Maingard, and Meinhof exclusively on orthography and analysis. While my analysis of the language remains incomplete, there are strong differences compared to what the earlier researchers described, particularly with click accompaniments. These changes should be reflected in orthography.

Furthermore, as mentioned earlier, I believe that what has been previously regarded as three separate languages should now be viewed as a single dialect cluster. I present some of my findings and examine the elicitations more closely in connection to the previous research, using charts and vocabulary comparisons to argue that they are the same language.

6.2.1.   Orthograpy

Meinhof has the following accompaniments with clicks (using a dental click as an example): |'a, |a, |ha, |kx'a, |na, and |xa. In addition to Meinhof's, I have also encountered voiced velar plosive accompaniments, voiceless velar plosive accompaniments, and voiceless aspirated velar plosive accompaniments, much like Maingard's list. Voicing contrasts are as of yet unknown, as it's impossible to tell how closely tied together the voiced plosive accompaniments are with tones, such as in Nama. On the words where voiced plosives exist, the speakers seemed to be remarkably consistent with them, even considering their inconsistencies in other areas. Engelbrecht comments that "The reader is asked to observe that Kora words with the click radical sometimes (but not always) have alternate forms which are written in this work with the selfsame click followed by *g*, thus *!am* or *!gam* (to kill). As in trying to substitute one form for the other I have sometimes been

corrected by informants, I deemed it advisable to write the form every time exactly as heard" (Engelbrecht 1936). Ponelis (1975) and Traill (1999) both mention voicing as well, Traill considering voicing a reinterpretation of Nama tones and Ponelis claiming it is not distinctive. In Traill's 1930 recording of !Ora (1999), he gives examples of voiced and voiceless click contrasts. Unfortunately, many of the words Traill gives I either did not elicit, or the words themselves are different. I suspect that the speaker Mukulap spoke a different dialect than all of my informants; when my informants listened to the recording there was varying amounts of comprehension, and none understood the recording completely.

Until it can be proven otherwise, clicks with voiced velar accompaniments will be considered phonemic, and written with g, e.g. [|g].

Ladefoged and Maddieson (1996) use [k|] to refer to a click with a plain release, as up until this point no language with clicks appears to differentiate between a plain click and a click with a velar plosive accompaniment. Khoemana may be the first language to do so. Most other researchers of Khoesan languages follow a similar tradition as Ladefoged and Maddieson, although many write it as [|k]. Maingard (1962) mentions the velar plosive occurring as a click accompaniment, but he does not describe his orthography so it is difficult to know what he refers to.

All of my informants used a velar plosive accompaniment in various words, but I'm still uncertain if this is a phonemic distinction, or variation from another form. These forms are not able to be consistently with any phonemes from the literature; they typically vary between plain and glottalized releases. The velar plosive occurs as a distinct sound, and the waveforms have a double burst. There are other in which the velar accompaniment does not occur with an actual burst, forming a contrast, but I do not have any minimal pairs to compare. Nonetheless, note the following phrase given by DC, ǂʔa |kos "hither, child". For both words, Meinhof uses the glottal accompaniment in his transcription. Yet there is a clear difference between the delayed release of the palatal click, and the double burst displayed in the dental click.

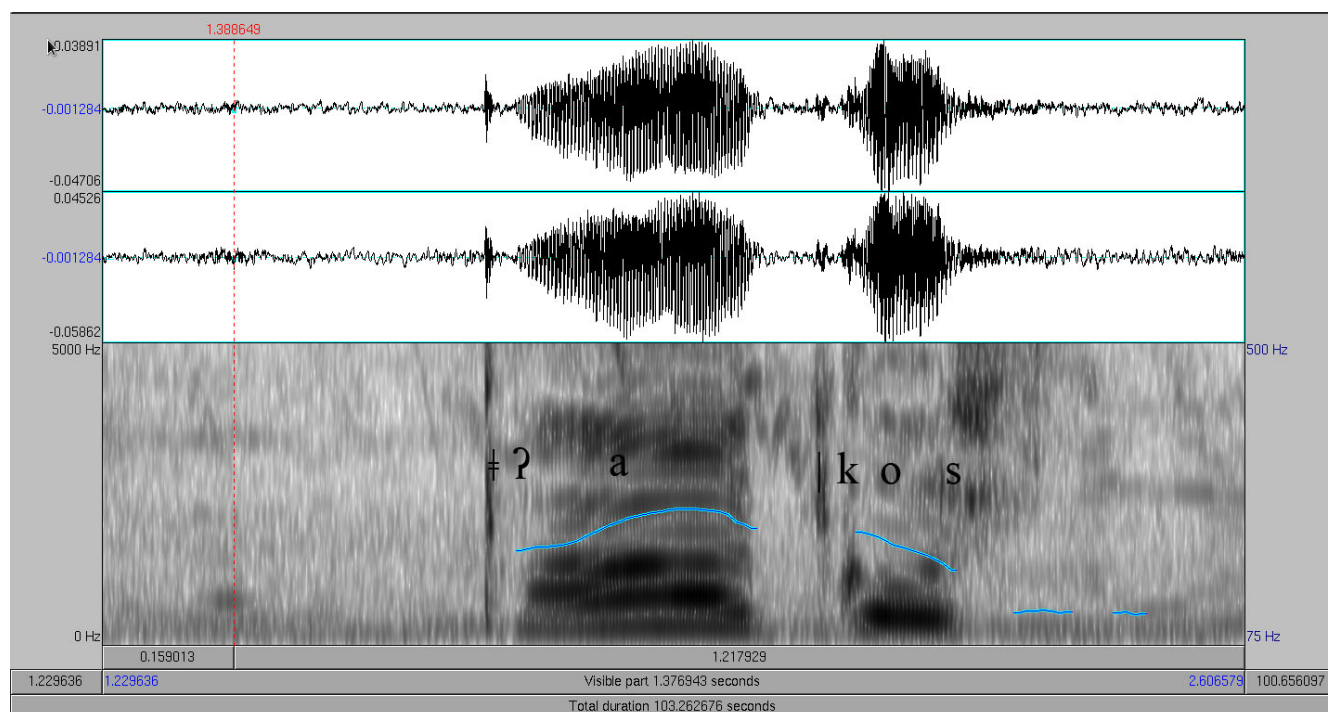*Figure 6: An example of a velar plosive release in the word child*

Another speaker, MP, gives a variation on the word child, */kui.* Her waveform also clearly displays a double burst in both the dental and dorsal locations.
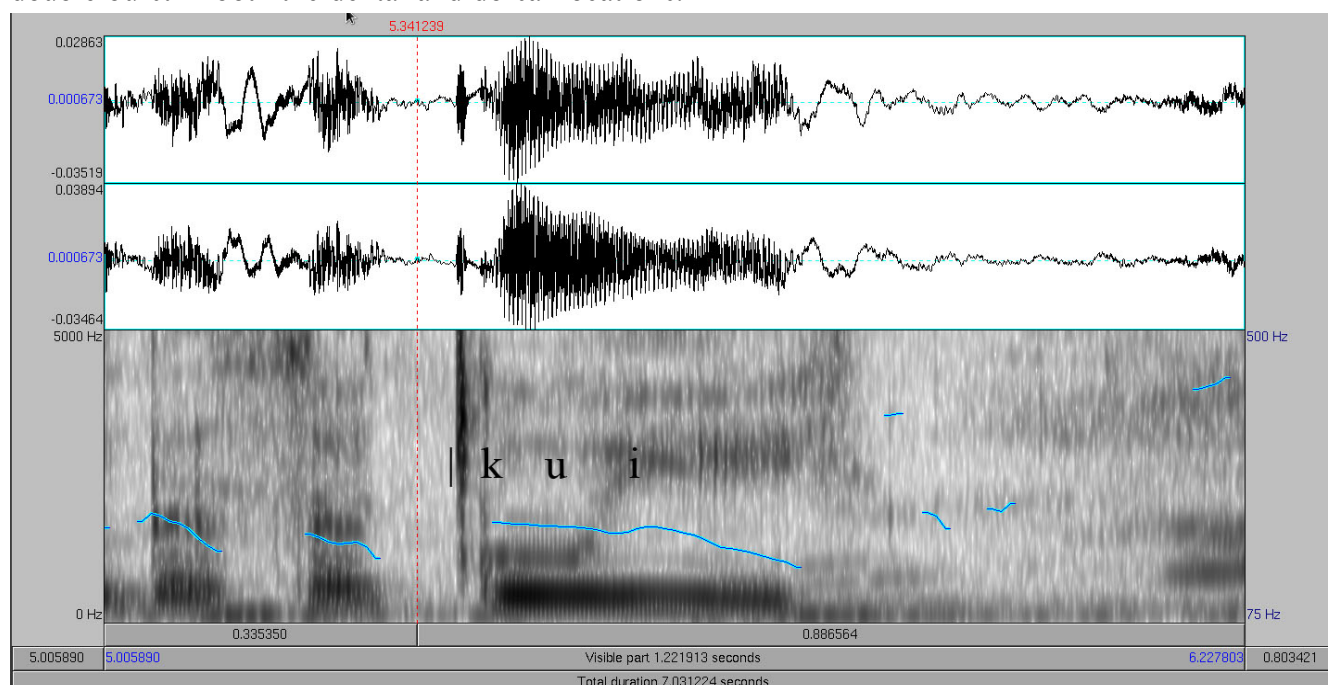

Figure 7: A second example of the word "child" with a velar plosive accompaniment

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A third speaker, LJ, uses yet another variation for the word child, /kon[15]. In her speech, the dorsal and dental bursts are closer together, and it is difficult to notice at first. Precise delineations with the text grid were made to help differentiate where the different phonemes are divided.
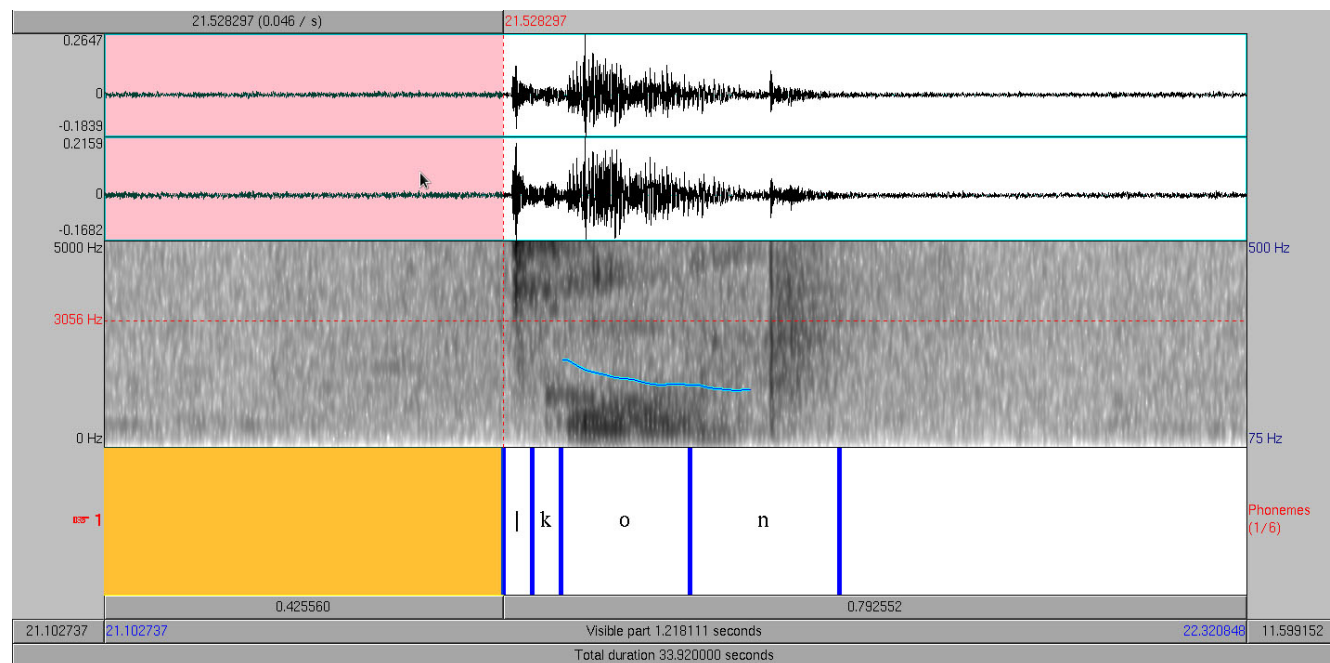
Figure 8: A third example of the word child with a velar plosive accompaniment

The precise phonemic status of the velar plosive accompaniment is unsure, yet it is safer to transcribe it narrowly than to not use it at all. Clicks with a velar plosive accompaniment will be henceforth written with a g or a k following the click symbol, and aspirated velar plosives will be written without the raised [h] for aspiration, e.g. [|k], [|g], and [|kh]. If the click is released without a dorsal release, it is written singly; ie |, !, ǁ, or ǂ.

Clicks accompanied by a glottal fricative (e.g. !hup or |hup, 'white man') also had voiceless nasal accompaniment, something previously undescribed by Beach, Meinhof, or Maingard. This is worth investigating in more detail, as I did not obtain enough tokens with this sound. It is possible that there is even a phonemic contrast with plain glottal frication, but it could also be caused by something else. Note the word for white man below by MK, used with the alveolar click (there was variation on this particular word as to which click was used).

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15 According to the literature, |kon should be children, not child. It is possible that she misunderstood the question or that my elicitation was confusing.
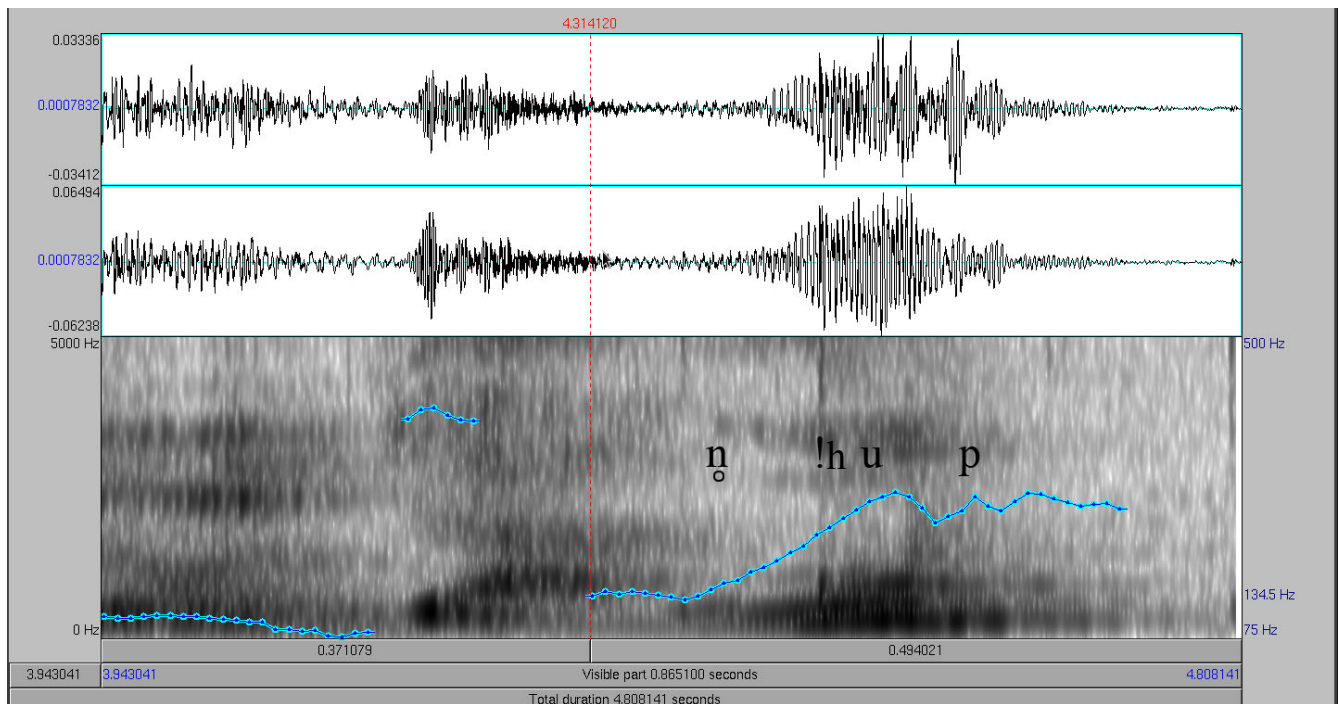
Figure 9: An example of voiceless pre-nasalization

It is worth comparing this word with Nama, as a similar phonological process occurs. In Nama orthography, the same word is /*huup,* nearly identitcal. Traditionally, Nama has used [Ch] to refer to a click with what is called a delayed aspirated release, in which there is glottal pressure before the glottal fricative accompaniment. In practice, this sound often carries a voiceless nasal preceding the click, in much the same way that we find the Khoemana word here. More than likely Khoemana parallels Nama in some fashion on the voiceless pre-nasalization.

The transcription of the language in all cases is henceforth a narrow transcription, except when referencing the glottal fricative accompaniment, in which case the voiceless pre-nasalization will not be mentioned. The status of [β] as a phoneme is possible, as one speaker did use it word-initially, contradicting earlier descriptions that it is a phonetic realization of intervocalic [p] or [b]. Word final [p] is unreleased, realized as /pˀ/, and will not be noted except when necessary for the analysis. While phonemic tone does exist in the language, I did not have the chance to analyze it properly. Furthermore, I suspect Beach's analysis of the tone is in need of revision. As such, tone will not be represented in the orthography.

6.3. Speaker and literature differences in Khoemana

Initially I argued that what has been historically called Cape Khoe, Korana, and Griqua are the same language. As I was conducting fieldwork, I noticed that different speakers were identifying with different groups and language names, sometimes identifying even with more than one group. There seemed to be a distinct confusion on the linguistic issue. As I began to work more with them however, I grew suspicious that these were different languages, particularly since so many words were similar. There was a great deal of inconsistency as to which word my informants gave me, in comparison to what is called Korana and what is called Griqua in the sources. Sometimes it would coincide (i.e. if the speaker identified himself as a Griqua speaker, and the word Meinhof lists is also in the Griqua section) , but often it would be different, and there was no discernible pattern as to when the word would be the same.   Surprisingly enough, most of the time features which Beach, Meinhof, or Maingard mentioned as particular to the Griqua dialect, I rarely encountered.   For instance, [kx'] should not exist in as much frequency as it did from my speakers. I did see some variation between an aspirated [kh] and a velar affricate [kx], but [kx'] stayed fairly distinct with all of my speakers, both as a click accompaniment and as an individual phoneme.   Otherwise, the words did mostly coincide with Maingard and Meinhof, with a few notable differences as follows. Most of the discrepancies are phonological, but a few are morphological if they were easy to note.

Morphological

1. Morphologically, the masculine plural ending was almost entirely restricted to *-ku* rather than *-kwa*, aside from the proper nouns Xrikwa and !Orakwa. This may have been due to lack of tokens, but I did not hear *-kwa* as a plural ending. Maingard references this feature as being common to what he calls Lower Orange River Korana, a dialect which otherwise did not coincide with what my speakers spoke.

2. My informants did not differentiate between *tita* or *tir* as a masculine or feminine way of saying 'I'; instead, there seemed to be a preference as to which word the speakers used. One male informant solely used *tita* and *-t*, which in the literature should be the female form of the pronoun, and one female speaker used *tir* and *-r*. None of my informants used *-re*, but *-r* and *-t* were both common. SW, a speaker from the same town as MP, did not generally use pronouns in any understandable way, but much of her syntax was complex and difficult to follow. I do not have enough information whether the speakers would differentiate gender for

'you'.

Phonetic and Phonological

3.   What is variously transcribed as *kie* or *tje* by Maingard and Meinhof for me was simply [je]. It is one of the more common words in Khoemana, functioning as a subject particle of some kind.

4.   I do not know whether this was a German influence, but I saw no reason whatsoever to label the masculine singular endings as a devoiced *-b*. In nearly every situation, it was definitely a voiceless *p*, and with all but one of my speakers it was unreleased. None of the early researchers mentioned any unreleased stops, yet note the pictures below.

In Figure 10, we have the word *ʔeirip*, 'dog' spoken by one speaker, SW. Narrowly transcribed this would be *ʔérîp̚*. In figure 11 we have the word *!hõ̃ãp̚*, 'cat', given by another speaker, MP.
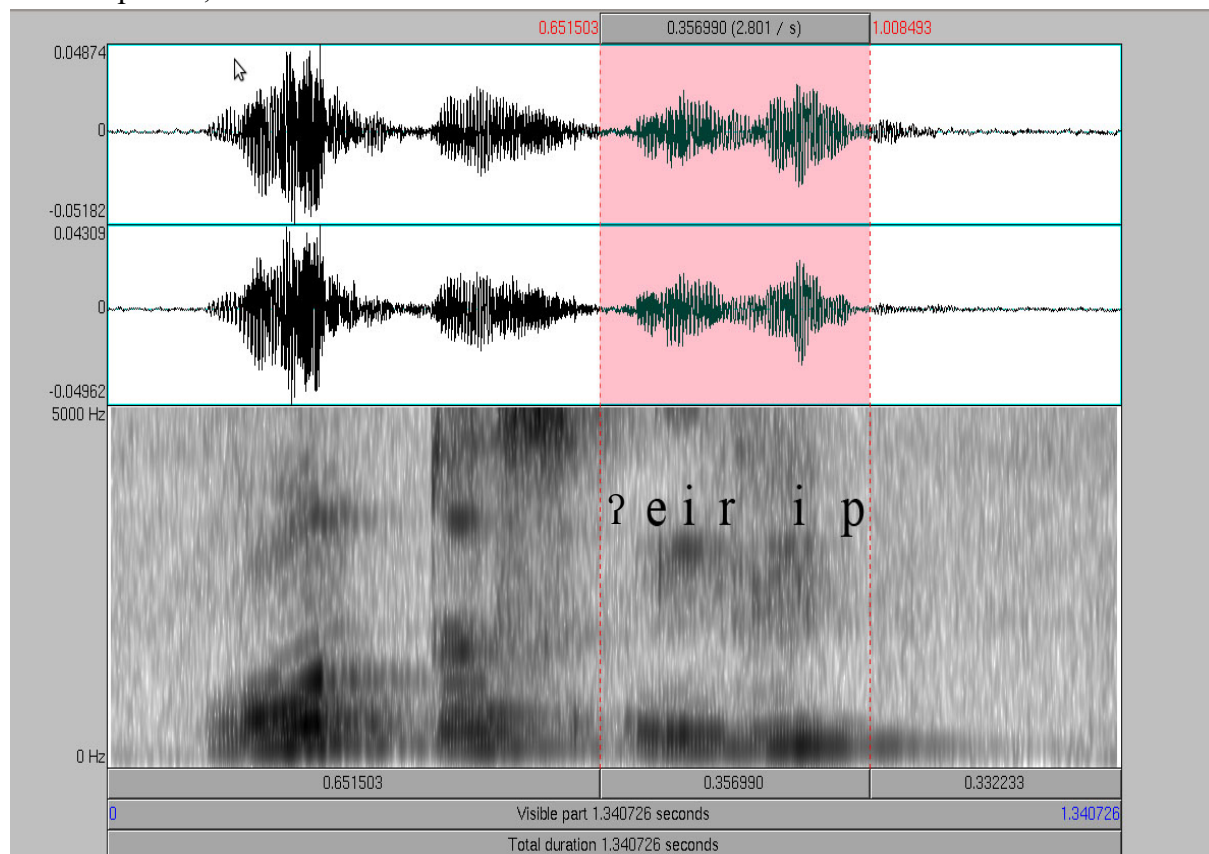
Figure 10: Unreleased p of 'dog'

!h   õã   p
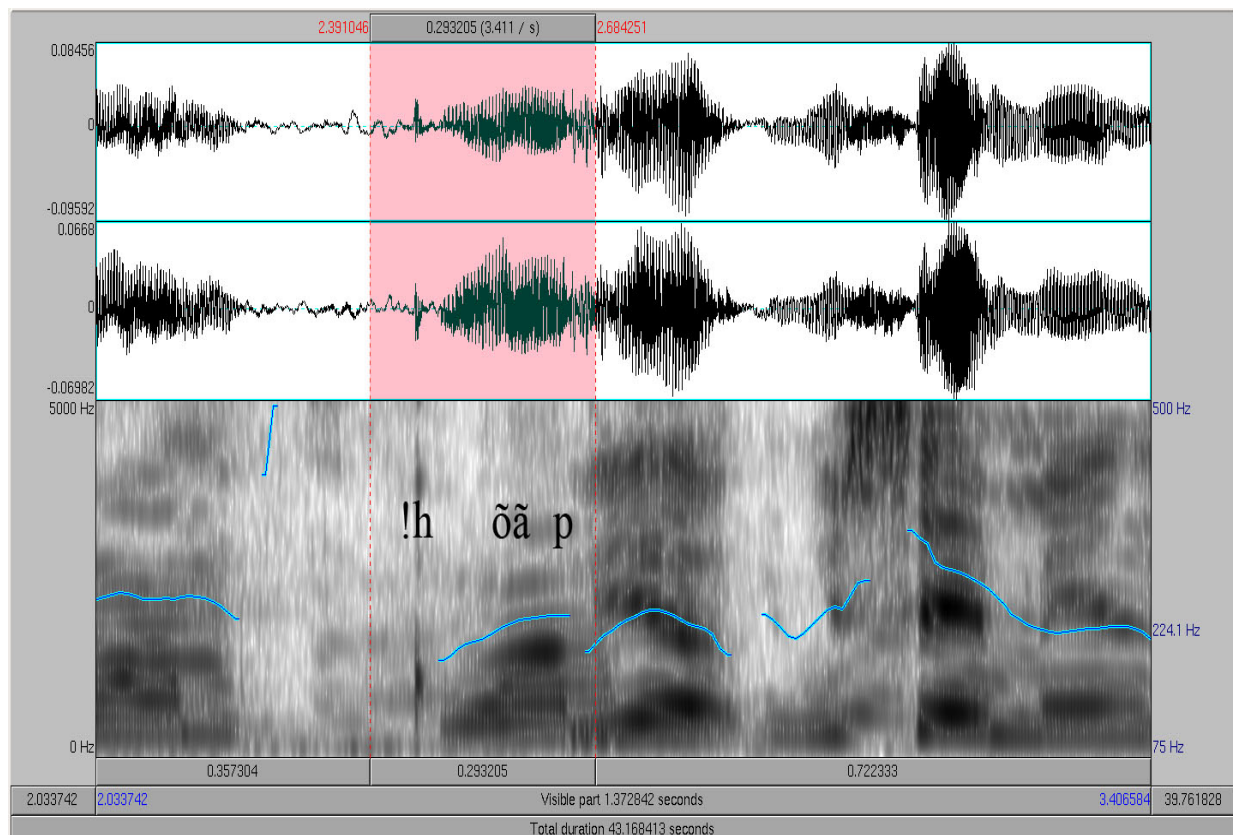
Figure 11: Unreleased p of 'cat'

5. Another difference I've found is that vowels were not nasalized nearly as much as they were described in the literature. For instance, the verb to be is listed in the literature as both *hã* and *ʔa*, yet I rarely heard any speaker say *hã*. It is possible that *ʔa* is a copula and *hã* used in different ways, but I was nonetheless surprised at the free variation with nasality. There were individual words like /*hõãp*ˀ 'cat'[16] which were always nasalized, but in general many of the words were left oral. It did not seem to be an attrition factor, although nasality is phonemic in the language. Even speakers such as DC, who tended to be fairly consistent with the phonology, would vary on nasality.

6. Vowel variation is something I struggled with. [ei], [ai], [əi], [ɛ], and [a] all occur in free variation or function as allophones in some complex phonological processes which I was not able to understand. Maingard describes this as "fluctuation", a type of assimilation, giving examples such as /*kxʼei*, 'to admonish', interchanging with /*kxʼe*. *kai* 'great' also alternates with *kei*, and *ǂkai* 'to call' with *ǂkei*.

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16 Note the variation in click compared to the waveform above. I'm still not sure which click this should be. In the literature the click is dental.

There are two words I can bring up as cognizant examples of the vowel variation: dog and what one speaker called Griqua, perhaps one of the Khoe tribal names. The word for dog is one of the only words all of my speakers agreed on, calling it *ʔeirip* (or at times *ʔɛrip*). In the literature, it is written as *arii* in Maingard's "Korana Names of Animals and Plants" (which is simply using the indeterminate gender), and *arip* in his "Korana dialects" (specifically the Lower Orange River dialect). Wuras (1920) transcribes it as *arina*, using the indeterminate plural form, and Meinhof uses *'arib* for both Griqua and Korana. Even in Gordon's (1743) word lists we find two varying words, one translated into Afrikaans *hond*, 'dog', and the other written as English dog. The word translated for dog is written as *arikn*, with uncertainty regarding the spelling of the last letters, and it more than likely is *arip* as well.[17] Kxoe has a variety of the word for dog as *ériku*, however, suggesting that *ʔeirip* or *ʔerip* are not recent changes in the language.

The other example on vowel alternation becomes interesting. According to SW, Griqua in Khoemana is /heikhoin. In one of the only situations I was able to get a minimal pair, she cautioned me not to say /xeikhoin, a word for death. She was careful to stress the click accompaniment. However, two things happened which I find interesting. While she stressed for me not to say /xei, she herself used some variations. First, she mostly used [əi] as the vowel, although one token she did use [ei]; second, she ended up varying the click accompaniment with other two different types of clicks, [kx] and [kh]. Maingard discusses this feature as a fluctuation again, giving the example of *!khoe* and *!xoe*, 'to run'. Even more interesting, when she repeated the word for Griqua a few more times, she then changed the vowel to [əi].

When I asked another speaker, DC, what /heikhoin might mean, he repeated after me /xəikhoin, and said it means death. He, too, then, did not make a distinction between the vowels, and perhaps not even the accompaniment types. He had difficulties hearing the difference when I said both words, but it is more likely due to my inability to pronounce the language properly than to a lack of phonemic distinctions. At least for SW, though, there is a phonemic distinction between the click accompaniment [h] and [kx/kh/x], something Maingard mentions but otherwise does not explain. Beach did not distinguish between these

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17 The other word he gives is "toe"; guessing from Dutch orthography, it might be dou, an extinct type of small quagga.

accompaniments, which would be allophones in Nama. Meinhof has a distinction between a uvular fricative [χ] accompaniment and the glottal fricative accompaniment [h], but does not mention any aspirated plosives or affrication.

7. Certain words in the literature were nearly always transcribed with an *h* which my informants never used. What Maingard and Meinhof transcribe as *h* more seems to be the lack of a glottal stop in the transition. SW rarely pronounced [h] with any degree of force in certain words; I heard most of the words as vowel-initial. CP pronounced the [h] distinctively in the word *ho*, 'now', yet in the phrase 'how are you?' he said *amti-s ka fara*, lit: 'how-2SG IP do, fare'. In the literature, the word for how is invariably *hamti*. SW used a variation for 'how are you?' syntactically, but is equally understandable. She also does not use [h] in *amti*. Note the sentence below:

amti	ka	khoe	-n	ʔa	-na	ǀ'aisen	o	amti	ka	ʔa	na	khãĩ
how	IP	person	-3SG.IND	to be	INC	sick	part.	how	IP	to be	INC	well

"Are you sick, (or) are you well?"

Lastly, we have the same sentence from MK, *amti-s xa fara*, "how-2SG IP do, fare". It was otherwise identical to CP except in the pronunciation of [k]; perhaps a form of dialectal lenition. In none of the speakers' sentences do they have an [h]. [h] is still a phoneme in the language; all of the speakers have other words in which [h] is used, such as *ho*, 'now', or *ha* 'come'. Interestingly, CP uses [h] in his pronunciation of *ham*, 'what'. SW actually uses a glottal stop in her first *amti* above, narrowly transcribed as *ʔamti*, although it was the same word in both phrases. The second *amti* does not have a glottal stop.

Regarding syntax and morphology, my data is limited. There were a few sentences I was able to get and successfully analyze, mostly matching earlier reports on the language. Some are as follows, all from DC:

te	bi	s	na	mi	ho:
what	CM	you	INC	say	now

"what are you saying now?"

βa: xu   s   na   ha:

where   from   you   INC   come

"where do you come from?"

Amerika   bi-t   na   !kõã-   !u   xu

America   CM-(1SG.M)   INC   come from, originate   go   from

"I am from America".

The difference between many of the particles and clitics is beyond the scope of this paper, and were challenging to interpret. Maingard's explanation of the verbal forms and subject marking is inadequate given the relatively complexity in how they are used.

6.3.1. Historic Cape Hottentot and the modern dialects comparison

I'd like to now take a look at a comparison between some word lists collected by Robert Gordon, commander of the Dutch garrison at the cape, some of the words in the literature on Korana from Maingard and Meinhof, and some of the words I collected.

Maingard (1932) uses Le Valliant's (1780-1785) word lists to give a comparison of some words which he collected of Cape Hottentot, Korana, and Nama, suggesting that they are related languages:

Korana	Cape Hottentot	Nama	English
kx'a	kx'a, kaa	a	**to drink**
kx'am	kamqua, quamqua	am	**mouth**
kx'anis	k'anniqua	ani	**bird**
kx'eib	quʔein	ãib	**liver**
kx'omi	k'omma	omi	**house**
kx'oẽsibe	k'quoniaba	ũitsaba	**alive**
thui ‖goab	thikwa	tsui ‖goab	**God**
bi !ãb	biqua, biquaan	tanas	**head**
tamma	tamma	nami	**tongue**
xoasoab	t'gwassow, choassow	ǀgarub	**tiger**

|hũkab	thouqua	ǂhirab	**wolf**
bib	bib	deib	**milk**

Figure 12: A comparison of Korana, Cape Hottentot, and Nama.

I'd like to take things a bit further, however, and look more closely at the word lists that Gordon had from Fauvelle-Aymar (2005), as well as compare some of the words that my informants gave me. Maingard's word list appears inadequate from my own experience, and I question the validity of some of the words that Le Valliant had.

Compare Figure 8 to Figure 9. It takes some guessing as to what Gordon's words actually should be, as the colonialists did not know how to write many of the new sounds 300 years ago, but there is often enough to guess what a word should be, particularly since the words are so close. There are semantic gaps in the chart; DC did not remember numbers very well, and body parts not at all. There were also certain words which I did not ask, such as fire or laugh. LJ was suspicious of linguistic work and it was difficult to get words from her. SW tended not to use pronouns in her speech, preferring third person. Her sentence formation was difficult to follow syntactically, perhaps because of attrition, and I would need more tokens and sentences before I could analyze them. Many of the words from Gordon's word list were also from a different way of living, so I was not able to get any words dealing with lions, hunting, fishing, etc. Maingard and Meinhof mostly had the same words for each token; when they vary the words are marked. Maingard has a few words differing by dialects known as Lower Orange River (L.O.R.) and Eastern Korana (E.K.); these are also marked.

English	Cape H[18].	Maingard/ Meinhof	SW	DC	MK	LJ	MP
one	ˈkkũi	|kui	|kui	|kui	!ʼu		|ui
two	Tam	|kam	|kam	|kama	!kam		|am
three	ˈnonà	|nona	!nono	|kara[19]	!kona		
four	hakka	haka	ǂkatsə		haka		

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18 from Fauvelle-Aymar (2005)

19 DC mentioned that he wasn' t familiar with the Khoemana numbers, so it' s possible he remembers the numbers wrong. koro is the normal word for five.

you	sase	depends on gender[20]		sats	sas		sas
head	Biᵗa	bi !'ap, danap[21]	danap		danap	danap	danap
eyes	mouqua	mũti	mũkũ		muku	‖kabakune	muku
hand	ᵗoãm	‖õap[22], !komi[22], !ʔoms[23]	‖oãku				
ears	ᵗNanqua	‖ãũb[22], !naub[23]	‡ũku, ‖ãũ		‡ãũku	oəʔŋ-‡na	‡nũ
mouth	ᵗCam ᵗna	ʔams[22], ʔami[23]	kx'ami			kx'ausa	kx'ami, kx'am-!na
tooth	ᵗCoong	‖kũp	|ũku, !'ũku				
'Why do they laugh?'	die[..] éimatse k̇ei	taeba[23], taip[22 24]	kx'ãi, ‖kx'ãi[25]		!nau[25]		taip[24] !ao[25]
bread	bareb	bereb	berep		berep	berep	berep
fire	ᵗeip	|aip					|'əip˺
man	koĩeb, qũouqũe	khoeb	khoep, |kwe	khoep	khoep	khoep	khoep
woman	koĩess, toekei	khoes, taras[26]	sas		sas, taras, khoese	|kus	sas, daras
speak	héba ha mi com[27]	koba	koβa, mana	goba, mana	gowa	goβa	mana

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20 sa-ts, -tsa, -ts, -tsi,-kharo-kao, -kau, sa-s, -sa, -saro, -sau
21 dialectal variation between L.O.R. *bi!ʔap* and E.K. *danap*, from Maingard (1964).
22 Maingard (1962).
23 Meinhof (1930).
24 why?
25 laugh
26 Synonyms quoted by both authors. *taras* can also mean wife.
27 in modern transcription perhaps: *jeβa ha mi kõb* "here say we all"

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English	Cape H.	Maingard/ Meinhof	SW	DC	MK	LJ	MP
drink	kx'a (from Maingard)	kx'a	kx'a	kx'a	kx'a	kx'a	kx'a
(animal?) milk	g[..]s[28] beep	bip, deip[29]	bip	bisip	deip	bip	bip
water	ćamma	‖ami, ‖ama	‖gami		ǂnami	ǂami	
house		kx'omi[30], ǀkx'omi kx'oma[31]	kx'omi	kx'oma	!korop	kx'omi	kx'omi

Figure 13: A comparison of Khoemana words

The chart is not 100% complete, but it is nonetheless easy to see how closely related the words are, particularly to what was called Cape Hottentot or Cape Khoe. There were only a few words which were the exactly same for every speaker: to drink was *kx'a* for everyone, although in the literature it mentions that Griqua should say *ʔa.* Bread also was quite consistent, as was head, speak, and man, although there were additional variations for some of the words. Regarding the word for man, the [k] has very light aspiration, so I was not always sure whether it is aspirated. In combinations of *[C]oe*, the vowel tends to labialize the previous consonant and turn into a glide; [kʷep] or [kwep] would also be alternative ways to transcribe the word, although not entirely correct. Initially I had transcribed all [oe] vowel combinations as [we]; it took some time before I was able to hear the vowel separately rather than as an onset glide.

Although I was not able to elicit the numbers from LJ, I do believe she knew them, and I would conjecture that they are the same as the others. Individuals sometimes forgot the numbers, but when they were able to remember they were generally consistent, both over time and across speakers.

Note that none of these differences coincide with the previous dialect or language divisions. More often than not, a speaker would use a word given by Maingard, Engelbrecht, or Meinhof as a prime

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28 probably *gus,* "sheep"
29 Dialectal variation between L.O.R. *deip* and E.K. *bip,* from Maingard (1964).
30 Maingard (1962).
31 Meinhof (1930).

example of a particular dialect, then go on to use another word from a different dialect. Some of the speakers used words not given by any of the previous researchers, such as DC's *bisip*. Traill's (1999) recording from the 1930's is not similar to any of my informants. As mentioned previously, they had difficulties understanding the recording when listening to it, and many of the words given differ drastically from what I encountered.

There is a great deal of variation among the speakers, but with only lexical items to compare, it is impossible to say how many distinct languages or dialects there may be of Khoemana. It is possible that some of the dialects will not be mutually intelligible with each other; there is already evidence suggesting so. I nonetheless hesitate on using the previous language names, however, as the inconsistencies between the previous descriptions and my own findings are too great to account for. Picking one of the dialects to call Griqua or Korana would politicize an already difficult situation of a highly endangered language. When two speakers met and were unable to communicate in what they called Griqua, they were quick to dismiss the other's language as not being the "correct" Griqua. Khoemana is a more neutral and less politicized word. Regarding intelligibility, it would be interesting see how much the mutual unintelligibility is based on lack of practice with the language, coupled with lack of familiarity of variation, compared to an actual lack of mutual intelligibility.

6.4. Attrition within Khoemana

It's difficult to know for certain, but it appeared that at least five of the speakers I worked with were at one time fluent in the language, with mixed degrees of current fluency. These are the same five speakers represented in the chart and mentioned previously Two speakers, LK and AM, mostly helped with MK as they sometimes remembered words she did not. The last speaker is more complicated and will be discussed below.

One interesting case developed with one of my informants, SW, who identified herself and her language as Griqua in English and in Afrikaans Griekwa [xrikwa]. When I asked her what Griqua was in Khoemana, she responded ǀ*heikhoin,* as mentioned previously in reference to vowel variation. ǀ*hei* translates to 'yellow' in Khoemana (Nama ǀ*hàî,* 'gray'), *khoin* as 'people', so the name would translate to 'yellow people.' I did not find anything in the literature regarding a tribe called ǀ*heikhoin*; it is possible that the original dialect of her tribe was further away from some of the other variants. It might be also a reference to the "coloureds". She also referred to the language as !Ora when talking

to another speaker, however, further confusing the issue. It is more than likely that her ancestors were historically members of one of the Korana tribes, who then changed identities and merged with the Griqua. This was a fairly common occurrence in the 1800's; see section 2 for more details.

Currently, all of the speakers have certain aspects of attrition in common, but they varied in their compensation strategies during elicitation, and it is worth delving deeper to see what strategies they employed, and what consistencies and inconsistencies occurred. As earlier, a brief treatise on other aspects of their grammar will be discussed before delving into the phonology.

6.4.1. Lexical

Every speaker I worked with had difficulties with vocabulary. More than anything else, this was the most apparent and biggest problem when it came to remembering the language. The speakers who had the least inconsistencies with their morphological and phonological systems still had difficulties remembering a lot of vocabulary. Some speakers simply said they weren't able to remember words, while others gave words that either were quite inconsistent over multiple sessions, or suspicious in other ways, such as not obeying typical word-building phonology or being radically different from other speakers and the literature. It's difficult to determine precisely what is dialect variation and what is misremembering, but asking the same speaker over multiple days will usually yield either a self-consistent or inconsistent response, suggesting whether the word is legitimate or not. One other sign I found signaling a potential inconsistency is a tendency to use very musical speech, particularly long drawn out phrases for a simple translation. As an example of dialect differences, I found two words for sugar, *kx'oni* and *ǁkaip*, from two different speakers. Each speaker was consistent in his or her word for sugar; furthermore, the words fit within the typical word formations of the language. I would argue that these words both mean sugar in Khoemana. Another example would be the word for buttocks. One speaker gives the word as *ǀnũku*, whereas a speaker recorded by Sands and Namaseb (2007) gave the word *ǂare*. Both words would appear consistent within the Khoe framework. The word for buttocks in Nama is *ǂãré*, identical to the word recorded by Sands and Namaseb, save for the unknown tones in Khoemana. *ǀnũku* has its cognate in Nama as well, in the word *ǀnùnú*, 'to slide on one's buttocks'.

There are other words which would seem more suspicious, however. One speaker gives the word for

ear as *ǂnũ*, another as *ǂãũku*, another as *oǝʔn-ǂna*, and the literature as *ǁãũp*. Sands and Namaseb elicited the word *ǂgaes*, a cognate of Nama. While it's entirely possible that there are 4-5 variations, it seems unlikely, particularly with these combinations.

6.4.2. Syntactic and Morphological Attrition

Syntactically and morphologically, the speakers displayed different strategies for their attrition. Examining grammatical attrition on an only partially described language is a hazy proposition, and thus I will not focus on this in depth, but there are areas worth investigating further. Three main variations of attrition occurred:

    i. Using grammatical monolingual frames, but having only very specific semantic fields in which communication can occur;

    ii. Using an Afrikaans grammatical framework with Khoemana content vocabulary;

    iii. Using a monolingual Khoemana framework with reduced grammatical forms, some of which may be ungrammatical by the norms of the language

Bearing in mind that there were only five speakers with whom I worked with able to speak the language, no statistic extrapolation is possible. Some of the speakers did also mix compensation strategies. Yet we can still analyze examples of sentences which they use.

i. Reduced Grammatical Monolingual Frames

These are perhaps the least interesting sentences to analyze. This is simply a recognition that the speaker is unable to say certain things. All of the speakers had this; when they didn't know how to say something at all, they often just admitted it. There is not much to analyze, because one either has a sentence which is correct, or it doesn't exist.

ii. **Afrikaans Framework**

As mentioned earlier, one speaker had a tendency to overlay Khoemana words overtop an Afrikaans frame. Her language was surprisingly similar to a pidgin-creole in that she used the Khoemana content words more than Afrikaans, and a tendency to use Afrikaans grammatical morphemes. This is not a hard and fast rule, however, as in some sentences the very words she used in one language she then used in the other.

Although she was able to translate the word for 'I' for me as *tir* in Khoemana, in all of the sentences she nonetheless used Afrikaans *ek*. Analyzing the grammar of the language was quite challenging; she completely mixed certain grammatical forms in one language with grammatical forms of another. Investigating situations like this in greater detail may give some information about the formation of pidgins and creoles, as it certainly appeared she had some sort of mixed language. When she spoke to her family she also tended to also use a mixture of the two languages; some of the historians mention this mixed Khoe-Afrikaans language in earlier texts. I am quite sure she would not be able to speak Khoemana monolingually, but I am not as certain with Afrikaans. It is possible that even during her normal every day life she tends to mix Khoemana in with Afrikaans; she did so quite frequently with her family, and they apparently had at least a passive understanding of the language.

Note the sentence below regarding the use of language in South Africa which was mentioned earlier, with Afrikaans words italicized and Khoemana words bolded:

Die	*oupa*	*praat*	*sy*	**ǁoːs**	*en*	**xrikwa-mana...**
The	grandfather	speaks	RFL	Xhosa	and	Griqua-language

kyk	*hier*	*die*	**biri-nə**	*dan*	**je.e**	**bib**	**hʊ**	**kxʼa** -
look	here	the	Bantu-3PL.IND	then	CM.3PL	milk	INC	drink

hou kom	*praat*	*hul*	**biri-mana** -	*die* **mana**	*van*
why	speak	they	Bantu-language-	the language	for

alle	*is en* **ma:-mana**
everyone	is a mother tongue

"The grandfather speaks Xhosa and the Griqua language... Look here the Bantu then drink milk, why do they speak a Bantu language? The language for everyone is the mother tongue".

In this particular sentence, she uses a mixture of grammatical forms, but the general frame is still Afrikaans. However, she uses the Khoemana word for 'they' initially, and in the next sentence uses the Afrikaans word. In some sentences the difference is even more stark, with only a single word inserted into an almost entirely Afrikaans sentence:

Ek	*se*	*ek*	*het*	*daar*	*ge-*!nu	
I	say	I	it	there	past-sit	"I say I sat there."

The Khoemana word for sit is in an otherwise Afrikaans sentence, even forming as a root for the past tense prefix.

In some other sentences she used more Khoemana than Afrikaans, but she still did not have a monolingual sentence at any point. When I was first introducing myself and asking her some words and what they meant, her son started translating the Khoemana. She then said to him,

ta mana! *ek is* **ǃora xaβe**[32] **xrikwa mana**,

to which her daughter in law responded,

maar ek is en **xrikwa khoes.**

This would translate to "Don't speak! I am the only Griqua speaker!" Her daughter in law responds with "But I'm a Griqua woman."

I ran into a similar situation of language mixing with other partial speakers, who were not able to fully communicate in a monolingual Khoemana situation. They did not have any of the grammar of the language internalized; instead, they would just use crystallized forms of individual words in an otherwise completely Afrikaans sentence: a type of short code switching or borrowing, so to speak. This also appeared to be common amongst many community members in general, and it is likely that some of the Griqua will have Khoemana influence in their Afrikaans for some time to come. One

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32 It is difficult to hear what she says here due to background noise; she also weakens the final vowel into a schwa. xaβe is a reasonable guess. Meinhof translates xaβe as "doch, dennoch, darum doch, aber so", German words without easy English equivalents. In this case, perhaps it emphasizes the sentence, and is best left out of the English translation.

interesting thing I noted is that Afrikaans did not seem to play a notable role in the phonology of Khoemana; although there was attrition, it appeared to be internal decay rather than a movement towards Afrikaans phonology.

iii.   Monolingual Framework

The monolingual reduced framework is the most interesting, and the most difficult to analyze. Definite caution must be taken with analyzing these sentences. Without having a firm grasp of the language's natural morphology, analyzing potentially attrited aspects of a language within a monolingual framework is challenging, to say the least, particularly across dialectal divergences. Nonetheless, there were instances in which certain words or phrases were used in ways which seemed to be very unusual from the literature, and numerous times.

The easiest way to tell whether attrition has occurred in such a situation is consistency. Variation is perfectly normal within a language; no language in the world will always say a certain idea the exact same way every time. When I was working with the speakers, the most common occurrence of inconsistency is when an individual word or phrase was used in far greater amount than other speakers used. One partial speaker SP, who I have not referenced otherwise so far, did this extensively. She did have individual sentences where she was able to form complete coherent sentences, such as *"amtis ka na di?"* a variation on how are you (lit: how do you do?). Another way was *"amtis ka fara?"*, the same sentence given as the other speakers. But other situations were more difficult to understand. For instance, she translated *da koβa* as 'speak now', when in reality it means almost the opposite, don't speak. I am fairly confident that *'ta/da'* means no or not, as it was used by every single other speaker in this manner. Furthermore, her clicks all merged into dental and lateral, and she often added, changed, or deleted the accompaniments; with such a distinct change to her phonology it was difficult to guess what she meant. In sentences without clicks she tended to be far more accurate. Let's look at some of her other translations from the point of view of attrition.

She initially translated the sentence "What is that?" as *ǁnai ǁnas*. She then clarified it as meaning "what are you?"   The closest I can think of to what this might be is *tai na ʔas*, meaning "what are you?" Whether the verb to be can be dropped out is unknown; the sentence would then be *tai nas*, close to what she said, and is more phonological attrition than morphological. But thereafter she added *ǀkuiǀkaba*, a phrase she said quite often and translated in numerous ways. As best I can

analyze, /kui means child, a word used from other speakers. /kaba is perhaps coming from /ka + -ba, 'small' + nominal particle'. It's mostly speculation, however, as the amount of combinations possible with all 4 clicks and all of the accompaniments is extensive; with such a collapsed phonology the morphology becomes much more difficult to analyze. There were numerous other sentences where she overused certain words, but I suspect this is not attrition but rather imperfect acquisition of the language.

The speaker SW is also worth investigating. She was monolingual in Khoemana until she got married, at which point she learned Afrikaans and ceased to speak the language. Her siblings also were possibly at one time fluent in Khoemana, but they both refused to speak it when I met them, except for her brother occasionally interjecting with words or phrases. How much they have forgotten or at one point knew is impossible to say, as they refuse to use the language, but her brother did appear to understand when SW spoke with him.

One interesting feature of her speech was the reduction of the pronouns; for the most part she used the third person exclusively. For the translation of "I don't know" we received the phrase /ʼuka ana koin, with the clarification afterwards that it means "I don't know what you're saying". There are a few possible ways to break down the sentence. Morphemically, the sentence can be broken down as follows:

/ʼu-ka	ʔa-na	khoi-n
not know-potential	to be-INC	person-IND.PL

Nominal-verbal agreements appear to be optional in Khoemana, leaving the verb underspecified and the understanding coming from context. -na is a very common clitic to verbs, technically showing the incomplete or progressive aspect, but it is used in a variety of situations. ʔa or a is the verb to be, which can also function as a copula or in combination with other aspects. In combination with -na, ʔa functions as a verbal formative expressing continuity or progression. Loosely translated, the sentence means "I (perhaps) do not know (is) people". The plural indefinite ending is curious for the object in this sentence. In no place is any form of the first or second person used. What becomes even more pertinent however, is the verbal formative ʔana, a word that the speaker uses consistently in a variety of complex opaque ways.

For the sentence "He's speaking the Griqua language" we have

Ɂana   mana...   jeβa   ǀhei khoen **Ɂana**   mana.

For the sentence "I am from America" we have:

Ɂana   khoep   **Ɂana**   ǀkhuːsi   Ɂani...   ǀūkute   **Ɂana**   di   **Ɂana**
ha.

For the sentence "I study the Griqua language" we have:

mana   jeβa   ǀhe khoen **Ɂana** mana   jeβa **Ɂana**   ǂkã̃n   **Ɂana**   ǂkutse.

I am not able to analyze these sentences properly, but *Ɂana* becomes suspicious when used at this frequency, particularly when it did not occur in nearly the same frequency with the other speakers. I suspect she is using it as a form of linking word, and it is taking the place of a number of grammatical words. *jeβa* is also used frequently, but I was more comfortable with that as it was used by many of the other speakers as well. *jeβa* is probably a complex type of case marking which I do not fully understand; one speaker translated it as person, but it probably is a more complex issue. *Ɂa-na* was also still a common word in other speakers' speech, but not nearly to the same frequency. In Meinhof' s dictionary *Ɂa* can build possessives, mean 'to be', build the cohortative, or mean yes. *-na* functioning as aspect marking is also relatively common, and *-na* as a pronominal affix would refer to the 3rd person plural indeterminate. These are relatively common uses of language, and it would be understandable that they would occur. Yet I see no instance of 'from', *xu*, nor America, nor many of the other grammatical affixes that regularly occurred with other speakers.

6.4.3. Phonological attrition

As mentioned previously, I do not have enough tokens of the language to have an accurate description of the phonology. The only variation aside from clicks I saw within the phonology was nasality and certain vowels, and I suspect that these variations are grammatical. Without enough tokens, I could not analyze tone; however, it did appear that there was also inconsistency with the tone, so this is a possible future area of study.

In his description of !Xóõ (1985), Traill mentions that the clicks show strong stability in a lack of dialectal variation across a wide range of area. My own findings with Khoemana were not similar, to

say the least. Note the following from Traill & Vossen (1997):

"The recognition that there was something systematic about click loss in some of the Khoe languages coexisted with a more widely held view that unconstrained click loss, click replacement, and even instability of accompaniments were characteristic features of *all* "Bushman" languages... Although Lanham and Hallowes understood that the language they were studying (‖Xegwi) was moribund, they explicitly ruled this out as an underlying cause of "interphonemic" variation, stressing instead that it was a normal feature of "Bushman" languages. (Lanham & Hallowes 1956a: 107-108). These observations were so at variance with what we have observed, that we have asked ourselves what distinguishes the languages studied by Doke, Maingard, and Lanham and Hallowes with the ones we have investigated... we regard these cases of phonological instability as interesting and typical indices of language contraction, shift, and death (Tsitsipis 1989: 119) rather than an intrinsic feature of Khoesan languages, and we point to the fact that the native speakers of ǂKomani and ‖Xegwi, two languages which largely gave rise to the above claims of click instability, either died out or completed the shift to Afrikaans soon after they had been studied." (Traill & Vossen 1997:28)

Khoemana is in much the same position as Lanham & Hallowes' research. Nearly all the speakers' clicks were constantly changed, deleted, or inserted; the variation with clicks was at times extreme. As mentioned earlier, in one partial speaker's speech, there was a completely collapse of all alveolar and palatal clicks into dental and lateral. Additionally, clicks were added or deleted in words at random, although more often than not they were added, not deleted.

As an example of another speaker, for the translation of the word 'laugh' I received *!kxʼain* one day and *kxʼain* the next. The word in the literature is *kxʼain* (Wuras 1920). 'Mouth' received the same variation: *!kxʼami* and *kxʼami*, written in the literature as *kxʼama* (Wuras 1920) or *kxʼams* (Maingard 1962). In some situations, however, it did not even require a period of time to hear the variation. When I asked the same speaker for the word nose, the speaker respond with *guip*. For confirmation, I asked "guip?" at which she responded 'ǂ*guip*.'

Note a third speaker's speech here in figures 14 and 15 for the word cat. In the literature, the word is listed as |*hõãp*; she uses the same click for figure 14, although she pronounced the vowel as [ã] and does not pronounce the [o]. In Figure 15, she uses an alveolar click rather than a dental, but pronounces the vowels fully.
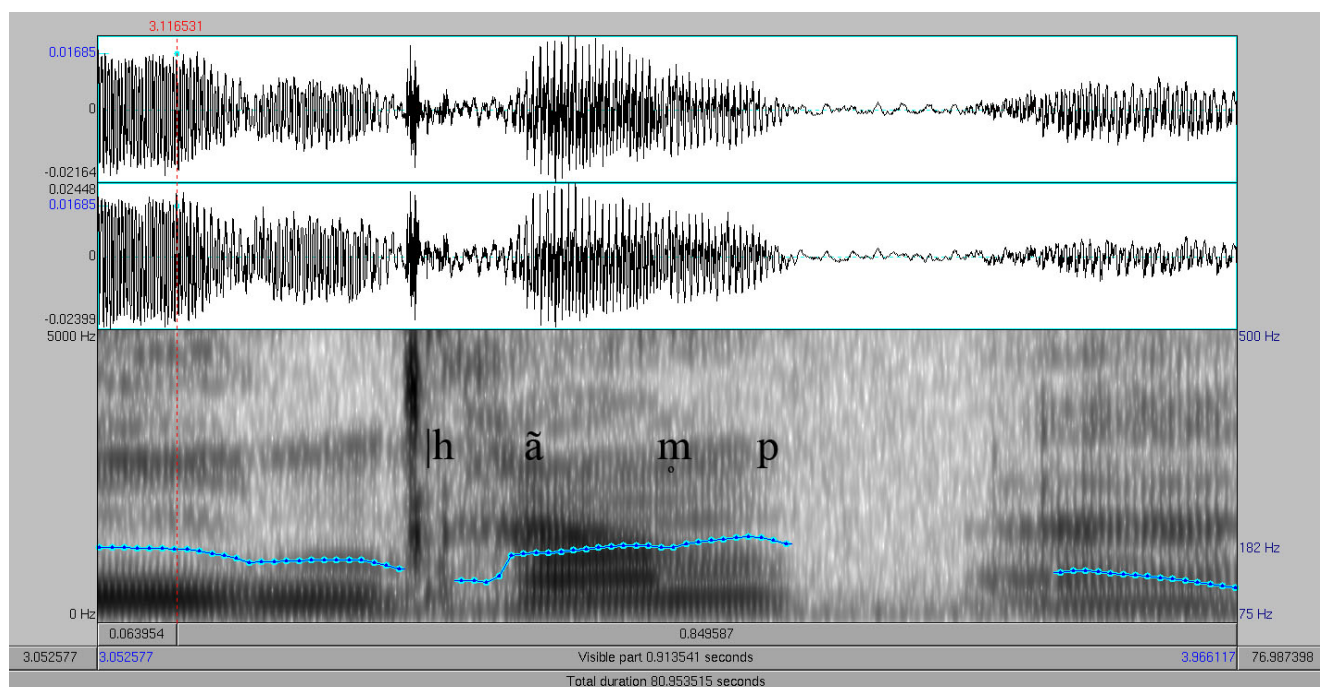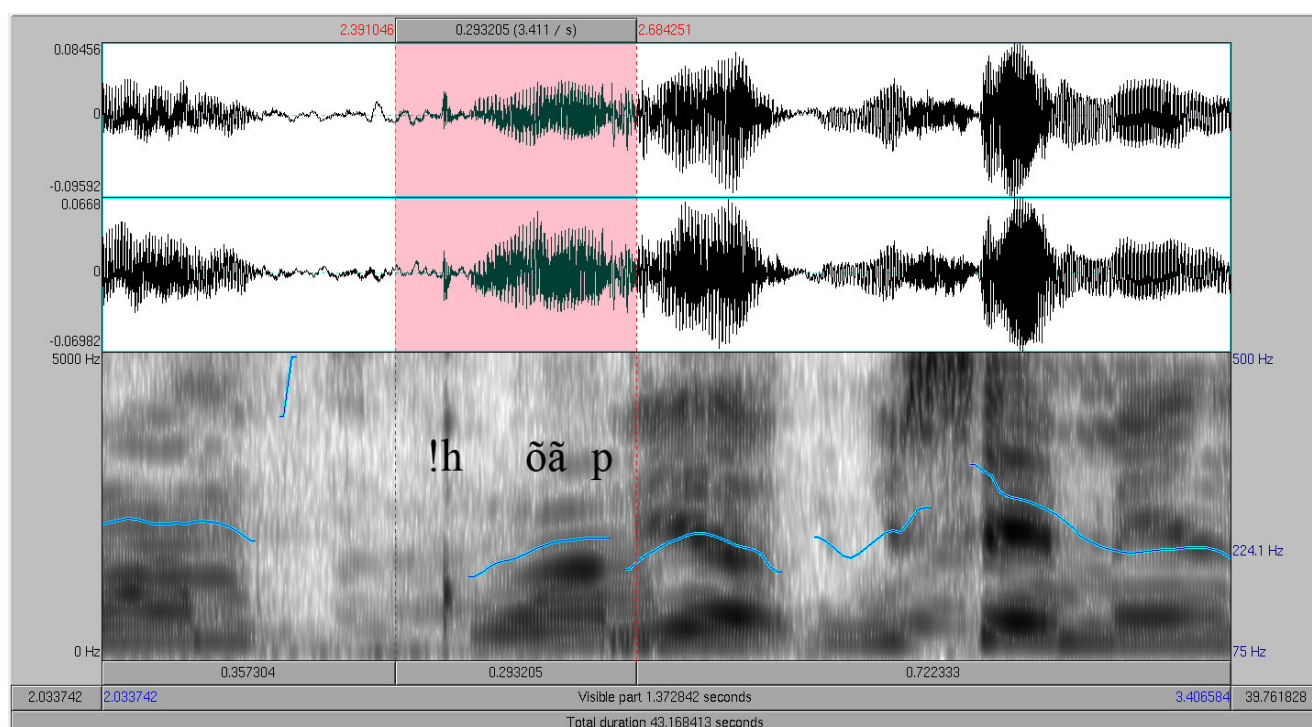
Figure 14: |hḁ̃m̥p

Figure 15: !hõãp

A fourth speaker was explaining the word for white man, *!hup*. While she was explaining, partial speakers also were there and repeated the word, replacing the alveolar with a dental click. Note the comparison of 16 and 17.
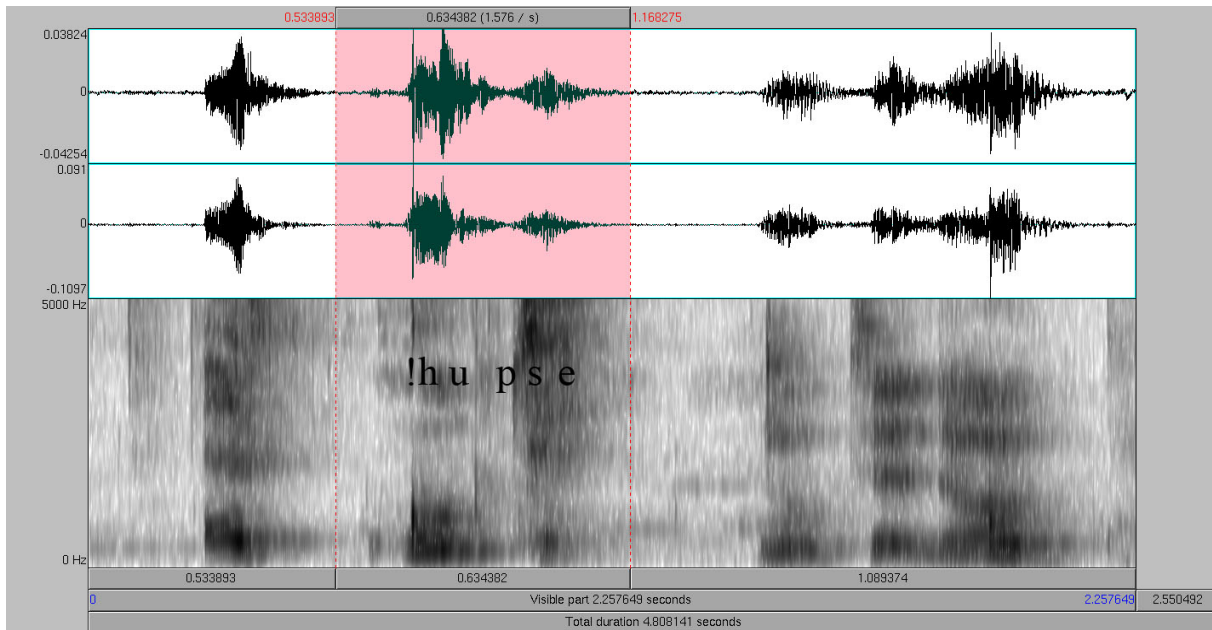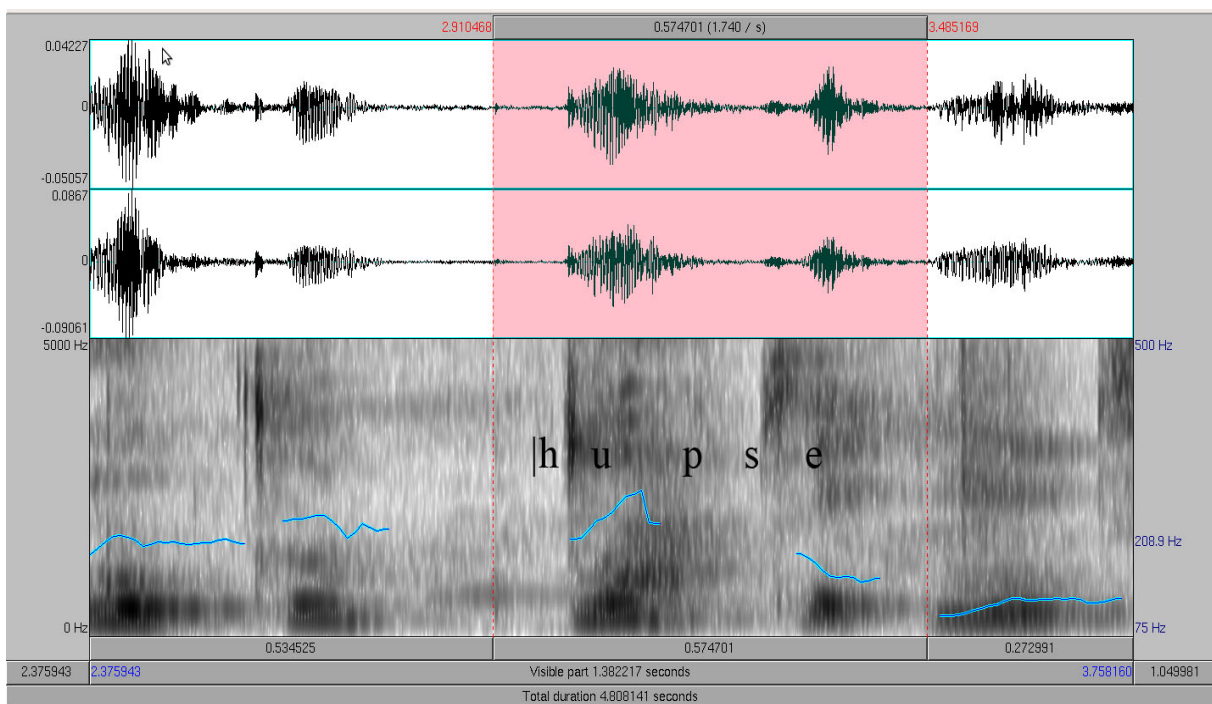

Figure 16: 'white man' with alveolar click

Figure 17: 'white man' with dental click

Generally speaking, the speakers who actually spoke the language well in other areas did not confuse the accompaniments. However, addition or deletion of the clicks themselves was very common, as was replacement of the clicks by other clicks. One speaker commonly used alveolar clicks when other speakers and the literature use dental. Speakers who had less developed grammar in the language could show variation with the clicks in any way, as seen in our one partial speaker.

7. Discussion

7.1. Attrition, culture, and phonology: theoretical implications

Let us return to some of the original points made in the introduction, that we can systematically address these issues.

1. The Griqua and Korana have been marginalized and persecuted since the European invasion of southern Africa. This has led to a subsequent devaluing of their culture from the people, and a shift in identity.

2. The few remaining speakers have strong ties to their social culture, participating in rites of passage and perpetuating their indigenous beliefs, resisting enculturation and identity/language shift. Because the speakers are nonetheless under great economic and social pressure to shift, including persecution, their language displays a greater amount of attrition than would be predicted.

3. Clicks are seen as a unique linguistic attribute, and a key element to the culture. This forms a complex relationship, combining the desire to gain economic and social status with a desire to resist enculturation. The combination of trying to maintain their cultural identity while under pressure has resulted in an even greater phonological confusion and decay. These inconsistencies arise through the desire to retain clicks as part of the culture and through an unconscious recognition that clicks are a marked part of the language.

7.1.1. Persecution and the cultural devaluation

For a historical description of their persecution and genocide, see section 3.1.1, which establishes the state's aggressive campaign of enculturation, destruction, and persecution. There are individual examples I have also received from some of my informants as well as other community members, but due to ethical considerations it is not possible to share details. Quite a few of the speakers did explain that they were beaten in school if they were ever caught speaking any native language, however.

Let us now take a look as the second proposition, that they have devalued their own culture and shifted in identity. In order to withstand the amount of persecution they have faced, it is difficult to conceive of not having an identity shift in some fashion. The people have been forcibly relocated, beaten for speaking their language, forced to recant and disavow their culture if they were caught speaking about it, and beaten into subjugation through both physical and legal means. The church has become a big part of their life for many Griqua, and most community members I met, whether they spoke a Khoe language or not, were not aware of the history and culture of the people. Many did refer to themselves as coloured, and even the term Griqua is a complex issue, as it became an umbrella term under which many persecuted people felt they could identify themselves. Most community members do not know older ways of living, such as older farming techniques or how to herd. Most modern Griqua were born in squatter camps or townships, a South African term for underdeveloped areas reserved for non-whites, typically at the periphery of cities. They have little contact with any indigenous culture, and for the most part are living a modern if impoverished way of life.
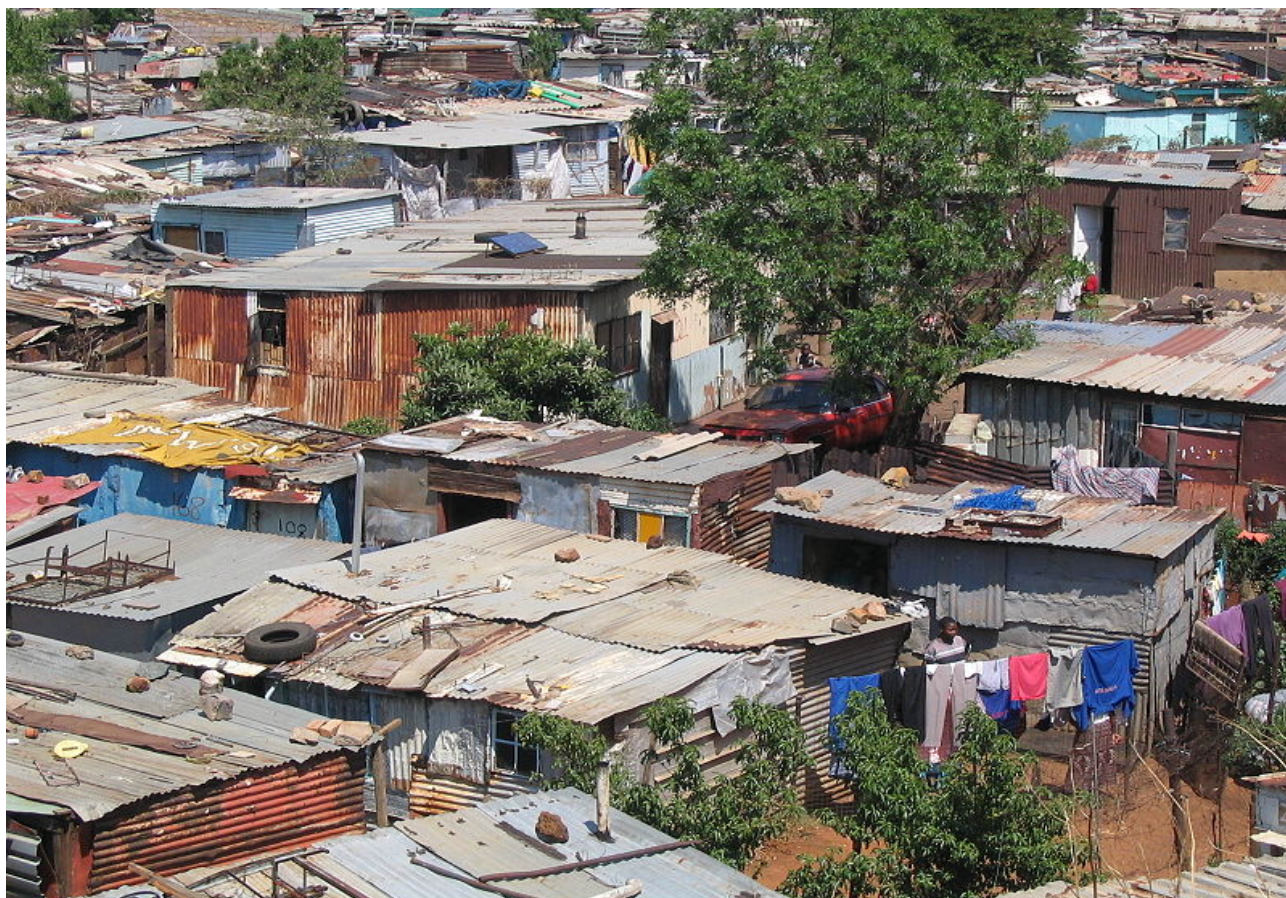
Figure 18: A typical South African Township

7.1.2. Identify shift resistance: ties to the Culture

The next point I argue is that the speakers are unusual in their enculturation resistance. While not all of them are involved with cultural movements, at least five of the people I worked with were involved with one female rite of passage called variously |*nabasas* or ǂ*nabasas* by my informants; Nurse (1975) referred to the rite of passage as !*gabadas*. One group of three women worked together with the ritual; two other informants also worked with the ritual, but separately, unconnected with any of the other speakers and each other. This does not necessarily coincide with levels of speaking ability; two of these five had acquired the language incompletely in childhood. Yet they still were able to communicate in some fashion in Khoemana, albeit not monolingually.

This same group of women whom I worked with also were involved with promoting the culture in other ways; they explained that the origins of the Griqua are from the tortoise, ʔ*osǂnas* or ʔ*oǂnas*, and

ostrich, *ʔoǂnami*, who were the first Griqua. Similarly, there are cultural dances in which they dance like the tortoise or ostrich, and there are words in the language relating to how the tortoise or ostrich walk.

One speaker I did not get a chance to meet, Jacoba Maclaire, gave a speech at a Khoe-san convention. She was apparently fluent in what she called the Korana language. Dr. Mike Besten, one of the organizers of the convention, commented, "One of the most extraordinary moments of the convention was when Ouma Jacoba Mclaire delivered an entire address in !Ora – confounding those delegates who had up until then supposed that the last surviving speakers of this once major language of the old Cape now recall only a few isolated words of it." (BULT 2008).

The remaining two speakers I worked with did not speak of involved in direct promotion of the culture in any way, but it is possible that they are nonetheless aware of the culture more than other members of the Griqua and Korana communities due to linguistic knowledge. Further research is needed to determine how much the speakers still remember of cultural practices and stories, and what those practices might be. Origin stories at the very least are not discussed in depth in any of the previous descriptions, and an important future area for anthropological research.

7.1.3. Khoemana and its problems within an attrition framework

There are a number of issues still to address regarding language attrition and Khoemana's place in it. Pallier's study showed that the effect of age has strong determintal effects on the capacity to learn a language (Pallier 2007). Yet one speaker claimed she did not speak anything except Khoemana until she got married, and she showed no signs of affected Afrikaans, her L2. Furthermore, her L1 has distinct signs of attrition. Bever's hypothesis as well would predict that such a speaker would have more limited L2 skills than those speakers who learned Afrikaans earlier, yet this speaker had a much heavier reliance on Afrikaans than the theory would predict.

The idea of interference and language switch are also prominent to the Griqua. For some of the speakers, particularly those who appeared worse in the language, they began learning Afrikaans at an early age. Around the same time, they would have begun speaking Khoemana less, perhaps realizing the social implications of the language being underclass. None of the speakers that I could tell had

any imperfect L2s (Afrikaans), although MP came close. Rather, their L1 was actually the language which suffered, akin to Pallier's Korean subjects but in a less extreme manner. If the speakers were slightly older than 10, perhaps there was an incomplete deletion of the L1 when they began learning Afrikaans, compared to a simply reduced and/or attrited L1.

In comparison to Schmid's (2002) study on language use, the Griqua had very different results. Age of migration is an irrelevant factor in the case of the Griqua, as almost all were still living in areas historically inhabited by the Griqua, and did not leave a geographical region where there was prolonged L1 contact. Their L1 contact as children was often contained within a familial situation, as the community had already begun its shift, and began more than likely earlier than Schmid's situation. Currently, many of the speakers have not used the language in a very long time, some as much as 50 or 60 years. What little use they have had comes through communication with children or animals, at times with family members. However, the Griqua I worked with had prolonged L1 access time, and extensive syntactic, phonological, and lexical attrition. Even in cases where the speakers were monolingual until their 20's, such as mentioned earlier, they showed heavy difficulties in remembering lexical vocabulary, and their grammatical systems had also attrited.

7.1.4. The markedness of clicks

Traill and Vossen (1997) and Wilmsen and Vossen (1990) both have investigated click loss and mutation in various Khoesan languages. According to Wilmsen and Vossen, click loss is seen as a response by the speakers of certain Khoe varieties that are associated with underclass. In Botswana, clicks in Khoesan languages are perceived as peculiar or strange by the economically dominant groups, with some Batswana asserting that such sounds cannot be "a property of a real language" (Wilmsen & Vossen 1990). By replacing them, the speakers may be able to legitimize the languages, weakening identification with being underclass. Traill and Vossen noticed a strong correlation between Khoe languages in which click loss is found, and the economic situation of these Khoe-speaking groups. Their social status is a reasonable choice in giving the impetus for the linguistic changes. The amount of contact with the dominant groups also plays a role in the amount of click loss. Traill (1984) found that speakers of the Eastern Khoe dialects, where the loss of alveolar and palatal series is effectively complete, have been involved in contact with Bantu agro-pastoralists for 1500 years. Traill and Vossen commented that while click loss may have its sociolinguistic impetus, they are nonetheless phonetically motivated. Palatal and alveolar clicks tend to be more subject to

change compared to dental and lateral clicks, and the cause is complexity.

> "The articulatory requirements for an acoustically powerful abrupt click therefore involves a combination of extreme articulations needed to maintain the position of the anterior during rarefaction and to ensure its rapid release. The only objection to calling this combination of articulatory gestures required for ! and ǂ "fortis" is that it would add to the overuse of the term; however it seems particularly appropriate in this case. And it is this fortisness which makes the abrupt clicks marked and the target for change via weakening and eventual loss. The trigger for these may be sociolinguistic but the course they follow is phonetically motivated, by the pressure to reduce articulatory complexity" (Traill and Vossen 1997, pp 48-49).

Among the Khoemana speakers, the palatal and alveolar clicks also showed more of a tendency for replacement or confusion than dental or lateral clicks. The complete abandonment of palatal and alveolar clicks by one speaker is a good example of this. However, an interesting situation which developed in Khoemana which Traill and Vossen did not encounter is click addition or replacement with the most marked clicks. There were many situations in which clicks were added by my informants to words which did not historically have clicks. Furthermore, what we have in Khoemana is not click loss per se, but rather confusion. Clicks are at times used indiscriminately; switching from one click to another, adding clicks, and deleting clicks are all possible situations. Traill and Vossen comment that "...we have not explicitly argued against click "genesis" or click "strengthening" simply because we see nothing in the data to support it and we feel that our phonetic and sociolinguistic explanations are adequate" (Traill & Vossen 1997, p 52). And yet it is this very situation which occurs in Khoemana, although click loss and change is also seen as well. *kx'ain* 'laugh' and *kx'aip* 'face' are both words which have not historically had clicks, and yet clicks were at times added to them in my elicitations. Furthermore, the clicks which this speaker added were not the dental and lateral clicks, but the more marked alveolar click, the one which Traill & Vossen have noted to be the one most easily lost across click languages. In SP's Khoemana, the partial speaker who had the collapsed phonology, clicks were added indiscriminately to many words, although these were strictly dental and lateral. In MP and MK's Khoemana, there was variation between the clicks; at times they would give the word as having one click, and at times they would give the word as having another.

I would argue the cause of this as identity confusion, particularly in the current transition phase between an underclass identity and the desire to restore the group to a position of respect. With the current renewed interest by many ethnic Griqua in their history and culture, there has come with it an interest in the language. For many years the speakers have felt the pressure of having a language associated with being an underclass. With a possibility of this changing, such as linguists and community leaders communicating with them solely for their linguistic knowledge, and the potential for land claims based on linguistic evidence, phonological confusion has developed. Thus, we do not just have click loss, but click genesis, even clicks of the most marked kind. The younger generation who do not speak the language show even greater effects with this, and it is easy to notice that they add many clicks to words which do not have them when listening to the speakers or trying to learn it. Clicks still retain a marked position in the language, particularly the alveolar and palatal clicks, and it is these clicks which are showing the first signs of genesis. Traill and Vossen further comment that "there are some sequences of non-click consonants which are indeed imaginable sources for clicks. For example, [px, pkx', tx, tkx', tsx, tsx'] are only a coarticulatory adjustment and airstream away from clicks" (1997: pp 52). It is interesting to note that the velar affricate [kx'] in Khoemana was one of the primary candidates in click addition, suggesting again that Traill and Vossen's speculations may be correct.

7.1.5. Identity as a Solution in Framework Difficulties

There are a number of lingering questions on language attrition among the Griqua. One speaker was monolingual in Khoemana until her 20's, yet she had marked language attrition of her L1, whereas her Afrikaans showed no unusual signs. Her siblings, who also probably were monolingual until a similarly late age, were either unable or unwilling to speak the language nearly at all. Xhosa speakers who were on the brink of language shift did not use English morphemes, yet MP mixed grammatical morphemes extensively, relying more on Afrikaans morphology than Khoemana. Almost all of my informants had extensive phonological attrition, even if they learned Afrikaans late, which did not occur in any of the previous studies. Procedural memory, while less easily affected by interference, was nonetheless affected in their systems.

The root of all of these issues is identity, and it appears that in particularly emotional situations,

identity can play an extreme role in language suppression or change. Wilmsen & Vossen (1990) mention that in Botswana, linguistic minorities are defined from the outside, with their speech self-consciousness taking its bearings from the dominant language. A similar situation occurs with the Griqua. Even the term Griqua is somewhat of a strange mix, as numerous tribes have slowly been drawn to it by the idea of gaining some sort of recognition and identity. Historic tribal identity is nearly extinct among the Griqua, aside from my one informant's connection to the mysterious |*Hei Khoen*. The government had suppressed tribal identification, classifying all of the various Khoe tribes as 'coloured'. Even before this, however, the various tribes had been slowly merging into the Korana and later Griqua, in order to have more political and social power.

The combination of the desire to cling to something from their roots, and the pressure to get away from being underclass, has combined in an amalgamation of different identities, with even various N|uu speakers calling themselves Griqua. Griqua is a safer term than coloured, as it gives more of a historical connection, yet with it comes more of a potential for economic or social advancement than the tribal names might have given. Prescher (2007) found that German immigrants in the Netherlands had difficulties accessing their German. Ben-Rafael (2007) found that French speakers in Israel had attrited French, and needed to work to keep up their abilities. These French speakers initially had strong desires to switch to Hebrew, and there was a real emotional connection to the language.

Among the Griqua, there is also a strong emotional connection to the language, evincing itself in a myriad number of ways. When I worked with some of the speakers, it was the first time some of them realized how much their L1 had attrited, and it was very difficult to come to terms with. They still felt a strong connection to the language, and were embarrassed and ashamed of having lost so much. These were speakers who enjoyed being part of the culture, participating in rites of passage, telling stories, etc, and language is a key part of culture. It is possible that with the Griqua, we have a combination of Prescher and Ben-Rafael's research, in which historic emotional events and socioeconomic pressure have caused them to abandon the language to some extent, yet a strong cultural bind remains. German and French are not economically or culturally stigmatized languages, and there is not a social or economic pressure to switch beyond that of normal immigrant integration. A conflict between this stigmatization of Khoemana and a strong cultural affinity develops, and language attrition increases as a result of this conflict.

7.2. *Methodological Considerations*

A number of particular issues also exist with the methodology of this particular study, and must also be commented on. Primarily is that of a lack of quantitative data in which to compare or make conclusions. Although as many speakers were approached as possible, there is insufficient statistically reliable data and well defined categories in which a study could be repeated. Speakers were inconsistent on what they could remember, both individually and across the total amount of speakers. There is little measurable data beyond phonetic comparisons of certain sounds, in order to prove the phonetic and phonological losses, and to prove language relations.

Furthermore, Yağmur (2007) discusses, among others, the problem of using non-representative informants or very old/young informants. While age can indeed be a important factor in L1 attrition, even monolingual native speakers can forget aspects of their language. The constraints of having a lack of speakers hindered my efforts considerably; the speakers I was able to find were all at least in their 70's, with the best speakers being in their 80's or 90's (the speakers themselves did not always know how old they were). Van der Linden et al. (1999) report that individuals over the age of 70 appear to exhibit more difficulties in lexical retrieval than younger speakers, and can provide less synonyms (Gross 2004).

Finally, the fact that the speakers may not have acquired the language perfectly is also of considerable relevance, as it brings into play the idea that what we may actually have in this situation is not attrition but rather imperfect acquisition. We do not have any verifiable information regarding the speakers' earlier years, and thus must take it on faith that when the speakers said they were able to speak it fluently, this is the case. It is probable that although SW mentioned she was monolingual until she was married, still had extensive passive input in Afrikaans. This would potentially explain her fluency in Afrikaans compared to what might be predicted.

The speakers were actually representative of the current state of the language, as there were so few speakers left and they all for the most part were in similar situations, but they were not necessarily representative of language attrition in a broader context.

8. Conclusions

Identity has been difficult to define for many of the Khoe peoples in South Africa. That of being historically underclass and persecuted combined with government propagation of outside-defined ethnic names has caused identity conflict and confusion. This in turn has strongly affected linguistic abilities, generating conflicts between a desire to retain the culture and a similar desire to become less disadvantaged. The Griqua as a whole have moved away from their Khoe roots, although many of the few remaining speakers resist this identity shift. Clicks are the most marked phonological part of Khoemana, and alveolar and palatal clicks are the most articulatorily difficult sounds to produce. Consequently clicks, particularly alveolar and palatal clicks, show the greatest signs of phonological confusion, and all speakers except for one showed phonological attrition with respect to clicks.

Many questions remain about Khoemana. The language itself remains to a large extent undescribed, so most linguistic questions remain unanswered. The earlier researchers, while impressive in their own way, nonetheless did not investigate or understand the language fully, and it is important to have a sound basis in understanding the language's norms before we can investigate dialectal differences or attriting aspects. Before anything else, a proper description must be undertaken.

Furthermore, the amount of speakers I dealt with was limited from a theoretical standpoint.   It would be interesting to investigate parallel situations in other economically disadvantaged communities in the process of language shift, to see if a similar result emerges. This would have a definite implication in language attrition, as it might suggest that our own volition can affect the rate of attrition.

Examining literacy or education in connection with minority groups and attrition also may prove valuable. The connection of literacy to minority groups and language attrition has not been fully addressed as of yet, and it is definitely worth pursuing. Can illiteracy accelerate language attrition? In the case of the Griqua, all of the speakers are illiterate, and all except one evinced phonological attrition, suggesting that it is possible, although my analysis focuses on identity rather than literacy.

Through further studies and investigations, we can grow to understand a number of aspects of human language, not least of which is understanding the Khoemana language itself. By drawing a parallel to other minority groups, we can perhaps understand more of language attrition and its limitations and

implications. Finally, we can develop understanding of the link between identity and language, and its possible connections in other sociocultural areas.

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10. Appendix: Khoemana grammar

The following is a brief description of the Khoemana grammar, taken from Maingard's "Korana Folktales" (1964).

10.1. Morphology

Khoemana is a fusional language, with a moderately simple nominal system of noun classification, limited adjectival agreements, available but typically underspecified verbal agreement, and fairly extensive verbal aspects and syntactic versatility.

10.1.1. Nouns

Short forms of the third person personal pronouns are suffixed to the roots of nouns, performing a number of functions.

- *-p*   masculine singular
- *-s*   feminine singular
- *-i*   indeterminate singular
- *-kara*   masculine dual
- *-sara*   feminine dual
- *-ka*   indeterminate dual
- *-ku, kwa*   masculine plural
- *-di*   feminine plural
- *-n, -na, -ni* indeterminate plural

The masculine singular ending can also function as forming a definite noun, the indeterminate form adds indefiniteness and/or uncertainty regarding the sex of the being in question, or denotes a general reference. There are a myriad number of uses for the suffixes, however, including sex, definiteness, size, function, as well as nominalization from adjectives or verbs.

Other possible short forms of the personal pronouns exist, functioning as case suffixes on nouns.
- *-ba, -bi*   masculine singular
- *-sa*   feminine singular
- *-kwa*   masculine plural
- *-ni*   indeterminate plural

- *-kwa* and *-ni* also exist as normal plural suffixes. In these uses however, *-kwa* and *-ni* indicate

and are used indeterminately for subject or object formation.

- *-ba* is used in a variety of ways, such as circumstances of time, cause, place, object marking
- *-bi* is used almost exclusively as subject or object marking.
- *-sa* functions as a subject or object marker, as well as an agent formative.

10.1.2. Pronouns

The following table is a list of the personal pronouns in both full and short forms.

		Singular	Dual	Dual (incl.)	Dual (excl.)	Plural	Plural (incl.)	Plural (excl.)
1st person	masc.	*tire, tir -re, -r*	*kam, kham*	*sakam, sakham*	*sikam, sikham*	*-kie*	*sakie*	*sikie*
	fem.	*tita, -ta -te*	*-sam*	*sasam*	*sisam*	*-si, -se*	*sase*	*sise*
	ind.	--------	*-m*	*sam*	*sim*	*sida, -da*	*sada*	*sida*
2nd person	masc.	*sats, -tsa, -ts, -tsi*		*-kharo*		*-kao, -kau*		
	fem.	*sas, -sa*		*-saro*		*-sau*		
	ind.	--------		---------		*-du*		
3rd person	masc.	*lleĩp, -p, -ba, -bi*		*-kara, -khara*		*-ku, -gu, -kwa*		
	fem.	*lleĩs, llis, -s, -sa*		*-sara*		*-di*		
	ind.	*-i, -e*		*-ka*		*-n, -ni*		

Full forms are used as subjects, although in casual speech the 3rd person pronouns are rarely used in their full forms. The use of the short forms of the personal pronouns compared to the full forms is complex, discussed by Maingard (1964) to some extent but warrants much greater investigation.

Some of the possessive pronouns are as follows (the table is incomplete):

	singular	plural

1ˢᵗ person	*ti, are*	
2ⁿᵈ person	*tsa, sa*	*sadu*
3ʳᵈ person	*ǁeĩp, ǁep, ap (masc)* *ǁeĩs, is (fem)*	

There are certain clitic forms with can link with pronouns:

- *ʔi-*   "and", functions as a particle combined with the short forms of the pronouns
- *-eː*   vocative, often combines with ts

Syntactically, object pronouns come before subject pronouns, although third person pronouns often come at the end.

mũ tsi r ko-a   "I saw you."
mũ r ko-a ǁʼaib   "I saw him."

10.1.3.   Adjectives

Adjectives come before nouns syntactically. Certain adjectives in certain situations take the *-sa* ending, although the particulars are unknown. In situations of familial relationships the adjectives also take the nominal suffix, e.g. *ti!kã-s khei-s* "my elder sister". In most other situations there are no suffix markers for adjectives. Numerals and colours are always suffixless.

10.1.4.   Verbs

There are a number of verbal formatives in Khoemana denoting aspects:

- *kie*   -completed action
- *ko*   -action recently completed
- *nã, na*   -action incomplete or in progress
- *ta*   -action contemplated but not yet started
- *hã, a*   -action permanent or its effects still persisting
- *nĩ*   -action viewed as a necessity, "must"

- *ka*   -action viewed as a possibility, "could"

Verbal affix combinations:
- *kie kie*   -denotes remote past
- *kie nĩ*   -denotes completed action which was a necessity
- *kie hã*   -denotes a completed action whose results still persist, or emphasizes the completing of an action, the results of which still persist
- *kie ko*   -action completed with emphasis on its recent completion
- *nã-nã*   -emphasizing the progression of the action
- *ka-nã*   -expressing doubt with the action still progressing
- *hã nã*   -action continuing
- *ha ko*   -in wishes or commands

Serial verbs are also common in the Khoemana language, such as *u* + *tsi* (take + carry = take away).

Other possible verbal affixes are:
- *-ba*   -functions as a dative
- *-si*   -functions as a causative, although causatives can also be formed by reduplication (*khãi* to rise, *khã-si* to pick compared with *∥xa* to learn, *∥xa∥xa* to teach)
- *-gu*   -as a reciprocal
- *sin (sen)* -as a reflexive
- *-e, -he*   -as a passive in narratives

10.1.5.   Adverbs

-se is added to adjectives to form adverbs. When forming an adverb from a noun or a verb, *-sa* is added. There are also isolated morphemes as adverbs, such as *tama* "not" or *te, ta* "not (in wishes or commands)". The circumfix *kum..o* can be used to strengthen an affirmative statement.

10.2.   Syntax

The basic word order of Khoemana is SOV. When emphasis is required with certain verbal modifications, the word order can change in a number of complex ways, including the unusual form

of encliticizing a subject personal pronoun to the object, with the verb coming either before or after the object. Other syntactic possibilities include the following:

1.	SVO	Occurs with certain verbal forms
2.	VS	These "inverted" sentence types are common in rapid speech.
3.	Subject pronoun suffixed to object	Occurs with certain verbal forms
4.	Intransitive verb with place circumstances preceding it	Occurs with certain verbal forms
5.	Commands, wishes, etc.	Can vary in word order
6.	In narratives subjects are often omitted	Generally understood contextually

Conjunctions
- *i-, e-* links a sentence with a preceding one. It's generally used as a proclitic on a pronoun or verb.
- *tsĩ, tĩ* also functions as linking words for noun + noun, verb + verb, and some types of sentence linking.
- *kamma* comes at the end of a sentence; functions as a state of being, translates to "as"
- *xabe* "however, although"