Na nyingine kutoka nje ya Tanzania: Discussions of Tanzanian Sign Language within a demissionizing context

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Tiivistelmä - Referat - Abstract

This paper undertakes an empirical investigation of lexical similarity and influence between Finnish Sign Language and Tanzanian Sign Language, situated within the context of demissionization and postcolonial theory. To date, no study along these lines has been undertaken, despite decades of history of Finnish missionaries and teachers in Deaf schools in Tanzania, accompanied by a long-standing record of educational and development support from Finland. By providing historical background information of the Tanzanian Deaf community and the development of Tanzanian Sign Language, this research further provides a contemporary overview of Tanzanian Sign Language.

Over 900 lexical items from Tanzanian Sign Language were compared with signs with equivalent meanings in Finnish Sign Language to determine the extent of influence of Finnish Sign Language within the language. The signs were analyzed based on the Prosodic Model, comparing four main parameters: handshape, place of articulation, movement, and palm orientation. Signs were classified as either *identical*, *similar*, or *different*.

This study provides African sign linguistics a space within the framework of postcolonial theories and decolonization.

Avainsanat – Nyckelord – Keywords

Sign linguistics, Tanzanian Sign Language, Finnish Sign Language, lexical similarity

Säilytyspaikka – Förvaringställe – Where deposited

Muita tietoja – Övriga uppgifter – Additional information

# Content

Acro	onyms	1
List	of Figures	3
1.	Introduction	4
	1.2 Motivation for this Research	5
	1.3 Concepts	8
2.	Previous Research & Literature Review	10
3.	Postmissionization?	14
	3.1 Postcolonial Theory	17
	3.2 Missionization	21
4.	Overview of Tanzania	22
5.	Sign Languages Around the World	28
	5.1 The Tanzanian Deaf Community	33
	5.2 Development of LAT	38
	5.3 Finland Relations with the Tanzanian Deaf	41
6.	Sign Linguistics Overview	44
7.	Methodology	54
	7.1 Framework for Analysis	55
8.	Analysis & Results	60
9.	Conclusions	63

References

Appendix 1: Data

### Acronyms

ASL American Sign Language

AKR Amarenga y'lkinyarwanda (Rwandan Sign Language)

Auslan Australian Sign Language

BSL British Sign Language

CCM Chama Cha Mapinduzi (Party of the Revolution)

CMD Christian Mission for the Deaf

DTS Dansk tegnsprog (Danish Sign Language)

ENAD Eritrean National Association of the Deaf

EriSL Eritrean Sign Language

FAD Finnish Association of the Deaf (Kuurojen Liitto)

FSL Finnish Sign Language

HDI Human Development Index

HIPC Heavily Indebted Poor Country

ICL Íslenskt táknmál (Icelandic Sign Language)

IMF International Monetary Fund

IS International Sign

KSL Kenyan Sign Language

KSLIA Kenyan Sign Language Interpreters Association

LAT Lugha ya Alama ya Tanzania (Tanzanian Sign Language)

LSF Langue des signes français (French Sign Language)

LSM Lenguaje de Signos Mexicano (Mexican Sign Language)

NBS National Bureau of Statistics

NGO Non-governmental Organization

NZSL New Zealand Sign Language

ÖGS Österreichische Gebärdensprache

TANU Tanganyika Africa National Union

TSD Tanzanian Society for the Deaf

UN United Nations

UNESCO United Nations Educational, Scientific, and Cultural Organization

WFD World Federation of the Deaf

WHO World Health Organization

# List of Figures

Figure 1: Location of Tanzania in Africa	23
Figure 2: 'Number and Percentage of Persons with Disability'	34
Figure 3: 'School Fees at Selous School for the Deaf'	35
Figure 4: Deaf Schools in Tanzania	36
Figure 5: Geographical Locations of Primary Schools for the Deaf in Tanzania	37
Figure 6: Allocations of Aid from Finland to Tanzania, 2006-2010	43
Figure 7: Handshape Demonstrated for BORDER in LAT	4
Figure 8: Signs for ENLARGE and MAYBE	47
Figure 9: Frequent Handshapes in Sign Languages Around the World	48
Figure 10: Infrequent Handshapes	48
Figure 11: Wayan Pindi Signing Kata Kolok	50
Figure 12: Examples of Palm Orientation Within LAT	51
Figure 13: Iconicity in LAT	52
Figure 14: Comparison of the Signs for the Verb TEACH	56
Figure 15: Percentage of 'Identical', 'Similar', and 'Different' Realizations	61
Figure 16: Sign Language Family Tree	62
Figure 17: LAT Sign for ART	63
Figure 18: Different Signs for ZEBRA in ESI	64

### 1. Introduction

The African continent is home to a minimum of 2,000 languages, dependent upon which database is referenced, making it one of the most linguistically, culturally, and geographically diverse areas of the world. This number itself is considered to be on the moderate side, as there are many languages that are not recognized or counted by linguists or governments, along with collections of languages that are not known about outside of the communities which use them.

Sign languages usually fall victim to this latter category of overlooked languages. Not only are sign languages bypassed in research and census data by linguists and governments, but often disregarded by international governing bodies; the *Atlas of the World's Languages in Danger* (Moseley, 2010), compiled and maintained by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), infamously lacks data on sign languages. Verily, none are included in the current edition of the Atlas¹. The 2010 UNESCO publication, *Why and How Africa Should Invest in African Languages and Multilingual Education: An Evidence- and Practice- Based Policy Brief* (Ouane & Glanz, 2010), also makes no mention of sign languages despite the publication's recognition and advocacy of multilingual education.

This negligence is not just limited to UNESCO: the majority of people, organizations, and bodies across the globe do not acknowledge the myriad of sign languages used within our world. This oversight is due in part to the lack of knowledge regarding sign languages (until recently sign linguistics has not often been researched by academics and linguists; discussed further in *Literature Review* below) and in large part due to stigmatization and discrimination of Deaf communities.

<sup>&</sup>lt;sup>1</sup> The new upheaval of the Atlas, currently under edit, will include data on sign languages.

#### 1.2 Motivation for this Research

As a child, I grew up in a household that intermittently used American Sign Language (ASL); my father, who is hearing, is fluent in ASL due to friendships and work, and my mother, who is also hearing, showed mastery of the language for similar reasons. Alongside teaching me the basics of ASL, they shared with me the history and development of the language within the United States and they acquainted me with names such as Andrew Foster, a famous missionary who was deaf<sup>2</sup>.

Prior to moving to Helsinki for studies, I lived in Tanzania where I had a few Deaf friends who introduced me to LAT. They shared stories of being required to use Finnish Sign Language (FSL) in school as opposed to Tanzanian Sign Language/Lugha ya Alama ya Tanzania (LAT), or even stories of not being allowed to use sign language at all at school. As I commenced my master's degree in African Studies at Helsinki University, a program strongly oriented around culture, humanities, linguistics, and post-colonial theory, I began to notice that one linguistic perspective had consistently been left out of research discussions: sign languages.

Learning this history of LAT, I started questioning the use of non-native sign languages within African education and political systems, and I began to wonder how much influence FSL had on LAT, and to what extent this influence is maintained and felt today.

<sup>&</sup>lt;sup>2</sup> See Terminology section below for discussion of terms deaf vs. Deaf.

### **Importance**

"History teaches us that, in certain circumstances, it is very easy for the foreigner to impose his domination on a people. But it also teaches us that, whatever may be the material aspects of this domination, it can be maintained only by the permanent, organized repression of the cultural life of the people concerned. Implantation of foreign domination can be assured definitively only by physical liquidation of a significant part of the dominated population." (Cabral, 1970).

Colonialism and neocolonialism within Africa have been discussed throughout the past decades in many ways: politically, economically, educationally, and linguistically, to name a handful. During the colonization period of Africa starting in the late 1800s, the colonizing countries often brought their language to the subjected country, implementing it in the administration and the education system. Many of the now independent countries of Africa have still retained their former colonial languages, leading to local languages sometimes incorporating words from the colonial language. To illustrate, in Morocco, *Darija* - the name for the country's spoken variety of Arabic - is often interspersed with French; in Tanzania, Swahili has borrowed many words from English.

Within sign linguistics, there is minimal research asking these questions in the context of post-colonial theory and Missionary Linguistics. Missionary Linguistics, which is defined as the study of the construction of languages within a universalizing/totalizing colonial framework through implementation of missionaries, has left a very complex legacy in language scholarship in Africa (Stolz & Warnke, 2015). After researching the influence of sign languages imposed and imported by missionaries, could we claim that ASL, FSL, British Sign Language (BSL), and other non-indigenous sign languages

used in Africa were *colonizing languages*? Moreover, if the answer to that question is yes, how can we as academics utilize that information to analyze and discuss post-colonial theory from the linguistic perspective of Deaf communities?

This thesis has two main aims: 1) to provide a contemporary overview of LAT within Tanzania and the context of sign linguistics; and 2) to determine the influence of a non-native sign language, FSL, on the indigenous sign language of Tanzania, LAT, through a missionary lens and postcolonial framework.

To date, no comparison has been made between these two sign languages, despite historical and anecdotal reports of FSL's usage and influence within Tanzania. Within sign linguistics, the preponderance of ASL, BSL, and LSF (langue des signes française; French Sign Language) is staggering. Therein, this thesis contributes to the growing literature on sign linguistics, expanding the languages covered. It delineates an investigation into contemporary lexical similarity between FSL and LAT while taking a critical lens towards missionary perspectives within African linguistics.

#### **Outline**

I begin with a brief review of potentially disputable terminology applied throughout this study. Following is a cursory overlook of the development of the field of sign language linguistics and synopses of previous studies comparing either lexicon or phonology of two sign languages. This background literature sets the scene for the research undertaken in terms of concepts, terms, and methods.

The following chapter contains an overview of sign languages around the world, with an introductory lesson into phonology of sign languages. Chapter five succeeds by grounding this research in the fields of Missionary Linguistics and Postcolonial Theory<sup>3</sup>. The sixth chapter describes the more specific context and history of Tanzania, particularly regarding sign language development and Tanzanian Deaf culture.

The thesis closes out with an overview of sign language phonology, followed by the description of data, how the data was harvested, and methods of analysis. The final section concludes and reviews the study, leaving with final questions for future research and thought.

### 1.3 Concepts

Deaf communities around the world vary in whether or not they definite themselves as having a disability. "Deaf" as an adjective refers to social collectivities and attitudes arising from interaction among people with hearing losses; "deaf" as an adjective refers primarily to hearing loss. Many Tanzanians who are deaf embrace the association of disability; therefore, brief comments will be made regarding disability theory and how I have approached terminology and concepts throughout this study.

The current debate within disability theory surrounds two models of disability: the medical model and the social model. The key concept surrounding the medical model is impairment; in this model, people with certain disabilities are lumped together with others who have a similar disability. In this sense, impairment is seen as the identity of a person - as a function of that person's individual characteristics (Owens, 2014).

<sup>&</sup>lt;sup>3</sup> As compared to the term with the often used hyphen, "postcolonial" suggests less of a conceptualized chronological or ideological supersession.

The social model, on the other hand, is a conceptualization developed by the disability movement within the past few decades to counteract the implications of the medical model which focuses on the environment surrounding people with disabilities as being the factor which creates disabilities; social model theorists assert that disability is a consequence of prejudices and discrimination (Owens, 2014). These prejudices and this discrimination can come in a variety of forms: physical, economical, social, cultural, or political. If subscribing to the theory that disability is a creation of society and societal flaws, there are multiple ways to interpret the social model. It can be taken at face value, wherein the conditions of society, if harsh, literally give rise to disabilities. This is seen in Tanzania, where a leading cause of blindness is from fever developed from HIV, malaria, and other diseases.

Concurrently though, disability can then also be used loosely and interchangeably to refer to one of the two subsets of the global reference of disabilities, wherein lies much of the confusion within the terminology. Within the general term "disability", we see a distinction in many countries around the world between disability and impairment. Whereas disability refers to the inability to perform certain activities, impairment is the loss or abnormality of certain structures or functions which then causes the disability. In this sense, impairment is concerned with the specific functions of one's body or mind and disability is concerned with the activities created from these compound functions.

Western Deaf Studies scholarship often refers to the Deaf community as a single, bound group of people who cannot hear and who self-identify as culturally deaf people with an affiliation or relationship with all other Deaf people in the world. Western notions of transnational deaf identity and solidarity are useful for activism and representation in the broader human rights debates; however, the idea of a single, globally-unified community often does not reflect local realities and deaf individuals'

lived experiences. In Jessica Lee's dissertation on the Deaf in Tanzania, she details how the Tanzanian Deaf have embraced the association of disability, whereas Western Deaf communities often reject it (Lee, 2012).

Vocabulary used when referring to people with disabilities changes around the world. I have chosen to implement a people-first method throughout this thesis, placing the person before the disability.

I have referred to the use of sign languages via "speak", "sign", and "use" during my research, as these are interchangeable in my opinion. The word "speak" does not imply a vocal-auditory modality; this term also refers to txt-speak, speaking with one's eyes, and similar situations. When working with someone who is deaf, it is recommended always to ask their preferred terminology.

### 2. Previous Research & Literature Review

Deaf communities have typically been researched through the lens of spoken language sociolinguistics, and labels from spoken language phenomena have been applied hastily<sup>4</sup> to sign languages. In the 1960s, sign languages first began to be systematically studied as languages in their own right. A pioneering moment occurred in 1965 when William Stokoe of Gallaudet University and some of his colleagues published the first formal linguistic description of ASL (Hochgesang & Miller, 2016), setting the stage for sign language linguistics around the world. Sign linguistics has since transferred from

<sup>&</sup>lt;sup>4</sup> For example, the term "phonemes" is often used when discussing grammars of sign languages, yet many argue that this term cannot be copy-and-pasted, as "phonemes" in sign languages are implemented and used in different ways from spoken language. This will be discussed further in the next section.

an esoteric placement in the sciences to closer to mainstream linguistics. In recent years, attention has shifted towards whether or not there are distinctive typologies for sign and spoken languages (Zeshan, 2008; de Dos & Pfau, 2015) and whether the grammatical processes in both of these modality groups (visual-gestural and auditory-vocal) are linked to the demands of the modalities they are found in.

There are minimal descriptions of LAT and Tanzanian Deaf culture available. Two that I leaned upon heavily for information regarding LAT was Jessica Lee's ethnographic study (2012) of Tanzanian Deaf culture and detailed insight into politics surrounding disability rights in the country and Cristi Batamula's overview of Deaf education in Tanzania (2009). The leading researcher on LAT, Henry Muzale, has many papers gleaning grammar and structure of LAT, along with editing one of the first dictionaries. Muzale's research was not as relevant to this thesis but is a useful source for studying and analyzing LAT.

In the field of sign linguistics on a global scale, a limited number of studies focusing on contact between two sign languages have been undertaken - David Quinto-Pozos' study [2004] investigating contact between Mexican Sign Language [LSM] and ASL in two border areas stands out - most likely due to the fact that in order to investigate sign language contact, a detailed description of each of the sign languages in question is necessary, including their individual phonetic, phonological, morphological, and syntactic structures, and these resources are not yet in place to adequately accomplish these comparisons (Pfau, et al., 2012). Ulrike Zeshan noted in 2008, "...to date sign language research has not produced a single reference grammar on any sign language, so the sign language typologist has to rely on other, less than ideal, sources" (Zeshan, 2008; Miyamoto, 2015).

Attention previously has focused on sign languages in contact with spoken and written language, less so with contact between two, or more, signed languages. The handbook Sign Language: An International Handbook includes a section on contact between sign languages (Pfau, et al., 2012), but the focus of the section is solely on how that contact plays out into International Sign (IS), a contact pidgin that is sometimes used in international settings and relies heavily on role play. The paragraph that discusses colonization and sign languages fleetingly states, "...the colonial influence on sign languages via educational establishments has in all likelihood influenced IS. European sign languages were brought to many countries across the globe...", followed by a few examples, then closing with, "..as well as lexical influences, European sign languages may also influence the types of linguistic structures that we see in IS, including the metaphoric use of space" (Pfau, et al., 2012). In 2000, BSL, New Zealand Sign Language (NZSL) and Australian Sign Language (Auslan), were all analyzed in two separate research projects. McKee & Kennedy (2000), along with Johnston (2000), both investigated the relationships between the three sign languages. A cross-linguistic comparison of Icelandic Sign Language (ICL) and Danish Sign Language (DTS) was conducted in 2007 by Aldersson & McEntee-Atalianis. All three of these papers provided the grounding for the methodological framework within this research.

Miyamoto & Mori completed a preliminary study of the relationship and influence between Kenyan Sign Language (KSL) and ASL in 2015. Most influential on this thesis research was Rezenet Moges' investigation (2015) of Eritrean Sign Language (EriSL) and the demissionization movement of the language from FSL. The recent push by Eritrean Deaf activists to reclaim EriSL is an intriguing linguistic case within the realm of missionization. Representative of a symbolic act to demissionize EriSL, the case in

Eritrea showed the ability of a Deaf community, previously under missionary influence, to "reject [language] dominance and assert self-identity" (Moges, 2015).

EriSL is a product of missionary sign languages imported from Finland and Sweden after the establishment of the first school for Deaf children in 1955 (Moges, 2015). From 1955 to 1972, the d/Deaf students learned Finnish signs and Swedish signs, along with spoken and written English, via the Swedish manual alphabet (Moges, 2015). Approximately 70% of the EriSL lexicon could be considered imported from the Nordics. After realizing the existence of a high degree of lexical borrowing from the Finnish and Swedish Sign Languages, Eritrean language planners decided to pursue a way to indigenize their language, initiating the demissionization process - potentially the first movement of this type in the world.

Demissionization is the "process occurring where foreign culture and language introduced by missionaries are later excised by the indigenous communities in order to reshape culture and language to arrive at their perception of native culture and language status" (Moges, 2011). This project, initiated by the Eritrean National Association of the Deaf (ENAD), aimed to eliminate any lexical signs that were thought to have a Swedish or Finnish influence and, consequently, were thought to be incompatible with local cultural practices and traditions (Moges, 2015).

Iconicity was one of the criteria for sign "indignity" throughout this project. To illustrate, in Finland dogs are viewed as friendly household pets - the sign for dog (koira) in FSL consists of patting one's thigh which is iconic of the idea of "come here", wanting to pet and play with the animal. In Eritrea, dogs are not considered household pets; dogs typically roam the streets and can be thought of as either dirty or aggressive. This iconic FSL sign, which has been used in Eritrea, does not culturally fit

within the Eritrean Deaf community and, likewise, became a focal point during the demissionizing discussion.

The demissionization focus raised the community's awareness about its local language and culture and supported changes in the schools' language policy in favor of EriSL usage. Moges concluded that "in practice, the ideals of 'purification' and 'demissionization' have been negotiated in a context of multiple and hierarchical ideologies; one consequence is that dominant languages are no longer being imposed" (Moges, 2015).

### 3. Postmissionization?

Historical evidence shows that Christian religious leaders have focused on the development of Deaf communities as early as the 16th century, conversely, playing a significant role in the development of Deaf education and the diffusion of sign languages around the world. As Moges writes, "The history of Deaf education is replete with examples of religious figures who also established institutions for Deaf communities" (Moges, 2015). Here I shortly discuss this history, in order to provide contextual background for the influence of Finnish religious missionaries in Tanzania.

Harlan Lane (1984) located the religious obligation to address Deaf education in the context of a quote attributed to Saint Paul: "faith comes through hearing". That famous quote lived on through the Abbé Charles-Michel de l'Épée, who established the world's first free school for the Deaf in the 1760s. Originally l'Épée was interested with religious education, but through his public advocacy and school, he helped in creating

the first iteration of Signed French<sup>5</sup>. L'Epée was succeeded by Abbe Sicard; the latter who sent his pupil Laurent Clerc to the United States in 1816 to assist with establishing a school and teaching there. Clerc and Thomas Gallaudet founded the first school for the Deaf in the United States, Gallaudet University, under the umbrella of the Roman Catholic Religion. The influence of religion within the university was strong: Gallaudet was trained and employed as a congregational minister, in Clerc's contract he specified that Clerc could not teach anything "contrary to the Roman Catholic Religion" (American Annals., 2014).

In 1880, the most influential moment in Deaf education took place in Milan. The Second International Congress on the Education of the Deaf held in 1880, commonly known as the Milan Conference, became the single most influential moment in the history and development of Deaf education (Berke, 2018). The conference was spearheaded by Eugene Pereire who was a strong supporter of oralism (Gallaudet, 1881). The conference was extremely biased due to Pereire's involvement and financing, leading to the conference declaration that oralism, the use of only spoken languages in schools, was the superior method of teaching.

The first two resolutions passed by the Conference stated (Moores, 2010):

"1. The Convention, considering the incontestable superiority of articulation over signs in restoring the deaf-mute to society and giving him a fuller knowledge of the language, declares that the oral method should be preferred to that of signs in the education and instruction of deaf-mutes.

<sup>&</sup>lt;sup>5</sup> In Signed French (and other languages), the signs match the grammar of the spoken language. "Signed \_\_\_\_\_" are direct translations from a spoken language into signs.

2. The Convention, considering that the simultaneous use of articulation and signs has the disadvantage of injuring articulation and lip-reading and the precision of ideas, declares that the pure oral method should be preferred".

As a result, Deaf education was set back, and oralism became the focus for education systems across the world (Moores, 2010). This approach was not reversed until the latter part of the 1900s, with the initiation of human rights movements and the focus of Gallaudet University on publishing books relating to sign languages. This pattern is evidenced in African countries, extending until the late 20th century (Lee, 2012), through religious missionization (Parkin, 2010).

In schools where sign languages were allowed as modes of instruction, there was a focus on the language imported by the religious missionaries. Andrew Foster was the first African American to graduate from the esteemed Gallaudet University, located in the capital of the United States, Washington D.C. In 1956, Foster opened his Christian Mission for the Deaf (CMD) which opened schools across Africa and led training sessions for teachers. Foster and his organization went on to establish 32 schools<sup>6</sup> for the Deaf in 15 countries<sup>7</sup> across the African continent, becoming known as the "Father of Deaf Education in Africa" (Fikes, 2018). Foster maintained focus on the religious aspects of education and stated that "Once the basics of communication and education are in place, CMD shifts focus to the spiritual needs of the Deaf". Foster is often depicted by Western authors as a well-wishing, good-hearted man who helped bring awareness of Deaf communities across Africa; albeit, the CMD is simultaneously

<sup>&</sup>lt;sup>6</sup> Some references cite 31 schools, including Friedner & Kusters (2015). The majority agree on 32 schools.

<sup>&</sup>lt;sup>7</sup> The first school he established was located in Ghana and was the first Deaf school in West Africa. The other 12 countries he established schools in were the Ivory Coast, Benin, Cameroon, Burkina Faso, Burundi, the Central African Republic, Sierra Leone, Chad, Togo, Zaire (now the Democratic Republic of Congo), Gabon, the Republic of Congo, Nigeria, and Kenya.

known as one of the contributing forces for many sign languages in these 15 countries disappearing, being replaced by ASL.

Through a sense of moral obligation to teach and share religious texts, many missionaries have involved themselves in locating Deaf children. This is one of the most effective vehicles of religious inculcation in modern history: literacy programming. The chief belief of the implementation of this type of education is that by establishing dominant languages as modes of instruction, communication skills of children from minority language groups will develop at quicker paces. Within Deaf communities, missionaries are the direct source of the diffusion of a dominant Western sign language.

Around the world, in signed and spoken language communities, people are feeling the importance of language independence, a desire to have claim over a language that is culturally their own.

### 3.1 Postcolonial Theory

"There is some feeling, that what is traditional is incompatible with what is progressive. This is mainly due to the fact that those things that are worth preserving in the so-called primitive African societies have been so much caricatured, ridiculed, and indeed condemned as savagery and decadent by the Europeans who set the norms of acceptance. Thus, the African is accidentally caught in a dualism of equally vicious sets of cultures militating against each other. As a consequence, he either becomes a caricature of himself or an imitator of others". (Manuwuike, 1978).

The base objective of postcolonial theory is to elucidate a particular social, economic, and political phenomenon which has been disregarded or brushed to the extremities within contemporary discourse. These phenomena combine to constitute a lived experience for many and for, arguably, the global condition as a whole.

Postcolonial studies as a discourse provides a legible foundation by which certain aspects of the past may then be "recognizable". While the expression "postcolonial" sustains a multiplicity of rhetorical affiliations and deployments, it incomprehensibly abstains from signifying a variety of marvels and phenomena inside the differing "post" colonial circle, and it etymologically fortifies a customary binary of sequence that conveys with it a silencing effect of a Western past it aspires to deny. Experience and ensuing (re)action as occurrence comprise postcolonial studies, as it shares space with agencies, voices, and narratives that were otherwise denied. Stories that are equipped with the task of changing the general comprehension and ramifications of the convention in which the contemporary figure has been merged into.

Frantz Fanon, a psychologist and canonical thinker in postcolonial studies and race theory, when grappling with postcolonial studies and psychological conditioning rendered the present as always *becoming*, as "a 'time of history' in which the fundamental event is always the making and whose goal is not in the future but always already in the present" (Fanon, 1952). This places us in a state of perpetual becoming, always informing the "post" condition. The "post" continues to grapple with balancing the simultaneous loss of history with the rediscovering and re-contextualizing history within different terms and spheres. In this way, postcolonialism implies a focus to deconstruct long-held, withstanding discursive binaries.

Under colonization, the colonized subjects are forced to assimilate, to use the colonizer's language(s), and to renounce their own culture and identity; by doing so, the colonized essentially become a replica of the colonizer, albeit, without the "respect" or "awe" that comes with having the "correct" skin color. Fanon stated that this 'cultural assimilation' (similar to W.E.B DuBois' term 'double consciousness') occurred because the colonizers sought to eradicate the culture and lifestyle of colonized, fully replacing it with their own image (Fanon, 1952; DuBois, 1989).

While Fanon maintained a type of progression that suggests a teleology, he shifts the focus from the colonizer to the colonized and reorients time around this changed focal point: Fanon asserted that one cannot learn French — or English or Portuguese, for that matter — without subconsciously accepting the cultural meanings of the imposed language. Language is a ubiquitous component of this psychological conditioning fostered by the colonial powers. He utilized the symbolism of whiteness and blackness that is embedded in the French language: to be white is to be good and to be black is to be bad (Fanon, 1952). By speaking the language of the colonizer, one is acknowledging, whether knowingly or not, these dubious racial categories.

Fanon, when describing the dialectic of language between the two groups, sounds grim: "the colonized is elevated above his jungle status in proportion to his adoption of the mother country's cultural standards. He becomes whiter as he renounces his blackness, his jungle" (Fanon, 1952). Fanon vies for the complete renunciation of the culture of the colonizer, the policies put in place by the colonizer, and the language of the colonizer. He believes that "a man who has a language consequently possesses the world expressed and implied by that language. What we are getting at becomes plain: Mastery of language affords remarkable power" (Fanon, 1952). Videlicet, if using the

language of French, which to Fanon carries the implications of white being good and black being good, the speaker then automatically possesses these connotations.

When thinking of language, one often thinks of a particular culture to which the language in thought appertains. Language is representative of cultures and of peoples; it is a way for people to create a unique identity and to empower themselves. By controlling a people's culture, you are controlling their tools of self-definition and their tools of self-relation. Language is power, and language in the context of Africa played an essential role within the processes of colonization and has been vital to the "decolonization" process over the past half-century.

To ensure that the colonized could not join together to form a stronger anti-colonial movement, the colonizing nations separated languages (such as South Africa) or attempted to fully submerge non-European languages. By pushing aside these languages from the Global South, a mindset was created of European languages being the sole communication route. Modern languages within Africa became viewed as "primitive" and only for the uneducated; they became thought of as unnecessary within the school system and the workplaces, unnecessary outside of the native population of a given language. Ngūgī wa Thiong'o, Gīkūyū author and philosopher, is reminiscent of Fanon when discussing the colonization and decolonization process: "the bullet was the means of the physical subjugation. Language was the means of the spiritual subjugation." (Thiong'o, 1986).

In non-Western contexts, other practices born of prejudice or misconceptions have also officered, such as conferring higher status to dominant Western sign languages that have been imported into a particular country or displaying influences from external systems of signing as a way of claiming higher status (Jepsen, 2015). The Maroua

community in Cameroon experienced a development conflict when American and French missionaries funded a Deaf education program, ignoring the local community and importing a Western dominant sign language for instructional use (Lutalo-Kiingi, 2014). These types of practices can lead to a devaluation of national sign languages and indigenous sign languages.

Postcolonial theorist Kwame Anthony Apiah (1991) sheds light on the discursive action of "clearing of space". He suggests that the postcolonial, "can be seen as a retheorization of the proliferation of distinctions that reflects the underlying dynamic of cultural modernity, the need to clear oneself a space" (Apiah, 1991). Postcolonial studies is continuously striving to clear a space; a space which is by no means infallible or independent of its Western lineage. However, its objective to let emerge those narratives and the worlds they imply, which have been historically ignored or repressed, remains, and with it an opportunity for interaction, interpretation, and understanding between those parties that may otherwise be indefinitely estranged.

#### 3.2 Missionization

Missionary Linguistics, and its related field Colonial Linguistics, investigates anthropological linguistics, sociolinguistics, and other linguistic fields, influenced and connected to missionization and language (Moges, 2015). The term "missionization" is used to indicate a type of language contact initiated by missionaries who import dominant signed languages and substitute them for local sign languages. Following along the lines of colonization, one of the results of missionization is "linguistic

imperialism" in which the psychological outcomes are sudden and irreparable, with prolonged influence on the development of culture (Moges, 2015).

Although not as heavily analyzed as colonization and postcolonial theory, missionization itself had the potential to be as profoundly influential as colonization, due to its deep roots in education - especially of primary school children. Grounded in postcolonial theory, postmissionary theory, or the movement to *demissionize*, is also looking to clear a space, independent of its Western roots.

### 4. Overview of Tanzania

I will provide a brief overview of the history of Tanzania and how the Tanzanian Deaf population is situated within the current political climate and social system. Due to historical trajectories accompanied by linguistic and educational policies set at independence, Tanzania was set on a unique course in developing a national Deaf identity. This cursory review will provide background info to assist with contextualization throughout this paper.



Figure 1: Location of Tanzania in Africa. (Mapsland.com).

#### **Bantu Expansion**

The Bantu Expansion, a term commonly used to refer to the initial spread of the Bantu languages and the communities speaking them, started approximately 5,000 years ago (Filippo, et al., 2012). The Bantu peoples of West Africa began migrating towards the East and, by 1000 BCE, permanent communities were built within modern-day Tanzania. The coastal port of Kilwa was established around 800 CE by Arab traders and Persians similarly settled Pemba and Zanzibar. By 1200 CE the unique mix of Arabs, Persians, and Africans had developed into Swahili culture (Hoyle, 1967).

This region quickly became an essential stop on the trade routes linking the Great Lakes with the coast (Hoyle, 1967). From these routes, Arab traders subsequently moved inland in search of slaves and ivory, while simultaneously creating a center for the Omani slave trade on Zanzibar island (Plackett, 2017). The second wave of invasion

from outsiders launched in 1884 following the footsteps of the German explorer Karl Peters. Peters landed on the coastal island of Zanzibar where he had local chiefs sign treaties and hoisted the German flag (Yayoh, 2013). Afterward, he returned to Berlin and informed his superiors that there was an East African area up for the taking (Smith, 1978). In February 1885, Peters was granted a charter for an East African protectorate, and six months later, five German warships steamed into the lagoon of Zanzibar and focused their guns on the Sultan's palace, who had been protesting the German takeover. By November 1886, the Sultan was forced to relent, and German East Africa was founded (Chamberlain, 2013).

#### **Colonial Rule in Tanzania**

The German policy concentrated on changing the local industry's focus towards the exportation of cotton, coffee, and sisal<sup>8</sup> (Hyden, 1980). German colonial rule introduced taxation for the first time, at three rupees per household, as an "educational exercise" for Africans in an effort to incorporate indigenous populations into the economy (Blackshire-Belay, 1992; Hodgson, 2001). The harsh conditions of German rule, punctuated by lack of access to profits from the export economy, heavy taxation, and famine led to the Maji Maji Rebellion of 1905-1907 (Illiffe, 1967). The rebellion later became a symbol of nationalist movements in Tanzania history. In 1916 during World War I British troops moved south from Kenya in order to occupy German East Africa. Once the war ended in 1919 Britain was granted a mandate from the League of Nations to oversee the former German colony. Tanzania was given yet another name, Tanganyika (the Sultanate of Zanzibar remained independent for the time being), imposed by the new colonial rulers.

<sup>8</sup> https://www.cnn.com/2015/11/10/africa/sisal-tanzania/index.html

British colonial administration took shape through indirect rule, with Britain overseeing local councils and courts. British leadership was required to meet two goals before implementing indirect rule: 1) they needed to win over the Tanganyikan leaders loyal to the Germans; and 2) they had to forcefully migrate people back to their ethnic homelands and return them to subsistence cultivation. Tanganyika was the least important of Britain's East African colonies. Kenya was viewed as having more enormous potential because of the high number and success of white settlers, its ports, and the booming trade town of Mombasa (Hyden, 1980).

Tanganyika, with multiple failed colonial economic development schemes yet with no significant ethnic violence, was unique among other Anglophone East African colonies like Kenya and Uganda (Iliffe, 1979). Tanganyika's status as a mandate and later as a trusteeship, along with Britain's focus on other neighboring countries, permitted some forms of (limited) self-government that affected the country's status later in the century. Tanganyika became one of the pacesetters of independence movements across the continent with stronger institutions in place upon sovereignty.

#### Independence

A leader against British colonial rule emerged in the 1950s in Julius Nyerere, the son of a local chief. Nyerere attended university in Uganda and Scotland, returning to Tanganyika to be a teacher (Bjerk, 2015). The Tanganyika African National Union (TANU) led by Nyerere (later to become the first President of the Republic), campaigned for independence from Britain using Swahili as a tool for uniting the different ethnic groups within the country. Tanganyika won their fight for independence in 1961 and amalgamated with Zanzibar three years later to become the United Republic of Tanzania.

When Nyerere became president of newly independent Tanzania, he united the country under the idea of *ujamaa*, the Tanzanian political philosophy of socialism and self-reliance. Nyerere's vision was set out in the Arusha Declaration of 1967: "The objective of socialism in the United Republic of Tanzania is to build a society in which all members have equal rights and equal opportunities; in which all can live in peace with their neighbors without suffering or imposing injustice, being exploited, or exploiting; and in which all have a gradually increasing basic level of material welfare before any individual lives in luxury" (Nyerere, 1968).

Cooperation was the driving force behind *ujamaa*, and the goal was to create a national sense of identity and a type of kinship around Tanzania. Nyerere adopted Swahili as the national language, making it the official language of schools, hospitals, and politics (Harries, 1969). The adoption of a national language diminished the potential for violence and encouraged cooperation among Tanzania's 100 plus ethnic groups. By speaking in Swahili, politicians, including Nyerere, facilitated direct communication and decreased the political power of English speaking elites (Iliffe, 1979).

As president of the newly independent country, Nyerere's chief foreign policy challenge was to convince the international community, primarily the Western powers, that his country had chosen a path of nonalignment. Nyerere was challenged in Zanzibar by the overt involvement of the Eastern bloc and, by his own insistence, rectifying the imbalance created during the colonial period. To do so, he turned more to the East for aid, which did not make the task of appealing to Western powers any easier (Bjerk,

2015). Nyerere took a moral stance against Britain in its role in Rhodesia<sup>9</sup>, not providing any bolstering effects to the Tanzanian relationship with its former colonizer. When Britain supplied arms to South Africa, it ultimately strained the little connection maintained, and from 1965-1968 diplomatic relations with Britain were severed. The consequent loss of aid to Tanzania provided space for Eastern countries, notably China, to enter in the sphere and support.

Nyerere's legacy of a national language helped unify the citizenry through nationalistic pride and regional cooperation. Still to this day, these ideas remain in place, leading to unforeseen consequences for the Tanzanian Deaf community. The Deaf are thought of along similar parallels as an ethnicity within Tanzania, so the recognition of LAT could have a domino effect with other language communities calling upon recognition of their language, too. This linguistic policy of *ujamaa* likely had long-lasting implications for sign language development in Tanzania.

#### **Statistics**

Today, the Tanzanian population is around 49 million (UNDP 2015). The population is made up of 130 ethnic groups, but no single group has a clear majority. Tanzania is also home to over half a million refugees from Burundi and Rwanda. The dominant religious groups are indigenous (35%), Muslim (35%), and Christian (30%). Despite the high number of evangelical Christian ministries, religious tolerance seems to be a common theme.

Tanzania has a GDP of \$29.62 billion, with 42% from the agricultural sector, 18% from the industrial sector, and 38% from services, the fastest growing sector. Public

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<sup>&</sup>lt;sup>9</sup> Now Zimbabwe.

expenditure on education has dropped from 2.8% of GDP in 1991 to 2.2% in 2005 (UNDP 2005). Aside from this reduction in governmental funding, education in Tanzania has changed recently due to a 2000 decision to drop enrollment fees for primary school further stressing an already underfunded system (Gaeta 2002). Primary school is compulsory, with an enrollment rate of 91%, and the literacy rate in Tanzania is 69%, up from 59% in 1995 (UNDP 2005).

Only 53% of the poor in Tanzania receive any immunizations (UNDP, 2015). Infectious diseases often include high fevers, which, in turn, cause deafness if untreated (Ibekwe, 1998). The current life expectancy of a Tanzanian is 51 years.

## 5. Sign Languages Around the World

Our world is a linguistically fascinating conglomeration: with thousands of languages<sup>10</sup> across the world, we have the capability of expressing our thoughts and views in a myriad of ways. A majority of these languages are spoken, employing an auditory-vocal modality; however, there are a large number of languages that communicate through a visual-gestural modality. The latter form of modality, which is referring to sign languages, has been utilized for centuries.

Within Ancient Greek, Ancient Egyptian, and pre-Renaissance writings, there are early references to sign languages and the Deaf. From the court of Sultan Mehmed II, commonly known as Mehmed the Conqueror, there are records of the Sultan

<sup>&</sup>lt;sup>10</sup> There is no exact number regarding how many languages are used within our world today. Conservative estimates put the total to be around 6,000, whereas more liberal views place the number to be upwards of 14,000.

requesting Deaf servants, as he believed having silence within palace walls would further express his majesty to his population and foreign visitors (Soth, 2017).

Encapsulating information concerning sign languages, their use, and their development is albeit sparse preceding the mid-20<sup>th</sup> century. Prior to the eruption of the mass international human rights movements of the late 70s (Neier, 2012), people who were deaf or hard-of-hearing were often considered "dumb" and/or "mute", and therefore, those who were hearing surmised that people who were deaf lacked the capacity to learn (Hill & Brown, 1918; Valente, 2011). The majority of our global society has held on to this erroneous belief that signing is solely comprised of gestures and "manual rhetoric" (Bulwer, 1644; Mirzoeff, 1995; Jepsen, 2015) and that it is, therefore, an "international form of communication" (Lucas, 2001).

At a surface level, these initial beliefs are comprehensible, since gestures are often universal - think of pointing to indicate a direction or rubbing one's stomach to indicate hunger. This belief though and lack of knowledge regarding sign languages have severe consequences to the political recognition of sign languages, educational programming, and the rights to equality. Thankfully, these archaic viewpoints began to shift as activists and linguists activated the movement to awareness of sign languages: primarily, communicating the fact that sign languages are bona fide conversational systems, equatable to spoken languages. The Civil Rights Movement in the United States played a significant role in this, as it led to national awareness of disability rights and Deaf rights<sup>11</sup>, in turn fueling the International Human Rights Movement (Snider, 1994).

<sup>&</sup>lt;sup>11</sup> When the Civil Rights Movement first launched in the United States, the Deaf community worked to disassociate itself from the community of people with disabilities. Nowadays that thinking has shifted, and more people who are deaf align themselves within the disability rights movement.

These assumptions regarding sign languages and those who use them have slowly been surmounted, yet facets of challenging these outdated beliefs hold today, as the vast majority of people still believe that sign languages cannot express information of the same complexity that spoken languages can. On a positive note, many preconceived notions have been overcome from a linguistic standpoint: for example, linguists universally recognize that sign languages are languages in their own right and steps towards official recognition in various countries have been taken. The Austrian Parliament recognized Austrian Sign Language (Österreichische Gebärdensprache, ÖGS) in 2005 and amended the constitution to include a new article on ÖGS (Krausneker, 2005). The Finnish constitution recognized FSL in 1995. In 2015, Papa New Guinean Sign Language became the fourth official language of the country ("Two Sign Languages Given"). There are many other examples around the world of governments realizing the importance and necessity of providing official status to sign languages<sup>12</sup>.

### **How Many Sign Languages are There?**

It is difficult to obtain an accurate number of languages in the world for a variety of reasons—this becomes all the more difficult when trying to put a number on signed languages specifically<sup>13</sup>. Wikipedia estimates the number of sign languages within the world to be around 300. Ethnologue, one of the primary language coding databases employed by linguists and governments, lists 142, yet there is a discrepancy as to which sign languages are counted and which are not (Eberhard, Simons, & Fennig, 2019). To illustrate, Rwandan Sign Language/Amarenga y'lkinyarwanda (AKR) is not listed on Ethnologue, despite the fact that it is an established language within the country, supported by both a national union and a dictionary.

<sup>&</sup>lt;sup>12</sup> See footnote 18.

<sup>&</sup>lt;sup>13</sup> These challenges will be discussed further in the section on Sign Language Development in Tanzania.

Typically, the requirements for being considered a language are whether or not a linguist has analyzed the sign language in question or if the sign language is taught in schools. This is not generally the standard for spoken languages since there are innumerable spoken languages that are recognized but not taught or used in educational systems.

A notable example of this incongruity is Rennellese Sign Language in the Solomon Islands. This sign language was developed by one man, Kagobai, who was the sole Deaf community member at the time on Rennell Island (Kuschel, 1974). His family and friends would use the language to varying extents, but Kagobai was the only fluent user of the language. A Danish linguist, Rolf Kuschel, created a description of 200+ signs, leading to Ethnologue generating an ISO 639-3 code<sup>14</sup> (*rsi*; now retired), and cementing its place in sign language linguistic books for decades to come. When comparing to other sign languages, such as AKR, the case of Rennellese Sign Language gives the impression that this official recognition from Ethnologue was attributed to the language solely because of a Western linguists' role in documenting the language.

### Village Sign

Within most countries around the world, sign languages are often not standardized, with signs sometimes changing from town to town. This can be attributed to a variety of reasons, the main two being the minimal monetary support provided by the government to Deaf communities and the lack of official recognition of sign

<sup>&</sup>lt;sup>14</sup> ISO Codes are international three-letter codes used for identifying languages; the codes are intended for use as metadata, assisting in archiving, cataloging, and referencing.

language(s). These sign languages, referred to as "village sign", are developed within a localized, relatively insular context, restricted to people within one geographical area who use it - areas usually with a high degree of hereditary deafness (Marschark, 2003). Village signs are generally full languages with their own grammatical systems, but due to lack of administrative support, these languages do not spread to national use; village signs often remain in a peripheral setting, maintaining localization.

A well-known modern-day example of a village sign is Adamorobe Sign Language (Adasi) which is spoken in Adamorobe, Ghana by around 40 people within the Deaf community (Kusters, 2015) and a majority of the hearing population (Eberhard, et al., 2019).

### Homesign

Homesign is similar to village sign, although on a more granular level. A homesign emerges in a residential setting where someone in the household is Deaf. This communication system is created for the use of the home; it can evolve into a village sign (for example, Rennellese Sign Language mentioned above) if members of the household use it in public and if others in the community want to utilize the language also to communicate.

Other forms of visual modality include gestures, sign systems/manually coded languages, and manual alphabets/fingerspelling. I will not expand upon these at this time, due to space, but it is important to note that these distinctions between types of signing (especially homesign, village sign, and sign language) are not categorical, but gradient.

### 5. 1 The Tanzanian Deaf Community

It is challenging to know precisely how many people are deaf in Tanzania because there are not numerous Deaf communities dispersed around the country and there is no reliable census to reference. Reinforcing these factors, often Deaf children and family members are kept at home, hidden from public sight. Within Tanzania, it can be frowned upon to have a Deaf child since it is thought that they will not be able to go to school, get a job, and then, in turn, contribute to the family in the future (Batamula, 2009). Being Deaf is highly stigmatized in Tanzania; members of the Deaf community are often mocked and signing is rarely seen in rural areas (Lee, 2012).

Lee shares that some people do not know their own names, as this information has never been communicated to them (2012). Many people within the Deaf community do not have a full understanding of the relations between people in their house. Usually, other family members do not sign, and children who are deaf are kept hidden at home - compounded together, this leads to many who are deaf never having learned basic information about themselves. The Deaf, living at the margins of social and state support, are heavily reliant on external, particularly religious, donors for most of their support.

According to the Tanzanian National Bureau of Statistics (NBS, 2017), 7.72% of the population (excluding Zanzibar) above five years old is disabled, including albinism, and difficulties with seeing, hearing, walking, remembering, self-care, and communication. Out of the almost 8%, the NBS website reflects 1.02% as having "difficulty in hearing". With a total population in 2016 listed as 45,293,817, an estimation of the number of people who are deaf or hard-of-hearing in Tanzania would

be around 555,315, although these, for reasons listed above, are not fully reliable data points and do not account for children under five. A majority of deafness in Tanzania is acquired, caused by inadequate treatment of childhood illnesses. Malaria, which is prevalent in Tanzania (United Republic of Tanzania, 2018), frequently causes high fevers; untreated, this can cause a loss of hearing.

	Male		Female		Total	
Type of Disability	Number	Percent	Number	Percent	Number	Percent
Albinism	6,839	0.03	10,183	0.04	17,023	0.04
Difficulty in						
Seeing	469,537	2.09	653,853	2.86	1,123,390	2.48
Hearing	227,995	1.02	327,320	1.43	555,315	1.23
Walking	370,287	1.65	604,789	2.64	975,076	2.15
Remembering	296,886	1.32	406,238	1.78	703,123	1.55
Self-care	216,922	0.97	207,695	0.91	424,617	0.94
Communication	143,903	0.64	152,216	0.67	296,118	0.65
Total Population	22,424,705	100.00	22,869,112	100.00	45,293,817	100.00

Figure 2. 'Number and Percentage of Persons (5 years or above) with Disability...'. (NBS, 2016).

#### **Users of LAT**

Ethnologue lists 278,000 signers of LAT. At the same time, the number of signers referenced by Ethnologue cannot be an accurate representation of a census of those who are deaf in Tanzania, as many people who are deaf do not know LAT. The Joshua Project claims that there are 591,000 users of LAT. Averaging these two gives a guesstimate of around 434,500 speakers of LAT; we can assume the majority of those language users are deaf.

#### Access to Education

In Tanzania, public primary and secondary schools are obligated to be free - additionally, primary schools are compulsory - under the Primary Education

Development Program Project (World Bank, 2001) and the Education and Training Policy (United Republic of Tanzania, 2014). Deaf schools are typically boarding programs even at the primary level and therefore must issue school fees, in opposition to the Tanzanian educational policies. Children who are deaf often come from lower-income families - families who cannot afford healthcare and, consequently, cannot afford boarding school fees. Many of those who can afford the fees do not see the benefit of spending money to educate their Deaf child (Lee, 2012).

Type	Charge in Tsh (USD)
Tuition	25,000 (\$14.75)
Room and Board	15,000 (\$8.85)
Uniform	30,000 (\$17.70)
Sweater	10,000 (\$5.90)
Total:	80,000 (\$47.20)

Figure 3. 'School Fees at Selous School for the Deaf'. (Lee, 2012).

There are approximately 523,553 people who are deaf or hard-of-hearing above seven years old, the schooling age in mainland Tanzania (NBS, 2017). Batamula (2009) estimates that there are around 91,000 children who are deaf within a standard primary school age range. There are eight primary schools (and one secondary school) in the country capable of providing these students with proper education (Lee, 2012). The government funds none of these schools; religious institutions support the majority. Additionally, as of 2009, there were 14 Deaf units attached to mainstream schools, altogether providing education for an approximate 500 Deaf and/or hard-of-hearing children. These schools all have long waiting lists, with an average of 10 new students accepted each year (Batamula, 2009).

School	Location	Established	School Owner	Slots	Status	Level
Tabora	Tabora	1963	Catholic	140	Boarding	Primary
			Archdiocese of			
			Tabora			
Buguruni	Dar es	1974	Tanzania Society	200	Boarding	Primary
	Salaam		for the Deaf		and Day	
Mwanga	Kilimanjaro	1981	ELCT (Evangelical	100	Boarding	Primary
			Lutheran Church of			
			Tanzania)			
Mugeza	Kagera	1981	ELCT	100	Boarding	Primary
Luhuwiko	Ruvuma	1984	Catholic	190	Boarding	Primary
(St.			Archdiocese of			
Vincent)			Songea			
Iringa	Iringa	1993	Anglican Diocese of	120	Boarding	Primary
			Selous			
Njombe	Iringa	1994 (2000) <sup>25</sup>	ELCT	120	Boarding	Primary &
						Secondary
Twiga	Dar es	2006	Unknown	120	Day	Preschool
	Salaam					& Primary

Figure 4. Deaf Schools in Tanzania. (Lee, 2012).

To illustrate the educational situation within the country, the most impoverished region in the country, Dodoma, has an estimated 5,882 Deaf people<sup>15</sup> (Batamula, 2009). The Dodoma Deaf School and the Deaf unit attached to the Kigwe school can provide education for a combined 200 students (Batamula, 2009).

The primary schools for the deaf have space for a limited 1,090 students a year (Lee, 2012), meaning that the remaining (approximate) 89,910 of the children must attend an orally-focused public school. Less than 5% of Deaf children even go to school - private or public - because of the fiscal challenges, the waitlists, the space available, and the uncertainty of parents.

36

<sup>&</sup>lt;sup>15</sup> Age categories are not specified.

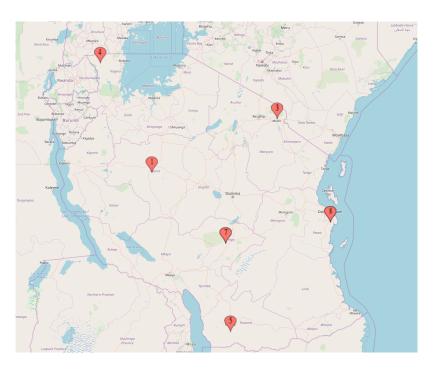


Figure 5. Geographical Locations of Primary Schools for the Deaf in Tanzania.

The teachers at these boarding schools come from a variety of countries and use a variety of sign languages. For example, at the Selous School for the Deaf, FSL was the language of instruction until 1993 (Lee, 2012). Some students reported speaking FSL with their classmates and then switching to LAT when they were at home with their friends. Nowadays, if a Deaf child is not able to go to boarding school and must attend public school, they will often be the only signer at the school, sitting in classes taught via spoken Swahili or English<sup>16</sup> (Lee, 2012).

<sup>&</sup>lt;sup>16</sup> Unexpectedly, this leads to minimal teaching being imparted on the student in question. When a teacher has their back turned to the classroom, i.e., if they are writing on the blackboard, the Deaf child will be unable to read the lips of the teacher (if the student is able to do that, to begin with).

# 5. 2 Development of LAT

It is believed that LAT developed within the national school system of Tanzania, with multiple variations springing up around the country. Having no formal education in sign language, students would get together on the playgrounds and start using signs to form their own language<sup>17</sup>. As these signs began to spread, the creation of a Tanzanian sign language was underway. Unfortunately for the students and the spread of a national sign language, many schools and teachers prohibited the use of sign languages.

The first school specifically for the hearing impaired was opened in 1963 by the Roman Catholic Mission in Tabora, Tanzania (Reynolds, 2007). It was called the "Tabora Deaf-Mute Institute" and, paradoxically, prohibited the use of any sign language, a lasting legacy of the Milan Conference and the belief that oralism was the only adequate method of learning. All students attending the school were hearing impaired or deaf but were taught through oral instruction, being forced to receive their education solely through lip reading. Those who were submitted to this teaching system share stories of congregating with fellow Deaf classmates after class to put together the information they each gleaned and try to collectively understand what the lesson was about (Lee, 2012). Practices like this continue to this day, with most teachers having no formal training in any type of sign language and with no desire to teach Deaf students, especially when accompanied with the prejudice many people have against the Deaf community.

<sup>17</sup> This is common around the world.

LAT is quite distinguishable from other sign languages in Africa in that ASL or BSL have not influenced the language. Additionally, LAT is not recognized by the federal government, and it is usually glossed over, or entirely left out, of sign language references and studies. In *Sign Languages of the World* (Jepsen, ed., 2015), the neighboring sign languages of Kenya<sup>18</sup> and Uganda are both recorded, but LAT is not mentioned. Kenya and Uganda each have had long-standing relationships with missionaries and charitable organizations from England and the United States which has greatly influenced signs in KSL.

# **Available Government Funding**

There are three leading organizations in Tanzania which represent the Deaf community, and therefore all are in competition with each other for resources (Lee, 2012). The NBS shows that the Tanzanian government recognizes deafness as a disability (United Republic of Tanzania, 2010; NBS); within the disability cultural hierarchy in Tanzanian society, deafness is seen as the lowest—the community sympathizes with those with a visible disability, but not with a "hidden" one (Lee, 2012).

There are no national day recognizing the Deaf community, as there is for the Blind. Rarely is equivalent facilitation provided for attending political rallies and voting, so many who are deaf are ostracized from society (Msigallah, 2010). The Deaf population in Tanzania is one of the most oppressed and marginalized populations in Tanzania. In Lee's research (2012), many Deaf interviewed spoke about their marginalization at the behest of the government: 52% felt oppressed or ostracized because of their government defined "difficulties".

<sup>&</sup>lt;sup>18</sup> Kenya was the first country in the world to give official recognition (in 2010) to their standardized national sign language, Kenyan Sign Language (KSL).

When the Tanzanian government allots a certain amount of money to disability organizations, each disability group is scrambling for the money, and the Deaf organizations are usually left with minimal amounts since the rest of the disabled community does not view deafness as an actual disability. This not only makes Deaf organizations competitive towards other disability groups but also towards each other, as they must always fight to receive financial support (Lee, 2012). The best-known organization in Tanzania, *Kitaifa*, has worked hard over the decades to standardize LAT They teach classes across the country, published the first LAT dictionary, and host annual meetings for discussing the creation of signs for new terminology (Lee, 2012).

### **Challenges Towards Official Recognition**

LAT emerged naturally, but standardization of the language has been high on Kitaifa's agenda for years, leading to many people around the country believe that an elitist group created LAT and is working covertly to take credit for creating a national sign language. For standardization to occur in the future, not only must the Deaf community come together and learn LAT along with their local signs, but they must also convince the government to recognize another local language, which it has always been opposed to doing.

To add another language as an official or even national language, could be seen to the government as undoing all the work that has been accomplished over the past 60 years: the focus on having one language to unite the country. Tanzania prides itself on not having linguistic issues that fuel separation or violence, attributed by politicians to the unification of the country through Swahili during the 50s. For LAT to be recognized by the Tanzanian government, a strong argument must be made to show that LAT is

not encroaching on national unity and national identity, it is actually making it stronger. By declaring LAT a national language, it would give the Deaf community access to these traits that Tanzania prides itself upon.

#### 5.3 Finland Relations with the Tanzanian Deaf

President Nyerere's educational, economic, and linguistic policies throughout his presidency, alongside his turn away from Britain and the United States, led Tanzania on a trajectory quite different from neighboring countries in Africa. The mixed relationship with Western countries and the need for aid created a substantial space for foreign NGOs to enter Tanzania.

Nordic countries took advantage of this space, creating a marked increase in the involvement of Tanzanian education and development. These connections, primarily with Finland and Sweden, set Tanzania's Deaf population on a unique course compared to Deaf communities in the neighboring countries. Finland was never a colonizing country of Tanzania; nevertheless, the former has been heavily involved in Tanzania since 1948 when missionaries and teachers first arrived in the coastal country. Partnership in development took off one year after Tanzanian independence when Finland joined the Nordic Tanganyika Project<sup>19</sup>. Finland chose Tanzania as their primary recipient in Africa because of the appeal of Julius Nyerere's policies. *Ujamaa* was a political philosophy of socialism and self-reliance, especially intriguing to the Finnish

<sup>19</sup> http://www.finland.or.tz/public/default.aspx?contentid=86805

government. At the time, there were around 50 Nordic missionaries<sup>20</sup> in Tanganyika<sup>21</sup>, all of whom strongly supported Nyerere (Wohlgemuth, 2002).

Besides Nyerere's political policies, Finland became interested in Tanzania for its development potential and its history as a British colony. In this environment, the Finnish government could ideally use English as opposed to French to communicate. The Nordic Tanganyika Centre began construction in 1963 and later on, in 1988, the Cultural Cooperation Agreement was signed. The first East & Southern African Sign Languages Seminar was held in Tanzania in 1999 (Schmaling, 2012), led by the Finnish Association of the Deaf (FAD). Although the seminar is no longer annually held, it reveals the close relationship between Tanzania & the Nordic countries.

Finland has also had its hand quite extensively in the Tanzanian education system. Teachers from Finland have been traveling to Tanzania to collaborate, share teaching techniques, and teach classes themselves for the past seven decades. There are ongoing partnerships with schools throughout the country for teacher exchange, training programs, and funding for projects. From 2006-2010, the Ministry for Foreign Affairs of Finland allocated 5.738 million euros for education aid to Tanzania, under the Organization for Economic Cooperation and Development category. To understand the focus from Finland on educational aid, in the same period, 2.957 million euros was administered from the same fund to healthcare, 3 million euros to conflict prevention, and a mere 278,000 euros granted to mineral resources and mining (Ministry for Foreign Affairs, 2012). To this day Finland and Tanzania remain close partners with

<sup>&</sup>lt;sup>20</sup> Unsure of how many of these missionaries were Finnish.

<sup>&</sup>lt;sup>21</sup> Tanganyika' refers to mainland Tanzania, prior to the unification with Zanzibar.

Tanzania being the longest standing partner in development for the Nordic country and one of the few African countries with a Finnish ambassador in permanent residence.

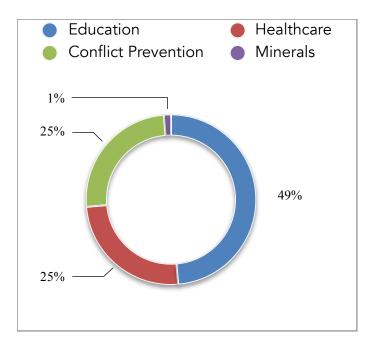


Figure 6. Allocations of Aid from Finland to Tanzania, 2006-2010.

Lee (2012) makes note of Finland's influence in Tanzania many times throughout her dissertation on LAT, and she also records conversations with Deaf Tanzanians referring to Finland or the Finnish language. In her chapter "Sign Language in Tanzania", she documents from her field notes a conversation between herself and two Tanzanian linguistics discussing the sign for *mzungu*, the term for a white person in Swahili. The linguists she is speaking to tell her how the sign for "white person" comes from the FSL sign for "white". They continue, sharing how Muzale wants to remove all non-Tanzanian signs from LAT. In a paper penned in 2001 with A.Y. Mreta on the influence of Kiswahili in LAT, mentions Finnish as a source of influence for signs in LAT<sup>22</sup>, but does not mention ASL or any other foreign sign language: "For example, some signs were taken

<sup>&</sup>lt;sup>22</sup> Translation from Swahili is my own.

from other (local) sign languages coming from the countryside, and other signs came from outside of Tanzania, such as Finland" ("Kwa mfano, baadhi ya alama zilikopwa kutoka katika lugha nyingine za alama za mikoani na nyingine kutoka nje ya Tanzania, kama vile Finland").

Lee (2012) writes further about the use of FSL within the school system: many Finnish teachers never learned/learn LAT, so classes are taught with FSL as the mode of instruction, leading to Tanzanian students having to learn FSL at the same time as learning the curriculum. Some Tanzanian students reported speaking to their classmates in FSL, even years later, while speaking LAT (or a village sign) to their family or friends. The Selous School for the Deaf solely used FSL as the language of instruction until 1993, when Kitaifa came by with the newly created LAT dictionary, encouraging them to make the switch to LAT (Lee, 2012).

# 6. Sign Linguistics Overview

The phonology of different languages must be established when performing a comparative analysis between two or more languages<sup>23</sup>. Phonology is a term in linguistics for the study of the smallest contrastive units of measurement within languages. This term was developed when analyzing spoken languages and was adopted for usage when discussing signed languages. In spoken languages, these contrastive units are sounds, termed as phonemes. A phoneme is a perpetually distinctive sound that distinguishes one word from another: dad vs. bad, love vs. dove, crate vs. crave, and so forth.

<sup>&</sup>lt;sup>23</sup> At times, I will compare sign language structures with those of spoken languages in order to put sign linguistics within a typological perspective.

The syllable is as fundamental a unit in signed languages as it is in spoken languages. One point of nearly complete consensus across models of sign language phonology is that the movements are the nucleus of the syllable. This idea has its origin in the correlation between the function of movements in signed languages and the function of vowels in spoken languages (Liddell, 1984; Brentari, 2002) wherein movements are the 'medium' by which signs are visible from a considerable distance, just as vowels are the 'medium' in spoken languages allowing words to be audible from a considerable distance.

# **Phonological Model**

Within research of sign lexicon, there is no standard framework for the analysis of sign structure and phonology. I have utilized the Prosodic Model for my research and will provide a brief overview of the major structures of a sign based on this model. The Prosodic Model is considered an entry point into sign language phonology (Brentari, 1999). The model grounds its theory on the claim that due to the visual phonetic basis of sign languages, the units are expressed simultaneously, rather than sequentially, as they are in spoken languages. This theoretical framework therein grounds *movement* as the most basic prosodic unit of a sign language.

Movements within sign languages are separated into five different structural types under the Prosodic Model. These movements are individually known as *parameters*, the equivalent of a *phoneme* within spoken languages. The five parameters include Handshape, Place of Articulation, Movement, Orientation, and Non-Manual Properties. These parameters all work in correlation to provide specific meaning to signs.



Figure 7. Handshape Demonstrated for BORDER in LAT. (SignWiki).

# **Detailing Sign Language Parameters**

Signs can share one or more of the same parameters: for instance, in LAT the sign BORDER (mpaka) has the same B-handshape as the sign ENLARGE (kuza) (see *Figure 7* above); ENLARGE has the same palm orientation and handshape as the sign for MAYBE (labda), but different movements (see *Figure 8* below). This illustrates how parameters work together to provide meaning to signs. Each sign language employs different parameters and overlooking a parameter while analyzing signs can lead to incorrect interpretations, alongside inaccurate results. Each parameter can consistent of many variations, known as *primes* (see *Figures 9 & 10*) below for examples of handshape primes); changing a prime can alter the meaning of the sign, or even has the capacity to render a sign meaningless.

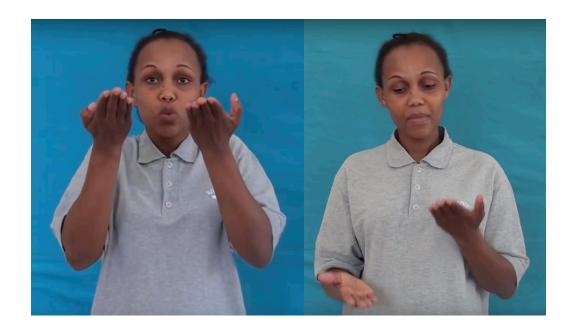


Figure 8. Signs for ENLARGE, left, and MAYBE, right. (SignWiki).

# **Handshape Parameter**

The first parameter mentioned above, the handshape parameter, can have many variations within languages. Handshape primes include variations such as B, A, 1, O, and C, among others (*Figure 9*). All known sign languages share a number of handshape variations, yet there are some more complex handshapes that can be found only in a few sign languages (Perniss, et al., 2007). Sign languages further vary in the size of their handshape inventory, just as spoken languages vary in their vowel and consonant inventories.

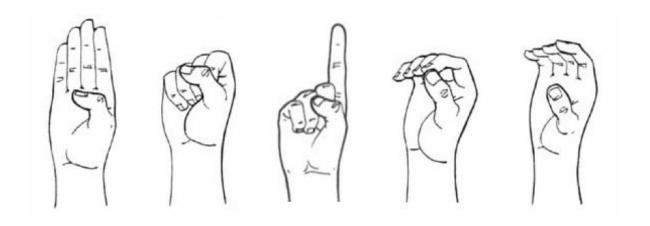


Figure 9. Frequent Handshapes in Sign Languages Around the World. (Perniss, et al., 2007)

For illustration, in ASL, there are over 40 different handshape primes. In each group of primes, there is more variation based on similar handshapes, effectively creating what we term in spoken languages as *allophones*, variants of the same phoneme. Just as /z/ in English carries the features [-nasal, +sibilant,+voice], complemented with many others, handshapes can be classified using features such as [± compact, ± spread, ± broad]. Handshape is the most intricate parameter to acquire and leads to inter- and intra-signer variations (Mann, et al., 2010).

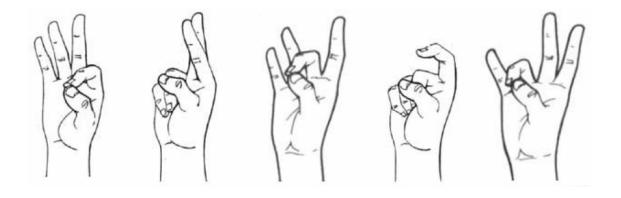


Figure 10. Infrequent Handshapes. (Perniss, et al., 2007)

#### **Movement Parameter**

The second parameter, movement, is how the hand (or hands, depending on the sign) move. Movement can be classified as upward, downward, forward, wave, zigzag, diagonal, supinating rotation, and so on. This category can be further broken down into two subsections: hand-internal movements and path movements (Perniss, et al., 2007). A hand-internal movement is when the movement occurs strictly through movement of the fingers. Local movements of the fingers can be, for instance, wiggling or bending, opening or closing.

In contrast, path movements are where the handshape remains the same and the hand moves as a whole throughout the sign articulation. The hand(s) can move in a straight or arc-shaped path and can be executed in different directions such as sideways, forwards, or contralaterally across the body. Within the movement parameter, discrepancy is less widely available, as the differences are much more apparent. This leads to easily created minimal pairs - signs that differ in only one parameter.

#### **Location Parameter**

The location parameter relates to where the hand/s is/are located in relation to the signer's body. This parameter is not independent - it is integrated into the sign. Signs can have fixed points of articulation on the face or body, or they can be executed in a neutral space, that is, in the area of space in front of the body. The chest, the shoulders, the arm, the wrist, the neck, and different parts of the head and face, including the ear, the mouth, the eye, the nose, the forehead, the side of the head, and

the top of the head are all places of articulation for signs. Locations are typically coded as either neutral, face, head, mouth, neck, chest, or sides.

Sign languages vary further in terms of the signing space utilized: Kata Kolok, a sign language<sup>24</sup> in Bali, has an extremely large signing space compared to many other sign languages. Kata Kolok signers will extend their arms maximally to all sides, including points behind the body. Perniss, Pfau, & Steinbach (2007) postulate that this occurs due to an absolute reference frame, co-opted from neighboring languages, both signed and spoken.



Figure 11. Wayan Pindi Signing Kata Kolok (Wikitongues).

#### **Orientation Parameter**

Palm orientation is forthright: palms can either be turned upward, downward, facing towards the signer, away from the signer, plus other iterations.

<sup>&</sup>lt;sup>24</sup> Some consider Kata Kolok as a sign language, some classify it as a village sign. See *Terminology* section above.



Figure 12. Examples of Palm Orientation Within LAT (LAW, left, QUANTITY, right) (SignWiki).

#### **Non-Manual Markers**

The final parameter is the non-manual marker. Non-manual signals are grammatical and semantic features that are shown with body parts external from the hands. These markers take shape through various facial expressions: eyebrow-raising, mouthing, body shifting, head tilting, and others, depending on the language and the person. This parameter is used to modify verbs, adjectives, and other adverbs, and is used in congruence with the previously listed parameters.

Some signs require these signals to be produced correctly; some can be added by the speaker to show their emotions at the time or to exhibit their personality. Words or parts of words that are articulated are called *mouthing*, while mouth movements that are not derived from words are termed *mouth gestures* (Baker, et al., 2016). The resources of the visual-gestural modality appear to allow more frequent iconicity in sign language lexicons in comparison to spoken languages (Taub, 2001; Mandel, 1977).

Iconicity is when a sign resembles its meaning in some way. For example, in the series of images below (*Figure 13*), the signer is demonstrating the LAT sign HOUSE (nyumba). It is iconic because it resembles the 'typical' shape of a house with a pointed roof and walls.

Every sign language has a different relationship to non-manual markers and employs them to varying degrees. The sub-lexical structure of non-manual properties has yet to be well established in any phonological model of sign language and so, at this time, these markers cannot be one of the main factors of the lexical study undertaken in this thesis.

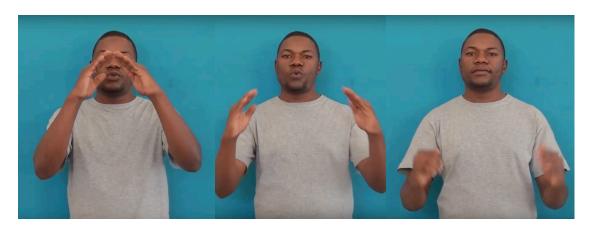


Figure 13. Iconicity in LAT (Stills from SignWiki).

# **Two-Handed Signs**

Two-handed signs can be further broken down based on the role each hand has:

(i) both hands move - in this scenario, the hands generally have the same handshape and the movement can either be copying and simultaneous, an opposite movement, or changing movement (the latter being when the hands produce the same movement, but in different directions passing across each other);

- (ii) the dominant hand moves this changes depending on whether the person is right- or left-handed the non-dominant hand stays in place, and both hands have the same handshape; or,
- (iii) the dominant hand moves while the non-dominant hand remains in place the hands have different handshapes in this configuration.

### **Phonological Patterns in LAT**

In Eilidh Simpson's MA thesis, "The hands that speak: A Discussion of Phonological and Syntactic Patterns in Tanzanian Sign Language" (2017), she determines that in LAT there are 12 main handshape groups, path movements are favored (83% of signs), and there is a preference for signs to be located in a neutral space (Simpson, 2017). The handshapes were primarily based from the signs for 4, 5, A, B, C, E, F, G, H, K, V, and Y (ASL fingerspelling is implemented in LAT); there are variations within most of these handshape groupings. Simpson analyzed that the two largest handshape groups were B and 5. She adds that within LAT if there is slight variation within one parameter, it does not change the meaning of the sign (Simpson, 2017).

#### **Phonological Patterns in FSL**

In FSL, there are 84 handshape groups, with the most common ones being *B*, *A/S*, and *G* (Takkinen, Jantunen, & Ahonen, 2015). The most common place of articulation is the neutral space in front of the signer, and the most common type of movement is the simple straight.

# 7. Methodology

In studies of sign lexicon, there is no standard framework for the analysis of sign language phonology. Different studies have utilized different approaches or created different analytic categories. In their study of the relationship of the lexicon of NZSL to BSL, Auslan, and ASL, McKee & Kennedy (2000) analyzed signs according to the four parameters established in the Prosodic Model, excluding non-manual features. Signs were classified as being "Identical, "Different but Related" and "Different." Where all four parameters were the same, signs were classified as "Identical." If they differed in two or more parameters, then they were classified as "Different" and signs that differed in only one aspect were classified as "Different but Related".

McKee and Kennedy (2000) included an extra category of "Other" for signs that differed in other ways than the four main parameters (e.g., handedness). The property of 'handedness' refers either to a sign being one-handed or double-handed-having two hands mirroring each other symmetrically—or a sign with the presence or absence of a base hand. Trevor Johnston (2003) in a study of BSL, Auslan, and NZSL took another approach for classifying otherness. Johnston chose to classify signs that differed only in handedness as "Identical".

# 7.1 Framework for Analysis

Following Aldersson & McEntee-Atalianis' framework (2007) for a crosslinguistic comparison, signs within this research scope were analyzed according to the parameters of hand configuration, location, palm orientation, and movement. Non-manual markers were not analyzed but were acknowledged throughout the research. Other comparisons regarding signing speed and expressions were made, when notable, as these can change broadly between people. At this time, further research is required regarding non-manual features within LAT (and sign language linguistics as a whole), before being able to account for them in research confidently.

Two signs were considered **identical** if all four parameters were the same. Signs that differed only in "handedness" (single or double-handed or with the presence or absence of a base hand) were considered to be identical, but these differences were noted as part of the analysis. If handedness differed and repetition of movement was altered, this lexical item was considered similar: WATER TAP (bomba/vesihana) contains the same handshape, orientation, and movement, but uses one hand in LAT, compared to being a two-handed sign in FSL, and repeats the movement two more times in the LAT construction. Two signs were considered **similar** if they shared two or three parameters. Two signs were considered **different** if three or four of the parameters were different<sup>25</sup>.

During my research I observed many signs that had all the same structural and nonstructural components, yet were signed at a much faster speed in LAT than FSL. Since this is not an indicator of meaning in either sign language, I did not use it to determine

<sup>&</sup>lt;sup>25</sup> There are cases for 'possible relatedness' which were marked throughout the data. Diachronic analysis within LAT is discussed further within the *Conclusion*.

sign similarity; instead, noted it as a characteristic of LAT. For me to label a sign as identical, I ensured that all structural parts aligned. I looked at non-structural parts also, but did not lean too heavily on movement of the mouth because in LAT it appears to be much more exaggerated than in FSL. Sometimes the handshape, movement, place of articulation, and orientation were all congruent, but LAT would have the hands slightly further apart (as an example). When this occurred, I classified it as "identical", since this can be due attributed to differences in signing personalities and preferences.



Figure 14. Comparison of the signs for the verb TEACH in LAT (left) and FSL (right) (SignWiki Tanzania and Suvi).

When signs varied only slightly - for example, in number within repetitive movements - I determined it would be better to be more conservative with my analysis and would therein label these signs as "similar" rather than "identical". The sign for the Swahili word TEACH (fundisha) (see *Figure 14* above), which means to teach, is represented in LAT with a two-hand movement, in a neutral space, hands in a B-shaped close position, directed away from the body of the signer. The gesture, which is a movement of the hands away from the body, is repeated twice. The FSL sign for TEACH (opettaa) is

comprised of the same sign orientation, handshape, place of articulation, and movement as the sign in LAT, but the movement is repeated three times as opposed to twice. I believe that in a conversational situation, these signs would be understood between a signer of LAT and a signer of FSL, but for this research project, I am unsure if a native speaker would classify these signs as the same, so I classified instances like this as *similar*.

At this time, it is vital to note that the terms for categories (identical, similar, and different) are only convenient analytical labels and cannot be considered as *absolutes*. Due to the propensity for primes and parameter variation within sign languages, it is not entirely accurate to claim that two given signs from two different languages for a lexical item are 100% identical (nor, in that matter, 100% different).

#### **Dictionaries Referenced**

To determine the influence of FSL on LAT from a phonological and lexical perspective, I referenced three online dictionaries. Kitaifa, the leading Deaf organization in Tanzania, has produced the dictionary for LAT, hosted on SignWiki (SignWiki Tanzania, 2018). Each entry in the dictionary provides a video, a still photo, the lexical category, the sign language category, the location, and the handshape. For FSL I primarily used Suvi, the online dictionary created in 2003 in partnership with the Finnish Association of the Deaf (Suvi, 2003). Suvi provides videos for each entry, sometimes multiple videos from different signers to account for signer variation. This online dictionary is rich with entries, but it does not provide grammatical information. Many example sentences are given for words, which led to confusion for me sometimes when I could not find a word signed on its own, but rather available only in a sentence. For items I could not find in

Suvi, I referenced the FSL version of the SignWiki online dictionary (SignWiki Suomi, 2018).

Within research of Indo-European spoken languages, previous lexical studies have examined genetic relationships and lexical borrowing through the useful tool of the Swadesh List. In 1955 Morris Swadesh (1955) developed a 200-item and a 100-item word list of things commonly used and referenced within languages. These lists include words that share a number of features in common, notably those that are (Swadesh, 1995):

- frequently used in everyday speech;
- acquired early on by children;
- exist in all languages; and
- seldom borrowed from other languages.

However, these listings have proven to be inadequate for the study of language use in urban populations and sign languages (Woll, 1984). Specifically to sign languages, a significant number of items contained in the original list were body parts and personal pronouns. As these are articulated via pointing in many sign languages, these would provide for an artificially high reporting of similarity; therefore, I decided to not use the Swadesh word list or any word list at all, but to instead compare all the lexical items available (with some constraints, listed below in *Results*).

The methodological framework implemented in this thesis is not without limitations: I used online sign language dictionaries for my comparative research, which is limited by editorial decisions regards inclusion of signs and access to a variety of speakers, meaning that variant and colloquial forms could be under-represented, or not include

at all. Online dictionaries are more up-to-date than print dictionaries of sign languages, yet contemporary usage might not be adequately represented through these sources. Without language consultants of LAT and FSL, I was also unable to learn about the diachronic trajectory of each language to determine whether or not a sign originated in FSL and then developed further on. This type of narrative information would be advantageous to a research project such as this, to determine the influence of FSL on LAT.

To manage my data, I utilized the online collaborative software, Airtable. Airtable is a spreadsheet-database hybrid that makes it easy to filter data and quickly calculate.

#### **Translations**

For translations from Swahili to Finnish, the latter of which I have a lower proficiency level of, I referenced multiple dictionaries: *Suomi-Englanti-Suomi-Sanakirja*, *Swahili-Suomi-Swahili-Sanakirja*, and the online dictionary Sanakirja. If any questions regarding translations remained, I contacted native speakers of Swahili and Finnish for their assistance in confirming my translation.

At times, words were untranslatable. One instance of translation difficulties arose with the word "habari" in Swahili, which translates to "news" in English. It is often used as a greeting, to ask the news of someone and how they are doing. "Habari" is not the same as "uutiset" (lit. news) in Finnish, but does not have the same connotation as "mitä kuuluu?" ("how are you?" lit. what is being heard?). When translation difficulties such as this arose, I noted the issues but did not force comparisons. Perhaps the sign for habari and the sign for mitä kuuluu would be considered as direct translations to native signers; I chose to skip these items though in case of discrepancy and instead

note my translation challenges, leaving them for future research when I can potentially work alongside native users of LAT.

# 8. Analysis & Results

Glottochronological analyses are used to find historical relationships between languages<sup>26</sup>. This type of analysis can be compared to radiocarbon dating, which determines the age of an object using an isotope (Staume, 1967). Glottochronology is grounded on two primary assumptions: 1) some words are more stable than others, so an examination of "basic core" vocabulary will be more reliable; usually these terms include body parts, numbers, pronouns, (although in sign languages, as opposed to spoken languages, these provide certain difficulties for basing due to iconicity) and 2) the rate of change is the same for all languages at all times.

Resting upon glottochronology, Woll, Sutton-Spence, and Elton (Lucas, 2001) maintain that if 80% or more of the signs between two languages are similar, then the variants are dialects of the same language. If 36-80% are similar, they belong to the same family. If the similarity is 12-35%, then the languages belong to families of the same stock.

<sup>&</sup>lt;sup>26</sup> Glottochronology is a branch of linguistics dedicated to these historical relationships, along with establishing a degree of lexical relationships.

#### **Data Results**

The SignWiki Tanzania online dictionary contains 2,194 entries; of these, 363 lexical items had to initially be eliminated for analysis due to cultural or geographical irrelevance (i.e., there is no sign for the Tanzanian town of Tabora in FSL). Of the remaining 1,831 entries, I was unable to compare 841 of them due to translation issues, the example video not working, or finding no equivalent sign in FSL available for comparison. Out of the 841 entries that had to be removed from the data set, 83 were coded as "cannot translate", 11 had broken embedded videos, and 770 were unable to be found in either of the FSL online dictionaries. (There is overlap in these codings). From the initial 2,194 entries, I was able to compare a total of 973 lexical items from the LAT dictionary.

Identical	150/973 = 15.4%	42.7%	
Similar	266/973 = 27.3%		
Different	557/973 = 57.2%		

Figure 15. Percentage of 'Identical', 'Similar', and 'Different' Realizations

From these 973 entries, 150 were coded as "identical", 266 as "similar", and 557 as "different". Of the available entries, almost 43% had a ranking of similarity of higher, whereas 57.2% were considered different.

This data shows that over 40% of signs were found to be similarly articulated in LAT and FSL using the available online dictionaries for the two languages. Appealing to the lexicostatistical classification of languages as determined by Woll, Sutton-Spence, and

Elton (Lucas, 2001), then LAT and FSL would then constitute distinct languages, but related and belonging to the same language family. Within linguistics classifications, LAT is currently not housed within a familial group: it is kept in an "others" category. On the other hand, FSL developed from Swedish Sign Language, which is part of the BANZSL language family (British, Australian, and New Zealand Sign Language).

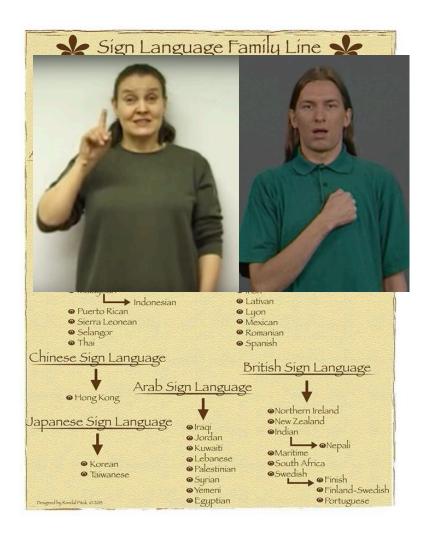


Figure 16. Sign Language Family Tree (Pituk, 2013).

## 9. Conclusions

Of the lexical items identified as different, many seemed to have potentially been influenced or to have evolved from the equivalent FSL sign. This study could easily be expanded upon and improved by working with native signers of LAT and FSL - especially LAT signers who attended Deaf schools run by Finnish missionaries and teachers, as they could anecdotally remark on the inception of specific signs and their development since the missionizing-era of Tanzania. Using the knowledge of Tanzanian students of Finnish missionaries, a diachronic analysis could be undertaken to determine the historical extent of influence on LAT. For example, the path movement for ART (sanaa/taide) suggests an influence from FSL or a divergence from FSL into the contemporary sign for ART in LAT.



Figure 17. LAT Sign for ART (SignWiki Tanzania)

The FSL sign for ART follows the same path movement in the same location, but uses only one hand, compared to two in LAT, with the U-handshape, compared to the B-handshape as seen above in LAT.

Working with native signers would also solidify the data available, as dictionaries provide limitations. There were many signs throughout this data that were different between SignWiki Suomi and Suvi - both the online dictionaries for FSL. The sign ZEBRA (seepra) is comprised of a different handshape, movement, orientation, and

location on SignWiki Suomi and Suvi. With FSL and LAT language consultants, researches would have access to different variations of signs, potentially leading to more similarity between the FSL and LAT. The same can be said for LAT, as there is only one online dictionary and less standardization. There are most likely many more ways to sign lexical items within this dataset that are currently inaccessible without a language consultant.

Figure 18. Different Signs for ZEBRA in FSL (SignWiki Suomi, left, Suvi, right)

These factors taken into consideration, at this time in the investigative process it would be unwise to lay claim to FSL being a missionizing language of LAT - along the same lines of a colonizing language, replete with the effects and forced psychological conditions that accompany the practice. A broader, multi-method approach, including qualitative research with former teachers and students, would need to be undertaken to fully understand the influences, consequences, and results of FSL within Tanzanian education and Deaf culture. At the same time, I believe it is wholly warranted to state that qualitative research and more expansive quantitative research that were not in the scope of this thesis would be beneficial, as the history of FSL in Tanzania (primarily the use of FSL in schools by Finnish missionaries and teachers) merits more than a claim of "language contact". Furthermore, the statistics shown within this data - a similarity score of over 40%, without solely adhering to a list of common vocabulary - denote more expansive similarity than two languages from completely different language families merely in contact with each other.

On a broader scale within sign linguistics, this study, accompanied with those on BSL, Auslan, ICL, KSL, and so forth, show that there is a broader area of sign lexicon analysis in need of refinement and standardization. Currently, without a standard each researcher adheres to, there is much room for discrepancy and personal margin. Classification of similarity could be more sensitively measured, placed on a gradation scale of similarity. Accompanying this continuum with diachronic analysis of influence could show a more comprehensive picture within cross-linguistic lexical comparisons. There is a need to further develop and refine these methodological frameworks and analytical tools for sign linguistics as more research is completed.

This study undertaken provides a more detailed overview of the history and development of LAT and provides the first empirical evidence of similarity between the lexicon of LAT and FSL. It places these research topics within the framework of postcolonial and postmissionizing theories, often examined when analyzing spoken languages and the need for "decolonization of the mind" (Thiong'o, 1986), yet rarely framed from the viewpoint of sign languages and Deaf culture.

This research raises the question of a need for demissionizing within LAT and how the forced implementation of FSL within Tanzania affected children and the development of Tanzanian Deaf culture. The mental colonization which Fanon spoke about half a century ago, which Cabral referenced in his address, and Thiong'o continues to fight for today is something that, they all argue, can only be overcome by complete eradication of the, in this case, missionizing language. They argue that to accomplish this, one must quit paying homage to the former colonizers by using their languages; one must overcome the lasting effects by taking the reins of their own linguistics and culture. Until this is done, as Fanon said in *Les Damnés De La Terre* (1963), one will never truly be free.

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## Appendix 1: Data

Swahili Term	Finnish Term	English Term	Identical	Similar	Different
abudu	rukoilla	to worship, adore			
acha	pysähtyä	to stop			
ada	maksuu	fee			
afisa	virkailija	officer			
ahadi	lupaus	promise			
aibu	häpeä	shame			
ajali	onnettomuus	accident			
akiba	säästöt	savings			
akili	älykkyys	intelligence			
alama	viittomakieli	sign/sign language			
alama ya chapa	merkki	mark			
amani	rauha	peace			
ambia	kertoa	to tell			
ambukiza	levittää	to transmit			
andika	kirjoittaa	to write			
ankara	lasku	bill			
apple	omena				
asia	aasia	asia			
asili	synty	origin			
askari jeshi	sotilas	solider			
asubuhi	aamu	morning			
australia	australia				
athiri	vaikuttaa	affect			
baa	baari	bar			

baadaye	myöhemmin	later		
baba	isä	father		
babu	isoisä	grandfather		
babuka	palaneet	scorched		
badilisha	muuttaa	same		
badilishana	vaihto	to exchange		
bado	ei vielä	not yet		
bahari	meri	ocean		
bahati	onni	luck		
baiskeli	polkupyörä	bicycle		
bana	puristaa	to squeeze		
banika	paisti	roast		
barabara	tarkelleen	exactly, perfectly		
barabara	maantie	road, highway		
baridi	kylmä	cold		
baraka	siunata	bless		
barua	kirje	letter		
basi	bussi	bus		
bata	ankka	duck		
bati	metalli	metal		
batiza	kastaa	to baptize		
baya	huono	bad		
bayana	asia selvä	clear		
bega	olkapää	shoulder		
bei	hinta	price		
benki	pankki	bank		
bishara	liiketoiminta	business, comerce		
biblia	raamattu	bible		

binamu	serkku	cousin		
bingwa	mastari	champion		
boma	aita	fence		
bomba (mfereji)	vesihana	water tap		
bomoa	purkaa	to demolish		
bomu	pommi	bomb		
bonde	laakso	valley		
bosi	pomo	boss		
botswana	botswana	botswana		
breki	tauko	break		
bubu	thymä	dumb		
buluu	sininen	blue		
bundi	pöllö	owl		
bunduki	ase	gun		
buni	keksiä	to invent		
burundi	burundi	burudni		
buruza	vetää	to drag		
buruza	lazimisha	to force		
busara	viisaus	wisdom		
bwana	herra	mister		
bweka	haukkua	to bark		
chaani				
chafu	likainen	dirty		
chakaa	kulua	to wear out		
chali	saamaton	supine		
chama	yhdisys	association		
changanya	sekoittaa	to mix		
changanyikiwa	hullu	crazy		

changanyikiwa	hämmentynyt	confused		
changu	minun	mine		
chanja	leikata	to cut up		
chanzo	aiheuttaa	beginning		
cheka	to laugh			
chelewa	myöhässä	late		
chemsha	keittää	to boil		
cheo	asema	status, rank		
chifu	päällikkö	chief		
china	kiina	china		
chora	piirtää	to draw		
chota	noutaa	to fetch		
chozi	kyynel	tears		
chumba	huona	room		
chumvi	suola	salt		
dada	sisko	sister		
daiwa	väitti	claimed		
daka	ottaa kiini	to catch		
daktari	lääkäri	doctor		
damu	veri	blood		
danganya	valehdella	to lie, cheat		
dansi	tanssi	dance		
darasa	luokka	class		
dari	katto	ceiling		
denmark	tanska	denmark		
dhaifu	heikko	weak		
dhambi	synti	sin		
dhani	kuvitella	to imagine		

dharau	loukkaus	to insult	
dhoruba	sade	storm	
dinda	erektio	erection	
dirisha	ikkuna	window	
disemba	joulukuu	december	
dodoso	otsikko	headlines	
donoa	nokkia	to peck	
duara	ympyrä	circle	
dudu	hyönteinen	insect	
duka	kauppa	shop	
dukuduku	kauna	grudge	
dumu	sietää	to last, endure	
elea (ndege)	lentää	to fly	
elewa	ymmärtää	to understand	
eleza	selittää	to explain	
elimu	koulutus	education	
embamba	ohut	thin	
enda	mennä	to go	
endelea	jatkaa	to continue	
endelea (maende	kehitys	development	
enzi	kunnioitta	to honor	
ера	paeta	to escape	
epesi	helppo	easy	
epuka	paeta	to avoid, escape	
ethiopia	etiopia	ethiopia	
ezeka	katto	thatched roof	
fafanua	selittää	to clarify	
fahamika	kuuluisa	to be famous	

fala	typerys	imbecile		
falsafa	filosofia	philosophy		
familia	perhe	family		
fanana	samankaltainen	similar		
fanikiwa	onnistua	to succeed		
fanya	tehdä	to do		
farasi	hevonen	horse		
februari	helmikuu	february		
fedha	raha	money		
feli	epäonnistua	to fail		
figo	munuainen	kidney		
fika	saapua	to arrive		
foleni	jonottaa	queue		
friji	jääkaappi	refrigerator		
fuata	seurata	to follow		
fuatilia	tutkia	to investigate		
fukuza	hylätä	to dismiss		
fululiza	jatkaa	to continue		
fuma	kutoa	to weave		
fuma	ottaa kiini	to catch		
fumbata	tarttua	to grasp		
fundisha	opettaa	to teach		
funga kula	paastota	to fast		
fununu	huhut	ruomrs		
fupi	lyhyt	short		
furahi	onnellinen	to feel happy		
furahi	nauttia	to enjoy		
fursa	mahdollisuus	opportunity		

futa	siivota	to clean up		
ganda	jäätyä	freeze, curdle		
gani	minkälainen	what kind		
gari	auto	car		
gari la dharua	ambulanssi	ambulance		
gauni	puku	gown		
gawa	jakaa	to share		
gawanya	jakaa	to share, divide		
gawia	jakaa	to distribute to		
gazeti	sanomalehti	newspaper		
gereza	vankila	prison		
gesi	kaasu	gas		
gesi (hospitalini)	happi	oxygen		
gesi (tumboni)	happi	bodily gas		
geugeu	vaihteleva	changeable		
geuza	muuttua	to change, modify		
ghafla	yhtäkkiä	suddenly		
ghana	ghana	ghana		
ghorofa	kerros	floors		
giza	tumma	darkness		
glovu	käsine	glove		
godoro	patja	mattress		
gonga	lyödä	to hit, beat		
gongo	viina	local spirits		
gurudumu	pyörä	wheel		
hadithi	tarina	story		
hai	elossa	alive		
haiwezekani	mahdoton	impossible		

haja	tarvita	to need		
haki	oikeudet	right		
halafu	jälkeenpäin	afterwards		
halali	sallittu	permissible		
hali ya hewa	sää	weather		
halisi	todellinen	real, perfect		
hamisha	vaihtaa	to shift		
hamu	kaipaus	longing		
haraka	kiire	hurry		
haribika	vaurioitu	to be damaged		
haribu	vahingoittaa	to damage		
harufu	haju	odor		
harufu	haista	stink		
harusi	häät	wedding		
hasara	menetys	loss		
hatari	vaara	danger		
hatua	askeleet	steps		
hedhi	kuukautiset	menstruation		
hema	hengittää	to breathe		
hesabu	laskento	arithmetic		
heshima	kohtelias	repeat, honor		
heshimu	kunnioittaa	to respect		
hewa	ilma	atmosphere		
hifadhi	säästää	to preserve		
hizima	rohkaista	to encourage		
hisi	tuntea	to feel		
historia	historia	history		
hitaji	tarvita	to need		

hodari	ahkera	clever	
hoi	avuton	helpless	
hoji	haastatella	to interview	
homa	kuume	fever	
hongera	onnea	congratulations	
honi	sarvi	horn	
hospitali	sairaala	hospital	
hoteli	hotelli	hotel	
hotuba	puhe	speech	
huduma	palvelu	service	
huru	ilamiseksi	free	
huzuni	suru	sorrow	
iba	varastaa	to steal	
iceland	islanti	iceland	
idara	osasto	department	
idhini	suostumus	consent	
igizo	matkia	to imitate	
ijumaa	perjantai	friday	
imani	usko	faither	
india	intia	india	
ingi	liikaa	too much	
ingine	toinen	other	
insha	koe	essay	
inzi	kärpänen	fly (insect)	
ipi	mikä	which	
ipua	poistaa	to take off	
ishsara	signaali	sign	
ishi	asua	to live	

isiyo na kikomo	kestävä	sustainable	
israel	israel	israel	
ita	julistaa	to call	
italia	italia	italy	
iva	kypsyä	to ripen	
jaa	täynnä	full	
jaa la taka	roska	garbage	
jabali	kallio	rock	
ndugu	sukulainen	relative	
jambazi	rikollinen	criminal	
jana	eilen	yesterday	
januari	tammikuu		
jaribu	yrittää	to try	
jasho	hiki	sweat	
jenga	rakentaa	to build	
jengo	rakenne	building	
jeruhi	haavoittaa	to wound	
jeshi	armeija	army	
jibu	vastata	to answer	
jicho	silmä	eye	
jifunza	oppia	to learn	
jiko	liesi	stove	
jina	nimi	name	
jinga	tyhmä	silly	
jino	hammas	tooth	
jioni	ilta	evening	
jipu	paise	abscess	
jirani	lähellä	nearby	

jitoa	luopua	to concede		
jivu	tuhka	ash		
jogoo	kukko	rooster		
joto	lämpö	heat		
jua	aurinko	sun		
jua	tietää	to know		
jui	ei tiedä	don't know		
julai	heinäkuu	july		
jumamosi	lauantai	saturday		
jumanne	tiistai	tuesday		
jumapili	sunnuntai	sunday		
jumatano	keskiviikko	wednesday		
jumatatu	maanantai	monday		
jumlisha	lisätä	to add		
jumuiya	yhdistys	assosication		
juzi	toissapäivänä	day before yesterday		
kaa	istua	to sit		
kaanga	käristää	to fry		
kaba	tukehtua	to choke		
kabichi	kaali	cabbage		
kabla	ennen	before		
kaburi	hauta	grave		
kadi	kortti	card		
kahawa	kahvi	coffee		
kahawia	ruskea	brown		
kalenda	kalenteri	calendar		
kali	ankara	harsh		
kamata	pyydystää	to catch		

kamera	kamera	camera		
kamili	valmis	complete		
kampuni	yritys	company		
kanada	kanada	canada		
kanda	vaivata	to knead		
kandamiza	sortaa	to opress		
kando	sivuun	aside		
kangaroo	kenguru	kangaroo		
kanisa	kirkko	church		
kanusha	kumota	to refurte		
karibu	tervetuloa	welcome		
karoti	porkkana	carrot		
kasi	nopeus	speed		
kasimu	vastuu	responsibility		
kasisi	pappi	priest		
kaswende	kuppa	syphilis		
kata	leikata	to cut		
kata na mkasi	leikata saksilla	to cut with scissors		
kataa	kieltäytyä	to refuse		
kataa (pinga)	vastustaa	to oppose		
kataza	kieltää	to forbig		
katili	julma	cruel		
kavu (kauka)	kuiva	dry		
kavu (ukame)	kuivuus	drought		
kawaida	normaali	normal, usual		
kazi	työnteko	work		
kemia	kemiallinen	chemical		
kengele	soittokello	bell		

kenya	kenia	kenya		
kesho	huomenna	tomorrow		
keshokutwa	ylihuominen	day after tomorrow		
kiasi	kohtalainen	moderate		
kibofu	virtsarakko	bladder		
kichefuchefu	pahoinvointi	nausea		
kidani	kaulaketju	necklace		
kidogo	vähän	little		
kidonda	haava	sore, wound		
kifafa	epilepsia	epilepsy		
kifua	rinta	chest		
kifungo	nappi	button		
kiharusi	halvaus	stroke		
kijana	nuoret	youth		
kijani	vihreä	green		
kijiji	kylä	village		
kijivu	harmaa	grey		
kikohozi	yskä	cough		
kilima	mäki	hill		
kilimo	maatalous	agriculture		
kilio	huuto	cry		
kimbia	juosta	to run		
kinembe	klitoris	clitoris		
kinga	suojelu	protection		
kiongozi	johtaja	leader		
kioo	peili	mirror		
kipande	osa	piece		
kipimajoto	kuumemittari	thermometer		

kipindi	aika	period (time)		
kisonono	tippuri	gonorrhea		
kisu	veitsi	knife		
kisukari	diabetes	diabetes		
kitabu	kirja	book		
kitendo	toiminta	action		
kiti	tuoli	chair		
kitu	esine	thing		
kitunguu	sipuli	onion		
kiu	jano	thirst		
kiziwi	kuuro	deaf		
kizunguzungu	huimaus	dizziness		
kobe	kilpikonna	tortoise		
kocha	valmentaja	coach		
kochi	sohva	couch		
kodi	vuokrata	to rent		
kodoa macho	tuijottaa	to stare		
kofia	hattu	hat		
kojoa	virtsata	to urinate		
koleo	lapio	shovel		
komaa	kypsä	to mature		
kombe	kuppi	cup		
kompyuta	tietokone	computer		
kondomu	kondomi	condom		
kondoo	lammas	sheep		
kongo	kongo	congo		
kontena	astia	container		
koo	kurku	throat		

kopa	lainata	to borrow		
kopo	**II.1:	tin, can		
	tölkki			
koroga	sekoittaa	to stir		
koti	takki	jacket		
krimu	kerma	cream		
kua	kasvaa	to grow		
kubali	hyväksyä	to accept		
kubaliana	sopia	to agree		
kubwa	iso	big		
kucha	kynsi	fingernail		
kufa	kuolla	to die		
kula	syödä	to eat		
kulia	oikea(lla, lle)	right		
kuma	emätin	vagina		
kumbuka	muistaa	to remember		
kunywa	juoda	to drink		
kura	äänestää	to vote		
kushoto	vasen	left		
kutana	tavata	to meet		
kuu	suuri	great		
kwama	olla jumissa	to be stuck		
kwanini	miksi	why		
kwanza	ensimmäiseksi	firstly		
kwaruza	raapia	to scratch		
kweli	totta	TRUE		
laana	kirous	curse		
ladha	maku	taste		
laini	pehmeä	smooth		

lakini	mutta	but		
lala	nukkua	to sleep		
leo	tänään	today		
lewa	olla humalassa	to be drunk		
lia	itkeä	to cry		
linda	vartioida	to guard		
lini	milloin	when		
lipa	maksaa	to pay		
lita	litra	litre		
maafa	katastrofi	disaster		
maana	merkitys	meaning		
mabadiliko	muutos	change		
machi	maaliskuu	march		
machweo	auringonlasku	sunset		
madagaska	madagaskar	madagascar		
mafua	flunssa	cold, flu		
mafuta	bensiini	petrol		
mageuzi	muutos	reform, change		
mahali	paikka	place		
maisha	elämä	life		
maiti	ruumis	corpse		
majani	ruoho	grass		
maji	vesi	water		
majira	kausi	season		
majivuno	ylpeys	pride		
malaika	enkeli	angel		
malawi	malawi	malawi		
maliza	maali	finish		

mamba	krokotiili	crocodile		
mamlaka	auktoriteetti	authority		
manjano	keltainen	yellow		
manukato	tuoksu	perfume		
maombi	pyyntö	request, prayer		
mapato	tulo	earnings, income		
mapenzi	rakkaus	love		
mapumziko	tauko	pause		
marekani	amerikka	america		
marufuku	kielto	ban		
masahihisho	korjaus	correction		
mashariki	itä	east		
mashine	kone	machine		
maskini	kerjäläinen	beggar		
mate	sylki	saliva		
matumaini	toivoa	hope		
matumizi	kulut	expenses, expenditure		
maua	kukka	flower		
maumivu	kipu, kärsimys	pain		
mavi	uloste	excrement		
mawazo	ajatus	thought, idea		
mawe	kivi	stone		
mawimbi	aallot	waves		
mbingu	taivas	heaven		
mbovu	viallinen	defective		
mbu	hyttynen	mosquite		
mbwa	koira	dog		
mchamungu	uskovainen	believer		

mchanga	hiekka	sand		
mchanganuo	analyysi	analysis		
mchele	riisi	rice		
mchoro	piirustus	illustration, drawing		
mchumba	sulhanen	fiancé		
mchunga mifugo	paimen	herdsman		
mchungaji	pastori	pastor		
mchuzi	kastike	sauce		
mdahalo	keskustelu	debate		
mei	toukokuu	may		
meli	höyrylaiva	ship, steamership		
meremata	kimmeltää	to glitter		
meza	pöytä	table		
mfalme	kuningas	king		
mfano	esimerkki	example		
mfuasi	seuraaja	follower		
mfuko	laukku	bag		
mfululizo	sarja	series		
mfumo	järjestelmä	system		
mfungwa	vanki	prisoner		
mganga	lääkäri	doctor		
mgeni	vieras	guest		
mgogoro	konflikti	conflict		
mgongo	selkä	back		
mhariri	toimittaja	editor		
miadi	tapaaminen	appointment		
michezo	peli	game, match		
mieleka	paini	wrestle		

miliki	hallita	to own, rule		
milioni	miljoona	million		
mimba	raskaus	pregnancy		
mimi	minä	I, me		
mishipa	suoni	nerves		
misri	egypti	egypt		
mitindo	muoti	fashion, style		
miwani	silmälasit	eyeglasses		
mjini	kaupunki	town		
mkakati	lisko	strategy		
mkalimani	tulkki	interpreter		
mkataba	sopimus	contract		
mkate	leipä	bread		
mkoba	laukku	handbag		
mkondo	virta	stream, current		
mkono	käsi	hand		
mkorofi	hankala	troublesome		
mkunga	kätilö	midwife		
mkunga	ankerias	eel		
mkurugenzi	johtaja	director		
mkutano	tapaaminen	meeting		
mlango	ovi	door		
mlima	vuori	mountain		
mlio	huuto	cry, shout		
mlipuko	räjähdys	explosion		
mluzi	pilli	whistle		
mmea	kasvi	plant		
mnofu	liha	flesh, meat		

mnyama	eläin	animal		
mnyoofu	rehellinen	honest		
mnyororo	ketju	chain		
mota	moottori	motor		
moto	palo	fire		
moyo	sydän	heart		
mpangilio	järjestely	arrangement		
mpango	suunnitelma	plan, project		
mpenzi	rakas	dear		
mpira	pallo	ball		
mpira	joustava	elastic		
mpira wa meza	pöytätennis	ping pong		
mpira wa miguu	jalkapallo	soccer		
mpishi	kokki	cook, chef		
mpumbavu	typerys	fool		
mpya	uusi	new		
mraba	neliö	square		
mradi	projekti	project		
msaada	apu	help		
msaidizi	avustaja	assistant		
msalaba	risti	cross		
msamaha	anteeksianto	forgiveness		
msenge	homo	someone who is gay		
mshipi	siima	fishing line		
mshumaa	kynttilä	candle		
msichana	tyttö	girl		
msingi	perusta	foundation		
msitu	metsä	forest		

mstari	rivi	line		
msumari	naula	nail		
msumeno	saha	saw		
mswaki	hammasharja	toothbrush		
mtaa	katu	street		
mtaalamu	asiantuntija	expert		
mtaro	oja	trench		
mtazamo	näkökulma	viewpoint		
mteja	asiakas	customer		
mtemi	päällikkö	chief		
mtendaji	johtaja	executive		
mti	puu	tree		
mtihani	tentti	test		
mto	joki	river		
mto wa kulalia	tyyny	pillow		
mtoto	lapsi	child		
mtu	ihminen	person		
mtume	profeetta	prophet		
mtumwa	orja	slave		
muda	kellonaika, aika	time		
muhimu	tärkeä	important		
muislamu	islam	islam		
mungu	jumala	god		
msumbuji	mosambik	mozambique		
muuguzi	sairaanhoitaja	nurse		
muujiza	ihme	miracle		
muumini	uskovainen	believer		
muziki	musiikki	music		

mvivu	laiska	lazy		
mvua	sade	rain, rainfall		
mvuke	höyry	vapor		
mwalimu	opettaja	teacher		
mwamba	kallio	rock		
mwamuzi	tuomari	referee		
mwanajeshi	sotilas	soldier		
mwanamke	nainen	woman		
mwanga	valoisa	light		
mwanzo	alku	beginning		
mwavuli	sateenvarjo	umbrella		
mwendo	nopeus	speed		
mwezi mwandam	uusi kuu	new moon		
mwezi wa kalend	kuukausi	month		
mwiko	kielto	prohibition		
mwingereza	brittiläinen	British person		
mwisho	loppu	end		
mwizi	varas	thief		
mwoga	pelko	fear		
mwongozo	ohje	guideline		
mzima	terve	healthy		
mzimu	aave	ghost		
mzuri	kaunis	beautiful		
nafaka	jyvä	grain		
nafuu	pienentää	to decrease		
nahau	selitys	explanation, idiom		
nahodha	kapteeni	captain		
nakili	kopioda	to copy		

namba	numero	number		
namibia	namibia	namibia		
nanasi	ananas	pineapple		
nani	kuka	who		
nauli	hinta	fare		
ndama	vasikka	calf		
ndege	lento	plane		
ndevu	parta	beard		
ndio	kyllä, joo	yes		
ndizi	banaani	banana		
ndoa	avioliitto	marriage		
ndogo	pieni	small		
ndondi	nyrkkeily	boxing		
ndoto	unelma	dream		
ndugu	veli	sibling		
neema	armo	grace		
nene	rasva	fat		
neno	sana	word		
nepi	vaippa	diaper		
ng'ombe	lehmä	cow		
ngano	vehnä	wheat		
ngazi	portaikko	staircase		
ngoja	odottaa	to wait		
ngoma	rumpu	drum		
ngozi	iho	skin		
ngumu	kova	hard		
nguo	vaatteet	clothing		
nguruwe	sika	pig		

nguvu	vahvuus	strength		
nigeria	nigeria	nigeria		
njaa	nälkä	hunger		
nje	ulkopuolella	outside		
njoo	tule	come (command)		
norway	norja	norway		
novemba	marraskuu	november		
nuka	haista	to smell		
nusu	puoli	half		
nyama	liha	meat		
nyamaza	hiljaa	to keep quiet		
nyang'anya	ryöstää	to plunder		
nyangumi	valas	whale		
nyanyapaa	erottaa	to segregate		
nyasi	ruoho	grass		
nyata	hiipiä	to sneak, creep		
nyekundu	punainen	red		
nyeupe	valkoinen	white		
nyeusi	musta	black		
nyingi	monet	many		
nyonyo	tutti	teat		
nyuki	mehiläinen	bee		
nyumba	talo	house		
nyundo	vasara	hammer		
nyuzi	lanka	thread		
nywele	tukka	hair		
oa	mennä naimisiin	to marry		
oga	kylpeä	to bathe		

ogelea	uida	to swim	
ogopa	pelätä	to fear	
oka	leipoa	to bake	
oktoba	lokakuu	october	
omba	kerjätä	to beg	
ombaomba	kerjäläinen	beggar	
ombea	rukoilla	to pray for	
ona	nähdä	to see	
ondoa	poistaa	to remove	
ondoka	lähteä	to leave	
onea	kiusata	to bully	
ongea	puhua	to talk	
ongea	dialogi	dialogue	
ongeza	lisätä	to add	
onja	maistaa	to taste	
orodha	lista	list	
osha	pestä	to wash	
ovu	paha	evil	
paa	lentää	to fly	
paa la nyumba	katto	roof	
pacha	kaksoset	twins	
padri	pappi	priest	
pafu	keuhko	lung	
paja	reisi	thigh	
paji	otsa	forehead	
paka	kissa	cat	
paka rangi	maalata	to paint	
pakistani	pakistan	pakistan	

pambano	kilpailu	contest		
pamoja	yhdessä	together		
pana	leveä	wide		
panga	järjestää	to arrange		
panya	rotta	rat		
panya buku	hiiri	mouse		
parokia	seurakunta	parish		
pasipoti	passi	passport		
pata	saada	to get		
peke	yksinäinen	lonely		
pekee	yksinäinen	lone		
pembe	sarvi	horn		
pembeni	sivuun	aside		
penda	tykätä	to like		
penseli	lyijykynä	pencil		
pentecoste	helluntai	pentecost		
pepea	puhaltaa	to blow		
picha	kuva	picture		
piga	lyödä	to hit		
pikipiki	moottoripyörä	motorcyle		
philiphili	chili	chili		
pindua	kaatua	to overturn		
pinga	vastustaa	to oppose		
pinki	vaaleanpunainer	pink		
pipa	tynnyri	barrel		
pipi	makea	sweet		
pitisha	hyväksyä	to approve		
pokea	saada	to receive		

pole pole	hitaasti	slowly	
polisi	poliisi	police	
pomboo	delfiini	dolphin	
pona	parantua	to heal, get well	
pongeza	onnitella	to congratulate	
popobawa	lepakko	bat	
posta	posti	post office	
potea	menetetty	(to be) lost	
pua	nenä	nose	
pulizo	ilmapallo	balloon	
pumua	hengittää	to breathe	
pumzika	levätä	to rest	
punda	aasi	donkey	
pundamilia	seepra	zebra	
pungua	vähentää	to redue	
rahisi	helppo	easy	
raisi	presidentti	president	
ramani	kartta	map	
ratiba	aikataulu	timetable	
redio	radio	radio	
refu	korkea	tall	
reki	harava	rake	
reli	rautatie	rail	
riba	korko	interest	
ripoti	raportti	report	
risiti	kuitti	receipt	
roho	sielu	soul	
rudi	palata	to return	

rudia	toistaa	to repeat	
ruhusa	lupa	permission	
rusha	heittää	to throw	
rushwa	korruptio	corruption	
rwanda	ruanda	rwanda	
saa	rannekello	watch	
sababu	syy	reason	
safari	matka	journey	
saga	lesbo	lesbian	
sahani	lautanen	plate	
sahau	unohtaa	to forget	
saidia	auttaa	to help	
saikolojia	psykologia	psychology	
saini	allekirjoittaa	to sign	
sakafu	lattia	floor	
salama	rauha	peace	
salimia	tervehtiä	to greet	
saliti	pettää	to betray	
samaki	kala	fish	
sana	erittäin	very	
sanaa	taide	art	
sandals	sandaalit	sandals	
sarakasi	sirkus	circus	
sasa	nyt	now	
sauti	ääni	sound, voice	
sawa	hyvä	good	
sebule	olohuone	sitting room	
sehemu	osa	part	

seli	solu	cell		
sema	puhua	to speak		
semina	seminaari	seminar		
septemba	syyskuu	september		
serikali	hallitus	government		
shahidi	todistaja	witness		
shairi	runo	poem		
shaka	epäilys	doubt		
shanga	helmet	beads		
shangilia	juhlinta	rejoicing		
sharubu	viikset	mustache		
shauri	neuvoa	to advise		
shauriana	neuvotella	to make consultations		
shavu	poski	cheek		
sheria	laki	law		
shetani	saatana	satan		
shida	vaikeus	hardship		
shinda	voittaa	to win		
shoka	kirves	axe		
shule	koulu	school		
shusha	laskea	to lower		
sijali	en välitä	I don't care		
siasa	politiikka	politics	checked	
sikia	kuunnella	to hear		
sikio	korva	ear		
sikitika	surullinen	(to be) sad		
siku	päivä	day		
sikukuu	juhlapäivä	holiday		

simama	seisoa	to stand	
simamia	valvoa	to supervise	
simu	puhelin	telephone	
sindano	injektio	injection	
sindano	neula	needle	
sindikiza	saattaa	to escort	
sinema	elokuva	movie, cinema	
sinzia	unelias	(to be) drowsy	
sipendi	en pidä	I don't like	
siri	salaisuus	secret	
sisitiza	korostaa	to emphasize	
sista	nunna	nun	
sketi	hame	skirt	
sofa	sohva	sofa	
soksi	sukka	sock	
sokwe	apina	ape	
soma	lukea	to read	
somalia	somalia	somalia	
somo	aihe	subject	
starehe	mukavuus	comfort	
stempu	postimerkki	postage stamp	
sudani	sudan	sudan	
sufuria	kattila	pot	
suka	kutoa	to weave	
supu	keitto	soup	
suruali	housut	pants	
swali	kysymys	question	
swaziland	swazimaa	swaziland	

taa	lamppu	lamp		
taabu	hätä	distress		
tabasamu	hymy	smile		
tabiri	ennustaa	to foretell		
tafakari	ajatella	to think		
tafsiri	kääntää	to translate		
tai	kravatti	tie		
taka	haluta	to want		
takasa	puhdistaa	to cleanse		
talaka	avioero	divorce		
talii	matkustella	to tour		
tamaa	kaipaus	longing		
tamati	loppu	end		
tamu	makea	sweet		
tanga (mashup)	purje	sail		
tangulia	edeltää	to precede		
tanzania	tansania	tanzania		
tapika	oksentaa	to vomit		
taratibu	hitaasti	slowly		
tathimini	arvioida	to evaluate		
taulo	pyyhe	towel		
tawi	oksa	branch		
tayari	valmis	ready		
tazama	katsella	to look at		
teka	siepata	to kidnap		
tekeleza	toteuttaa	to implement		
tele	riittävästi	plenty		
tembea	kävellä	to walk		

tengeneza	valmistaa	to manufacture		
tetea	suojata	to defend		
theluji	lumi	snow		
tikiti maji	vesimeloni	watermelon		
tisha	pelottaa	to frighten		
toba	katumus	repentance		
tokota	keittää	to boil		
tosha	tarpeeksi	enough, sufficient		
toweka	hävitä	to disappear		
trekta	traktori	tractor		
treni	juna	train		
tufe	maapallo	globe		
tumaini	toive	expectation, hope		
tumbaku	tupakka	tobacco		
tumia	käyttää	to use		
tunda	hedelmä	fruit		
tupu	tyhjä	empty		
twiga	kirahvi	giraffe		
ua	tappaa	to kill		
ua	kukka	flower		
ua (uzis)	aita	fence		
uaminifu	rehellisyys	honesty		
ubabe	raakuus	brutality		
ubavu	kylkiluu	rib		
ubongo	aivot	brain		
uchaguzi	vaali	election		
ucheshi	huumori	humor		
uchumi	talous	economy		

udaku	juoru	gossip		
ufaransa	ranska	france		
ufini	suomi	finland		
ufundi	ammattitaito	craftsmanship		
uganda	uganda	uganda		
ugomvi	taistelu	fight		
uhasibu	kirjanpito	accounting		
uhuru	itsenäisyys	freedom, independence	•	
uingereza	englanti	england		
ujasiri	rohkeus	bravery		
ujerumani	saksa	germany		
ujumbe	ilmoitus	message		
ukame	kuivuus	drought		
ukimwi	hiv	hiv		
ukimwi	aids	aids		
ukuta	seinä	wall		
ulaya	eurooppa	europe		
ulemavu	vamma	disability		
umri	ikä	age		
umwa	särky	ache		
unga	jauho	flour		
unga mkono	yhdistää	to join, unite		
unyevu nyevu	kosteus	humidity		
upinzani	vastustus	opposition		
urusi	venäjä	russia		
usawa	tasa-arvo	equality		
usiku	yö	night		
usingizi	uni	sleep		

uso	kasvot	face		
utangulizi	esittely	introduction		
utani	vitsi	joke		
utawala	hallinto	admninistration		
vaa	mekko	dress		
viatu	kengät	shoes		
viazi	peruna	potato		
vipi	miten	how		
virusi	virus	virus		
visa	passi	passport		
volkano	tulivuori	volcano		
vua	riisua	to undress		
vumilia	kestää	to endure		
vunja	rikkoutua	to break		
vuta	vetää	to pull		
vita pumzi	hengittää	to inhale		
vita sigara	polttaa tupakka	to smoke a cigarette		
wajibu	vastuu	responsibility		
wakati	aika	time, period		
wakilisha	edustaa	to represent		
wasiliana	kommunikoida	to communicate		
waza	ajatella	to think		
wazi	auki	open		
wazimu	hulluus	madness		
waziri	ministeri	minister		
wifi	wifi	wifi		
wika	varis	crow		
wiki	viikko	week		

wilaya	piiri	district		
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wingu	pilvi	cloud		
wivu	mustasukkainen	jealous		
woga	pelko	fear		
wosia	testamentti	will		
yai	muna	egg		
yesu	jeesus	jesus		
zaa	synnyttää	to give birth		
zabibu	viinirypäle	grape		
zaidi	lisää	more		
zamani	kauan sitten	a long time ago		
zambarau	violetti	purple		
zambia	sambia	zambia		
zawadi	lahja	present, gift		
ziba	peittää	to cover		
zika	haudata	to bury		
zima	sammuttaa	to extinguish		
zimbabwe	zimbabwe	zimbabwe		
zimwi	aave	ghost		
zito	raskas	heavy		
ziwa	järvi	lake		
zoea	kokemus	experience		
zuia	estää	to prevent		
zungumza	keskustella	to talk, discuss		
zuri	kaunis	beautiful		