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Tanzanian Adolescents in the Digital Age of Cell Phones and the Internet: Access, Use and Risks

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Abstract

This study explored cell phones and internet access, use, and potential risks among Tanzanian secondary school adolescents. A total of 778 students aged 14-18 in Form I to Form IV responded to a self-report questionnaire, and a subset of 20 participants participated in semi-structured interviews. Results revealed a remarkable uptake of cell phones and internet technologies among Tanzanian adolescents. In particular, whereas about 50% of the students reported to own cell phones (nearly 60% own simcards), 76% admitted using cell phones at home, and 86% reported to connect to the Internet. Results showed that male and older adolescents seem to have high level of access compared to female and younger adolescents. It was further revealed that nearly 50% of female adolescents who own cell phones reported to hide them from parents. Adolescents reported to use cell phones and the Internet for socializing, academic and entertainment purposes. Despite the benefits, adolescents reported to have experienced online violence and risks including cyberbullying and online sexual exploitation. Results provide important information for developing policy on cell phones, the Internet, and social media use and access among Tanzanian children and youth. In particular, findings suggest for culturally and developmentally appropriate education and intervention programs, which include global, regional, and national partners, and that keep up with the changes in the digital world.

Keywords: *adolescence; cell phones; cyberbullying; online sexual exploitation; ICT*

1. Introduction and Background to the Problem

The contemporary generation of children and adolescents are constantly surrounded with modern information and communication technologies (ICT) such as cell phones, computers and the Internet from a very younger age than ever before. It is clear that the rapid advancement in ICT has enhanced connectivity and the rate of information exchange between or among people across the globe (Livingstone & Smith, 2014; Sticca & Perren, 2013). Researchers agree that adolescence is a developmental period characterized by risk-taking and sensation-seeking (Arnett, 1992), higher level of peer influence (Allen & Loeb, 2015) and, recently, increased reliance on technology and mobile devices (Lenhart, 2012). In particular, studies from Western countries have identified adolescents as the largest users of modern communication technologies in many countries in the world (Tokunaga, 2010; Li, Cross, & Smith, 2012). For example, whereas over 90% of adolescents in North America have access to the Internet, over 80% reported to own cell phones (Holfeld & Grabe, 2012; Tokunaga, 2010). A recent study in South Korea indicated that while 93% of students own

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cell phones, 99.9% have access to the Internet (Tippett & Kwak, 2012). The use of social media (e.g., Facebook, WhatsApp and Instagram) has also been reported to increase with age and peaks during adolescence (Lenhart, 2012; Runions, 2013). For example, although Facebook has restriction for children below age 13 from having an account, studies have revealed that by age 10, 19% had a Facebook account, 32% had an account by age 11, and 55% had an account by age 12 (Davis, 2012). Despite the growing level of the uptake of modern ICT among the contemporary generation of children and adolescents in many countries, a large body of studies on cell phone, the Internet, and social media use, and the associated benefits and risks, have mainly come from the developed countries; and there is a dearth of empirical work from developing nations such as Tanzania.

Studies have reported various benefits associated with the use of cell phones, the Internet and social media among children and adolescents. In particular, studies have reported that children and adolescents use these technologies for socialization, communication, and identity exploration needs (O'Keeffe & Clarke-Pearson, 2011). Others studies have reported that children and adolescents use cell phones and the Internet for entertainment (e.g., watching videos and playing games). Studies have also reported that adolescents use these technologies for purchasing things online (Lenhart et al., 2010), and for education needs (Kafyulilo, 2012; O'Neill & Dinh, 2015). In addition, the use of the Internet has also increased access to diet, physical fitness, and important health information that adolescents feel insecure to discuss with others (Lenhart et al., 2010; O'Keeffe & Clarke-Pearson, 2011). For example, due to privacy and anonymity on the Internet, less assertive and shy adolescents are more likely to access information on various topics, including sexually transmitted diseases and stress reduction (O'Keeffe & Clarke-Pearson, 2011).

Besides the identified social, education, entertainment, and health benefits, the use of modern ICTs have also been linked with a host of negative threats and outcomes on children and adolescents, for example, cyberbullying (Li, 2006; Sticca & Perren, 2013). Cyberbullying has been generally defined as a type of aggressive behaviour carried out using electronic or internet-based devices with the intention to embarrass, humiliate, or hurt another person by sending intimidating texts, or by posting pictures and harassing messages online (Corcoran et al., 2012; Li, 2006; Smith et al., 2008; Valkenburg & Peter, 2011). Due to the level of anonymity, large audience, permanency of posted information, and inability of a victim to escape (Holfeld & Grabe, 2012; Kowalski et al., 2012), cyberbullying has been linked with a host of negative consequences on victims, including feelings of anxiety, depression, frustration, anger, sadness, suicidal ideations, and in extreme cases, suicide (Bonanno & Hymel, 2013; Li, 2006; Patchin & Hinduja, 2010; Patchin & Hinduja, 2006).

1.1 Statement of the Problem

Given the ubiquitous nature of cell phones, the Internet, and social media, it is true that the benefits and negative impacts also transcend traditional geographical boarders. However, most studies on the use of modern ICTs and their impacts on children and adolescents have come from developed countries (Cross & Smith, 2012; Kowalski et al., 2014). Although there is some emerging evidence from South Africa (Rachoene & Oyedemi, 2015; Smith, 2015), Nigeria (Olumide et al., 2015, 2016) and Tanzania (Shapka et al., 2017) on the high uptake

of these technologies and cyberbullying risks among African adolescents, very little is known on the level of access, use, and potential online risks for children and adolescents in developing countries such as Tanzania. Therefore, this study intends to explore the level of access, use, as well as potential risks associated with cell phones and internet use among Tanzanian secondary school adolescents. This is not only important in informing the development of empirically based education and intervention programmes on child safety online, but also in advancing literature in the field.

1.2 Research Questions

The following three research questions guided this work: (i) What is the level of use and access to the Internet and cell phones among Tanzanian adolescents? (ii) What do Tanzanian adolescents use the Internet and mobile phones for? (iii) What are the potential risks associated with the use of the Internet and cell phones for Tanzanian adolescents?

2. Method

To answer the three research questions, this study used a concurrent mixed-method research design by embedding qualitative methods within a dominantly quantitative research method (Creswell, 2009). Researchers have provided evidence suggesting the strength of mixed-method research in providing a deeper and holistic understanding of research questions (Best & Khan, 2006; Creswell, 2009; Law, 2009; Mathison, 1988). In particular, this study used self-report survey data to provide quantitative data on the level of access, use of cell phones and the Internet, as well as adolescents' activities online. In addition, semi-structured interviews were conducted with a select sub-sample of participants who completed a questionnaire to provide qualitative information on the potential risks. Given that this was a concurrent mixed-method study, the qualitative data were collected soon after the completion of the questionnaire.

2.1 Participants and Context

This study used recent data from a large project on 'Tanzanian Adolescents and Technology – TATech' (Onditi & Shapka, 2016). A total of 778 participants (48% female) aged 14 to18 ($M = 15.79$, $SD = 1.27$) from five secondary schools (Form I to Form IV) in the two largest commercial cities in Tanzania (Dar es Salaam and Mwanza), participated in the study. According to the Tanzania Communication Regulatory Authority (TCRA), Dar es Salaam and Mwanza are considered among the top regions with high uptake of the Internet and cell phone technologies in the country (Mungy, 2014). This suggests that secondary school adolescents in Dar es Salaam and Mwanza cities are more likely to have higher exposure to cell phones and the Internet compared with their counterpart adolescents in other regions and rural areas in the country. The schools (inner city schools) were purposively sampled because of the higher likelihood of having ICT infrastructure (e.g., reliable electricity) higher level of exposure to cell phones and accessibility to the Internet (e.g., internet cafes) relative to schools in the rural areas. Streams involved in the study were randomly selected from a total number of streams in the respective grade levels (i.e., Form I to Form IV). In particular, names of streams in each grade level were written down on pieces of paper and put in a box. Later, the researcher randomly picked a stream to participate in the study from the box.

2.2 Procedure and Ethical Statement

After obtaining research clearance, the author and trained research assistants visited the schools to introduce the study and distribute parental consent letters. Overall, only 5% of the potential participants were not given consent by their parents to take part in the study. The author and the trained research assistants administered self-report questionnaires during regular class lesson (40 to 80 minutes). The last page of the questionnaire had an invitation letter to participate in a semi-structured interview for participants who wanted to share their online risk experiences. Although a total of 367 (about 40%) out of 778 participants who completed the questionnaire were willing to share their negative experiences related to the use of digital devices, the initial target for interview was 10 participants. Given the high number of participants who showed interest to participate in the interview and the attainment of information saturation point, only 20 participants (10 male students and 10 female students) were interviewed. Overall, the reported high level of participants' interest to participate in a semi-structured interview to share their online risk experiences is a red flag for researchers, parents, policy makers, law enforcers, industry and other stakeholders concerned with children and adolescents' well-being, especially in the digital age. On average, interviews ranged from 30 minutes to one hour.

Approval for this study was obtained from the University of Dar es Salaam. Subsequent permissions to visit schools were obtained from the Dar es Salaam and Mwanza regions, and from the districts of the five sampled schools. At the school level, the heads of schools gave access to classrooms. The researcher and research assistants established a rapport by introducing themselves, the purpose of the study, and the overall process. Consent letters were distributed and only students who received parental consent were allowed to participate in the study. Before completing self-report questionnaires and participating in the interview, participants were verbally informed that their participation was voluntary, and only those who gave their assent were allowed to participate in the study. In addition, participants were informed that they were free to stop filling the questionnaire or end an interview at any time they like. Moreover, participants were also informed that the information that they provide will remain confidential and be used solely for academic purpose, and no one will be victimized for sharing his/her information. Before interviews, participants were given an option to choose the language of preference for the interview, and Kiswahili, which is the national language, was the preferred language. All interviews were conducted within school premises two weeks following the administration of the questionnaire. The interview data were audio-recorded after obtaining consent from interviewees.

2.3 Measures

Several demographic variables of interest to the study—such as age, gender, school, and grade—were included in the questionnaire. These variables were considered important in understanding the level of use and access to ICT. In addition, technology use and access-related information was obtained by asking various questions. These included: Do you own a cell phone? Do you sometimes share a handset or cell phone? Do you use a cell phone at home? Are you connected to social network sites (SNS)? Responses were based on 'Yes' or 'No' options as reported in Table 1.

Online activities were measured with a total of 11-items adapted from Shapka (2014). Overall, participants were asked to indicate how much time they spend engaging in a list

of various activities such as socializing on social network sites, playing games, making calls, and looking for academic materials. Responses were on a 5-point level Likert-type scale from 0 (none of my time) to 4 (all of my time). Descriptive statistics for these constructs are provided in Table 2.

We used semi-structured interview questions to explore online risks. Participants were asked to reflect on their online experiences through the following question: "Think of your experience on the use of mobile phones and the Internet. Have you ever been hurt by things people have done or said to you through the mobile phones or on the Internet?" This question was complemented by asking a series of specific follow-up questions to encourage interviewees to provide a more detailed response about the phenomenon (e.g., Can you explain more on how it happened? Would you explain some of the negative effects on your well-being?).

2.4 Data Analysis

Based on the reviewed literatures, which show a dearth of empirical data on this topic in the Tanzanian context, this work employed a descriptive statistics analysis, especially percentages, to provide initial information on the level of access and use of cell phones and the Internet, as well as adolescents' activities online. In addition, the audio-recorded interviews were transcribed and then translated by the initial interviewer into the English language. Using NVIvo (a qualitative data analysis software), thematic analysis—an inductive-deductive coding process (Nastasi, 1999; Varjas et al., 2005)—was used to uncover potential online risks. More specifically, whereas initial basic themes were data-driven (inductive), major codes or themes (i.e., cyberbullying and sexual exploitation) were generated from the initial codes and existing literature on the topic (deductive). The data were coded, and inter-rater reliability was adequate; Kappa ranging from 69% to 100% for all themes.

3. Results

Table 1 displays descriptive statistics for the research question one, which explored the level of use and access to the Internet and cell phones among Tanzanian adolescents. Regarding access and use, 47% of the adolescents admitted to own cell phones, 58% own simcards, 45% share cell phones/handsets with others, 86% reported to use the Internet, and 45% agreed that they are connected to social network sites (e.g., Facebook, WhatsApp, Twitter, and Instagram). In addition, 76% of the adolescents confirmed that they use cell phones at home. In response to an item on the location where digital devices are used when at home, 46% reported using devices in an open area, while 29% said that they use them in a private location. When asked if their parents were aware that they own cell phones, a majority of younger adolescents (71%) reported that their parents were not informed; compared to older adolescents (14%) who concealed devices from parents. In terms of gender, whereas 28% of the male adolescents reported to hide the ownership of cell phones from parents, 48% of the female adolescents said their parents were not informed that they own cell phones. Overall, although the access and use of the Internet and cell phones appeared to increase with age among Tanzanian adolescents, female adolescents reported to have low level of accessibility and use relative to male adolescents. Whether the descriptively identified age and gender variations on access and use of technologies are significant remains an open question for future studies.

Table 1: Tanzanian Adolescents and Access to Internet and Cell phones (% for YES responses)

		Age of Student					Sex of Student	
Access/Use (n=778)	Overall	14	15	16	17	18		
1. Do you own a cell phone?	47%	22%	37%	52%	65%	75%	Males Females	56% 39%
2. Do you own a cell phone line (Sim-card)?	58%	26%	51%	61%	77%	85%	Males Females	68% 48%
3. Do you sometimes share cell phone/handset?	45%	33%	42%	47%	51%	56%	Males Females	52% 40%
4. Do you use cell phone at home?	76%	61%	75%	77%	85%	90%	Males Females	85% 69%
5. Do you connect or use devices that connect to the Internet?	86%	76%	87%	88%	89%	92%	Males Females	90% 83%
6. Are you connected to social network sites (e.g., Facebook, WhatsApp etc)?	45%	33%	36%	48%	56%	57%	Males Females	52% 38%
7. Are your parents aware that you own a cell phone?	62%	29%	54%	68%	79%	86%	Males Females	72% 52%

Table 2 presents descriptive statistics for the research question two, which explored Tanzanian adolescents' activities online, and what they use cell phones for. In this study, the participants reported spending about 30 minutes to 5 hours in a day on cell phones or the Internet doing various activities including socialization, entertainment, and looking for academic materials.

Table 2: Tanzanian Adolescents Activities Online

Indicate how much of your time you spend engaging in the following activities:	None of my time	A small amount of my time (30 minutes a day)	Some of my time (1 hour a day)	Most of my time (between 2-5 hours a day)	All of my time (> 5 hours a day)
Socializing on social networking sites (for example, Facebook, Twitter, WhatsApp. Viber).	48%	22%	18%	9%	3%
Playing games with other people (for example, World of Warcraft).	57%	17%	16%	7%	3%
Playing online games by myself (for example, GTA vice city, Nick math, Mortal Kombat, Fruit Ninja, etc.).	31%	31%	22%	10%	6%
Spending time in virtual worlds (Habbo Hotel, Club Penguin, Gaia).	68%	17%	10%	3%	2%
Looking things up (Wikipedia), reading the news or people's blogs.	46%	26%	19%	6%	3%
Watching videos or looking at images (for example on YouTube & Instagram).	37%	28%	21%	10%	4%
Updating profile information and writing blog posts.	72%	16%	8%	3%	2%

Indicate how much of your time you spend engaging in the following activities:	None of my time	A small amount of my time (30 minutes a day)	Some of my time (1 hour a day)	Most of my time (between 2-5 hours a day)	All of my time (> 5 hours a day)
Text messaging.	29%	38%	17%	10%	7%
Video chatting with people (Skype, Google).	77%	10%	8%	3%	2%
Looking for academic materials.	25%	26%	25%	17%	7%
Making calls to friends.	21%	35%	23%	11%	10%

After splitting the results in Table 2 into two categories based on those who do not go online ('None of my time') and those who spend time online ('30minutes and above'), it was revealed that 79% of the adolescents reported to spend time making calls to friends, 71% spend time sending text messages, and 52% spend time socializing on the social media such as Facebook, WhatsApp, Twitter, and Instagram. Regarding entertainment, whereas 69% of the adolescents reported to spend time playing online games independently, 43% admitted to play online games with other people. It was also found that 63% of the adolescents spend time watching videos or looking at images (for example, on YouTube & Instagram). The adolescents also admitted to spend time online for academic related reasons. For example, 75% reported to spend time looking for academic materials, while 54% reported to spend time looking for things in Wikipedia, and reading news and other peoples' blogs.

For research question three on the potential risks associated with the use of cell phones, the Internet and social media, adolescents who were interviewed reported to have experienced online violence (cyberbullying), online sexual exploitation, and pornography as result of using mobile devices and the Internet. In particular, they reported cyberbullying (online violence) as the major risk experienced online. For example, in describing his cyberbullying experience, a 17-year-old male student said:

> *When I was in Form II, my friends and I studied in the same group and used to take photos together. Unfortunately, one of my friends developed jealousy and we had to break friendship. Later, he decided to edit my pictures and posted them online. I was shocked! …the photos were attached with derogatory comments and insults. I was not happy at all! It was a shame and a bad experience in my life. In fact, it affected my performance in the national Form II examinations. I just thank God that I passed but not to my expectations.*

This information provides further evidence that friendship is not stable during adolescence, and that even friends may turn against each other when friendship gets sour. Adolescents tend to employ different ways (e.g., editing someone's information) to humiliate others online, and victims are likely to experience negative outcomes, including low performance at school as a result of cybervictimization.

Another 18-year-old female student who was victimized online said:

> *They insulted me! They embarrassed me! They followed me in Facebook and in WhatsApp and started to write dirty comments on my photos. They humiliated me so much. I think you know all about harassment. Eh! It was very painful. They said a lot of weird things and lies about me. You know, I have so many friends in Facebook, about 500 friends. So, many people saw those spiteful comments. They really humiliated me and this is not a good thing at all.*

This information indicates that an individual may be harassed in multiple platforms. It also shows that adolescents tend to have many friends online, and appears to be worried of the audience when things are not working. Additionally, victims feel humiliated and are not happy with the behaviour.

In describing his online victimization experience, a 15-year-old male student said:

> *They edited my pictures by describing and associating me with an ugly cartoon with big ears and a funny shape. And when others saw this, they also started making spiteful comments to embarrass me.*

This indicates that there are many players in cyberbullying including perpetrators, victims, and followers.

Online sexual exploitation or abuse, defined here as luring or grooming a child for sex through sexting or sharing pornographic materials, was also identified as a potential online risk for both female and male adolescents. In describing his online sexual abuse experiences, a 14-year-old male said:

> *I am now having more than 4337 friends on Facebook…Some people think I am gay and they will send or post dirty pictures and some spiteful words that I had never thought of in my life. For example, a person says something like 'I love you!' or 'I want you to be my wife!' while knowing that I am a boy. More worse, he sends you his naked photos… Others requested me to send them my nude pictures too.*

This information further indicates that adolescents have a large number of friends online. Because it is hard for a teenager with a large number of friends to be familiar with all friends on his/her social network platform, it is likely that adolescents are connected to strangers, and are more vulnerable to online abuse from them.

In sharing her sister's online victimization experience, a 17-year-old female student said:

> *In short, she was on a constant chat with a person on Facebook, she had never met the person but could only see the face on the photos that they shared. They continued chatting and exchanging explicit or revealing photos. Later, the guy fell in love with her and requested for sexual relationship. But she replied, 'I have a boyfriend and we will be soon wedding.' The guy was annoyed and started to abuse my sister by posting her private photos online...with an intention to humiliate her. The photos and the abusive, detestable and spiteful comments went viral… I felt very bad because she cried a lot whenever she saw them.*

As highlighted earlier, adolescents are vulnerable to online stranger danger. This finding also provides further evidence that adolescence is a developmental period characterized with high risk-taking (e.g., sharing explicit photos with a stranger).

Another 16-year-old male student said:

> *I have received several dirty photos (pornography) accompanied with intimidating words... They send porn pictures. They do not only send to my account but in various social network groups. And everybody would see them!*

This indicates that adolescents are exposed to porn materials at an early age than people ever think of. Porn information appears to be available on various social network platforms.

4. Discussion

This paper explored the use of cell phones and the Internet, as well as the associated risks for Tanzanian secondary school adolescents. Results showed that 47% of the participants own cell phones, 58% own sim-cards, and 76% use cell phones at home; suggesting that a large proportion of Tanzanian adolescents aged 14 to 18 have access to cell phones. Interestingly, a large proportion of students (86%)—somewhat similar to their counterpart adolescents in developed countries (Holfeld & Grabe, 2012; Tokunaga, 2010)—reported to have access to the Internet. Although the trend of cell phone ownership, access to the Internet, and use of social media appears to increase among Tanzanian adolescents, the level of access seems to be low relative to their counterpart adolescents in developed countries such the US, Canada, and South Korea, where over 90% own cell phones and have access to the Internet (Lenhart, 2012; Tippett & Kwak, 2012). This variation may be attributed to various factors, including history in the advancements in science technology, culture, and legal issues around access to and use of technology. Despite the variations in the level of access and use across countries and regions, findings provide further evidence that the use of cell phones and the Internet, and the associated benefits and risks are omnipresent.

One of the consistent finding across studies and countries was that some Tanzanian adolescents use digital devices in a private place. This fits with previous works that have shown a link between the use of digital devices in a private place, with increased risks for children and adolescents engaging in cyberbullying (Law et al., 2010; Tsitsika et al., 2015). This finding has implications in discouraging the use of digital devices in a private setting, especially in children's bedrooms, and encouraging the use of computers in open spaces. In addition, given the advancements in the digital world where devices are getting smaller and smaller in size, which allows privacy even in a public setting, finding further suggests for education on responsible use of digital devices in both private and public settings.

The findings that 61% of participants use cell phones at home and that 76% reported being connected to the Internet by age 14 shows that Tanzanian children, similar to children in other parts of the world (Lenhart et al., 2010), are exposed to modern ICT devices at a younger age than we have ever imagined. This finding points to a need for further research to delineate the use of modern ICT and the associated risks among young children and young people, including pre-school, tweens, teens, and emerging adults in colleges and universities. The finding has also implications in the development of age-relevant education and intervention programs on online violence and safety.

It was also found that in an environment where adults deny adolescents access to cell phones and the Internet, children will try to find their own ways of owning or accessing these technologies without parents' knowledge. This may increase young peoples' vulnerability to online risks, including cyberbullying and sexual abuse. This is an important finding to inform digital parenting and parent-child discussions on the access and use of modern ICT, which seems to be an integral part of the contemporary generation of children and young people.

Overall, the ownership and access to technology appears to increase with age, and Tanzanian male adolescents seem to have more access than female ones, whom in this study seemed to experience some cultural barriers. Based on the interview data, it appears that some

Tanzanian parents think that allowing teenage girls to use cell phones and access social network sites such as Facebook and Instagram may lead to early involvement in sexual activities, with the attendant risks of teenage pregnancies and sexually transmitted diseases such as HIV-AIDS. For example, in describing cultural barriers towards accessing cell phones, one female student said: "My parent stopped me from owning a cell phone and joining social media saying it is immoral and will mess up my behaviour…[such as] engaging in early sexual activities." Another female adolescent said: "My brother banned me from using a mobile phone, but I continued using it in secret. When he realized that I was still using the mobile phone, he really beat me up and confiscated the phone." Although restricting adolescents from the use and access of mobile phone and the Internet may decrease involvement in cyberbullying and cybervictimization, harsh punishments like beating and banning a child from accessing and using mobile phones and the Internet may be less effective in addressing online risk behaviours such as cyberbullying. One cannot deny that cell phones and the Internet have become an integral part of adolescents' lives. Given the importance of these technologies in education communication in the modern digital world, both male and female adolescents need these technologies (Onditi, 2017). The finding that older adolescents have more access relative to younger adolescents may be linked to increased level of autonomy and independence among older children. The high uptake and solo use of technologies among older Tanzanian adolescents may increase vulnerability to online risks, suggesting for relevant education and intervention programs on online safety and digital citizenship.

The finding that a majority of Tanzanian younger adolescents (age 14) and female adolescents who own cell phones conceal them from their parents was unique and has various explanations. Developmentally, the onset of puberty (approximately age 11-14) has been linked with changes on a child's behaviour (Steinberg, 1988). For example, by the time a child enters adolescence, the need for autonomy, independence and peer pressure increases exponentially. And in situations where adolescents' needs are not amicably addressed, adolescents may become more resistant and get into conflicts with authority figures such as parents, guardians, and teachers. Perhaps this is one of the reasons why when access and use of cell phones and the Internet is denied by parents/guardians, some adolescents find ways of circumventing this by using these clandestinely, which may increase the danger of cyberbullying and online abuse. This suggests for the need for education on the responsible use of technology, and not fighting it. Thus, it is important to provide both female, male, younger, and older adolescents not only with equal access to technology, but also education on how to use technology responsibly. It is also important to point out that education on the responsible use of modern ICT and the associated risks of the use of ICT would not be helpful without addressing cultural norms and barriers around the access and use of technology, especially for Tanzanian female and young adolescents. This is an important finding to inform digital parenting and parent-child conversations around the access and use of modern ICT devices.

This study also explored adolescents' activities online. Overall, adolescents reported to spend between 30 minutes to 5 hours doing various activities online in a day. Although it is debatable what is too much time online for a developing child, studies have shown that the more time a child spends online, the higher the vulnerability to online risks such as cyberbullying (Law et al., 2010; Tsitsika et al., 2015). This has important implication in monitoring children and adolescents' time and activities online.

Similar to their counterpart adolescents in other developed countries (O'Keeffe & Clarke-Pearson, 2011; O'Neill & Dinh, 2015), Tanzanian adolescents reported using cell phones and the Internet for a range of activities, including communicating and socializing with other people (e.g., peers, friends and family members) through phone calls, text messages, and social media (e.g., Facebook, Instagram, and WhatsApp); looking for education materials; and for entertainment needs such as playing video games, listening to music, and watching or looking for video or images on Youtube. Despite the identified benefits, a recent cross-cultural study on Tanzanian and Canadian younger adolescents has shown a link between being online for social purposes with increased risk for engaging in cyberbullying (Shapka et al., 2017). This points to the need for relevant education to children and adolescents on online social responsibility.

Another finding that 43% of adolescents play online games with other people fits with previous findings from developed countries, which associated playing online games with the increased risk for engaging in cyberbullying behaviours, especially among boys (Tippett & Kwak, 2012). This is an important finding and suggests for education and intervention programs that can help adolescents in identifying stranger danger online, maintaining online privacy, developing healthy relationships online that is essential for developing responsible digital citizens. In addition, watching video and images online (e.g., on Youtube and Instagram) may expose children and adolescents to inappropriate content, including pornography. Regardless of the purpose for going online, any child or adolescent who uses a cell phone, the Internet, or social networking sites is vulnerable to online risks. Again, this emphasizes on the need to increase parent-child relationship around technology use, co-viewing materials with children, monitoring children's digital footprints, filtering sites and materials, sharing passwords, and being friends with adolescents on social network sites to help reduce online risks.

In this study, participants identified cyberbullying as one of the major risks encountered online. Defined as the use of electronic technologies (i.e., cell phone or the Internet) with intention to embarrass, hurt or humiliate another person (Tokunaga, 2010), cyberbullying has been mainly studied in developed countries due to early advancements in ICT (Cross & Smith, 2012; Kowalski et al., 2014). Results provides further insights that cyberbullying is a problem of concern for any adolescent who uses a cell phone or the Internet, including those from developing countries such as Tanzania. This is consistent with previous works which reported that cyberbullying is a problem that transcends traditional and cultural boarders (Kraft, 2006; Smith, 2012; Shapka et al., 2017). Despite efforts by the government of Tanzania to address online abuse, including passing a legislation criminalizing cybercrimes (Cybercrime Act of 2015), studies have shown that legislation alone cannot address cyberbullying (Bauman, 2012), which is a behavioural problem.

As such, education and online safety awareness campaigns—for example, 'delete-*futa kabisa*!' and '*usinitumietumie sitaki sintamtumia mwingine*' (stop from resharing with me and I will not share it with anyone)—led by the TCRA are some of the important behavioural efforts to address cyberbullying. Relatedly, most of the current campaigns on responsible digital citizenship by the TCRA targets the adult population who are known as *digital immigrants,* relative to children and adolescents who are the *digital natives or citizens*. Given

that cybercrimes and online abuse are largely behavioural and relationship problems, efforts that bring all stakeholders together—including researchers, government, technology-industry, celebrities, and practitioners—and having empirically-informed legislation, we require education and intervention programs that are age and developmentally appropriate.

In addition, adolescents identified friends, peers, and strangers as the cyberbullying perpetrators. It was surprising to find that even friends cyberbully each other online. This means that adolescents should be careful of what they post online because even friends may use the same content against each other, especially when friendship breaks. Peers and strangers were also identified as perpetrators of online crimes. This finding has implications on the necessity of education on healthy relationships online, online privacy, and the danger of strangers online.

Although further studies may be needed to delineate the impacts of cyberbullying on young people, participants linked online victimization with some negative effects, including sadness, fear, unhealthy peer relationships, and poor school performance. This fits with previous studies from developed countries that have associated cyberbullying with a host of negative outcomes on victims, including feelings of anxiety, depression, frustration, anger, sadness, suicidal ideations, and in extreme cases, suicide (Bonanno & Hymel, 2013; Li, 2006; Patchin & Hinduja, 2010; Tokunaga, 2010). This points to the need for a holistic, age-specific and culturally relevant education and intervention programs.

Being online was also associated with sexual exploitation of adolescents. The adolescents reported being lured or groomed for sex by online strangers. Others reported receiving explicit or revealing photos and pornographic materials online. This is an important finding, which is consistent with other study findings indicating that child online sexual exploitation is a growing problem of concern worldwide (Wolak et al., 2013). The study findings provide further evidence that, like their counterparts in the developed countries, Tanzanian children and adolescents who use cell phones and the Internet are vulnerable to online sexual exploitation. For example, it was a surprise to find a 14-year-old male student having over 4000 friends on Facebook. It is likely that a large majority of Tanzanian adolescents who have social network accounts are not familiar with all their online friends, and this is an open question for future studies. This again points to the need for extending offline parenting and stranger danger education into the virtual world.

5. Limitations, Strength and Conclusion

Although this study provided important empirical information of Tanzanian adolescents' access and use of cell phones and the Internet, as well as the associated potential risks, there are some limitations worth mentioning. Despite having a statistically adequate sample size of 778 secondary school adolescents, the sample was only from the two largest commercial cities in Tanzania. Thus, these study findings may reflect online behaviour for Tanzanian adolescents in urban settings. Whether such results could be generalized to other adolescents, especially from semi-urban and rural areas, needs further exploration. This suggests for a large representative national-wide study. Being a

descriptive study, some of the findings can only provide insights on the topic. This suggests a need for more robust designs (e.g., experimental and longitudinal) to establish causal effect relationships and differences across study constructs.

Apart from the identified limitations, this is one of the first empirical studies to provide baseline data on cell phone and access and use of the Internet among Tanzanian adolescents and its associated risks (e.g., cyberbullying and sexual exploitation). Another strength of this study is that it is one of the first few studies, especially in a Tanzanian context, to use mixed-method design in understanding adolescents-lived experiences on online violence (i.e., cyberbullying) and its related risks. Relatedly, this study is expected to stimulate empirical work on technology and media in children's development, especially in the Tanzanian context where very little is known on the topic. The study findings will also enhance cross-cultural research around this topic.

Overall, this work has provided further evidence that the use of cell phones, the Internet and the associated negative outcomes transcends traditional geographical and cultural boarders (Kraft, 2006; Smith, 2012; Shapka et al., 2017). In particular, this study has revealed a high uptake of mobile devices and the Internet among Tanzanian adolescents, especially in urban areas, similar to their counterpart adolescents in developed countries. Apart from the positive advantages attached to modern ICT devices, it was further revealed that Tanzanian adolescents who use cell phones or the Internet are vulnerable to online risks, including online violence (cyberbullying) and online sexual exploitation. The study results also provide important information for early and culturally appropriate education and intervention programs on various issues around technology access and use, including online safety, online privacy, stranger danger, and responsible digital citizenship. Although further research with a national representative sample is recommended to delineate the nature and extent of the identified online violence and risks to Tanzanian children and adolescents, this work provides an important information for developing a holistic, culturally and developmentally appropriate education and intervention programs that involve global, regional, and national efforts that keep up with the changes in the digital landscape.

References

Allen, J. P. & E. L. Loeb. 2015. The Autonomy-Connection Challenge in Adolescent–Peer Relationships. *Child Development Perspectives, 9*(2): 101–105.

Arnett, J. 1992. Reckless Behavior in Adolescence: A Developmental Perspective. *Developmental Review,* 12: 339–373.

Bauman, S. 2012. Cyberbullying in the United States. In Q. Li., D. Cross & P. K. Smith (eds.). *Cyberbullying in the Global Playground: Research from International Perspectives*, (pp.143–179). West Sussex: John Wiley & Sons.

Best, J. W. & Khan, J. K. 2006. *Research in Education*. Boston: Pearson.

Bonanno, R. A. & S. Hymel. 2013. Cyberbullying and Internalizing Difficulties: Above and Beyond Traditional Forms of Bullying. *Journal of Youth and Adolescence,* 42: 685–697.

Corcoran, L., I. Connolly & M. O'Moore. 2012. Cyberbullying in Irish Schools: An Investigation of Personality and Self-Concept. *The Irish Journal of Psychology,* 33: 153–165.

Creswell, J. W. 2009. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Los Angeles: Sage Publications, Inc.

Cross, D., Q. Li, P. K. Smith & H. Monks. 2012. Understanding and Preventing Cyberbullying. Where Have We Been and Where Should We Be Going? In Q. Li., D. Cross & P. Smith (eds.). *Cyberbullying in the Global Playground: Research from International Perspectives*, (pp. 287–305). West Sussex: John Wiley & Sons.

Davis, M. R. 2012. Facebook Considers Access for 13-and-Younger Crowd. Education Week, 13. <http://www.edweek.org/ew/articles/2012/06/13/35facebook.h31.html?qs=Facebook>.

Holfeld, B., & M. Grabe, 2012. An Examination of the History, Prevalence, Characteristics, and Reporting of Cyberbullying in the United States. In Q. Li., D. Cross & P. K. Smith (eds.). *Cyberbullying in the Global Playground: Research from International Perspectives*, (pp. 117–142). West Sussex: John Wiley & Sons.

Kafyulilo, A. C. 2012. Access, Use and Perceptions of Teachers and Students Towards Mobile Phones as a Tool for Teaching and Learning in Tanzania. *Education Information and Technology*. 19: 115–127.

Kowalski, R, M., G, W. Giumetti, A, N. Schroeder & M, R. Lattanner. 2014. Bullying in the Digital Age: A Critical Review and Meta-Analysis of Cyberbullying Research Among Youth. *Psychological Bulletin,* 140(4): 1073–1137.

Kowalski, R, M., Morgan, C, A & Limber, S, P. 2012. Traditional Bullying as a Potential Warning Sign of Cyberbullying. *School Psychology International, 33*(5)*,* 505–519.

Kraft, E. 2006. Cyberbullying: A Worldwide Trend of Misusing Technology to Harass Others. *WIT Transactions on Information and Communication Technologies*, 36: 155–166.

Law, D. M. 2009. *Social Responsibility on the Internet: A Socio-Ecological Approach to Online Aggression* Doctoral Thesis, University of British Columbia, Canada.

Law, D. M., J. D. Shapka & B. F. Olson. 2010. To Control or Not to Control? Parenting Behaviours and Adolescent Online Aggression. *Computers in Human Behavior,* 26(6): 1651–1656.

Lenhart, A. 2012. Teens, Smartphones & Texting. Washington, DC: Pew Internet & American Life Project. Retrieved on November 10. 2014 from http://pewthe Internet.org/reports/2012/teens-and-smartphones.aspx

Lenhart, A., K. Purcell, A. Smith & K. Zickuhr. 2010. Social Media & Mobile Internet Use Among Teens and Young Adults. Washington, DC: Pew Internet & American Life Project. Retrieved from http://www.pewthe Internet.org/2010/02/03/social-media-and-young-adults/

Li, Q. 2006. Cyberbullying in Schools: A Research of Gender Differences. *School Psychology International*, 27(2): 157–170.

Livingstone, S & P. K. Smith. 2014. Annual Research Review: Harms Experienced by Child Users of Online and Mobile Technologies: The Nature, Prevalence and Management of Sexual and Aggressive Risks in the Digital Age. *Journal of Child Psychology and Psychiatry*, 55(6): 635–654.

Mathison, S. 1988. Why Triangulate? *American Educational Research,* 17(2): 13–17.

Mungy, I. P. M. 2014, (September). Interview by H. Z. Onditi. The Use of Mobile Phones and Internet in Tanzania. Manager Corporate Communications, Tanzania Communication Regulatory Authority (TCRA), Dar es Salaam, Tanzania.

Nastasi, B. K. 1999. Audiovisual Methods in Ethnography. in J. J. Schensul & M. D. Lecompte (eds.), *Ethnographer's Toolkit: Book 4. Enhanced Ethnographic Methods: Audiovisual Techniques, Focused Group Interviews, and Elicitation Techniques* (pp. 1 – 50). Walnut Creek, CA7 Altamira Press.

O'Keeffe, G. S. & K. Clarke-Pearson. 2011. The Impact of Social Media on Children, Adolescents, and Families. *Pediatrics,* 127: 800–804.

Olumide, A. O., P. Adams & O. K. Amodu. 2015. International Note: Awareness and Context of Cyber-Harassment Among Secondary School Students in Oyo State, Nigeria. *Journal of Adolescence,* 39: 10–14.

Olumide, A. O., P. Adams & O. K. Amodu. 2016. Prevalence and Correlates of the Perpetration of Cyberbullying Among In-School Adolescents in Oyo State, Nigeria. *International Journal of Adolescent Medicine and Health*. doi: http://dx.doi.org/10.1515/ijamh-2015-0009

Onditi, H. Z. & J. D. Shapka. 2016, March. Cyberbullying and Cybervictimization in Tanzanian Secondary Schools: The Role of Age, Gender, Access to Technology, and Social Assertiveness. Presented at the Conference of Society for Research on Adolescence, Baltimore, MA, USA.

Onditi, H. Z. 2017. Cyberbullying in Tanzania: Adolescents' Experiences and the Psychosocial Factors Influencing Coping Strategies. Doctoral dissertation, University of British Columbia, Canada.

O'Neill, B & T. Dinh. 2015. Mobile Technologies and the Incidence of Cyberbullying in Seven European Countries: Findings from Net Children Go Mobile. *Societies, 5*: 384–398.

Patchin, J. W & S. Hinduja. 2006. Bullies Move Beyond the Schoolyard a Preliminary Look at Cyberbullying. *Youth Violence and Juvenile Justice*, 4(2): 148–169.

Patchin, J. W & S. Hinduja. 2010. Cyberbullying and Self-Esteem. *Journal of School Health,* 80(12): 614–621.

Rachoene, M & T. Oyedemi. 2015. From Self-Expression to Social Aggression: Cyberbullying Culture Among South African Youth on Facebook. *South African Journal for Communication Theory and Research*, 41(3): 302–319.

Runions, K. C. 2013. Toward a Conceptual Model of Motive and Self-Control in Cyber-Aggression: Rage, Revenge, Reward, and Recreation. *Journal of Youth and Adolescence,* 42: 751–771.

Shapka, J. D. 2014. *Adolescent Socialization Via the Internet: An Exploration of the Cognitive and Contextual Correlates of Online Risk Behavior*. Research Proposal for Vancouver School Board.

Shapka, J. D., H. Z. Onditi, N. Lapidot & B. J. Collie. 2017. Cyberbullying and Cybervictimization Within a Cross Cultural Context: A Study of Canadian and a Tanzanian Adolescents. *Child Development,* 1–11. doi:10.1111/cdev.12829.

Smith, D. M. 2015. Cyberbullying in South African and American Schools: A Legal Comparative Study. *South African Journal of Education*, *35*(2): 1–11.

Smith, P., J. Mahdavi, M. Carvalho, S. Fisher, S. Russell, & N. Tippett. 2008. Cyberbullying: Its Nature and Impact in Secondary School Pupils. *Journal of Child Psychology and Psychiatry,* 49: 376–385.

Smith, T. 2012, January. Cyberbullying: A World-Wide Problem. Retrieved from http://www.cbronline.com/news/cyberbullying-a-worldwide-problem-160112

Steinberg, L. 1988. Reciprocal Relation Between Parent-Child Distance and Pubertal Maturation. *Developmental Psychology, 24(*1): 122–128.

Sticca, F & S. Perren. 2013. Is Cyberbullying Worse Than Traditional Bullying? Examining the Differential Roles of Medium, Publicity, and Anonymity for the Perceived Severity of Bullying. *Journal of Youth and Adolescence,* 42: 739–750.

Tippett, N & K. Kwak. 2012. Cyberbullying in South Korea. In Q. Li., D. Cross & P. K. Smith (eds.). *Cyberbullying in the Global Playground: Research From International Perspectives*, (pp. 202–219). West Sussex: John Wiley & Sons.

Tokunaga, R. S. 2010. Following You Home from School: A Critical Review and Synthesis of Research on Cyberbullying Victimization. *Computers in Human Behavior*, 26(3): 277–287.

Tsitsika, A., M. Janikian, S. Wójcik, K. Makaruk, E. Tzavela, C Tzavara, ... & C. Richardson. 2015. Cyberbullying Victimization Prevalence and Associations with Internalizing and Externalizing Problems Among Adolescents in Six European Countries. *Computers in Human Behavior,* 51: 1–7.

United Republic of Tanzania (URT). 2015. The Cybercrime Act of 2015. Dar es Salaam: Government Printer.

Valkenburg, P. M & J. Peter. 2011. Online Communication Among Adolescents: An Integrated Model of Its Attraction, Opportunities, and Risks. *Journal of Adolescents Health, 48,* 121–127.

Varjas, K., B. K. Natstasi, R. B. Moore & A. Jayasena. 2005. Using Ethnographic Methods for Development of Culture-Specific Interventions. *Journal of School Psychology,* 43: 241–258.

Wolak, J., M. Liberatore & B. N. Levine. 2013. Measuring a Year of Child Pornography Trafficking by U.S. Computers on a Peer-To-Peer Network. *Child Abuse Negl*. 38(2): 347–56. doi:10. 1016/j.chiabu.2013.10.018.

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Early Childhood Care and Education in Water-Scarcity Villages in Tanzania: The Case of Ng'hong'onha Village, Dodoma

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Abstract

This article presents findings from a study that adopted a concept of the best interests of the child to investigate stakeholders' experiences in different water-scarcity contexts in relation to the care and education of children by using the case of one village in Dodoma region. Three objectives guided the study: (a) establishing the extent of water scarcity and its causes in relation to early childhood service delivery; (b) documenting the effects of water scarcity on Early Childhood Care and Education (ECCE); and (c) examining efforts made by village members to curb water scarcity. The study gathered data from a sample of 37 informants obtained purposively through the deployment of a case study design and a qualitative research approach. Focus group discussions (FGDs), interviews and documentary reviews were used as data collection methods. The results showed that the failure to rectify water scarcity created contexts that paralyzed almost every life affair of the inhabitants in general, and the quality of ECCE in particular. There were multiple negative effects associated with water scarcity on the provision of ECCE, including: less joyful learning, disruptions of study time, eye diseases, skin diseases and diarrhoea. Overall, the experiences of stakeholders indicated that the provision of care and education in water-scarcity contexts hardly realized best interests of the child in most significant ways. By implication, water signified one of the most important resources worth considering in the planning and implementation of ECCE programmes.

Keywords: *early childhood care and education, water scarcity, village, Tanzania.*

1. Introduction

Water is one of the most critical international agendas directly linked to the survival and overall prosperity of humankind. Water, as it relates to other services, is well reflected in different international commitments at world, regional and national levels. Internationally, the *International Decade for Action 'Water for Life', 2005–2015* (UN, 2005) is probably the highest expression of the international community to seek for ways to guarantee equitable and sustainable water for life and socio-economic development. It places particular emphasis on women as managers of water in the effort to achieve water-related international agreements: that is, to halve the number of people unable to reach or afford safe drinking water and access basic sanitation by 2015. In Africa, the *Africa Water Vision for 2025: Equitable and Sustainable Use of Water for Socio-economic Development* (UNECA, 2000) builds on international efforts to curb water problems. It is within this broader context that Tanzania has stepped up its thrust towards water for life through the preparation and

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implementation of a water policy (URT, 2002). This development follows the realization that at the core of human development agendas is the issue of water availability. This article closely examines the state of water availability and its associated effects on the provision of ECCE using conceptual understandings of the notion of the best interests of the child.

Water availability—regardless of age, location, ethnic and any other conceivable human differences—is one of the most important factors for optimal performance of any sector. In this article, the quality of ECCE is examined in relation to water scarcity, bearing in mind that water availability is part and parcel of quality ECCE (Mtahabwa, 2007). The provision of ECCE as it relates to water availability is an important area because it is, among other things, one of the international commitments towards the realization of the best interest of the child as provided for in the UN Convention on the Rights of the Child (CRC) (UN, 1989), which Tanzania ratified in 1991. Overall, the CRC makes it clear that any decision made by adults must consider its effects on the lives of children. Specifically, Article 3(1) of the CRC states: "In all actions concerning children, whether undertaken by public or private social welfare institutions, courts of law, administrative authorities or legislative bodies, the best interests of the child shall be a primary consideration." This position statement is well reflected in the African Charter on the Rights and Welfare of the Child (ACRWC) by the Organization of African Unity (OAU) (1999), which Tanzania ratified in March, 2003. Article 20 of the ACRWC reads: "Parents or other persons responsible for the child should always act in the best interest of the child." Although both the CRC and the ACRWC do not provide a definition of the 'best interests of the child', this concept signifies the need for prioritizing children in all development agendas while observing cultural differences. In a nutshell, caring adults in general, and early childhood service providers in particular, need to ensure that all plans, programmes and policies are prepared and implemented with the best interests of the child in mind.

This study was conducted in one of the villages in the outskirts of Dodoma City in Tanzania to better understand stakeholders' experiences in different water-deficient contexts (home, school, neighbourhood and dispensary) as they deliver ECCE services to young children. At the time of this study there was little available information that comprehensively examined stakeholders' experiences in the delivery of early childhood services in different contexts facing water scarcity. More specifically, there was insufficient information about stakeholders' experiences in the process of early childhood service delivery under constrains imposed by water scarcity. Generally, water is viewed as children's right (Pink, 2013); and its scarcity has multiple adverse effects on services provided to children, including nutrition, health, education, sanitation as well as family incomes. The study specifically sought to: (a) establish the extent of water scarcity and its causes in relation to early childhood service delivery; (b) document the effects of water scarcity on ECCE; and (c) examine the efforts made by village members to curb water scarcity.

ECCE represents different services and processes involved during the delivery of those services for children aged 0–8 years for the purpose of promoting and sustaining optimal child development. UNICEF (2012: 4) lists the following as key services in ECCE: "… education, physical, social and emotional care, intellectual stimulation, health care and nutrition. It also includes the support a family and community need to promote children's healthy development."

2. Literature Review

2.1 Child Care and Education in Context: A Theoretical Stance

Child care and education occur in and are influenced by multiple contexts. The influences of different contexts on child care and education were first theorized by Bronfenbrenner (1978) in his Ecological Systems Model, which was later revised and re-named as Bio-Ecological Theory (Bronfenbrenner & Morris, 2006). The gist of the theory is that different contexts interact in complex ways leading to differences in the ways people take care and educate their children. Ultimately, differences in contextual qualities enable or deprive children of the care and education they deserve as their best interests. When children receive positive experiences, they enjoy proper care and education as their best interests and vice versa. According to Article 3 of the Convention on the Rights of the Child (1989)—to which Tanzania is a signatory—best interests of the child entail making decisions and giving experiences that are in the interests of the child. The bio-ecological theory consists of micro-contexts (e.g., family, school, neighbourhood and dispensary), and macro contexts (e.g., culture, technology and language).

2.2 Rights of the Child

There is sufficient literature in Tanzania regarding existing efforts by the government to protect and promote rights of the child in the name of best interests of the child. Tanzania's 3rd, 4th and 5th reports on the implementation of the CRC 2005–2011 (URT, 2012) are probably the most succinct and comprehensive documentations of these efforts. In these documents, the government's commitment to allocate resources for children has been reported to be quite encouraging to the extent that the country has been ranked "… the first country amongst the African Governments to allocate budgets for children in 2010" (ibid., 34). Impressive as these reports might be, an in-depth investigation of what was on the ground with regard to the provision of ECCE as it relates to water availability could be insightful. The investigation was particularly important in a context where reports by the civil society organizations (CSOs) on the implementation of the CRC in Tanzania provided a different picture, which showed that the implementation process has been problematic due to, among other reasons, the lack of adequate funding (TCRF, 2014), a position shared by the Committee on the Rights of the Child (2015).

The discussion about the experiences that different service providers in different contexts undergo in the process of the provision of young children's services becomes more meaningful when one refers to the rights of the child. Due to the contribution of water to overall human development, and ECCE in particular, this is more so when the contexts under discussion are characterized by water scarcity. The extent to which the rights of the child are realized in a specific context could best be understood by examining adults' experiences in the process of service provision. These experiences signify efforts targeting the realization of the rights of the child which, directly or indirectly, depend on certain rights of the adult. In Tanzania, the rights of the child as stated in the CRC (UN, 1989) have been enshrined in different policy, administrative and legal instruments, including the Law of the Child Act (URT, 2009), the Child Development Policy (MCDGC, 2008) and the Education and Training Policy (MOEVT, 2014). For example, the Law of the Child Act, Part II, Article 4(2) provides that "The best interest of the child shall be the

primary consideration in all actions concerning a child whether undertaken by public or private social welfare institutions, courts or administrative bodies." While this statement provides a general principle for early childhood service planning and delivery in Tanzania, the Child Development Policy (MCDGC, 2008) specifies five rights of the child adopted from the CRC, which include the right to: survival, development, protection, not to be discriminated against, and the right to participation. Further, the Education and Training Policy (MOEVT, 2014), among other things, states that pre-primary education for 5-year-olds is part of basic education, compulsory, and *a right of every child* (*italics* mine).

Although the concept of the 'best interests of the child' lacks a universal definition due to differences in socio-political and economic contexts, it generally concerns valuing children in all plans and actions taken by adults (Rwezaura, 1994, 1998). Along this line, the concept of the 'best interest of the child' ought to underpin all plans and actions intended for the care and education of children. That said, any plans and actions belittling the value of a child are antithetical to the best interests of the child. It is in this context that the author thought that the extent to which children in water-scarcity contexts received ECCE in relation to the notion of the best interests of the child merited investigation. To better understand this phenomenon, the author found it worth to examine the experiences that service providers undergo in the process of planning and delivery of ECCE.

2.3 Water Scarcity as It Relates to ECCE

The relationship between water and ECCE is grounded in the fact that water stays at the core of human life, and its scarcity results into multiple negative effects. Broadly, literature shows that water scarcity relates to poverty; a condition that renders service delivery problematic (see, for example, UN-Water Thematic Initiatives, 2006; UN, 2007; WWDR, 2015). While water scarcity and poverty are linked to each other (Barker et. al., 2000), there is a close link between water scarcity and the state of social services in a particular context. It has been well established that water availability in a specific context determines the quality of heath, sanitation, hygiene, nutrition and education; which in turn impact on child survival and the overall quality of life (Gunther & Fink, 2010; Harper et al., 2003). In this regard, water is at the core of all efforts intended to promote child survival and development, as well as the promotion of child rights in general. No wonder, the international community considers water as a springboard to poverty reduction and sustainable development (see, for example, WWAP, 2015). In this regard, one can argue that any government's effort to improve children's lives is incomplete in the absence of concrete measures to ascertain water availability.

Issues related to water do not affect a child's life at micro levels only, but also at macro levels. In both cases, water issues can promote peace or trigger conflicts, thus shaping different child development contexts. Poor communities characterized by water scarcity sometimes fall into conflict with each other as each struggle to find water, thus creating unsafe contexts for children's lives. It has been found that while equitable water supply creates harmony, water scarcity destabilizes social cohesion (UN, 2013). Undoubtedly, social disruptions caused by water problems create less supportive contexts for child care and education as is the case with violence when communities clash in search for water. On the

African continent where child rearing is traditionally a communal responsibility, water-deficient contexts threaten the long and strongly held cultural view that childrearing is a collective responsibility. If different families struggle for survival of their own family members, there would be little room left for the spirit of collective childrearing.

We have learnt in this section that water-deficient contexts significantly inhibit the provision of quality ECCE in different ways. While this is the general case, there is insufficient information in Tanzania on the effects of water-deficient contexts on the provision of quality ECCE. This article seeks to bridge this knowledge gap.

3. Methodology

The study adopted a single case study design, underpinned by a qualitative research approach intended to gather rich data from information-rich informants. The study site was confined to Ng'hong'onha village, which was characterized by water scarcity virtually throughout the year. Entry into the village was negotiated through discussions with the village leaders. The researcher maintained an open mind to take care of situations that would arise in the field during the study. The study population included village leaders, political leaders, sages, health service providers, primary and pre-primary school teachers, as well as primary and pre-primary school pupils. Criterion, opportunistic and random purposive sampling strategies (Gall et al., 2005) were deployed to obtain a sample size of 37 informants (Table 1).

Table 1: Sample Composition, Size and Characteristics

Informant Categories	Number of Informants		
	Male	*Female*	*Total*
Village Chair	1	-	1
Street Chairpersons	6	-	6
Street Government Representatives	-	2	2
Village Sages	2	-	2
School Heads	1	-	1
Doctor In-Charge	0	1	1
Party Leaders	8	3	11
Lower Primary School Pupils	4	4	8
Pre-primary School Teacher	-	1	1
Pre-primary School Pupils	2	2	4
Total	**24**	**13**	**37**

Source: Field Data (2012)

Opportunistic purposive sampling was used during the selection of political party leaders who demanded that the researcher holds interview with them; while random purposive sampling was deployed during the selection of pupils after consulting teachers who recommended the inclusion of specific pupils who were believed to not only be information-rich, but also could communicate their experiences expressively. Criterion purposive sampling was used in the selection of teachers, health service providers, headteachers, village sages and village leaders. In the study, documentary reviews, in-depth interviews and focus group discussions (FGDs) were used to gather data.

The inclusion of young children was done consistent with the children's rights movement, which stresses that children have the rights to express their views (UN, (1989); and are considered to be competent, knowledgeable and capable enough as members of society (Dahlberg et al., 1999). The challenge associated with power relations in which children tend to react only in ways that please adult researchers (Einarsdóttir, 2007) was minimized by the researcher visiting the school and participating in children's plays prior to the study, hence building a friendly relationship with the children. Before involving the school children in the study, the researcher sought consent from the headteacher as well as class teachers. The study did not have an informant category specifically referred to as parents because most of the informants in the study were also parents with children attending pre-primary and primary schools. The FGD sessions were brief (15–20 minutes); and were preceded by the interviewer using age-appropriate language to explain clearly what the study was all about. The data were analysed thematically: deductive and inductive analyses were made for major themes and sub-themes, respectively (Ezzy, 2002). Ethical matters were observed through seeking consent, explaining the purpose of the study, and assuring confidentiality through the use of pseudonyms. Thick descriptions of phenomena under study were used for validity reasons (Lincoln, 1985).

The village under study was located about 20km from the town centre, and bordered a newly constructed, state-owned university with social services needed in the village under study. This unique location of the village made it viable for use as a case study design. Overall, the village was located in a semi-arid region and was surrounded by rocky hills. There were several gullies across the village; a typical feature of semi-arid areas. One of these gullies had accumulated sand that produced water when drilled. The inhabitants used this gully as a source of water for domestic use, animal keeping and gardening for many years.

4. Study Findings

4.1. Magnitude of Water Scarcity and Its Causes

The study findings indicate that water scarcity in the village had not only reached a level of paralyzing development activities but also threatened the survival of the villagers. In all the FGD and interview sessions, water scarcity was reported as alarming. Different perspectives regarding water scarcity were evident among the village government leaders, party leaders, medical doctors, teachers, pupils and other informant categories. When the FGD and interview data targeting to determine the magnitude of water scarcity in the village were analysed, three inter-related sub-themes emerged: (a) importance of water, (b) extent of water scarcity, and (c) causes of water scarcity.

4.1.1 Children's Understanding on the Importance of Water

The study wanted to find out children's understanding of the importance of water to their lives. Children's voices were considered crucial in this study because children constitute one of the social groups that suffer most when a particular community faces life-threatening situations. To easily capture children's knowledge on this matter, the author involved pre-primary school pupils in one FGD session after minimizing the power-relations challenge discussed in section 3. They were asked to state the social service they deemed most important in their lives between water, tarmac road and electricity. At the time of the research, these types of services had been made available within the university

campus, supposedly raising the desire of the village inhabitants to be provided with the same services. Because all these services seemed necessary to children, and none appeared to predict or predetermine the answer, the researcher wanted to obtain the children's perspective on this matter. It was found that 2 out of 4 pupils named water as most important, while the remaining two named either tarmac road or electricity as the most important item. Although the ratio between those pointing out water as the most important and those referring to other services was small, this was viewed as an illustrative case; not representative. The fact that tarmac road and electricity were close to the school and children frequently saw or actually used them (walking along the tarmac road), this reduced the chances for one to predict any response from the three services. When the author wanted to know the reasons for prioritizing water, one child answered:

> *If we miss water we will die; but if we miss electricity we will live.* (7-year-old child in FGD with pre-primary school pupils).

Another child said:

> *We need water because at home there is no water* (6-year-old-child in FGD with pre-primary school pupils).

These children's voices clearly indicate that water was accorded top priority by children as young as six years old. In children's voices there was no substitute for water: other services make sense in the context of water availability.

4.1.2 Extent of Water Scarcity

The findings under this sub-theme revealed that the extent of water scarcity was obvious to every study informant because of the adverse effects it had caused. When informants were asked to explain the extent of water scarcity in the village, their responses focused on stating the effects or problems associated with water scarcity. This suggested that the level of water scarcity in a particular context could best be understood in terms of the effects it caused to people rather than the actual quantity of water available in that context. The informants reported that to obtain water, one had two options: buy it from water vendors at a price of TZS300 or travel up to 20km to fetch water from distant villages. Obtaining money for this resource was not easy. Quite often one had to go uphill, collect stones and crash them into gravels using a hammer for sale at a price of TZS500 per tin. The extent of water scarcity was eventually apparent from the informants' responses. A few of the following quotations illustrate this point clearly.

> *We are living under terrible conditions due to water scarcity. Every aspect of life has been affected by this problem. The magnitude of the problem is reflected in the fact that all the leaders—including the Ward Executive Officer, teachers, health officers and development officers—refuse to reside here. They all live in town. Unfortunately, the magnitude of the problem has been increasing with the passage of time. It is only by God's grace we are alive!* (FGD with a village government leader).
>
> …….
>
> *The school has completely no water as can be evidenced in the absence of neither porridge nor lunch for children* (Interview with the head of primary school).
>
> …….

> *We don't have any reliable source of water. Usually, pregnant mothers bring with them some water during delivery. We use this water to facilitate the delivery process as well as clean the rubber and room used for delivery. Most often, the water they bring with them is not even enough. In this situation, we are also at the risk of being infected.* (Interview with the Medical Officer In-Charge).

The description of water scarcity that is apparently discernible in these quotes suggests that water scarcity was alarming. Different members of the village from different contexts described the overall state of life in the village as being unbearable.

4.1.3 Causes of Water Scarcity

It is common for human beings to look for reasons behind their predicaments as they struggle to solve their problems. This study sought to understand the causes of water scarcity from the informants' perspectives. Hence, the researcher's knowledge about what could best explain water scarcity, including, but not limited to, poor provision of water by service providers (government or non-government) did not restrict the informants from providing their views grounded in history and experiences. In this study, water scarcity from the informants' perspectives was generally associated with the developments taking place within and around the village.

It was reported that one of the contributing factors to water scarcity was the destruction of former gullies through digging up of sand for construction purposes. Initially, the gullies accumulated huge mounds of sand which, when drilled, supplied water. Due to the increase in population and the attendant increase in the construction of houses, a large part of the mounds of sand had been scooped away. Further, the influx of people into the village had increased the population, and this created an imbalance between water resources and the number of people. Although the construction of a new university close to the village could be seen as liberating, it was also reported as contributing to the problem of water scarcity as it had attracted many people into the village, which had led to increased construction activities at the expense of water sources—deep sand in gullies—thereby aggravating water scarcity in the village.

> *The main reason for the water crisis we are having is the destruction of the former gullies where all the sand that preserved water has been scooped away by people for construction purposes* (FGD with a party leaders).

It was clear that although the village was naturally located in a semi-arid region and thus susceptible to water scarcity, human factors were central to water scarcity and vice versa. Human activities taking place in the village, particularly construction activities, tended to proceed with a lack of sensitivity to its effects on water availability.

4.2 Effects of Water Scarcity on Child Care and Education

The situation created by water scarcity impacted negatively and in various ways on the quality of children's services during prenatal, perinatal and postnatal periods. A range of negative effects were noted, including those related to health/nutrition, diminishing sources of income, education, and environmental pollution. Taken as a whole, there were all indications that water scarcity had paralyzed virtually every aspect of life, with mothers and young children experiencing most of the attendant severe predicaments.

4.2.1 Poor Health, Nutrition, Sanitation and Hygiene

The effects of the water crisis in the village, from the informants' views, were reflected in the poor state of the environment and the low levels of cleanliness. The informants reported that water scarcity deprived them the ability to keep the physical environment clean, wash their clothes and bodies regularly, grow vegetables for consumption as well as a source of income. Many hours were wasted looking for drinking water. For pupils, staying without water for the entire time of their stay at school was not uncommon. While lucky pupils took with them some bottles of water to school, others were either forced to remain thirsty or drink dirty water found in few potholes in the gullies during the rainy season. Further, it was reported that it was not easy to clean oneself using water at certain critical times, including after visiting toilets/pit latrines at home, school or dispensary. The health services provided at the village dispensary were also reported to be adversely affected by the water crisis. Health servants reported late to work as they spent much time searching for water. Insightful findings were obtained from the FGD sessions with the village government leaders.

> *When you meet very dirty children it does not mean that they like it. Usually our children take bath once a week or once a month, and also this applies to the washing of their clothes. Even us here, we are in a terrible condition. Sometimes we just soak our towels and scrub them over our bodies: and that is all! No wonder we are sitting at a distance from you. We smell terrible! We rarely clean our kitchen utensils.* (FGD with village government leaders).

Records from the village dispensary showed that health problems associated with water scarcity were numerous and serious. The most common diseases were diarrhoea, skin and eye infection. This was not surprising: when people lack enough water, their hygienic and sanitary status will automatically deteriorate. These diseases were also not uncommon among adults. While the earlier arrangements for pregnant mothers required each to carry a bucket of water that would be used for hygiene and sanitation during delivery, at the time of this research this arrangement had stopped due to acute shortage of water.

> *Initially, people in the village used to take to the dispensary some buckets of water; but this arrangement is no longer there due to serious water scarcity. The Health Committee has requested the Municipal Council to provide us funds that would be used to buy water and reserve it in several times, but the response has always been negative.* (Interview with the Medical Officer In-Charge).

The quotes presented in this section reveal that the inhabitants' desire to maintain good health through improvements in nutrition, hygiene and sanitation was not easy due to water scarcity.

4.2.2 Family Incomes

Living in a context of water scarcity inhibited most of the socio-economic activities that would have otherwise helped improve household incomes. The activities that were most affected, according to the informants, were livestock keeping and gardening. Before the deterioration of the water conditions in the village, water obtained from deep sand in gullies was used to grow different types of vegetables and support livestock. During FGDs with political leaders, sentiments of worries and agonies were quite vivid from the tone and overall appearance of the informants. The following quotes describe the livelihoods of the people in the village clearly:

Yesterday morning I sent my two sons aged 9 and 10 years on a bicycle to the next village to fetch water. They came back at 12.00 noon. At 3.00pm I told them to go to the village again for more water and they came back at 9.00pm. (FGD with a party leader).

……

We literally don't do other productive activities as we spend much time searching for water. (FGD with a Party leader).

……

This is a most difficult life. If a woman is pregnant, it is upon her to look for water. One may deliver today and tomorrow be obliged to fetch water. There is no mercy when it comes to the issue of water here! One is ready to give somebody food but not water. Water is obtained after a lot of efforts. (FGD with a party leader).

The impression obtained from the last quote is that water scarcity had negatively altered a long cultural tradition of caring for a neighbour as a fundamental requisite for social integration and peace. No one was ready to share water because it was all that life was. Giving someone water was tantamount to giving her/him one's life.

Water scarcity was also reported to adversely impact the performance of schools. The context created by water scarcity affected teachers' concentration on teaching and instead directed their efforts to securing water. The teachers involved in this study made it clear that water scarcity disrupted their plans for proper use of time to facilitate pupils' learning. They reported wasting a lot of time looking for water during working hours. Also, they reported to experience difficulties engaging children in lessons due to poor attention caused by thirst.

4.3 Efforts to Rectify Water Scarcity

At the time of the research of this study, the inhabitants—individually and collectively—had done all they could to find a lasting solution to the water problem, albeit with little success. Ultimately, there were apparent sentiments from the informants' statements that the inhabitants had reached a point of despair. Through the village leadership, the following were reported as efforts that had been done:

(a) *Digging up a well in 1973 by the Municipal Council*. The water produced was less compared to the needs that existed and was no longer operational at the time of this study.

(b) *Digging up a well (wind-driven) by Church Missionaries in the 1980s*. As with the former well of 1973, it produced less water than required and had technical problems.

(c) *Digging up three wells out of which 2 were found to have water in 2010 by the Municipal Council in collaboration with the World Bank*. This was the biggest hope for the inhabitants. Records indicated that the village had contributed about 2.5% of the whole amount of money required for the project. However, developments towards making the wells operational were discouraging. When asked to explain the slow progress in an FGD session, the village government leaders unanimously reported that the problem was associated with inaction on the part of the government.

The interventions by different stakeholders into the water problem have so far not been successful. A water project by the World Bank has also not been completed. We were asked to contribute for the project and did so. We are waiting for the results. (FGD with village government leaders).

(iv) Submitted request to the nearby newly constructed university to dig up a well or pond. So far, the village had not received any response from the university.

The efforts made by the villagers to solve the problem of water scarcity as presented in this section communicate one strong message: while commitment on part of the affected people is necessary in solving the problem of water scarcity, it is not a sufficient condition particularly for impoverished communities. The same level of commitment (or higher) evident in a particular community needs to be demonstrated by the government or development partners in the process of solving such problems.

5. Discussion

It is evident from the study findings that water scarcity was directly related to the quality of early childhood services in multiple contexts. Water scarcity in the village created conditions that compromised the provision of quality ECCE. In all contexts—at home, neighbourhoods, school or dispensary—water scarcity was described as depriving stakeholders in each context the ability to adequately cater for child development and learning needs.

The realization of the principle of the best interests of the child as stated in the UN's CRC depends very much on the context in which service providers live and/or work in the provision of children's services. For this matter, the principle of the best interests of the child, apart from being culturally contested, is also confronted by challenges imposed by inhibitive conditions not necessarily directly linked to cultures.

In this article, water-scarcity had multiple negative effects on different aspects of life—health, education, nutrition, economic, social and cultural—all of which deprived children of their basic rights in general, and education and care in particular. In this study, all the four contexts (family, school, neighbourhood and dispensary) in which children lived spent time or received services, were unable to cater for their needs adequately. While at school children were thirsty most of the time and/or missed porridge: all of which led to a lack of concentration in studies. Teachers, on the other hand, wasted most of their time searching for water instead of preparing for and engaging in effective lesson delivery. Similarly, villagers spent much of their time searching for water, which denied them opportunities to engage in other productive activities.

Things were neither fine at home nor in the neighbourhood. At home, for example, family members' hygiene left much to be desired: they rarely took bath or washed their clothes; and washing hands after visiting toilets or after meals was also problematic. Furthermore, the health service providers at the village dispensary reported several negative effects of water scarcity on children and their mothers. Due to water scarcity, people suffered from eye diseases, diarrhoea and skin diseases. During times of delivery, the lives of mothers and babies, as well as those of service providers were at risk. Also, poor sanitary services at the dispensary threatened not only the health of mothers, but also that of health service providers who could easily be infected with diseases due to the lack of water.

Conscious of the urgent need for water, the inhabitants of the village have searched for both short-term and long-term solutions for the problem, but none have worked. Efforts

by the government and development partners to intervene into and solve the problem have also been discouraging. In a nutshell, the future lives of the villagers in the light of adequate water supply seemed bleak.

While there were sufficient efforts to provide early childhood services in the village, its inhabitants—including young children—believed that priority should be placed on the provision of water, vis a vis, for example, the provision of equally important social services like roads and electricity. The provision of adequate water could trigger positive developments and deter the multiple negative effects discussed earlier. For example, the availability of drinking water at the school, according to the study findings, would improve children's concentration during lessons. When water is readily available, the time wasted by teachers and parents in search of water could be used by teachers and parents to sufficiently engage in children's education and welfare. Further, water availability in all settings has the potential for improvements in health, sanitation and hygiene (WHO, 2011). Studies indicate that the availability of safe and clean water neatly intercepts the negative effects associated with water scarcity on child care and education through improvements in multiple development contexts (UNDP, 2006; UNICEF, 2012), and contributes significantly in curbing intergenerational poverty (Harper et al., 2003; Mokomane, 2011).

6. Conclusions and Recommendations

Water availability is a springboard for all early childhood services. Its scarcity compromises efforts to make the principle of the best interests of the child a reality. Unless water availability is improved in all child development contexts, catering for the best interests of the child will be farfetched. The state of water scarcity in the study village, its causes and effects on the provision of early childhood services signify a need for national governments to consider water as a top priority in their development agendas. By implication, early childhood policy planning and early childhood programs should consider water availability as a critical factor for quality ECCE.

References

Barker, R., B. van Coppen & T. Shah. 2000. *A Global Perspective on Water Scarcity and Poverty: Achievements and Challenges for Water Resource Management*. Colombo: International Water Management Institute (IWMI).

Bronfenbrenner, U. 1978. *The Ecology of Human Development*. USA: Harvard University Press.

Bronfenbrenner, U. & P. A. A. Morris. 2006. *The Bioecological Model of Human Development*. Retrieved December 27. 2017 from: https://pdfs.semanticscholar.org/d470/ f7b5abc2c5b338ee88b 15a3 8b07ef214ce57.pdf.

Committee on the Rights of the Child. 2015. *Concluding Observations on the Combined Third to Fifth Periodic Reports of the United Republic of Tanzania (CRC/C/TZA/CO/3-5)*. Retrieved December 20. 2017 from: https://www.crin.org/en/library/un-regional-documentation/concluding-observations- 68ths-tanzania-combined-third-fifth.

Dahlberg, G., P. Moss & A. R. Pence. 1999. *Beyond Quality in Early Childhood Education and Care: Postmodern Perspectives*. London and Philadelphia: Falmer Press.

Economic Commission for Africa. 2000. *The Africa Water Vision for 2025: Equitable and Sustainable Use of Water for Socioeconomic Development*. Retrieved October 30. 2017 from: http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/african% 20water%20vision% 202025% 20to%20be%20sent%20to%20wwf5.pdf.

Einarsdóttir, J. 2007. Research with Children: Methodological and Ethical Challenges. *European Early Childhood Education Research Journal,* 15(2): 198–211.

Ezzy, D. 2002. *Qualitative Analysis: Practice and Innovation*. London: Routledge.

Gall, P. G., M. D. Gall & W.R. Borg. 2005. *Applying Educational Research: A Practical Guide* (5th ed). Boston: Pearson Education.

Garcia, M., G. Virata & E. Dunkelberg. 2008. The State of Young Children in Sub-Saharan Africa. In M. Garcia, A. Pence & J. L. Evans (eds.), *Africa's Future, Africa's Challenge: Early Childhood Care and Development in Sub-Saharan Africa*, (pp. 11–28). Washington DC: The International Bank for Reconstruction and Development/World Bank.

Gunther, I. & G. Fink. 2010. *Water, Sanitation and Children's Health: Evidence from 172 DHS Surveys*. Retrieved December 21. 2017 from: https://openknowledge.worldbank.org/bitstream/handle/10986/3762/WPS5275.pdf?sequence=1.

Harper, C., R. Marcus & K. Moore. 2003. Enduring Poverty and the Conditions of Childhood: Life Course and Intergenerational Poverty Transmissions. *World Development,* 31(3): 535–554.

Lincoln, Y. & E. Guba. 1985. *Natuaralistic Inquiry.* New York: Sage.

Ministry of Community Development, Gender and Children. 2008. *Child Development Policy*. Retrieved December 21. 2017 from: http://www.cdftz.org/files/Child%20Development%20Policy-2008%20English%20Version%202010%20(2).pdf.

Ministry of Education and Vocational Training (MoEC). 2014. *Education and Training Policy*. Retrieved 27.12. 2017 from: https://tanzania.go.tz/egov_uploads/documents/ SERA_ya_Elimu_2_sw.pdf.

Mokomane, Z. 2011. *Family-oriented Policies for Poverty Reduction: Work-family Balance and Intergenerational Solidarity*. Retrieved December 21. 2017 from: http://www.un.org/ esa/socdev/family/docs/WorkFamilyBalanceandIntergenerationalSolidarity.pdf.

Mtahabwa, L. 2007. *Policy and Practice of Pre-primary Educational Policy in Tanzania: Observations from Urban and Rural Pre-primary Schools*. PhD thesis submitted in partial fulfilments for the Degree of Doctor of Philosophy at the University of Hong Kong, Hong Kong.

Organization of African Unity (OAU). 1999. *The African Charter on the Rights and Welfare of the Child*. Retrieved 27.12.2017 from: https://www.unicef.org/esaro/African_Charter_articles_in_full.pdf.

Pink, R. 2013. Child Rights, Right to Water and Sanitation, and Human Security. *Health and Human Rights Journal*, 14(1). Retrieved October 31. 2017 from: https://www.hhrjournal.org/2013/08/child-rights-right-to-water-and-sanitation-and-human-security/.

Rwezaura, B. 1994. The Value of a Child: Marginal Children and the Law in Contemporary Tanzania. *International Journal of Law, Policy and the Family*, 14(2000): 326–364.

—. 1998. Competing 'Images' of Childhood in the Social and Legal Systems of Contemporary Sub-Saharan Africa. *International Journal of Law, Policy and the Family*, 14: 326–364.

Tanzania Child Rights Forum. 2014. *Tanzania CSO's Alternative Report to the 3rd, 4th And 5th Consolidated Report on Tanzania's Implementation of the Convention on the Rights of the Child. 2007-2012)*. Retrieved December 20. 2017 from: http://www.childrightsforum.org/ files/ TANZANIA %20NGO%20ALTERNATIVE%20REPORT%20TO%20THE%20UNCRC%202014.pdf.

United Nations (UN). 1989. *Convention on the Rights of the Child*. Retrieved October 28. 2017 from: http://www.unhchr.ch/html/menu3/b/k2crc.htm.

—. 2005. *International Decade for Action: 'Water for Life' 2005–2015*. Retrieved from the United Nations website: http://www.un.org/waterforlifedecade/.

—. 2007. *World Water Day: Coping with Water Scarcity*. Retrieved April 6. 2018 from http://www.unescap.org/events/world-water-day-2007-%E2%80%9Ccoping-water-scarcity% E2%80%9D.

—. 2013. *Water Security & The Global Water Agenda: A UN-Water Analytical Brief*. Retrieved 21.12.2017 from: http://www.unwater.org/downloads/ analytical_brief_oct2013_web.pdf.

United Nations World Water Development Report. 2015. *Water for a Sustainable World*. Retrieved October 28. 2017 from: http://unesdoc.unesco.org/images/0023/002318/231823E.pdf.

UN-Water Thematic Initiatives. 2006. *Coping with Water Scarcity: A Strategic Issue and Priority for System-Wide Action*. Retrieved October 28. 2017 from: http://www.un.org/waterforlifedecade/pdf/2006_unwater_coping_with_water_scarcity_eng.pdf.

United Nations Children's Fund. 2007. *World Water Day*. Retrieved December 27. 2017 from: https://www.unicef.org/media/media_39164.html.

—. 2012. *Water, Sanitation and Hygiene (WASH) in Schools: A companion to the Schools Friendly Manual*. Retrieved 21.12.2017 from: http://www.unicef.org/publications/ files/CFS_WASH_E_web.pdf.

United Nations Development Programme (UNDP). 2006. *Does Access to Water and Sanitation Affect Child Survival? A Five-Country Analysis*. Retrieved December 21. 2017 from: website:http:// hdr.undp. org/sites/default/files/fuentes_et_al_a.pdf.

United Nations Economic Commission for Africa. 2000. *Economic Report for Africa 2000*. Retrieved December 27. 2017 from https://www.uneca.org/publications/economic-report-africa-2000.

United Nations Education, Scientific and Cultural Organization. 2015. *World Water Assessment Programme*. Retrieved December 27. 2017 from: http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/wwdr/2015-water-for-a-sustainable-world/.

United Nations World Water Assessment Programme (WWAP). 2015. *The United Nations World Water Development Report 2015: Water for a sustainable world*. Retrieved December 21. 2017 from: from.http://unesdoc.unesco.org/images/0023/002318/231823E.pdf.

United Republic of Tanzania (URT). 2002. *National Water Policy*. Dar es Salaam: Government Printer.

—. 2009. *The Law of the Child Act*. Dar es Salaam: Government Printer.

—. 2012. *Tanzania 3rd, 4th and 5th Reports on the Implementation of the Convention on the Rights of the Child (CRC) 2005-2011*. Retrieved December 21. 2017 from: http://www.africanchildforum.org/clr/Report% 20and%20Concluding%20Observation/CRC/report/tanzania-%20thirdtofifth-uncrc-en.pdf.

World Health Organization (WHO). 2011. *Disaster Risk Management for Health: Water, Sanitation and Hygiene*. Retrieved 01.11.2017 from: http://www.who.int/hac/events/drm_fact_sheet_wash.pdf.

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Whose Names are in Science Textbooks? Justifying the Need for Critical Pedagogy in Tanzania Science Classrooms

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Abstract

Textbooks are the most important teaching and learning resources in education in most developing countries, including Tanzania. However, researchers in education have tended to ignore critical issues related to textbooks. For example, while Africa, as a continent, has contributed a lot to the development of science and technology, it is unfortunate that African scientists and their achievements do not feature in science textbooks used in African schools. This paper seeks to explore critical aspects in science textbooks that are often taken for granted, such as names of scientists cited in those textbooks. Additionally, the question of what are the stereotypes and the hidden messages that students in developing countries learn when science textbooks are full of white male Western scientists' names was considered pertinent for this study. We argue that such biased naming in science textbooks sends negative messages and stereotypes to students on what counts as legitimate science knowledge. We also argue that the messages, in turn, limit students' creativity and affect their identities as science knowledge producers and owners. The situation may be worse for non-white female students from developing countries. We recommend that teachers should use critical pedagogy in science classrooms so that issues related to the nature of science and the historical development of scientific knowledge are critically questioned, analysed and discussed. Given the limited time due to the pressure of national examinations, we also recommend teachers to use information and communication technologies (ICT) to facilitate critical pedagogy. Lastly, we call for the integration of indigenous scientific knowledge in science curriculum in Tanzania.

Keywords*: critical pedagogy, hidden curriculum, science textbooks, scientific knowledge, Tanzania*

1. Introduction

Africa's contributions to science and technology in various fields such as great astronomical discoveries among the Dogon of Mali have for centuries passed unacknowledged (Akpan, 2011). Therefore, it is not surprising that, globally, writers (Misiaszek, 2015; Ogawa, 1995; Snively & Corsiglia, 2000) have acknowledged the power of Western science knowledge, yet they have argued that indigenous science interprets how the world works in a given culture. Realizing that, Snively and Corsiglia (2000)

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pointed out that indigenous science fosters the discovery and development of aspects of science that are interwoven in day-to-day cultural endeavours. Additionally, Misiaszek (2015) and Ogawa (1995) have raised concerns that Western science has become a tool for disempowerment of local contexts. In that respect, there has been a struggle to restore indigenous forms of knowledge from dominant Western science discourses. Seen from this light, overreliance on textbooks based on Western knowledge may be seen as lacking these important aspects of indigenous science.

For the purpose of this paper, any use of the term 'indigenous science'—which is also referred to as 'ethnoscience'—means the study of systems of knowledge developed by a given culture to classify objects, activities and events of its given universe (Snively & Corsiglia, 2000); while, 'science' means universal ways of understanding the natural world as defined by Western standards. In the context of 'school science', we extend the definition of science as a body of knowledge and ways of thinking advocated in science textbooks.

In the context of Tanzania, textbooks are considered to be the most important teaching and learning resources that guide day-to-day teaching and learning activities. It is common to find secondary school students in Tanzania reciting science theories and principles such as: Newton's laws of motion, Archimedes' principle, Charles's laws, and Darwin's theory of evolution. For those familiar with the Tanzanian context, this is not surprising because they know that when national examinations are around the corner, students need to have these theories in their minds ready to write them in examinations. Remembering how definitions and principles appear exactly in textbooks is equally important as writing one's examination number. Students and teachers know that science knowledge is universal and everyone tries to observe that.

Since science knowledge is considered universal, critical pedagogy—which according to Hooks (2010: 1), should emphasize on "… an ongoing commitment to social justice, particularly to the struggle for racial equality"—is of less priority for curriculum planners and science teachers in Tanzania. As with other capitalist education models, science classrooms are dominated by teacher-centred methods (Zion et al., 2015), and the main goal becomes that of preparing students for vocations needed in the capitalist economy (Hooks, 2010; Marx & Engels, 2006). Science education follows what Apple (2004) described as the 'academic achievement model' where teachers and students learn to accept knowledge as unquestionable, "… as given, as neutral, so that comparisons can be made among social groups, schools and children" (ibid: 27). As such, in this context knowledge transmission is more important than knowledge production.

2. Study Purpose

The perceived universality of science raises innumerable questions as many critical theorists such as Paulo Freire (2005) and Michael Apple (2004) have asserted. Such questions include: Who decides what should be taught as science content? Whose knowledge counts as legitimate? Who knows the examples that teachers give to students? And finally, who knows the impact of those examples given by teachers to students as they internalize them? In connection to these questions, the major purpose of this paper is to explore critical aspects in science textbooks. The focus is mainly on the

aspects that are often taken for granted, such as names of scientists cited in those textbooks. In addition to that, the question of what are the hidden messages that students in developing countries learn when science textbooks are full of names of white, male and Western scientists was also considered pertinent in this study. For that matter, the major claim of the paper is to uncover the implications of such names of scientists cited in textbooks to students' attitudes towards science subjects and towards students' self-identity as science knowledge producers and owners.

3. Secondary Education in Tanzania: Science Curriculum, Syllabi and Textbooks

Since in this topic the main focus is science textbooks in secondary schools, a clear understanding of the Tanzanian context in terms of the system of education is pertinent. The education system in Tanzania follows the 2-7-4-2-3^{+} arrangement, where the numbers stand for years of nursery, primary, ordinary level (O-Level) secondary, advanced level (A-Level) and university education, respectively. According to the Ministry of Education and Vocational Training (MoEVT) (2014), the government launched a new education policy in 2014 which stipulated that years of education have to be reduced from the former 2-7-4-2-3^{+} arrangement to 1-6-4-2-3^{+}. With the exception of the nursery level, students must pass national examinations to qualify to join the next level. These examinations are centrally prepared by the National Examination Council of Tanzania (NECTA) under the Ministry responsible for education. Having a clear understanding of the examination system in Tanzania is significant as it influences the implementation of critical pedagogy in science classrooms. Thus, we will discuss its details later in the next sections.

Curriculum development in the country is centralized and the Tanzania Institute of Education (TIE), under the Ministry responsible for education, is in charge of the development and distribution of curriculum materials such as syllabi and textbooks, which are the same countrywide. Topics in textbooks are usually arranged either from simple to complex, or on how one topic influences the next topic. Usually teachers and students follow the sequence as the topics appear in textbooks and/or in the syllabi.

A science curriculum is organized into three subjects (Physics, Chemistry and Biology), with each subject having its own syllabi, textbooks and usually separate teachers. The topics in science textbooks are organized with topics summarized in terms of concepts, theories, and principles that students must understand, although in most cases they just memorize the textbook knowledge (Vavrus & Bartlett, 2012). Also, textbooks have exercises to enable students to revise and practice what they have learned. The pressure to cover all the topics is very high, and as such teachers have no time to discuss with their students in detail the contents of each topic, including the biographies of scientists mentioned in textbooks in science classrooms (Paul & Tilya, 2014). However, even in the absence of such discussions, it is still easy to recognize that these are names of male, white and western scientists. Firstly, these names do not look and/or sound like Tanzanian traditional names. Secondly, the arrangement of vowels and consonants in these names appears to contradict with those of most Tanzanian traditional names. Table 1 indicates the scientists' names, sex, race/nationality, ideas and the grade level in which these scientists' ideas appear in science textbooks used in Tanzania secondary schools.

Table 1: Common Names in Science Textbooks in Tanzania

Scientists' name	Sex	Race/ Nationality	Main idea	Grade level
Michael Faraday	Male	White-United Kingdom	Electrolysis	Physics, form 3
Robert Bunsen	Male	White-Germany	Heat sources and flames	Chemistry, form 1
Gregor Mendel	Male	White-Czech Republic	Genetics	Biology, form 4
Isaac Newton	Male	White-United Kingdom	Laws of motion and astronomy	Physics, forms 2 and 3
Charles Robert Darwin	Male	White-United Kingdom	Evolution and natural selection	Biology, form 4
Henry Louis Le Chatelier	Male	White-France	Chemical equilibrium	Chemistry, form 3
Jean-Baptiste Lamarck	Male	White-France	Evolution and natural laws	Biology, form 4
Archimedes of Syracuse	Male	White-Greece	Archimedes' principle	Physics, form 1
Friedrich Gustav Jakob Henle	Male	White-Germany	Anatomy and loop of Henle	Biology, form 3
Robert Hooke	Male	White-United Kingdom	Theory of elasticity	Physics, form 2
Democritus	Male	White-Greece	Atomic theory	Chemistry, forms 1 and 2
John Frederic Daniell	Male	White-United Kingdom	Electrochemistry and Daniell Cell	Physics, form 3
Amedeo Avogadro	Male	White-Italy	Molecular theory and Avogadro's constant	Chemistry, form 3
Georg Ohm	Male	White-Germany	Electrochemistry or Ohm's law	Physics, form 3
Georges Leclanche	Male	White-French	Electrical Cells	Physics, form 3
Robert William Boyle	Male	White-Ireland	Boyle's law or Gas law	Physics, form 2 and Chemistry, form 3
Wilebrord Snellius	Male	White-Netherlands	Astronomy and laws of refraction	Physics, form 3
Nicolaus Copernicus	Male	White-Poland	Astronomy and Copernicus law	Physics, form 3
James Prescott Joule	Male	White-United Kingdom	Thermodynamics	Physics, form 3

Sources: SCSU & MoEVT (2012); South Carolina & MoE (2008); TIE (1994)

The opinion that science is objective is ingrained in most teachers and students to the extent that questioning science knowledge is equated to committing a crime. According to critical realists and theorists, knowledge is situated; and every knowledge sources and assertions should be open to critique in a way that embraces multiple perspectives (Apple, 2004; Bryce, 2011; Zion et al., 2015). It should not be a crime for teachers and students to discuss the historical development of science knowledge in science classrooms. Related to the organization of official knowledge, Sprague (2010: 86) has noted that:

> …the bodies of those dominating the production of knowledge have for the most part been in specific social locations in systems of race (white), class (privileged), gender (male), and nation (Western), and yet there is no consideration of how their observations might have been shaped by their social position.

Understanding that scientists' social positions influence the way they view and generate knowledge is very important in physical sciences. In other words, such understanding helps teachers and students to treat scientific knowledge with some level of suspicion and contextualization. This is to say, through such an understanding, teachers and students are made aware that any scientific knowledge is influenced by the social, cultural and political contexts under which it was created (DeJong-Lambert, 2004).

4. Science Textbooks and the Power of Hidden Curriculum

Alsubaie (2015: 125) has defined hidden curriculum as "… the unspoken or implicit values, behaviours, procedures, and norms that exist in the educational setting." Hidden curriculum exists in any educational setting in many forms ranging from what teachers do and say consciously or unconsciously, various forms of texts that students interact with, and student-student interactions. Just as is the case with formal curriculum, hidden curriculum is a very powerful learning tool for students. For instance, in its various forms hidden curriculum works as a socializing agent where students are taught to accept certain roles and identities in society (Apple, 2004; Balboni et al., 2015; Condon et al., 2014; Mason, 2015). In a traditional teaching context where the teacher talks and students listen, the message is very clear that the teacher is the source of knowledge, while students are the recipients of that knowledge (Freire, 2005; Hooks, 2010). Freire (2005) referred to this as the banking concept of education in which students, among other things, are taught to see the teacher as the source of knowledge—an authority not to be questioned. Using the banking metaphor, Freire equates this scenario with the process of depositing (similar to the act of teaching), depositor (teacher) and depositories (student).

Hidden curriculum has both negative and positive impacts, and teachers need to be aware of its existence and the impacts it may pose to students' learning (Alsubaie, 2015). Unfortunately, the existence of hidden curriculum and its impacts are ignored in educational discourse in Tanzania. This is partly due to teachers being unaware of its forms and impacts mostly because the nature of the formal curriculum and national examinations put more pressures on teachers to complete the contents of the curriculum.

As noted earlier, usually students in science classrooms learn the definitions, theories and principles of male, white and Western scientists. Here, we are not suggesting that it is wrong to read and learn from male, white and Western scientists and philosophers: the purpose is to uncover the hidden messages in such readings. For example, students may be inspired by these scientists and thus increase their self-efficacy of knowledge creation. On the other hand, female students may pick a negative message that it is only males who are born to be scientists. Non-white students may also pick the message that only whites are born to be scientists. The same may be the case with students from developing countries where no scientists from their regions are written in science textbooks. All these aforementioned examples constitute some hidden messages that can form what we refer to in this paper as hidden curriculum.

Hidden curriculum makes the school a very complex learning environment since as a school sets the goals and objectives to be achieved by students through a formal

curriculum, at the same time a hidden curriculum is operating in a way that may positively and/or negatively influence the achievement of such goals and objectives. Sometimes hidden curriculum sets its own goals and objectives for the same students. For that matter, as Alsubaie (2015) has noted, teachers should be aware of the powers of hidden curriculum and device strategies to deal with it.

4.1 Unpacking Hidden Curriculum: The Need for Critical Pedagogy

As mentioned earlier, upon deeper investigation of the nature of the contents of science textbooks, science classrooms in Tanzania call for the use of critical pedagogy. Critical theorists have stressed the idea that knowledge is being reproduced through other means other than the overt or intended ones (Alsubaie, 2015; Apple, 2004; Apple & Au, 2009; Marx & Engels, 2006). Many factors—including the pressure to cover the syllabus and prepare for national examinations—have resulted into the tendency of ignoring the hidden aspects of learning in many countries, such as Tanzania, which are examination-oriented. Critical theorists view this as a big mistake since it results into the reproduction and maintenance of social classes. For example, when discussing the role of critical theorists, Crotty (1998:144) noted that "… in discourse the beliefs, norms and values that are taken for granted in everyday interaction are expressly thematised and subjected to critique." Based on this understanding, the names of scientists used in textbooks may constitute 'the taken for granted' message that may have impacts on students' attitudes towards science subjects and the creation of science knowledge. Using the metaphor of an iceberg, Kellner and Share (2007: 63) warned of the impacts of 'taken for granted' meanings in media literacy succinctly by underscoring that:

> The critical component of media literacy must transform literacy education into an exploration of the role of language and communication to define relationships of power and domination because below the surface of that iceberg lies deeply embedded ideological notions of white supremacy, capitalist patriarchy, classism, homophobia and other oppressive myths.

Educators, therefore, should consider the hidden aspects in text and talk as they may have impacts to students and themselves. In this paper we use a critical theory perspective to justify the need for critical pedagogy in science classrooms in Tanzania's secondary schools.

5. Critical Pedagogy: A Theoretical Framework

The concept of critical theory can be traced back to the works of Karl Marx, the Frankfurt school of thought, and later Paulo Freire. The works of the Frankfurt school of thought helped to popularize the theory, which seeks to challenge all forms of power domination with the goal of creating a critical and just society (Apple, 2004; Apple & Au, 2009; Crotty, 1998; Scherr, 2005). Although critical pedagogy borrows from the works of Karl Marx and the Frankfurt school of thought, it is basically less of a Western philosophy but rather a Brazilian movement that was established by Paulo Freire. The movement was meant to resist the colonial hegemony, with the focus of creating a just society. Critical pedagogy was applied to educate people in Brazil, where 300 sugarcane adult workers successfully became literate (Gadotti & Torres, 2009). In their entire learning process, the theory required these adult learners to learn by making dialogue with their educators.

At the core of critical pedagogy is the understanding of the connections between education and the relations of dominations, as well as how societies struggle against such dominations (Apple et al., 2009; Freire, 2005). For example, Paulo Freire rejected the concept of banking education where students are considered as having nothing to contribute in the learning process. Spear and Costa (2018) asserted that such methods of teaching contribute to the maintenance of existing power structures. Furthermore, Apple et al. (2009) noted that before the phrase 'critical pedagogy' was coined by activists such as Paulo Freire in Latin America, other forms of critical education had been practiced in the U.S.A and elsewhere. According to Apple et al. (2009), such forms of education challenged existing power structures and other forms of inequality in education such as those based on race, gender and class. Many critical analysts had called for the creation of platforms that would ensure that "… people in marginalized positions have the opportunity to collectively struggle against oppression, to voice their concern, and create their own representations" (Kellner & Share, 2007:61). This is only possible if people have reached the level of self-conscientization.

Such aforementioned assertion may not work for Tanzania students because studies have indicated that most students in science classrooms in Tanzania require reciting the content in textbooks from topic to topic (Vavrus & Bartlett, 2012). We view this kind of learning as a typical reflection of the banking concept of education. Although there is an increased emphasis on the use of more learner-centred methods in science classrooms in Tanzania (MoEC, 2005), such methods do not involve the discussion of issues of knowledge and power.

It may easily be tempting to confuse critical pedagogy with other learner-centred methods. While both emphasize the active involvement of learners in the process of learning, the former involves a serious commitment to issues of knowledge and power, as well as social justice. To highlight on this, Apple and Au (2009: 997) noted that:

> Freire's critical pedagogy revolves around the central idea of 'praxis', the unification of critical reflection and critical action. It seeks to be a pedagogy that enables students and teachers to be 'subjects of their own history'. … who can look at reality, critically reflect upon that reality, and take transformative action to change that reality, thereby deepening their consciousness and working toward a more just world. Making use of the teaching methods of problem posing and dialogue, Freire's critical pedagogy intends for all relationships of hierarchical power to be challenged, including that of the student–teacher relationship. In this way, Freire's critical pedagogy invites students and teachers to become change agents both in their classrooms and in the world around them.

Other learner-centred methods can claim the role of students' contribution in the classrooms but they are silent on issues of power and knowledge, and social justice in general. The use of critical pedagogy in science classrooms in Tanzania can be justified as Apple (2004) has argued that knowledge (in textbooks) involves a 'selective tradition', where knowledge and meanings from the ruling class are selected and emphasized for a purpose; while others are neglected, excluded, diluted or reinterpreted. The main purpose becomes that of reproducing and maintaining existing power structures in the society (Alexander & Jarman, 2015). Critical pedagogy helps science teachers and students to discuss issues of

knowledge and power: specifically, why and how they came to accept the knowledge they learn today in science textbooks. Alexander and Jarman (2015) stressed the need for an emancipatory approach to education. The approach empowers students to unveil and decode the ideological dimensions of texts, institutions, social practices and cultural forms such as television and film, so as to reveal their selective interests. The power of textbook knowledge needs not to be underestimated because its impacts can be long living ones after students have memorized it. Smith (1987: 3) has argued that "… we are ruled by forms of organization vested in and mediated by texts and documents." Smith (ibid.) has also revealed how schools teach students to recognize and approve ideologically sanctioned forms of relations, including recognizing who are the legitimate speakers and writers, and those who are not. This calls for the need to uncover such hidden curriculum in school practices. Uncovering such hidden curriculum in school practices will go hand in hand with the current emphasis on the need for critical education in Tanzania.

The question put forward by Apple et al. (2009:12) on whether critical pedagogy can be put into practice remains a challenge in Tanzanian science classrooms. Apart from common challenges, such as pressure to prepare students for national examination in public education (Kellner & Share, 2007), another challenge of using critical pedagogy in science classrooms comes from the persistent beliefs held by teachers, students and the scientific community in general regarding the objective nature of science. Also, the implementation of critical pedagogy is limited by the large number of students in most of Tanzania's secondary schools. There is a need to prepare and hire more science teachers who could help reduce the large number of students by splitting classrooms into small and manageable ones.

School science as opposed to social sciences is taught and seen as objective, universal and empirical. Science is perceived as being shielded from any outside influences, either personal or political (Apple, 2004). As such, the power dimensions that are involved in science knowledge production are neglected. Related to this view of scientific knowledge, and specific to this paper, is the abundance of white, male and Western names of scientists in science textbooks. While this phenomenon is taken for granted, it has some impacts on students' attitude towards science and the creation of scientific knowledge. To deal with this phenomenon, Apple (2004) argued that students' perceptions that it is 'them' who are the holders of expertise knowledge must be radically altered.

Closely related to the challenges of putting critical pedagogy into practice, it is also suggested that students in science classrooms in Tanzania need to discuss the historical development of scientific discovery, thereby enabling them to understand science subjects in their historical contexts, and so become conscious of why, how and what they learn in textbooks came to be the way it is. However, this will happen only if students are given a chance to voice their opinions, and teachers are ready to seek and value students' point of view. In other words, schools and teachers should constantly work towards rejecting the banking concept of education. Also, issues of knowledge and power with regard to scientific knowledge and discovery need to be discussed in science classrooms so that students can shape their identities as science knowledge creators, and not only as consumers. In support of this, Kellner and Share (2007: 66) have highlighted:

> Consistent with critical pedagogy, the students move from being objects of other people's research and media representations to becoming subjects empowered to tell their own stories and collectively challenge dominant oppressive myths.

Given the overemphasizing of content coverage and national examination preparations in Tanzania, the time to put critical pedagogy in science classrooms into practice seems limited. From this challenge, we now discuss the opportunities offered by ICTs.

6. Information and Communication Technologies (ICTs) and Critical Pedagogy

The rapid development of ICTs offers both educational opportunities and challenges. While ICTs have facilitated teachers' and students' access to information, access to learning beyond the four corners of classrooms and access to rapid and interactive communication, they also present challenges related to their use in the classroom (Kellner & Share, 2007; Lacina, 2007). All day long access of information is an opportunity that teachers and students could fully utilize in searching and learning about the historical development of science knowledge and biographies of scientists whom students learn in science textbooks. The access also gives teachers and students an opportunity to question issues related to knowledge and power. Regrettably, when asked why teachers prefer the banking concept of education, most of the time they blame the education system for overemphasizing content coverage and pressures related to national examination preparations (Paul & Tilya, 2014). Given the limited time and the need to cover the syllabus content, ICTs can offer opportunities for teachers and students to use out-of-class hours to learn many other things such as questioning why many science textbooks have only documented the names of male white scientists. However, this has to start with the conscientization of teachers that such hidden agendas are worth exploring.

Regarding issues of knowledge and power, ICTs offer both costs and opportunities. While interactive ICTs are used as means of facilitating global capitalism, they also provide space for different groups in society to voice against various forms of oppression (Gadotti & Torres, 2009; Kellner & Share, 2007). Seen from this light, teachers and students in science classrooms can use interactive social media technologies such as WhatsApp, Twitter, Facebook and WeChat to give out their voices and carry on live discussion of issues related to social justice such as rejection of hegemonic structures in textbooks and teacher-students relationships. Teachers can also use such technologies to plan students' discussions on the historical development of Western scientific knowledge, as well as indigenous science knowledge and discoveries. The challenge remains that students in Tanzania are not allowed to use mobile phones, and many schools, especially in rural areas, are not equipped with computers and other learning technologies. This remains to be a policy issue worth being intervened. The government needs to invest more in education, and this has to become the first priority to ensure that schools are connected to computer systems and the Internet. Such efforts will be directly connecting Tanzania secondary schools to the globalized world.

7. Science Education in a Globalized World

Competition in the global economy plays at the advantage of those who invent and control technological innovation. Science and technology is an important dimension of

globalization, and differences in development between countries somehow correspond to their differences in the advancement of science and technology (Stromquist, 2002; Torres, 2002). This being the case, science education in Tanzania should take a turn from learning science as a body of knowledge (learning what others have discovered) to include aspects of science as a way of knowing (attitudes of discovering own science knowledge) to enable the country compete in the global economy. In other words, the development of inquisitive minds and creativity should become the main goal of science education. The discussion of the historical development of science knowledge can improve students' attitudes toward science knowledge creation as opposed to believing that science knowledge does not belong to them as it is taught both through the overt and hidden curriculum.

One of the impacts of globalization is the neglect of local cultures—the indigenous ways of learning science. This is because globalization involves convergence where all societies are subjected to 'the same forces' (Arnove, 1980: 49) with increasing cultural hybridization (Torres, 2002). Global convergence will continue to strengthen peoples' attitude of science as universal; and science education will be more integrated to global capitalist agendas.

Therefore, as the definition of development changes in a globalized world, so do the goals of education. Learning the same science content is seen as the best way to prepare citizens who will compete in the global economy. The fear that cultural norms and infrastructures—part of which is indigenous scientific practices and knowledge production—are deteriorating as globalization rises to its peaks becomes justified. For that matter, globalization will continue to challenge the inclusion of indigenous knowledge in school curricula. Therefore, any attempt of reforming schools, such as the use of critical pedagogy, has to consider the dimension of globalization.

Since the focus is on the names of the scientists used in science textbooks, and studies have indicated that females have always been underrepresented (Legewie & DiPrete, 2014; Settles et al., 2016; Stets et al., 2017; Wang & Degol, 2013), the discussion of gender in science education deserves a special attention. There is no doubt that females' participation and performance in science, technology, engineering, and mathematics (STEM) has been a central topic in science education (Francis, 2000). As stated earlier, given that females continue to be underrepresented in STEM (Legewie & DiPrete, 2014; Settles et al., 2016; Stets et al., 2017; Wang & Degol, 2013), it is likely that stereotyping has led to the continued limited use of science textbooks written by females. This is consistent with the long history of gender stereotypes that have resulted into the emergence and popularization of movements such as feminism. Just like other forms of oppression, gender stereotypes have been internalized by people to the point that some have been accepted as norms (Clegg, 2008; Freire, 2005; Hale, 2012). Here, we concur with radical feminists when they emphasized that:

> …the oppression of women is the oldest, most profound and most widespread oppression of all. It is the view of some radical feminists that the oppression of women causes more suffering than any other form of oppression. Some propose the oppression of women as the model for understanding any other form of oppression (Crotty, 1998: 164).

Smith (1987: 22) has documented 'the brutal history of women's silencing' where she gives cases of females and males co-authored works being only considered as written by males only. In the US females were purposely and systematically excluded from the profession of medicine by keeping their admission in very small numbers. According to Smith (1987) other female writers were killed because of identifying themselves as knowledgeable. Also, Smith gave an example of Joan Boughton and her daughter Lady Young who were burned during the 15th century because of giving their own interpretation of the Bible.

STEM education, as a field of study, is not immune to gender stereotypes. Gender stereotypes are evident from the macro level (list of worlds' famous scientists) to the micro level (teaching and learning in science classrooms). According to Francis (2000), school subjects, and consequently careers, have been gendered. Controlling careers such as engineering and medicine are associated with the male gender, while caring careers such as teaching and nursing are associated with the female gender (Towse et al., 2002).

Given the complicated history of gender stereotypes, the continued unfair representations of females in the scientific community continue to pose threats on females' attitudes towards STEM subjects. As discussed earlier, the absence of female scientists in science textbooks may continue to spread gender stereotypes unless teachers and students openly discuss issues of knowledge and power in science classrooms. Educators at this point may not be able to reverse this trend, but the discussion of the historical development of scientific knowledge can help shape females' identities as science knowledge producers and owners just like their male counterparts.

8. Conclusion

The view that science is universal and objective contributes to teachers' tendencies to ignore issues of knowledge and power in science classrooms and textbooks. As a result, science teachers, especially in developing countries, have overemphasized the teaching of school science as a body of knowledge (scientific theories, principles and laws discovered by others), than teaching science as a way of knowing (Snively & Corsiglia, 2000). While issues of knowledge and power are not discussed in science classrooms, research has shown that they may have impacts on students' attitudes towards science, and on the development of indigenous forms of scientific knowledge. The use of critical pedagogy in science classrooms can offer an opportunity to teachers and students in Tanzania to uncover the hidden messages in science textbooks in a way that will empower science students. The empowerment we are referring to here is that of teachers enabling students to change from being passive and dependent, to being active citizens (Pacho, 2013) who have power to discuss and critique the content of science textbooks. In other words, students should be given chances to construct their own knowledge; but they cannot do that if textbooks discourses discourage them by indicating that it is only male, white and Western scientists who can discover knowledge. Females, as history has shown, are more affected by such kinds of discourses.

The pressure to cover the national curriculum and preparations for national examinations are expected to continue to challenge the adoption of critical pedagogy in science classrooms unless immediate measures are taken. Such measures include emphasizing

competence-based learning in its real sense. Preaching competence-based learning while at the same time being too much focused on examinations only lead to contradictions. However, at a time when national examinations are still given a top priority, ICT can help fill the niche if properly used by teachers and students. As stated earlier, the first priority should be on the government investing in education to help schools be connected with computer systems and internet networks. This will provide a room for teachers and students to discuss and question a number of hidden agendas that are not discussed in the normal classroom hours due to time limit. Finally, issues of knowledge and power in science should be emphasized in teacher training programs.

References

Akpan, C.O. 2011. The Method of African Science: A Philosophical Evaluation. *American Journal of Social and Management Sciences*, 2(1): 11–20.

Alexander, J. & R. Jarman. 2015. Prizing Children's Science Information Books: The Text, Reading and the Reader. *Literacy*, 49(3): 123–132.

Alsubaie, M.A. 2015. Hidden Curriculum as One of Current Issue of Curriculum. *Journal of Education and Practice,* 6(33): 125–128.

Apple, M. 2004. The Hidden Curriculum and the Nature of Conflict. In M. Apple (ed.), *Ideology and Curriculum* (pp. 77–98). New York: Routledge.

Apple, M., W. Au & L. S. Gandin. 2009. Mapping Critical Education. In M. Apple, W. Au & L. S. Gandin (eds.), the *Routledge International Handbook of Critical Education* (pp. 3–20). New York: Routledge.

Apple, M. W. & W. Au. 2009. Politics, Theory, and Reality in Critical Pedagogy. In R. Cowen & A. Kazamias (eds.), *International Handbook of Comparative Education* (pp. 991–1007). Springer Netherlands.

Arnove, R.F. 1980. Comparative Edudcation and World Systems Analysis. *Comparative Education Review,* 24(1): 48–62.

Balboni, M. J., J., Bandini, C. Mitchell, Z. D. Epstein-Peterson, A. Amobi, J. Cahill, T. Balboni. 2015. Religion, Spirituality, and the Hidden Curriculum: Medical Student and Faculty Reflections. *Journal of Pain and Symptom Management*, 50(4): 507–515.

Bryce, N. 2011. Meeting the Reading Challenges of Science Textbooks in the Primary Grades. The *Reading Teacher*, *64*(7): 474–485.

Clegg, S. 2008. Femininities/Masculinities and A Sense Self – Thinking Gendered Academic Identities and the Intellectual Self. *Gender and Education. 20*(3): 209–221.

Condon, B. B., C. Grimsley, T. Kelley & M. K. Nissen. 2014. End of Life and Beyond as Hidden Curriculum. *Nursing Science Quarterly*, 27(1): 23–28.

Crotty, M. 1998. The *Foundations of Social Research: Meaning and Perspectives in the Research Process*. London: SAGE Publications Ltd.

DeJong-Lambert, W. 2004. The Politics of Constructing Scientific Knowledge: Lysenkoism in Poland. In G. Steiner-Khamsi (ed.), *The global Politics of Educational Borrowing and Lending* (pp. 129–140). New York: Teacher College Press

Francis, B. 2000. The Gendered Subjects: Students' Subject Preferences and Discussions of Gender and Subject Abilities. *Oxford Review of Education*, 26: 35–48.

Freire, P. 2005. *Pedagogy of the Oppressed*. New York: Continuum.

Gadotti, M. & C. A. Torres. 2009. Paulo Freire : Education for Development, 40(6): 1255–1267.

Hale, S. 2012. Memory Work as Resistance : Eritrean and Sudanese Women in Conflict Zones. *Comparative Studies of South Asia, Africa and the Middle East*, *32*(2): 429–436.

Hooks, B. 2010. *Teaching Critical Thinking: Practical Wisdom*, New York: Routledge.

Kellner, D. & J. Share. 2007. Critical Media Literacy Is Not An Option. *Learning Inquiry*, *1*(1): 59–69.

Lacina, J. 2007. Inquiry-Based Learning and Technology: Designing and Exploring Webquests. *Childhood Education*, 83(4): 251–252.

Legewie, J. & T. A. Diprete. 2014. The High School Environment and the Gender Gap in Science and Engineering. *Sociology of Education*, 87(4): 259–280.

Marx, J. & F. Engels. 2006. The Ruling Class and the Ruling Ideas. In M. Durham & D. Kellner (eds.), *Media and Cultural Studies* (pp. 9–13). Malden, Massachusetts: Blackwell.

Mason, L. E. 2015. Analyzing the Hidden Curriculum of Screen Media Advertising. *The Social Studies*, 106: 104–111.

Ministry of Education and Culture (MoEC). 2005. *Biology Syllabus for secondary Schools.* Dar es Salaam: Ministry of Education and Culture.

Misiaszek, G. W. 2015. Ecopedagogy and Citizenship in the Age of Globalisation: Connections Between Environmental and Global Citizenship Education to Save the Planet. *European Journal of Education*, 50(3): 280-292.

Ogawa, M. 1995. Science Education in a Multiscience Perspective. *Science Education,* 79: 593– 593.

Pacho, T. 2013. *Critical and Creative Education for the New Africa.* Retrieved from http://www.researchgate.net/publication/280133902.

Paul, A. & F. Tilya. 2014. The 2005 Secondary School Reforms in Tanzania: Disjunction Between Policy and Practice in Its Implementation. *Journal of Education and Practice*, 5(35): 114–122.

Scherr, A. 2005. Social Subjectivity and Mutual Recognition as Basic Terms of a Critical Theory of Education. In G. Fischman, P. Mclaren, H. Sunker & C. Lankshear (eds.), *Critical Theories, Radical Pedagogies and Global Conflicts* (pp. 145-153). Lanham, MD: Rowman &Littlefield Publishers.

SCSU & Moevt-Zanzibar. 2012. *Chemistry for Secondary School, Forms 1 & 2.* Dar es Salaam, Oxford University Press Tanzania Ltd.

Settles, I. H., R. C. O'Connor & S. C. Y. Yap. 2016. Climate Perceptions and Identity Interference Among Undergraduate Women in STEM: The Protective Role of Gender Identity. *Psychology of Women Quarterly*, 40(4): 488–503.

Smith, D. E. 1987. a Peculiar Eclipsing: Women's Exclusion From Man's Culture. In D. Smith (ed.), The *Everyday World as Problematic: A Feminist Sociology* (pp. 17–43). Toronto: University of Toronto Press.

Snively, G. & J. Corsiglia. 2000. Discovering Indigeneous Science: Implicatios for Science Education. *Science Education, 85*(6): 6-34.

Spear, A. M. & R. B. Costa. 2018. Potential for Transformation ? Two Teacher Training Programs Examined Through a Critical Pedagogy Framework. *Teaching and Teacher Education*, *69*: 202–209.

Sprague, J. 2010. Seeing Through Science: Epistemologies. In W. Luttrell (Ed.).Qualitative Educational Research: Readings in Reflexive Methodology and Transformative Practice, (pp. 78-94). New York: Routledge.

South Carolina State University & Ministry of Education (1st Ed.). 2008. *Chemistry for Secondary Schools Form 3,* Dar es Salaam, Ministry of Education.

Stets, J. E., P. S. Brenner, P. J. Burke & R. T. Serpe. 2017. The Science Identity and Entering a Science Occupation. *Social Science Research*, 64(1): 1–14.

Stromquist, N. P. 2002. Theorizing Globalization. In N. P. Stromquist (ed.), *Education in a Globalized World: The Connectivity of Economic Power, Technology, and Knowledge* (pp. 1-18): Rowman & Littlefield Publishers.

Tanzania Institute of Education (TIE). 1994. *Physics for Secondary Schools Book Three.* Dar es Salaam, Educational Publishers and Distributors.

Torres, C. A. 2002. Globalization, Education, and Citizenship: Solidarity Versus Markets? *American Educational Research Journal, 39*(2): 363-378.

Towse, P., D. Kent, F. Osaki & N. Kirua. 2002. Non-Graduate Teacher Recruitment and Retention: Some Factors Affecting Teacher Effectiveness in Tanzania, *Teaching and Teacher Education*, 18: 637–652.

Vavrus, F. & Bartlett, L. 2012. Comparative Pedagogies and Epistemological Diversity: Social and Materials Contexts of Teaching in Tanzania. *Comparative Education Review, 56*(4): 634–658.

Wang, M. & J. Degol. 2013. Motivational Pathways to STEM Career Choices : Using Expectancy-Value Perspective to Understand Individual and Gender Differences in STEM Fields. *Developmental Review*, 33(4): 304–340.

Zion, S., Allen, C. D. & Jean, C. 2015. Enacting a Critical Pedagogy, Influencing Teachers' Sociopolitical Development. *The Urban Review*, 47: 914–933.

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An Investigation of Performance in National English Language Examinations in Tanzania: A Curriculum Processes Perspective

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Abstract

This paper is a result of observations of teachers, employers and language researchers that many Tanzanian students who are at the ordinary level of secondary education have not been doing well in their national English language examinations. The results became worse in the 2012 examinations. The current study focused on curricula processes, namely syllabus preparation, teacher preparedness for handling syllabus demands, examination processes, and how all these are coordinated. Using semi-structured interview, questionnaire, and documentary review methods, the findings reveal that there are inefficiencies when it comes to engaging some important stakeholders such as teachers, parents, and learners. Additionally, the consulted teachers suggested that there is a general unawareness among teachers of the pedagogical demands of the 2005 syllabus in the classroom, and that there is a general deficiency in the number of good quality well-prepared teachers of English. The functions of curriculum developers, teachers and the national examinations council are barely coordinated. The paper recommends that there be established an oversight unit in the Ministry responsible for education to coordinate the functions of these actors.

Keywords: *examinations, English language, performance, secondary education, Tanzania*

1. Introduction

The current article attempts to investigate issues surrounding performance in national English language examinations at the ordinary level of secondary education (otherwise referred to as the General Certificate Level) in Tanzania. Performance in the current article is examined in relation to English language curriculum development and classroom teaching processes as they relate to teacher preparedness, examination processes, and the coordination of relevant educational institutions. It is important to note at this stage that secondary education examinations are nationally organized in terms of their setting and marking under the supervision of the National Examinations Council of Tanzania (NECTA). Likewise, the preparation of curricula, syllabi, and teaching and learning materials is done by the Tanzania Institute of Education (TIE); whereas teaching is done by teachers in schools. The functions of these actors are hardly coordinated, except when the NECTA and TIE need the service of some teachers. In other words, there is no structure in place that obligates them to coordinate.

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2. Literature Review and Theoretical Base

2.1 Literature Review

Going back to history, the teaching of the English language in Tanzania started way back in 1919 when the British took over the colonial governance of the then Tanganyika from the Germans. At those early days of its inception, the teaching of English in Tanganyika followed a curriculum and examinations prepared at Cambridge (Mbunda, et al., 1980: 317). As such, there is no doubt that curriculum development in the country for a long time, even after independence, was a close mimicry of colonial decisions and decrees; informed by colonial philosophies, methodologies and examinations.

Poor performance in national English examinations in Tanzania is common in Tanzanian CSEE (NECTA, 2013: v, TIE, 2004: 16). It is for this reason that I chose to investigate why performance in English language national examinations has not been satisfactory, a subject that has not been addressed by any study as of now. This study sought to answer three questions:

(a) How was the 2005 English language syllabus in Tanzania prepared?
(b) In what ways are English language teachers in Tanzanian re-oriented to teach in the changed syllabus?
(c) How are different educational authorities coordinated in Tanzania?

Answers to these questions will help explain why performance in the 2012 English language examination was not good despite the change in the syllabus.

Over the years, performance in national English language examinations in Tanzania has been very unsatisfactory. On average, since 2011 to 2016 about 57% of candidates who sit national English language examinations fail to score even 21 marks out of 100, which would award a candidate a marginal pass grade. In 2012 the performance in all subjects, English inclusive, was possibly the worst. As a consequence, the government had to lower pass marks.

Problems in the mastery of English started to be noticed in the 1960s, and more so in the early 1970s when lecturers at the University of Dar es Salaam started to complain that students at the University did not know English well (Roy-Campbell & Qorro, 1997: 4). Other scholars as well complained about low competence in English as a medium of instruction in Tanzania (Criper & Dodd, 1984).

Although over the years performance in national English language examinations in Tanzania has been unsatisfactory, the situation has worsened in recent years. Table 1 presents a contrast between the results based on an earlier syllabus (1997), and a newer one (2005), which was supposed to start being used in the schools in 2006. However, the first national examination in the 2005 syllabus was taken in 2010. Table 1 presents the results in both the new and the old syllabi.

We are aware that poor performance in national English language examinations is a complex issue, and thus it should be viewed as a result of an interplay of many factors, including those that are addressed by this study. This study, therefore, does not claim to

Table 1: Students' Performance in National English Language Examinations in Tanzania

Years	Present	Passed	Failed
2006	85,655	81.1%	18.9%
2007	125,231	75.5%	24.5%
2008	162,763	63.2%	36.8%
2009	248,224	60.4%	39.6%
2010	350,753	30.3%	69. 7%
2011	338,822	30.1%	69.9%
2012	397,005	27.9%	72.1%
2013	352,357	45.7%	54.3%
2014	240,236	71.3%	28.7%
2015	384,082	56.2%	43.8%

Source: NECTA (2010; 2011; 2013; 2016)

exhaustively explain the entire phenomenon. However, in view of this awareness, it looks into the interplay between three interdependent functions: syllabus preparation process, teacher preparedness to teach English, and coordination of the key educational institutions involved. While many other factors are important, these factors play a special role in what is happening in these examinations. This is because if the syllabus that has been prepared does not take on board the needs of the society, and from the society itself, it is likely to be a defunct syllabus. Likewise, teachers need to be made aware of the content of the syllabus, and how they should implement it. When these are done, then students should be in a good position to answer examination questions justifiably.

Apparently, there are terminological inconsistencies in the use of the terms *curriculum* and *syllabus*, observed both in the literature (e.g., Nunan, 1988: 5-8; Nation & Macalister, 2010: 1), in everyday usage of the terms, and also among my consultants during the interviews.[1] In the current study we are going to use the two terms interchangeably to mean "… a teaching device to facilitate learning" (Widdowson, 1984: 26).

Finally, the term evaluation—a part of whose coverage is examinations—is a process that provides feedback on the suitability of a curriculum, and how it is interpreted. This is summarized in a statement by Nation and Macalister (2010: 11) who view evaluation as answering the question: "Is this a good course?" The answer to this question should lead to decisions such overhauling, amending, or retaining a course as it is.

Coming to the results presented in Table 1, the first examination in the 2005 syllabus was to be done in 2009 because the syllabus was to start being used in 2006, and at the end of four years the first examination was to be taken in that syllabus. However, due to worries among teachers that not much had been done in the new syllabus, its full implementation in examinations was pushed forward to the following year, i.e., 2010.

[1]The interchangeable use of the concepts of *curriculum* and *syllabus* does not necessarily imply unawareness of their precise meaning by the author, or even suggest ignorance of the concepts. Rather, it is due to the fact that it is usual for syllabus to be more accessible to everyday educational settings and nomenclature in Tanzania.

Looking at the figures in Table 1, significant differences can be observed between the 2008 and 2009 results, and those starting from 2010 onwards. The change in the content of the English language examinations appeared as a shock at the first examination in the new syllabus in 2010. According to TIE (2004: 1) the syllabus prior to 2005 "… was subject-centred [and did] not respond to fast socio-economic dynamics, [was] overloaded, and [did] not meet learning as well as carrier choices." However, in accordance with the 2004 Secondary Education Development Plan (SEDP), the syllabus was designed "… to promote the ability of a student to successfully do things" (TIE, 2004: 27). Due to this novelty, the performance worsened in the 2012 examination results. Consequently, the 2012 results forced the government to implement dramatic changes in the grading system by lowering the pass mark. The changes in the grading standards, which were obviated by the change from the division system to the grade points average (GPA), superficially improved performance in 2013, but in reality, there was no improvement in the actual students' mastery of the subject. This is likely why the GPA system was abandoned in 2016 when there was a change of leadership in the Ministry of Education, Science and Technology (Mapunda, 2016). This point of view is also reported by Mwalimu (8 January, 2016: 1) who noted: "Changes in the grading system came immediately after mass failures in the Form IV national examinations the previous year (sic) and were severely criticized by education experts and opposition."

Going back to history again, low competence in English in Tanzania coincided with the declaration of Kiswahili as the exclusive medium of instruction in primary schools in 1967; a decision that was made in 1966. The pronouncement that Kiswahili would be the exclusive medium of instruction made students not to think that English was also an important language. This change was, in a way, politically motivated because before 1967 the language policy that was operational was still a British colonial legacy, and through the Arusha Declaration, Tanzania was aiming at becoming self-reliant. Any national policy, including language policy, contributes to the realization of the national philosophy. In the case of Tanzania, the national philosophy was that of self-reliance—the blueprint of the Arusha Declaration—even in the context of language use.

2.2 Theoretical Base

The current study is guided by the input-process-output model (IPO), whose construction was originally done by Steiner (1972), and later developed by other scholars (e.g., Farr, 2003). The IPO model is a very popular model used for assessing the quality of various products, considering inputs and processes in the context of teamwork. The framework is a famous tool that was originally used to study team effectiveness, and it has also been used for studying quality and effectiveness in educational settings (Richards, 2013). Richards (ibid: 6-9) explains further that *input* refers to the syllabus (particularly, what content to teach), *process* refers to methodology (how teaching is carried out, including the types of activities, procedures and techniques that teachers use, etc.), and *output* refers to learning outcomes (what learners are able to do as a result of instruction). Sahney et al., 2004: 153) describe output as tangible outcomes, value addition and intangible outcomes. English language teaching is, therefore, well-suited in this kind of framework as it links well the syllabus, classroom processes, and examination results.

This model is appropriate in this study because what happens at each stage contributes to what appears as the output. In the case of the study, output is seen as national examinations results. The appropriateness of the model relates to how different stakeholders own the input (how they are involved in its production); how the implementers understand, apply and manage the input (how well they are prepared to handle the input); and finally, the output (learning outcomes) reflects the efficiency of both the input and the process.

3. Methods and Procedures

The study used semi-structured interview, questionnaire and documentary review to collect data. The interview involved 8 participants. The first was a senior official in the Ministry of Education, Science and Technology who had earlier been a teacher-trainer for 12 years. The second was a senior curriculum developer who had been an English language secondary school teacher for 12 years. There was also a retired chairman of the English language panel at the TIE who had been an English language teacher-trainer for over 20 years, and later an instructor at a university level for 20 years, and the chairperson of the English panel at the TIE for eight years. The fourth consultant was an English language examinations officer at the NECTA, who had also been an English language teacher for 25 years at the secondary level of education, and who had also participated in handling national examinations for five years, a checker for two years and a marker for three years. There were also 4 English language teachers with experiences of more than ten years each: 2 from Kilimanjaro region, and 2 from Dar es Salaam region. The selection of these interviewees was based on their hands-on experiences, namely involvement in the preparation of syllabuses, teaching, and national examinations preparation and grading. The interviews were voice-recorded with a digital voice recorder, and were later transcribed.

The interviews were conducted in April and June 2013 in the informants' offices, and each lasted between 25 and 45 minutes. The questions were about the processes involved in the preparation of English language syllabi, how various stakeholders are involved in the process of curriculum development, whether the preparedness of teachers of English is satisfactory, whether TIE, NECTA and the teachers work collaboratively, and also about students' performance in the national O-level English language examinations.

The questionnaire was administered in two schools in Dar es Salaam, and it involved 92 Form III students. One school was an old school in the centre of Dar es Salaam, while the other was relatively new and was located in the outskirts of Dar es Salaam. The questionnaire data are summarized in Table 3.

This level was chosen because students at this stage have already sat for national Form II examinations, and also because it is close to Form IV, which is the final and examination year. Besides, it is not advisable to engage Form IV students who are already preparing for their examinations because teachers believe that shifting their attention from studies would likely waste their time. The questionnaire required students to explain why performance in national English language examinations is poor. The results from the questionnaire from both schools are discussed together because the responses provided were not different in pattern. Teachers in the schools helped with the administration of the questionnaire.

The two schools are typical of average public secondary schools in Tanzania. For example, the old school had been nationalized by the government in the period following the Arusha Declaration in 1967. The other is a community school famously known in Tanzania as *shule ya kata* (community school). For the purpose of anonymity, we will simply say that the new school was built in the 2000s as part of the national initiative to expand secondary education in the Tanzania. This school is located in the outskirts of Dar es Salaam, so it is moderately rural. These schools, in a way, exemplify the many schools that many Tanzanian children attend.

Additionally, old schools are owned by the Ministry responsible for education, while community schools are owned by district councils, which run them jointly with surrounding communities. The nature of ownership of these schools has implications on resource allocation, and also the quality of students enrolled. The old schools usually receive students whose Std VII examination results in the end of primary education are higher. As such these two schools are meant to reflect the general attributes of secondary schools in the country. Regarding the documentary review, this started in 2012 and has been on-going. A number of documents including examinations results statistics, reports, syllabuses and journal articles were consulted (e.g., Nekke, 2005; TIE, 2004; Roy-Campbell & Qorro; Mapunda, 2015; 4 February, 2016). Their selection was based on their relevancy in addressing the objectives of the study.

The procedure of data analysis was inclined to the objectives of the study, which also determined the themes that emerged from the data. Since there are many similarities in the responses provided between and within the schools regarding the open-ended questionnaire findings, these are put together and frequencies indicated in a separate column. The frequencies suggest how popular the responses were among the respondents.

4. Findings and Discussion

The findings and their discussion in this section are presented in accordance with how they answer the research questions: (i) How was the 2005 English language syllabus in Tanzania prepared? (ii) In what ways are English language teachers in Tanzanian re-oriented to teach in the changed syllabus? (iii) How are the different educational authorities coordinated in Tanzania?

4.1 The Preparation of the Tanzania's 2005 English Language Syllabus

It was apparent from a review of the TIE report (2004) and the interviews conducted that there is only a draft curriculum in Tanzania, but there is an English language syllabus that was prepared in 2005. Apparently, the process of developing the syllabus involved very few stakeholders, leaving out other key ones in some categories such as parents and learners. Besides, teachers who are the main implementers of the syllabus were extremely underrepresented as will be shown later in this section.

A brief survey was carried out by the TIE before the syllabus was changed. The report on the results of the survey is fairly elaborate and informative, and it reveals at least four issues when closely examined:

(a) The sample size of those who participated in the English language panel was quite small, despite the claim that its aim was to show the trend. In fact, only four (4) subject panel members filled in a questionnaire that was to be part of the reason for changing the syllabus (TIE, 2004: 33-34).
(b) Prior to the issuance of the 2005 syllabus, the TIE noted that performance in examinations in general was not good (TIE, 2004:16). As such, they envisioned that, through SEDP (2004), much weight would be put on the assessment and examinations at the ordinary level to improve performance in national examinations.
(c) Possibly the assumption was that by coming up with a new syllabus, the pass rate would then go up as envisioned, without putting in place proper control mechanisms for achieving the goal. What is seen from the results (e.g., in Table 1) is quite the opposite. In fact, the rate of failures increased by 100% in 2012.
(d) The report also notes that "Both teachers and students are less articulate in the use of English language" (TIE, 2004: 27).

From the interviews with some stakeholders, a number of things were unveiled. First, some stakeholders such as parents and learners were regarded as having little contribution in the process of preparing the 2005 syllabus. For example, Teacher A— who is one of the participants with 11 years of teaching experience, and holds a university degree in English language teaching—argued that the views of teachers, parents and students were not solicited in the process of syllabus design, but were imagined by the syllabus designers:

> *While changes in the syllabus should reflect the needs of the society, in Tanzania these needs are created by syllabus designers and do not result from the society itself. In other words, syllabus designers imagine the needs of the society; namely those of teachers, parents and learners.*

A more radical remark came from Participant A who had chaired the English Language panel at the TIE for eight years. He argued that parents and students would not have any useful contribution in the preparation of the syllabus. He believes that the preparation of syllabuses is an enterprise for professionals, and not for parents and students. He added that teachers could be involved when the syllabus was to be piloted but not during the preparation time:

> *If you went and asked parents from the communities what they wanted their children to learn, I am not sure how useful their contribution would be, because most of them wouldn't know English at all. But they would definitely need their children to learn English.… But I don't see how much they would contribute regarding what should be taught.*
>
> *I don't see the students mirrored straight away because these are the recipients. It is not very easy for a Form I student to say I don't like this English, it is not good. I think they are not well-equipped to give their comments.*

This line of argument is flawed in the sense that there are many parents who are able and willing to make useful contributions if asked the right questions. Similarly, students can also be asked to share their experiences; and they do not necessarily have to be Form I students.

Another response came from Participant B from the TIE who said that he 'believed' that TIE conducts research, and that various stakeholders participate. He also argued that there would be research reports in the Institute's library, but the only report I found at the Library was based on a two-day rapid survey workshop held in Dar es Salaam and Morogoro on 17th and 18th November, 2004. There was no other report on an intensive study to prove that there had been a thorough study, not even on earlier syllabus changes. This suggests that there must have been a rush in deciding to change the syllabus.

Professional advice in the process of curriculum design holds that stakeholders' views need to be taken on board when designing a language teaching syllabus (Nation & Macalister, 2010). Indeed, different stakeholders—such as teachers, learners, parents, etc.—have different stakes in the process. Teachers, for example, are the implementers of a curriculum, so they know the contexts in terms of resources, quality of students, etc. Learners and parents also have their own expectations, experiences and needs, all of which are crucial.

Participant C, who was a senior official in the Ministry of Education and an experienced teacher educator, was of the opinion that there is inefficiency in the process of syllabus change. He argued that change in syllabi over time is imperative, but enough preparation is needed to ensure that different but related individuals—such politicians, parents, teachers, curriculum developers, etc.—are properly involved and the processes are well coordinated.

Using the IPO model, one sees very clearly that there are issues that have not been—and are not being—handled correctly in the preparation and implementation of the English language syllabus in Tanzania. From the input stage, one sees improper and/or inadequately done groundwork. Likewise, the process stage (which is the implementation stage) also involves uncoordinated actors, each going their own way like unaligned car wheels with each wheel pulling in its own direction.

4.2 The Preparation of Tanzania's English Language Teachers

The second question that this study attempted to address was the ways in which English language teachers in Tanzania are prepared. This preparedness is linked to their training in general knowledge and skills in English language teaching, and specific skills regarding the 2005 syllabus. From the documentary review, the TIE (2004: 27) acknowledges the fact that many English language teachers in Tanzania are not articulate in the language.

Additionally, interviews revealed that the tradition has been to recruit secondary school graduates whose performance in examinations is poor to train as teachers. For example, Informant A, who had been a teacher trainer for over 20 years at a non-university teacher training college, observed that student teachers who joined teacher training colleges are usually those whose performance in examinations is low. He also explained that in teacher training colleges, many of the trainers are not good enough to tutor others.

> *These student-teachers who join teacher training colleges are usually those whose performance in examinations is low. Secondly, student-teachers are also entrusted to tutors who are not adequately prepared to do the tutoring; the trainers themselves aren't good enough. I know of cases in which even fresh graduates here at the university are posted to teacher training colleges …. In my opinion a new graduate does not qualify to become a tutor in a college. It needs experience.*

Somewhat similar remarks were given by Informant B who was a senior English language curriculum developer at the TIE. He noted that there are not many good teachers to teach the English subject in Tanzania, even though there may be many English language teachers:

> *We don't have enough best teachers to teach the English subject. We don't have best teachers. We may have many teachers but not the best teachers, or rather, we have many teachers with few best teachers.*

Talking about the general attributes of a good languages teacher, Harmer (1983: 222-223) argues that such a teacher is supposed to have a knowledge of the language for the level that s/he is to teach; have the required skills, teaching aids, and techniques in teaching, and its allied activities; and also management skills. These attributes are lacking in many English language teachers in Tanzania.

Very few teachers were retrained when the 2005 syllabus was introduced. This means that many teachers lack skills in the 2005 syllabus, and so do not know what is expected of them. Teacher B from Kilimanjaro region, who has taught English for 15 years, asserts that many teachers do not have the requisite skills in the new syllabus:

> *Many teachers are not exposed to this communicative teaching approach, so they are still using the old methods of teaching. At the same time, I don't think the communicative method of teaching is implemented in colleges, especially in teacher training colleges. Some tutors are also still teaching through old methods of teaching.*

It is clear from these observations that many Tanzania's teachers of English are ill-prepared; as such one should not expect a miracle from examination results. This feeds to both the input (in the sense of skills and the quality of teachers), and classroom practices. Therefore, it is clear that poor quality inputs and processes lead to poor quality outputs as well.

There is another striking observation in regard to the examinations themselves. While the 2005 syllabus claims to focus on communicative competence, some questions in the national examinations still consistently cling to the structural tradition: structures out of context. Table 2 shows examples of such items.

Table 2: Structural Examination Items Featuring in Both 1996 and 2005 Syllabi

Year	Qst. No.	Question items
In the 1996 syllabus		
2001	7.	*Rewrite the following sentences according to instructions given after each. Change only enough to do what you are asked.* (i) You will need two days to reach Dar es Salaam by car. *Begin 'It _____'* (ii) He was revising for the 'mock' examinations until late last night. He dozed off in class this morning. *Join into one sentence without using 'and' or 'because'.*

2002	7.	*Rewrite the following sentences according to instructions given after each.* (a) Juma is bright. His sister is also bright. *Combine using ……as…….as……..* (b) The boy was sleeping *Rewrite beginning with "Her children" instead of "The boy".*
In the 2005 syllabus		
2011	7.	*Rewrite the following sentences according to instructions given after each.* (a) Mama Pekupeku was too fat to win the race. *(Rewrite using 'so_____that')* (b) Had she heard the noise, she would have opened the door. *(Begin She would have ____if_____)* (c) Although it was raining, he managed to go to school. *(Use: Despite_____)*
2012	4.	*Fill in the gaps with the appropriate articles "a, and the" where necessary.* When I was at school a few years ago, I was (i) _____ best student in my class. Whenever I was given (ii) _____ test, I scored full marks_____. When (iii) _____ best students were given an opportunity to participate in (iv) _____essay writing competition,

Besides, the syllabus emphasizes on oral communicative competence (TIE, 2005: 1) in teaching, but examinations do not test oral competence because there is no mechanism for doing so. For example, the syllabus instructs that learners should be taught to use appropriate English pronunciation and intonation in a variety of settings, but there is no means to examine this.

4.3 How Different Educational Stakeholders and Authorities in Tanzania are Coordinated

Another important issue that this study explored was the issue of coordination among different stakeholders in the curriculum development process. Indeed, there has to be unrelenting coordination between teachers who implement the syllabus, syllabus designers who design the syllabuses, and examiners who assess performance. In Tanzania the syllabus is developed by the TIE, examinations are organized by the NECTA, and teaching is done by teachers.

The main issue at stake here is how question-setters are identified and selected, as opposed to who actually do the teaching in the schools. As the NECTA has said, it is teachers who are considered capable that prepare examination questions. What is interesting in this scenario is that most teachers in Tanzanian secondary schools are not that good to teach skills that can be examined by exceptionally good teachers. The semi-structured interviews with the teachers revealed the following:

(a) Many teachers lack skills in using the 2005 syllabus because they themselves have been trained in the structural syllabi.

(b) It is difficult to implement the 2005 syllabus in the framework of the time available for teaching English. Communicative language teaching (CLT) presupposes the availability of more time in the classrooms, but this is not the case. The tradition has remained the same as used in the case of the structural syllabi.

(c) Many teachers from upcountry did not see the 2005 syllabus for years. In a training that was held in Morogoro in 2008 some teachers were surprised to learn that there was a 2005 syllabus that they should have been using since 2006.

Regarding coordination between the TIE, NECTA and schools, all senior officials who were interviewed from the TIE and NECTA admitted that there is a missing link in these organs. This is what the Coordinator of the English Section at NECTA said:

> *… there is no forum with TIE or schools. The only coordination is between NECTA and teachers who come for marking. Generally, we do not know what is happening in the schools in terms of content, language, etc. We give feedback on what teachers have seen in the examination process. So, we do not meet* (Personal interview, with English Section Coordinator on 13 June 2013)

As mentioned earlier, a questionnaire was administered to 92 Form III students from two secondary schools in Dar es Salaam. In School A, 42 students participated; while in School B the number was 50. The students were to provide their reasoning as to why performance in national English language examinations in the country is dwindling. The responses provided by students were similar in nature, and so they are grouped and discussed together in Table 3. The findings are presented according to the frequency of similar responses.

Table 3: Reasons for Poor Performance in English Language National Examinations

	Reason	No. of Responses
1.	Students are irresponsible	66
2.	In government schools students do not use English, but Kiswahili	65
3.	Some students are not motivated to learn English	38
4.	Insufficient books	36
5.	Many students lack the knowledge of English	36
6.	Poor teaching methods	36
7.	Frequent syllabus change	28
8.	Not having enough English teachers	18
9.	Some teachers use Kiswahili	12
10.	Teachers' boycotts	12
11.	English is not a national language	8
12.	Presence of many different types of textbooks	8
13.	Some students don't to listen to their teachers	8
14.	Teachers are too harsh	4
15.	Poor school administration	2
16.	Teachers do not get enough training	2
17.	Many parents cannot afford good schools for their children	2
18.	Some teachers despise students who do not do well	2
19.	Some teachers do not follow the syllabus	2

The findings in Table 3 corroborate the findings in a study by Makewa et al., (2013), carried out in Dodoma, Tanzania. For example, they found that schools in Dodoma had very few learning resources. They also found that learners' motivation was low. They also found that "… teachers fell short in motivating students to learn English" (ibid: 46).

The decision to change the syllabus in 2005 from that of 1996, which was more inclined to the formal perspective, was a way of complying with the now fashionable communicative paradigm. The communicative language teaching (CLT), as a language teaching approach, relates to the idea of 'communicative competence' advanced by Hymes (1971), who is of the view that the knowledge of language involves the knowledge of both grammar and the ability to use language appropriately in social contexts as a social and cognitive phenomenon. Other scholars such as Breen and Candlin (2001:10) have argued that communication involves formal conventions, and also "… negotiating through and about the conventions themselves."

For about three decades now CLT has become the focus of language teaching throughout the world. However, CLT has been more successful in situations where English is used as a second language because learners have real pressures to use it in the community. However, CLT does not work well in contexts where the language is used more or less like a foreign language, like Tanzania, even though it is not completely a foreign language there (Petzell, 2012: 137). For example, Karakas (2013: 5) observes that in contexts where English is used as a foreign language one encounters many problems such as the proficiency of non-native teachers, availability of required materials, crowded classrooms, and so forth; thus inhibiting the proper application of CLT. Furthermore, Nunan (2004: 7) explains that the CLT view of language as action was initially meant to address the needs of immigrants and guest workers in Europe. The main thrust of CLT is that language is meant for communication: it is not just a set of rules such as was previously considered to be the case.

Apparently, CLT has not been well-understood as it is usually loosely used by some people. Its original focus was teaching and learning functional language for utilitarian purposes: it did not worry so much about accuracy, language teaching for educational purposes, etc. In this context, English language teachers in Tanzania needed to be re-oriented to understand what is expected of them in regard to teaching methods and classroom activities specifically addressed in the 2005 syllabus.

5. Conclusions and Recommendation

This article has talked about situations that have collectively or separately contributed to poor performance in English language at the ordinary level examinations in Tanzania. The identified causes include non-inclusion of some stakeholders in the formulation of the 2005 syllabus, poor English language backgrounds of both teachers and students, and the lack of coordination among various key educational actors. Other related factors include teacher training institutions—and particularly universities—not keeping abreast of changes in syllabuses.

Besides these anomalies, there is the mistake of copying a model used in Europe and elsewhere without customizing it. As explained earlier, the CLT approach has worked well

in contexts where English is a second language, where learners use the language for communication in a community. In such settings the language learned in the classroom is put into immediate use after learning.

Finally, we recommend that there be established a coordination unit in the Ministry of Education that will oversee the functioning of the various related units in the education sector in general, and in the teaching of English in particular. This is important because all these functions are components in the curriculum process: what one functional unit does have a bearing on the functioning of the other components.

References

Breen, M. P. & C. Candlin. 2001. The Essentials of a Communicative Curriculum in Language Teaching. In D. Hall & A. Hewings (eds). *Innovation in English Language Teaching: A Reader*. London: Routledge (pp. 9–26).

Criper, C. & W. A. Dodd. 1984. *Report on the Teaching of the English Language and its Use as a Medium in Education in Tanzania*. Dar es Salaam: The British Council.

Farr, J. L., H. Sin & P. E. Tesluk. 2003. Knowledge Management Processes and Work Group Innovation. In L.V. Savinina (ed). *The International Handbook of Innovation*. Oxford: Pergamon.

Harmer, J. 1983. *The Practice of English Language Teaching*. London and New York: Longman.

Hymes, D. H. 1971. *On Communicative Competence*. Philadelphia: University of Pennsylvania Press.

Karakaş A. 2013. Is Communicative Language Teaching a Panacea in ELT? – Student and Teacher Perspectives. *Journal of Second and Multiple Language Acquisition.* 1(1): 1–20.

Makewa, L.N., E. Role & E. Tuguta. 2013. Students' Perceived Level of English Proficiency in Secondary Schools in Dodoma, Tanzania. *International Journal of Instruction,* 6(2): 35–52.

Mapunda, G. 2015. The Changing Roles of English in Tanzania: Past and Present. In M. Michieka & Elhindi, Y. (eds). *The Changing Roles of English in Eastern Africa*. Champaign, IL: Common Ground Publishing. pp 34–57 (ISBN 978-1-61229-642-5).

—. 4 February, 2016. The Medium of Instruction Debate: Why Should Tanzania be Ambivalent? Dar es Salaam: *The Daily News*.

Mbunda, F., C. J. Brumfit, D. Constable & C. P. Hill. 1980. Language Teaching in Secondary Schools. In E.C. Polome & C.P. Hill (eds). *Language in Tanzania.* Oxford: Oxford University Press.

Mwalimu, S. (8 January), 2016. *Ndalichako Tasks NECTA Over System*. Dar es Salaam: *The Citizen Newspaper*.

Nation, I. S. P. & J. Macalister. 2010. *Language Curriculum Design*. New York: Taylor & Francis.

National Examination Council of Tanzania (NECTA). 2011. *Examination Results Statistics 2006–2010*. Dar es Salaam: National Examinations Council of Tanzania.

—. 2016. *Examination Results Statistics 2011–2015*. Dar es Salaam: National Examinations Council of Tanzania.

—. 2013. *Examiners' Report on the Performance of Candidates CSEE, 2013: 022 English Language.* Dar es Salaam: National Examinations Council of Tanzania.

Nekke, S. M. 2005. The Medium of Instruction in Tanzania: Reflections on Language, Education and Society. *Changing English,* (12(1): 73–83. DOI: 10.1080/1358684052000340470

Nunan, D. 1988. *Syllabus Design.* Oxford: Oxford University Press.

—. 2004. *Task-Based Language Teaching*. Cambridge: Cambridge University Press.

Petzell, M. 2012. The Linguistic Situation in Tanzania. *Moderna Språk* 1: 136–144.

Richards, J. C. 2013. Curriculum Approaches in Language Teaching: Forward, Central, and Backward Design. *RELC Journal*. 44(2): 5–33. DOI: 10.1177/0033688212473293

Roy-Campbel L, Z. M. & M. A. S. Qorro. 1997. *Language Crisis in Tanzania: The Myth of English versus Education*. Dar es Salaam: Mkuki na Nyota.

Sahney, S., S. Banwet & S. Karunes. 2004. Conceptualizing Total Quality Management in Higher Education. *The TQM Magazine,* 16(2):145–159.

Steiner I.D. 1972. *Group Process and Productivity*. New York: Academic Press.

Tanzania Institute of Education (TIE). 2004. *Report on Rapid Survey for Reviewing Secondary Education Curriculum in Tanzania Mainland.* Dar es Salaam: Ministry of Education and Culture.

Widdowson, H. G. 1984. Educational and Pedagogic Factors in Syllabus Design in *General English Syllabus Design, ELT Documents 118: 23-28*. Oxford: Pergamon Press in association with the British Council.

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The Writer and Africa's Post-Colonial Crisis: Ideology, Language and Representation in Ngũgĩ wa Thiong'o's *A Grain of Wheat*

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Abstract

This article attempts a re-reading of Ngũgĩ wa Thiong'o's *A Grain of Wheat* within the broader context of Africa's cultural history. Faced with the reality of the failure of the post-colonial state to deliver on the promises of independence, the author is confronted with a dilemma: how does he transcend the disillusion and sense of despair engendered by this failure? To answer this question, I read the novel through the prism of post-colonial theory to illustrate how Ngũgĩ's attempts to mediate Africa's post-colonial crisis precipitates a review of his ideological stances leading to a jettisoning of the liberal humanist aesthetic that had characterised his earlier novels, *The River Between* and *Weep Not, Child*. *A Grain of Wheat*, I illustrate, marks a shift in the author's ideological stance by embracing a socialist-Marxist outlook. But while the shifts in Ngũgĩ's authorial ideology have been widely acknowledged, critics have not always appreciated how they impacted on Ngũgĩ's representational aesthetic. This article, therefore, sets out to demonstrate how the author's disavowal of Western modernity leads to a more deliberate mobilisation of oral storytelling strategies and oral memories to write an alternative history that contests colonialist historiography of Kenya's post-colonial experience. Ngũgĩ, I show, deliberately subverts the English language through the use of numerous instances of untranslated Gĩkũyũ and Kiswahili terms. The supposedly English aesthetic of *A Grain of Wheat* is further undermined by its subordination to the egalitarian nuances of a speech in a gesture that presages the author's later abandonment of the English language as a medium of his literary expression.

Keywords: *African literature, Ngũgĩ, language, ideology, post-colonial, Christianity*

1. Introduction

A Grain of Wheat—alongside *The River Between* and *Weep Not, Child*—completes the cycle of Ngũgĩ's novels covering the period up to the moment of Kenya's independence. The novel signals a shift from themes of colonialism and tentatively hints at the likely betrayal of the nationalist ideals that the people had suffered for in the struggle for freedom. The novel warns of the possible transposition of the colonial public sphere into the domain of post-independent Kenya. Set in the last four days as Kenya prepared to usher in independence in 1963, the novel exploits dramatic irony to draw attention to the gap between the people's heightened expectations and the stark reality of the betrayal of the ideals of the nationalist struggle. At the centre of the story is the mystery of the betrayal of the freedom fighter, Kihika. The plot turns on the search for the 'traitor' who could have handed in Kihika to the

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colonial authorities. The obvious suspect is Karanja who had been a collaborator with the British. But as the story unfolds, Mũgo, who everybody had mistakenly lionised as a hero of the resistance, publicly confesses to have been the betrayer.

A Grain of Wheat, a complex work of art, significantly departs from the simple linear sequence of the traditional *Bildungsroman* Ngũgĩ mimics in the *The River Between* and *Weep Not, Child*. The novel combines a four-day time span in the present with flashbacks covering years of Kenya's history to examine the past, the present and show the symbiosis of both with the neo-colonial future it anticipates. The use of a montage of traditional, historical, Christian, Fanonist and Marxist tropes, coupled with the portrayal of characters of complex moral subjectivities in *A Grain of Wheat* shows how fast Ngũgĩ had grown in both aesthetic and ideological terms since the publication of his first two novels.

Written at Leeds University where Ngũgĩ first encountered radical scholars as a postgraduate student and discussed Marxist ideas with some of his teachers such as Arnold Kettle, Ngũgĩ's authorial ideology in *A Grain of Wheat* was also influenced by his reading of Frantz Fanon's *The Wretched of the Earth,* a diagnostic and prophetic study of the transition from colonialism to neo-colonialism in Africa. Fanon's influence on the aesthetic of the novel is evident in that Ngũgĩ tends to assert the agency of national culture and history in the critical effort to stem 'the pitfalls of national consciousness' (Fanon, 1968: 119–164). Following Fanon's apprehension of decolonisation as a failed project, "… the novel is structured by an acute opposition between the expectations raised by nationalism and the realities of compromised decolonisation" (Gikandi, 2000: 98–99). By focusing the author's interrogation of the African experience around the failure of the post-colonial state to initiate a decisive break with the colonial past, *A Grain of Wheat* marks the beginnings of a more radically nuanced aesthetic in Ngũgĩ's writing. It is, therefore, significant as the first work in Ngũgĩ's oeuvre that deliberately seeks to delegitimise the post-colonial nation-state and to imagine a counter-nation.

This article examines *A Grain of Wheat* as a work that occupies an important transitory moment in Ngũgĩ's ideological development. This, I demonstrate, was as a result of the author's reading of the African condition in the immediate post-colonial period, and his thinking about the role of the intellectual in the face of the African post-colonial crisis. Ngũgĩ reacted to this crisis by calling on African writers to stand in the gap and speak up for the marginalised, but this precipitated an aesthetic crisis on his part with regard to his use of the English language culminating in his decision to abandon the language in favour of Gĩkũyũ, his mother tongue. Consequently, I argue that despite the fact that *A Grain of Wheat* 'speaks' in a 'foreign' language—English—the novel exhibits certain aesthetic manoeuvres that presage Ngũgĩ's eventual self-release not just from the English language but also from the European modernist poetic.

2. Interrogating the Post-Colonial Culture: The Writer as a Public Intellectual

In writing *A Grain of Wheat* Ngũgĩ was influenced by the political developments that were taking place in the Kenya after independence, specifically the failure of independence to deliver on the promises of the nationalist movement. The scenario was characterised by fear,

frustration and disillusionment. This failure was largely because the departing colonisers retained political control despite handing over authority to the emergent African political elite at independence. Ngũgĩ's bitterness at the continued domination of Kenya's public culture by colonial ethos was palpable in the 1960s (Gikandi, 2000: 65). He complained about the betrayal of the peasantry by the post-independence ruling elite whom he accused of failing to change the colonial socio-economic structure (Ngũgĩ, 1972: 49). As such, *A Grain of Wheat* marks a key moment in Ngũgĩ's ideological development in that it launches his critique of the Kenyan post-independence public culture. As Simatei observes, the desire by the nationalist leaders to construct a unified nation after independence led to the fabrication of "… an official history to rationalise and sanctify the nation" (Simatei, 2001: 55). This resulted in the suppression of alternative histories and other possibilities of identity formation. The consequence was the disavowal of the past history of anti-colonial resistance, which was now branded a minority history.

A Grain of Wheat is framed by two epigraphic paratexts: one, from Corinthians about a grain that must wilt and die in order to yield new life which, however, "may chance of wheat, or some other grain" (I Corinthians 15: 36); and two, the authorial note about the peasants who fought for independence but now see all they fought for put to one side, which echoes Fanon's critique of decolonisation as a failed project. These epigraphs succinctly capture the theme of the novel which revolves around issues of sacrifice, betrayal and hope. Ngũgĩ attempts to forge a political grammar for his critique of Kenya's public culture from a meld of Biblical and Fanonist-Marxist tropes. Both paratexts draw attention to the post-colonial state as an edifice collapsing in the 'process of regression' (Fanon, 1968: 149). Ngũgĩ's progressive authorial ideology came in handy in freeing his creative praxis from the paralysis of vision that characterised many African novels of the immediate post-independent period. Emerging as a radical critic of African intellectualism, he sought to restore its 'connection' beyond the 'lost' moment of political independence "… to the ongoing project of anti-imperialist struggle" (Lazarus, 1995: 12). Ngũgĩ charged that the African writer was in danger of "… becoming too fascinated by the yesterday of his people and forgetting the present" (Ngũgĩ, 1972: 44). The present reality as depicted in *A Grain of Wheat* is that the 'revolution' that the writer had celebrated at independence had been betrayed: the old communal and egalitarian society had been displaced by a new permissive social formation rooted in the "… colonial pattern of social and economic development" and characterised by rabid class conflicts between the emergent elite class and the masses (Ngũgĩ, 1972: 44–45).

Ideologically, Ngũgĩ's achievement was his understanding of post-coloniality not as a fixed moment in history but as a continual emergence. It was in this context that he came into his own as a thinker, social critic, and an important voice in the public sphere not only in Kenya but also across Africa and the post-colonial world where important issues relating to nationalism, politics, identity and the role of the post-colonial intellectual were being debated and contested. In a 1966 essay, for instance, Ngũgĩ charged that despite the breadth of Soyinka's social canvas in *The Interpreters*, the author's vision was marred by an abstraction that Ngũgĩ attributed to the class-gap between Soyinka and the 'ordinary people'. Soyinka, Ngũgĩ argues,

> … fails to see the present in the historical perspective of conflict and struggle. It is not enough for the African artist, standing aloof, to view society and highlight its weaknesses. He must try to go beyond this, to seek out the sources, the causes and the trends of a revolutionary struggle … which suffering temporary reaction, is continuous and is changing the face of the twentieth century (Ngũgĩ, 1972: 65–66).

This criticism could equally apply to African post-colonial writing in the period, but what is significant is Ngũgĩ's identification of 'class' as an important factor in the interpretation of literature and Africa's post-colonial history. Soyinka hypostatised the artist as the "… record of the mores and experience of his society and as the voice of vision of his own time" (Soyinka, 1968: 21). While Ngũgĩ's criticism of this glorified conception of the artist as a special being might look like an attempt to impose his own aesthetic and ideology on a fellow writer, what he was simply saying was that the African writer should not merely speak on behalf of the people but more concretely, "… in the terms of the people" (Ngũgĩ, 1969: 25). His intervention was significant in that it sought to define a public for African literature: the poor and oppressed whose dreams for liberation had been betrayed. Ngũgĩ's call to the writer to join the revolutionary struggle of the masses was of 'epochal significance' in the development of a 'radical aesthetic' in African literature (Lazarus, 1995: 19). He strongly felt that the writer needed to align with the people to challenge the failure by African leaders to shake off "… the shackles of neo-colonialism" (Ngara, 1985: 34–35). Only then could the writer and other African intellectuals be able to,

> …. align themselves with the struggle of the African masses for a meaningful national ideal. For we must strive for a form of social organization that will free the mangled spirit and energy of our people so we can build a new country, and sing a new song. Perhaps in a small way, the African writer can help in articulating the feelings behind this struggle (Ngũgĩ, 1972: 50).

Ahead of his fellow writers such as Chinua Achebe, Ayi Kwei Armah and Wole Soyinka who clearly gave in to a sense of disillusionment in their novels of the 1960s, Ngũgĩ clearly perceived 'the crisis of consciousness' that afflicted African thought and sought ideological inspiration from unfolding liberation struggles not only in Lusophone Africa but also from further afield—in such places as South East Asia, Latin America and the Caribbean (Lazarus, 1995: 20). What he learnt from these struggles was that the African writer had to repudiate his middle-class liberalism and position himself within the people and act in their interests. To do this, the writer had to "… find a true and permanent regenerative link with the people" (Ngũgĩ, 1981a: 160). In a situation where literature had thematised elitist concerns, Ngũgĩ realised that it was critical to deflect attention onto a different category of social actor: the subaltern classes.

3. Politics and Representation: Ideology and Aesthetic Practice in *A Grain of Wheat*

A Grain of Wheat represents Ngũgĩ's tentative attempts to translate his nascent political consciousness into fiction. He attempts to forge an aesthetic more in line with the dictum by Arnold Kettle, his teacher at Leeds, who imprinted on his students' consciousness the idea that as intellectuals, their role was not just to understand the world but to change it (Sicherman, 1995: 6). Ngũgĩ's Marxist inclinations have been attributed to his experience at Leeds University. But in reality, his tendency towards Marxism was home-grown (Mugo, 1978: 21). His education in *Karĩmg'a* (independent) schools and experience of growing up

in the shadow of the Mau Mau struggle in late colonial Kenya further enhanced his nationalist ethos. Indeed, Ngũgĩ tellingly attributes the tendencies towards a subaltern-oriented authorial and aesthetic ideological stance to his own rural, peasant roots: "I come from a village, and so can look at things differently. I look at things from below" (Sander & Lindfors, 2006: 54). In this regard, his ideological exposure at Leeds only helped to systemise ideas that were already intrinsic to his consciousness owing to his background—ideas that were further consolidated by his 'commonsense appraisal' of the situation in Kenya at independence (Ikiddeh, 1972: xiii). These influences helped him transcend the aesthetics of liberal-humanism inculcated by colonial education and re-invent himself as an organic intellectual who derives both creative energy and inspiration from the lived experience of a day-to-day life. This transition had a salutary effect on his representational aesthetics.

In *A Grain of Wheat*, Ngũgĩ's shift towards a Marxist ideology necessitated a review of his aesthetic practices. In the novel, the author's sensitivity to the dynamics of Kenya's history is mediated through the experiences of peasants grappling with the meaning of what they have gone through as Kenya prepares to celebrate her freedom. Ngũgĩ opens up before the reader the inner world of individuals to convey how ordinary people would conduct themselves in the trying circumstances of the Mau Mau struggle. Two discourses—the colonial and the local—prefigure two contesting aesthetic approaches in the novel. One draws from the modernist poetic, its literary codes and Englishness; while the second, focusing on subaltern subjectivities, derives its aesthetic inspiration from indigenous tropes and worldview. The latter represents an aesthetic shift in Ngũgĩ's quest for a public. Events are narrated from the perspective of Runge'i villagers who are haunted by the ghosts of the colonial past, and the failure of the decolonisation as they ponder on the meaning of their experiences on the eve of Uhuru celebrations.

The communal nature of a close-knit traditional society is reflected in the narrator's possessive voice captured in the use of the collective pronoun 'our'. The author appropriates writing as a discursive tool for the preservation of orality by subordinating writing to speech. We see this in a passage that describes the Uhuru celebrations:

> In our village and despite the drizzling rain, men and women and children, it seemed, had emptied themselves into the streets where they sang and danced in the mud. Because it was dark, they put oil-lamps at the doorsteps to light the streets. As usual, on such occasions, some young men walked in gangs, carrying torches, lurked and whispered in dark corners and the fringes, really looking for love-mates among the crowd. Mothers warned their daughters to take care not to be raped in the dark. The girls danced in the middle, thrusting out their buttocks provokingly, knowing that the men in the corners watched them. Everybody waited for something to happen. This "waiting" and the uncertainty that went with it—like a woman torn between fear and joy during birth-motions—was a taut cord beneath the screams and the shouts and the laughter (*AGW*, 193).

Although the passage conveys the excitement that follows the attainment of independence, Ngũgĩ also captures another mood when he talks about everybody waiting for 'something to happen'—the mood of anticipation. The possibility of renewal in the new post-colonial future is submerged by the villagers' individual and collective fears and

uncertainties about both the past and the imminent future. However, as the above passage illustrates, the rhetoric of failure also conceals "… a powerful story of national *retour* and restoration" (Gikandi, 2000: 101). This celebratory nationalistic subtext captures the transformation of Ngũgĩ's apprehension of Africa's post-colonial realities. The Ngũgĩ who would shun 'political' content, for instance in *The River Between,* is gone, underscoring a significant shift in his aesthetic praxis. Indeed, as Lazarus contends, it is important that critics appreciate the 'huge significance' the moment of decolonisation and independence carried for African intellectuals because without doing that "… it is almost impossible for us to understand the subsequent trajectory of African literature" (Lazarus, 1986: 51). *A Grain of Wheat* was a forerunner in setting the tone for a more politically engaged literature in the following decades.

The novel traces the experiences of four major characters, Mũgo, Gikonyo, Karanja, and Mumbi in the independence struggle, and their relationship to Kihika, the hero of the Mau Mau liberation struggle hanged by the colonial authorities. The anti-colonial struggle is revealed through the inner turmoil it creates in these characters. The political theme is balanced by the dramatization of personal relationships that centre on the betrayal of people and ideals. The novel ends with the forecast that in the post-independent period, a Kenyan will be pitted against a Kenyan in a bitter class struggle for political and economic supremacy. Ngũgĩ portrays the movement towards independence as one in which history returns to haunt those who made it. As the Runge'i villagers gather to celebrate independence, which is supposed to engender a radical shift from the colonial past, the day instead becomes one of judgement in which people's previous actions are measured against their present claims. Against this sense of vacillation, another more resolute narrative of decolonisation unfolds around Kihika, the prophetic and visionary Mau Mau fighter.

Storytelling plays a crucial aesthetic and ideological role. Apart from undermining the primacy of Englishness by linking *A Grain of Wheat* to the oral tradition, it is one of the means by which the nationalist theme is asserted. Kihika, for instance, distils his historic mission from Warui's nationalistic storytelling. Warui narrates about historical heroes like Waiyaki wa Hinga who had been martyred in the struggle against colonialism. He tells about the Harry Thuku disturbances and the massacre of Africans protesting his arrest by the colonial authorities in 1923; and celebrates these historical figures as heroes of the nationalist struggle. He also recounts the great controversy between the Gĩkũyũ and the missionaries over female circumcision in the 1930s. Although this controversy which forms the central conflict in *The River Between* was the focal point of the resistance to colonialism, its portrayal in that novel is truncated. We do not get the full sense of its significance as a political and cultural expression of Gĩkũyũ nationalism in the 1930s. This lapse is redressed in *A Grain of Wheat* where Ngũgĩ shows that an important aspect of this controversy was the creation of a poetry of resistance—the Mũthĩrĩgũ dance—that Warui mentions in his stories. The narrator's appropriation of the codes of orature and storytelling, and the evocation of the communal voice are key narrative strategies the author uses to inscribe the novel with the ethos of African communitarian and cultural receptivity (*AGW*, 12, 72–73, 213).

In *A Grain of Wheat* storytelling serves as a strategy of "… re-membering what has been dis-membered … a way of creating spaces through which alternative voices long suppressed through the colonial experience may find expression" (Njogu, 1995: 335). Through the retelling of oral stories, the author celebrates the heroic history of resistance against foreign domination and celebrates the agency of the ordinary people. The fact that the colonial authorities seem to triumph over the historical heroes celebrated in these stories—Waiyaki, Harry Thuku—would seem to indicate the failure of this alternative narrative of nationalist restoration. What changes the meaning and significance of these stories is the fact that they are recalled retrospectively—in the very historic moment when we witness the birth of a liberator. The liberator, Kihika, significantly begins to envision himself as a redeemer of his people after listening to Warui's stories and those of demobilised African soldiers with the British against Hitler:

> Unknown to those around him, Kihika's heart hardened towards "these people," long before he had even encountered a white face. Soldiers came back from the war and told stories of what they had seen in Burma, Egypt, Palestine and India: wasn't Mahtma Gadhi, the saint, leading the Indian people against British rule? Kihika fed on these stories: his imagination and daily observation told him the rest; from early on, he had visions of himself, a saint, leading Kenyan people to freedom and power (*AGW*, 80).

In this novel that established "Ngũgĩ's reputation as a major writer" (Gikandi, 2000: 98), Ngũgĩ pulls together two important hallmarks of Kenyan history: the Mau Mau liberation war, and the long-awaited independence. The author develops a narrative structure that allows him to move easily between various historical periods: past and present. Apart from the complex narrative structure, the novel is an aesthetic mosaic of narrative passages, stories and anecdotes, as well as dialogues and historical recollections. The complex style is an evidence of Ngũgĩ's confidence as a novelist, and of his growing mastery of the craft of fiction and the form of the modernist novel. The circuitous plot also reflects Ngũgĩ's conception of history. Time present, he believes following T.S. Eliot, is rooted in time past. More significantly, this view of time and history derives from the African (Gĩkũyũ) two-dimensional ontological worldview in which history was simultaneously linear and cyclical (Lonsdale, 1995: 265). For the author, talking about the past is a way of talking about the present moment of decolonisation, and of the future: "… a struggle to sensitively register" his people's encounter with history (Ngũgĩ, 1972: 39–46). Thus, the aim of Ngũgĩ's narrative strategy in *A Grain of Wheat* is to make the present and the past coincident.

4. The Re-appropriation of 'Colonialist' Texts: The Messiah as a Freedom Fighter

Following the failure of the messianic-saviour model in *The River Between* and *Weep Not, Child*, the messianic motif in *A Grain of Wheat* is more historicised. In view of the significance Ngũgĩ attaches to the Mau Mau as a model for radical change, history plays a crucial role in the reconfiguration of the messianic figure. As a Mau Mau combatant and a messianic figure, Kihika is constructed from a montage of indigenous and post-colonial heroes like Gandhi and, as in the earlier novels, from the Biblical notion of the messiah. Unlike the youthful heroes of Ngũgĩ's previous novels, the new messiah is politically highly conscious. For Kihika, 'salvation' is not somewhere in a hazy future but is implicated in the present moment of struggle against colonialism. Consequently, the sacral myths of the past, like that the myth of origin, and even Mũgo's prophecy, are recouped in ways that instil agency in the struggle for freedom.

An interesting aspect of Ngũgĩ's style is the way in which Christianity and its idiom are recast through the codes of local culture to subvert both Western culture and historiography (Goro, 2011: 67–85). Although Nazareth, for instance, sees 'a central irony' in Kihika, the Mau Mau leader, receiving his 'inspiration from the Bible' (Nazareth, 1972: 144), the fact is that Mau Mau partisans never saw their involvement in the struggle as contradicting the basic tenets of Christianity. Whereas colonialist ethno-psychiatry cast Mau Mau as a barbaric and atavistic movement, the Mau Mau frequently appropriated Christianity—its sacral texts and idiom—to frame a counter-discourse of the resistance struggle as divinely sanctioned. In their re-interpretation of the Bible, they imagined themselves as actors in the Biblical narrative of the Israelites suffering under Pharaoh in Egypt. This appropriation of Biblical narratives enabled them to imagine their eventual redemption in 'Canaan', a Promised Land free of colonial oppression. Like the Mau Mau partisans before him, however, Ngũgĩ is also aware that Christianity has been deeply implicated in propagating ideologies that sanctified the hierarchical dichotomies of slave and master, native and coloniser, pagan and Christian. He is highly conscious of the multiple ways in which the Bible and Christianity were used to entrench colonialism. His use of Biblical and Christian discourses is therefore geared towards the subversion of the imperial ideology beneath Christianity and the Bible.

Ngũgĩ's subversion of the Christian discourse is a form of abrogation in which colonising texts are integrated into the local popular culture, mythology and history; and thus dispossessed of their authority. This is reflected in the way Kihika appropriates Christian idioms and allegories to articulate a vision of a secular political liberation. We are told, for example, that Kihika was highly "… moved by the story of Moses and the children of Israel" which he read over and over again (*AGW*: 75). Kihika eventually translates his admiration for Moses into political action by joining the freedom fighters. Significantly, Ngũgĩ's artistic interweaving of Biblical allegories, motifs and imagery is not restricted to hermeneutical traditions. Biblically, the paratext from Corinthians used as the frontpiece of the novel provides the context of reference. It refers to Christ's prediction of the necessity of his forthcoming passion, death, and resurrection; but "… it also involves a challenge to all who desire to follow Him – even unto death" (Anonby, 2006: 72). For Ngũgĩ, this conveys a political vision whose origins go back to the 19th century patriot Waiyaki. In a language that echoes the Biblical verse, we are told that Waiyaki's "… blood contained within it a seed, a grain, which gave birth to a political party whose main strength thereafter sprang from a bond with the soil" (*AGW*, 13). In the novel, the application of the harvest imagery is social and political: it is only through personal sacrifice and a willingness to lay down one's life if need be, that a new Kenya can be born. According to Anonby, Ngũgĩ's account of Waiyaki is "… placed near the beginning of the novel as a stratagem of arousing the sympathy of the biblically informed reader" (Anonby, 2006: 73). But the account is placed in a chapter which, significantly, utilises Gĩkũyũ mythology and storytelling to re-write Kenya's historiography (*AGW*, 11–17).

The novel participates in the making of popular history in a colonial context. Memories of Mũgo wa Kĩbiro the prophet, Waiyaki, and Harry Thuku invoked in the novel become a medium through which people imagine a world in which they exercised moral agency.

The deeds and words of these predecessors taught the people how to face the future. As his story became important as an inspiration of the anti-colonial resistance, Waiyaki was mythologised as having resisted British foul play with force. Hence, the narrator claims that Waiyaki and other warrior-leaders took up arms against the colonial alienation of land. By implicitly suggesting that Kihika's present struggles are a continuation of the struggles of partisans like the historical Waiyaki against foreign subjugation, *A Grain of Wheat* not only legitimises Kihika's campaign against the colonial regime, but also asserts African agency in the making of their world. This representation reflects Ngũgĩ's conviction that "… violence in order to change an intolerable, unjust social order is not savagery... it purifies man" (Ngũgĩ, 1972: 29).

Memory, rather than written records that would only reinforce colonialist historiography and representations of the anti-colonial struggle, is a potent force in the making of a counter-discourse of resistance. This discourse is propagated through the oral tradition—storytelling—an important device for a decolonising narrative. Although they are merely remembered, Mũgo the prophet, Waiyaki wa Hing'a and Harry Thuku are not 'peripheral characters' in *A Grain of Wheat* (Anonby, 2006: 74). They dominate the memories of the people and play a crucial role in inspiring present action. The novel amalgamates Moses-Christ narratives to draw Kihika's composite persona. The narrative of his betrayal by the Judas-like Mũgo, leading to his hanging by the colonial authorities, mimics the life of Christ. His hanging is described in Biblical language as a 'crucifixion' (*AGW*, 26). This representation reifies Ngũgĩ's contention that "… if Christ had lived in Kenya in 1952 … he would have been crucified as a Mau Mau terrorist or a Communist" (1972: 34). As a Mau Mau leader, Kihika is cast in the role of Moses leading his people from the Egypt of colonial oppression to the Promised Land of ultimate freedom. Scriptural passages underlined in red or black in Kihika's Bible frame this Exodus narrative. Inspired by the messianic scripture, some reveal his vision of the new Kenya he envisions (*AGW,* 22). Kihika's vision of an equitable and just society is transmitted to others so that on the eve of Uhuru, its influence "… stretched from one horizon touching the seas to the other resting on the great Lake" (*AGW*, 11). Named for Queen Victoria by the British explorer John Hanning Speke, Ngũgĩ avoids mentioning the Lake by its European-given name as part of his continuing contestation of colonial historiography and the colonial representation of the African sphere.

Other Biblical passages underlined in red in Kihika's Bible serve as epigraphs to some of the chapters in the novel—Chapter Four (*AGW,* 33–46), and Chapter Nine (*AGW,* 125–146). In both cases, the epigraphs relating to the misery of the oppressed are interpreted by Kihika in such a way as to justify the violent means of redress. This explains why they are underlined in red, a colour that connotes bloodshed. As Peterson has shown, Gĩkũyũ nationalists and Biblical interpreters translated the Bible to suit their own purpose—the political argumentation with colonialism (2004). In the same vein, Ngũgĩ uses colonialism as the context against which Christian discourse and Biblical narrative are appropriated, reconfigured and re-interpreted. The interest is not on what the missionaries say but on the ways in which African interpreters make sense of Christianity in their own context. Ngũgĩ is simply making aesthetic use of a hermeneutical tradition that is characterised by

a 'proactive' use of the African context as 'resource for biblical interpretation'. This tradition is dominated by "… inculturation-evaluative method and liberation hermeneutics" (Upkong, 2000: 12–19). African culture, history and religion are crucial in shaping the interpreter's perspective.

Thus reconfigured, Christianity provides the vocabulary of Kihika's attempts to mobilise and inspire people to higher resolve in the struggle against colonialism. Ngũgĩ's radical interpretation and reconfiguration of the Bible is informed by the author's close observation of the scene in the late colonial Kenya. It is filtered through the prism of Fanon's politics of decolonisation in *The Wretched of the Earth*, where decolonisation is seen as inevitably a violent phenomenon. Interestingly, decolonisation in Ngũgĩ's novel is not apprehended in the vocabulary of Fanon's secular analysis, but in the Christian idiom of sacrifice and salvation. Kihika, the Mau Mau and Christian hero of the novel, explains:

> But few shall die that many shall live. That's what crucifixion means today. Else we deserve to be slaves, cursed to carry water and hew wood for the white man forever and ever. Choose between freedom and slavery and it is fitting that a man should grab at freedom and die for it (*AGW*, 167).

In his re-interpretation of Christianity and the Biblical text, Ngũgĩ espouses a freedom 'fighter-Christology' (Karega, 1988: 310); an image of a Christ who takes sides with the oppressed. Hence, even though Kihika understands he might die in the struggle for freedom, as indeed happens, his death cannot be in vain as it heralds change for the oppressed. According to Karega, this reconfiguration of Christ is contestable because it justifies violence, while Christ's message was based on love:

> Faced with two options, of violence and peaceful resistance, Christ opted for the latter and died on the cross. Christ also stipulated clearly that his kingdom is not of this world … His revolution … was based on the 'not yet', the eschatological future of the Kingdom rather than the worldly Kingdom (Karega, 1988: 311).

This might well be so, but the point Ngũgĩ is making is that interpretations like Karega's are just one way of relating with the discourse of Christianity, and for him, not the most relevant. As a Marxist writing in a neo-colonial context where the forces of oppression cynically use the Bible and Christianity to exploit the poor, Ngũgĩ insists that Biblical interpretation must give agency to the oppressed in their struggles for justice. Indeed, *A Grain of Wheat* consciously participates in the debates about Biblical interpretation and the role of Christianity in a situation of oppression. Ngũgĩ's appropriation of Christianity is inseparable from his anxiety to give voice to the discourse of the subaltern that has been silenced or marginalised in the colonial and neo-colonial public sphere. His concern is to see political and social freedom emerge out of the sacrifices and blood of patriots who give their lives so that they can help make a new earth.

The two scriptures underlined in black in Kihika's Bible that Ngũgĩ uses as the epigraphic preface to Chapter Fourteen illustrate how Ngũgĩ reconfigures and interprets Biblical texts to mediate his secular political vision (*AGW*, 191). The first verse from John 12:24 reiterates and emphasises the necessity of sacrifice. The Book of Revelation is "… a model

of political and epistemological change" (Peterson, 2004: 80) which Ngũgĩ turns to again in *Petals of Blood* for inspiration. From the verse selected for *A Grain of Wheat*— "And I saw a new heaven and a new earth: for the first heaven and the first earth, were passed away" (Revelation 21:1)—it is apparent that for Ngũgĩ, 'the first world' is the stratified and oppressive colonial world. However, the ultimate sacrifice by freedom fighters like Kihika has opened up possibilities for 'a new heaven and a new earth'. The 'first heaven' symbolises the traditional Christian hope of eternal life in an idealised 'celestial state': a heaven which Ngũgĩ rejects even in *The River Between*. What we see is the re-making of Christian allegories and idioms to refer to concrete secular realities.

A Grain of Wheat contrasts this kind of revolutionary Christianity with the other-worldly Christianity practised by Rev. Jackson Kigondu—his Gĩkũyũ name means 'big sheep'—alluding to his foolish take on Christianity. At first, he is a pragmatic Christian who espouses a 'theology' that melds Christianity and Gĩkũyũ traditional religion. In his effort to convert Mbugua, an elder, he argues that, "Ngai the Gĩkũyũ God, is the same One God who sent Christ, the son, to come and lead the way from darkness to light" (*AGW*, 80). Although his willingness to meld Christianity to Gĩkũyũ tradition fails to convert the elder, it at least ensures him a tolerant hearing. Indeed, the elders of Runge'i accept him as one of their own; co-opting him into the Kĩama, the council of elders that arbitrates in village conflicts. The elders even appropriate the Bible in their conflict-resolution meetings; and would often ask Rev. Jackson 'to read the word from his book' and tell them what he thinks about the issue under arbitration (*AGW*, 81).

But then, just before the declaration of the state of emergency, a 'revivalist movement' sweeps across the country. It is a movement of those who have seen the 'light'—those who, by publicly confessing their sins became the 'the saved ones' (*AGW*, 81). Jackson becomes one of the converts to this movement. His conversion, focalised through a critical narrator, is an account of a drastic transformation of the erstwhile accommodating priest. He confesses to having been a vain Christian who kept the company of drunkards and adulterers; and who "… used to minister to the devil: by eating, drinking and laughing with sinners; by being too soft with the village elders and those who had rejected Christ … He was now a Christian soldier, marching as to war, politics was dirty, worldly wealth was a sin." Ultimately, Jackson declares heaven his home: "… here on earth I am a pilgrim" (*AGW*, 81). Jackson's other-worldly Christianity stands in contradiction to Ngũgĩ's reconfiguration of the Christian discourse in *A Grain of Wheat* into a liberation theology, whose objective is to establish a "… a terrestrial paradise, a heaven on earth" (Anonby, 2006: 89). But the Bible is just one of the 'colonial' texts that Ngũgĩ mines for codes of representation of local history and culture.

A Grain of Wheat—alongside *The River Between* and *Weep Not, Child*—has been associated with the aesthetics of the English modernist novel. In the case of *A Grain of Wheat*, critics often cite Joseph Conrad as the writer with whom Ngũgĩ has a lot of affinity. In *A Grain of Wheat* Ngũgĩ translates Conrad's *Nostromo* and *Under Western Eyes,* two iconic texts of English literature, into a political tale of Kenya by contextualising Conrad's moral aesthetic within the struggle against colonialism. Indeed, Ngũgĩ's novel has several notional areas of thematic action that show Conrad's influence: the trust-betrayal theme, the love-jealousy

theme that makes up the complex of relations between Gikonyo and Mumbi, including Mumbi's seduction by Karanja during Gikonyo's detention; and finally, the all-encompassing theme of political revolt. The last two themes are founded on betrayal and bring their dramatis personae into intimate interactions throughout the novel.

However, although the fictional treatment of the theme of betrayal—in which the nationalists gradually discover that Mũgo is not the hero they imagine him to be—invites comparison with Conrad, I think that in many respects *A Grain of Wheat* derives more from the general historical experience of the late colonial Kenya. Mũgo is a portrait of how the socio-economic realities of colonial deprivation impacted on the psychology of the individual. Indeed, the author takes great pains to draw the psychological and circumstantial details that explain Mũgo's misanthropy. These include his deprived childhood that leads him to develop a rigid individualistic ethic in which collaboration with others is presumed weak and unsure. However, society and its problems are so much the arena in which he lives that he cannot conceivably shut it out. The struggle against colonialism—a communal civic duty—prompts Kihika to break into Mũgo's lone citadel. Enraged by this intrusion into his private world, Mũgo hands Kihika over to the colonial authorities in what he perceives as self-defence. It is interesting that in justifying his act of betrayal, Mũgo resorts to the traditional gnosis which, while amplifying his loneliness, also reflects his alienation from the meaningful human ties embedded in the Gĩkũyũ kinship relationships:

> Kihika who had a mother and a father, and a brother, and a sister, could play with death. He had people who would mourn his end, who would name their children after him, so that Kihika's name would never die from men's lips. Kihika had everything: Mũgo had nothing (*AGW*, 221).

The language of kinship ties and Gĩkũyũ's worldview, in which the living and the dead are perpetually reincarnated in their descendants. undermine the supposed English aesthetics of the novel. In this respect, *A Grain of Wheat* can be read as a colonial mimic that critiques even as it seems to imitate Conrad's novels. As defined by Bhabha, mimicry is "… a reformed recognizable Other … a subject of difference that is almost but not quite like" what it purports to imitate (1994: 86). Indeed, there are several areas in which Ngũgĩ's novel significantly deviates from the modernist aesthetic modelled by Joseph Conrad. In his fantasies, the call to leadership is one Mũgo expects to answer in the future, not the present. His self-casting as the Biblical Moses alludes to the Exodus story of how Moses led the children of Israel from Egypt, and their subsequent development as a nation. Through this return to familiar Biblical allegory, the author deconstructs the Conradian narrative and re-writes it as a shrewd critique of colonialism, which is equated to slavery; while the reference to God sanctifies the people's struggle for liberation. The struggle is a worthwhile cause, but when Kihika visits Mũgo at night and gives him the opportunity to get directly involved, Mũgo reacts to the 'intrusion' into his 'twilight calm' with a deep feeling of disruption (*AGW*, 179–180). This exposes Mũgo's fantasies of communal leadership as symptoms of his psychological instability. Since Kihika, like Moses, does not live to deliver the people to the Promised Land of Uhuru, the villagers approach Mũgo to lead the long-awaited Uhuru celebrations. The irony here is that the villagers who do not know that Mũgo is the one who has betrayed Kihika take Mũgo's reluctance to lead the celebrations as a sign of heroic self-effacement. This leads the villagers to glorify him even further as a "Kihika born again" (*AGW*, 156).

While Mũgo's reluctance to conclude Kihika's mission creates suspense in the novel, the narrator leads us into the mind of this enigmatic character. The result is the most in-depth psychological portrait of a character in Ngũgĩ's writings. The picture of Mũgo that emerges is unflattering: he is a man who has always found it difficult to make decisions, a man whose basic preoccupation has always been self-preservation (*AGW*, 23, 108). He is not the 'outstanding individual' that the popular imagination casts him to be; who then would make the perfect hero for the conventional modernist novel. His nurtured self-image is a facade that masks a split personality. Haunted by an orphaned childhood bereft of any kind of love, Mũgo leads a life of lonely self-reserve, shunning all forms of political engagement. Despite his noble-like reserve that misleads everybody into misconceiving him as a hero, Mũgo is in fact a psychotic anti-hero. By exposing Mũgo's loneliness as a mask of a dangerous psychotic condition rather than a mark of greatness, the narrative debunks the conventional modernist notion of the literary hero as the lone individual.

We have argued that although the treatment of the theme of betrayal invites comparison with Conrad, the portrayal of Mũgo in *A Grain of Wheat* derives from Ngũgĩ's observation of the anti-colonial struggle in Kenya. This has to do specifically with Ngũgĩ's changing conceptualisation of the nationalist leader, Jomo Kenyatta, later first president of independent Kenya. In *The River Between*, Ngũgĩ mythologises Kenyatta, through an analogous relationship with Waiyaki, as a messianic figure. *Weep Not, Child* continues with this mythologizing about Kenyatta where, as in the popular imagination in the 1950s, the leader is a Moses figure (*WNC*, 72). While this depiction is generally in line with Ngũgĩ's use of myth to deconstruct colonialist historiography, it precluded real assessment of Kenyatta's nationalist credentials. As Ochieng' has noted, "… the young Ngũgĩ was thoroughly captivated and mesmerised by the Kenyatta legend" (Ochieng', 1984: 3). In the world of *A Grain of Wheat*, however, Ngũgĩ seeks to deconstruct Kenyatta through Mũgo. Like Kenyatta, Mũgo is the stuff of which myth and popular legends are made. Through the portrayal of Mũgo "… who carries the burden of mistaken revolutionary heroism," Ngũgĩ attempted to "… hint at the possibilities of the new Kenyatta" (Ngũgĩ, 1981b: 90). Historians would argue that there was never a 'new' Kenyatta: that Kenyatta was always a conservative and ambivalent nationalist (Ochieng' 1984: 10; Elkins, 2005: 148, 201). Be that as it may, *A Grain of Wheat* initiates the quest for a truly revolutionary hero in Ngũgĩ's writing, a quest that continues in his later works. In other words, Ngũgĩ's portrayal of characters signifies a shift from the messianic conception of the hero.

A Grain of Wheat is a novel without a real messianic hero in the mould of Waiyaki or Njoroge. As we have seen in the case of Mũgo, while Ngũgĩ is clearly interested in a Conradian-like focus on the morality of an individual's actions, he tends to put more emphasis on how social conditions determine human actions and takes care not to idealise any particular character. Thus, although the tumultuous historical events that shape the novel form the backdrop to the struggles of the villagers of Rungei, whose private lives become part of the national drama, only a few of the characters—Kihika and John Thompson—see their own roles in the broader context of the struggle. Others like Mũgo try to lead private lives until they are reluctantly forced into involvement.

5. Language and Representation: Towards a Socially Relevant Aesthetic Ideology

A *Grain of Wheat* exemplifies the challenges the author faced in his quest for an aesthetic that is not only in tandem with nationalist culture, but also socially relevant. Ngũgĩ's appropriation of Conrad, for instance, is ambivalent in its effect on his aesthetic. It fashioned him into a master of the modernist novel, but also lured him further away from the ethos of his own cultural and literary heritage. In this respect, it is important to recall that among the reasons Ngũgĩ admired and sought to imitate Conrad was that the latter was not a native speaker of the English language. Asked who his favourite author was, Ngũgĩ mentioned Joseph Conrad, and explained: "Perhaps it is because English was for him a second language. He only started using it when he was nineteen and yet beat it into a particular shape to express himself; the anguish and agony of a community" (Villiers, 2006: 8). As a second speaker of the English language himself, Ngũgĩ hoped to replicate the Conradian feat, which he accomplished most decisively in *A Grain of Wheat*.

However, the use of English—a language created by a different cultural milieu to mediate a different cultural worldview—disconnects his work from the culture and history of the people about whom he is writing. Although the novel expresses the 'anguish and agony' of his community, the ethos of individualism reified in the portrayal of Mũgo and the accent put on moral consciousness hearkens to the cultural and the literary conventions of the European Great Tradition. This is in contradistinction to the communitarian ethos of the community depicted in the novel. Ngũgĩ, therefore, makes a tentative attempt to use the English language differently, especially in crafting dialogues. In those instances when the impress of Gĩkũyũ—the original language of his characters—influences their language, the effects are aesthetically liberatory. The dialogue between Mũgo and Warui early in the novel is illustrative:

> "How is it with you, this morning?" Warui called out to him, emerging from one of the huts.
> "It is well." And as usual Mũgo would have gone on but Warui seemed anxious to talk.
> "Attacking the ground early?"
> "Like Kenyatta is telling us," he went on, "these are days of *Uhuru na Kazi* …" continued Warui. (*AGW*, 4)

In addition to the recreation of the rhythms of spoken language, the nationalist discourse is captured by the use of untranslated Gĩkũyũ and Kiswahili lexical elements like *rika* (*AGW*, 9), *kihii* (*AGW*, 73), *kijana* (AGW, 95), *irimu* (*AGW*, 131); the Kiswahili proverb *kikulacho ki nguoni mwako* (*AGW*: 16); and words like *shauri* (*AGW*, 39) and *harambee* (*AGW*, 230). These elements stamp an authentic, indigenous identity on Ngũgĩ's aesthetic that connects the novel with its social-cultural and even political milieu. Mũgo's use of the Kiswahili expression '*Uhuru na Kazi*' for instance, is so semantically loaded that it cannot be apprehended in the strictly linguistic sense. Introduced by Kenyatta immediately after independence, the phrase became a motto of independence that was meant to rally peoples' efforts towards the task of building the newly independent nation. However, for radical critics of decolonisation like Ngũgĩ, it soon became infused with an ironic significance alluding to Kenyatta's neo-colonial policy of disengagement with aspirations of those who expected a more equitable re-distribution of resources after independence. This set the stage for the betrayal of the ideals of freedom, and the marginalisation of the peasantry in the post-independence economy, which Ngũgĩ hints at in *A Grain of Wheat*.

The replacement of English in a discourse that is fully adapted to the African situation is one of the most important ways in which post-colonial writing defines itself. In *A Grain of Wheat* Ngũgĩ uses Gĩkũyũ and Kiswahili lexical items as a stratagem of replacement. He appropriates English by deviating from the phraseology of 'correct' usage and remoulds it to new usages to contest its authority over other means of communication. This is a process of subversion in which the language is melded to the linguistic and oral/verbal legacy of its new cultural context, thus disconnecting it from its literate heritage in Western culture. Kihika, the most organic of the major characters in the novel, exhibits his mastery of the verbal dexterity of Gĩkũyũ storytelling art:

> We went to their church. Mubia, in white robes, opened the Bible. He said: *Let us kneel down to pray*. We knelt down. Mubia said: *Let us shut our eyes*. We did. You know, his remained open so that he could read the word. When we opened our eyes, our land was gone and the sword of flames stood on guard. As for Mubia, he went on reading the word, beseeching us to lay our treasures in heaven where no moth would corrupt them. But he laid his on earth, our earth (My emphasis, *AGW*, 15).

Kihika's narrative is a multi-speech exposition on the alliance between Christianity and colonialism in the suppression of the African. As a narrator, Kihika assumes the role of a composite narrator-performer. The narrative strategy creates a polyphonic narrative that enables him to represent the contesting voices and worldviews of the Christian-missionary (highlighted above), and the African interactants in the drama of colonisation. Kihika's story about the role of Christianity in the colonisation of the African alludes to, and elaborates the lesson on, colonisation encapsulated in the Gĩkũyũ saying "Gũtirĩ mũthũngũ na mũbĩa" (There is no difference between the settler and the priest), coined in the light of their experience of colonialism. Growing up under colonialism in a culture that was heavily evangelised by the Christian missionaries, Ngũgĩ had a first-hand evidence of the truth of this saying. Reflecting a more critical stance towards Christianity and religion in general in Africa's history, Ngũgĩ's recall of the tropes of resistance in Gĩkũyũ language reveals the radical shifts that were taking place in his authorial ideology in the late 1960s. This culminated in his rejection of the other-worldly Christianity that the Christian missionaries had bequeathed to the Church in Kenya. But Ngũgĩ is also involved in the more delicate task of trying to re-appropriate and re-interpret Christianity in the context of Africa's cultural experience and political aspirations. This is part of his larger quest for social relevance for his writings.

6. Conclusion

Ngũgĩ's re-interpretation of Christianity is utilitarian and fits snugly with his inclination towards a secularist socialist ideology that he sees as best suited to address what he regards as the socialist aspirations of the African masses. In this sense, Ngũgĩ's re-appropriation of Christianity and its idiom should be seen concurrently with his appropriation of the seemingly incompatible political grammar of Fanon's critique of decolonisation and Marxist social analysis. This introduces a new language in Ngũgĩ's aesthetic praxis. References to the Kenyan struggles against colonisation as 'peasant' revolts (*AGW*, 13), to 'black' people and 'black power', 'spirit of black people' (*AGW*, 25, 92, 93, 102, 145, 161, 180): all these reflect what has been called the 'black dimension' in

Ngũgĩ's thought (Ikkideh, 1972: xiii). This was an important aspect of Ngũgĩ's authorial ideology in the 1960s. Its origins can be traced to his early interest in Caribbean literature spurred by a chance reading of George Lamming's *In the Castle of My Skin* at the University of Makerere. His reading of Fanon's *The Wretched of the Earth* helped systemise Ngũgĩ's thinking about the plight of the black person in the post-colonial world, and gave ideological form to ideas he already vaguely held. In a letter to Ikkideh, Ngũgĩ outlined his views about the black experience under imperialism:

> I believe that we as blacks have suffered doubly under colonialism and capitalism, first, as part of all the working masses, and then as blacks. By which I mean that a white worker by the very nature of his position was a beneficiary of the colonialist and racist exploitation of Africa and black people everywhere (Ikkideh, 1972: xiii).

In focusing on the black experience, Ngũgĩ was able to execute a significant ideological shift that enabled him to domesticate Marxist social analysis within the context of the African's unique historical and cultural experience through slavery, colonialism, and neo-colonialism; thus contesting classical Marxist analysis that, after all, is rooted in Western history and social organisation. In so doing, Ngũgĩ forges a personal perspective that enables him to mediate Kenya's—and Africa's—post-colonial situation. Kihika's appropriation of Christianity melded to the Fanonist critique of decolonisation reifies Ngũgĩ's quest for a new aesthetic register for his growing political consciousness.

As a transitory text between his representation of colonialism and decolonisation on the one hand, and the representation of post-coloniality on the other, *A Grain of Wheat* exhibits an agonised attempt to meld disparate influences into an aesthetic of representation. The novel exhibits the same aesthetic hybridity that characterised Ngũgĩ's Makerere novels, but ideologically the author shows a more complex understanding of Kenya's—and Africa's—post-colonial crisis. His re-appropriation of English, his reconfiguration of Christianity and re-writing of Conrad's novels signifies a writer who is aware of the need to liberate his praxis from influences that are inimical to the representation of a local culture and worldview. But the English language had inherent literary assumptions—as represented in the European modernist novel—that cast doubt on its efficacy as a medium of representing national culture and aspirations. This precipitated a crisis of consciousness on the part of the author that made him to seriously consider abandoning the language. Soon after the completion of *A Grain of Wheat*, Ngũgĩ succinctly identified the dilemma of the committed post-colonial intellectual with regard to the use of a foreign language to represent national culture when he declared:

> I don't know whether it is worth any longer writing in English … I am very suspicious about writing about universal values. If there are universal values, they are always contained in the framework of social realities. And one important social reality in Africa is that ninety percent of the people cannot read or speak English. The problem is: I know whom I write about, but whom do I write for? (Marcuson, et al., 2006: 32–33)

This statement shows that although it was not until two decades later that Ngũgĩ would jettison English in favour of Gĩkũyũ, the English language and its literary conventions was beginning to cause him discomfort from as early as the 1960s.

References

Anonby, J. A. 2006. *The Kenya Epic Novelist Ngũgĩ: His Secular Reconfiguration of Biblical Themes*. New York: The Edwin Mellen Press.

Bhabha, H. 1994. *The Location of Culture*. London: Routledge.

Conrad, J. 1994) *Nostromo*. Harmondsworth: Penguin Books.

—. 1997. *Under Western Eyes*. Harmondsworth: Penguin Books.

Elkins, C. 2005. *Britain's Gulag: The Brutal End of Empire in Kenya*. London: Pimlico.

Fanon, F. F. 1968. *The Wretched of the Earth*. Harmondsworth: Penguin Books.

Gikandi, S. 2000. *Ngugi wa Thiong'o*. Cambridge: Cambridge University Press.

—. 1995. Moments of Melancholy: Ngũgĩ and the Discourse of Emotions. In: C. Cantalupo (ed.). *The World of Ngũgĩ wa Thiong'o*. Trenton N.J.: Africa World Press, pp. 59–72.

Goro, K. N. 2011. Rejection or Reappropriation?: Christian Allegory and the Critique of Post-colonial Public Culture in the Early Novels of Ngũgĩ wa Thiong'o. In: Harri Englund (ed.). *Christianity and Public Culture in Africa*. Ohio: Ohio University Press, pp. 67–85.

Ikkideh, I. 1972. Foreword. In: Ngũgĩ wa Thiong'o, *Homecoming*. London: Heinemann, pp. xi-xiv.

Karega, K. J. 1988. Theology and Literature: Religion in the Works of Ngũgĩ wa Thiong'o, PhD dissertation, Katholieke Universitiet, Leuven.

Lazarus, N. 1995. Re-(turn) to the People: Ngũgĩ wa Thiong'o and the Crisis of Post-colonial African Intellectualism. In: C. Cantalupo (ed.). *The World of Ngũgĩ wa Thiong'o*. Trenton N.J.: Africa World Press, pp. 11–25.

—. 1986. Great Expectations: The Politics of Post-colonialism in African Fiction. *Social Text*, Nos. 13/14, pp. 49–63.

Lonsdale, J. 1995. The Prayers of Waiyaki: Political Uses of the Kikuyu Past. In: David M. Anderson & Douglas H. Johnson (eds.). *Revealing Prophets*. Oxford: James Currey, pp. 240–291.

Mũgo, M. 1978. *Visions of Africa*. Nairobi: Kenya Literature Bureau.

Nazareth, P. 1972. *Literature and Society in Modern Africa*. Nairobi: East African Literature Bureau.

Ngara, E. 1985. *Art and Ideology in the African Novel*. London: Heinemann.

Ngũgĩ wa Thiong'o. 1981a. *Writers in Politics*. London: Heinemann.

—. 1981b. *Detained: A Writer's Prison Diary*. London: Heinemann.

—. 1972. *Homecoming*. London: Heinemann.

—. 1969. Response. In: Per Wasterberg (ed.). *The Writer in Modern Africa*. Uppasala: Scandinavian Institute of African Studies, pp. 25–26.

—. 1967. *A Grain of Wheat*. London: Heinemann.

—. 1964. *Weep Not Child*. London: Heinemann.

—. 1965. *The River Between*. London: Heinemann.

Njogu, K. 1995. Living Secretly and Spinning Tales: Ngũgĩ's *Secret Lives and Other Stories*. In: C. Cantalupo (ed.). *Ngũgĩ wa Thiong'o*: *Texts and Contexts*. Trenton N.J.: Africa World Press, pp. 335–347.

Ochieng', W. 1984. *The Ghost of Kenyatta in Ngũgĩ's Fiction*. Nairobi: Kenya Historical Association.

Peterson, D. R. 2004. *Creative Writing: Translation, Bookkeeping, and the Work of Imagination in Central Kenya*. Portsmouth: Heinemann.

Sander, R. & B. Lindfors. 2006. *Ngũgĩ wa Thiong'o Speaks: Interviews with the Kenyan Writer*. Trenton, N.J.: Africa World Press.

Sicherman, C. 1995. Ngugi's British Education. In: C. Cantalupo (ed.). *Ngũgĩ wa Thiong'o*: *Texts and Contexts*. Trenton N.J.: Africa World Press, pp. 35–46.

Simatei, T. P. 2001. *The Novel and the Politics of Nation Building in East Africa*. Bayreuth: Bayreuth African Studies, No. 55.

Soyinka, W. 1968. The Writer in a Modern African State. In: Per Wasterberg (ed.). *The Writer in Modern Africa*. Uppasala: Scandinavian Institute of African Studies, pp. 14–21.

Upkong, J. S. 2000. Developments in Biblical Interpretation in Africa: Historical and Hermeneutical Directions. In: Gerald O. West and Musa W. Dube (eds.). *The Bible in Africa: Transactions, Trajectories and Trends*. Brill: Leiden, pp. 11–28.

Villiers, J-de. 2006. The Birth of a New East African Author. In: Reinhard Sander and Bernth Lindfors (eds.). *Ngũgĩ wa Thiong'o Speaks: Interviews with the Kenyan Writer*. Trenton N.J.: Africa World Press, pp. 7–9.

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The Role of Bilingualism on Affix Borrowing: The Case of Nominal and Verbal Derivation in Chimalaba

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Abstract

This paper describes an interesting case of the role of bilingualism on affix borrowing from Kiswahili into Chimalaba. The data were collected through interviews, previous collected corpora, native narratives and targeted elicitations. Thomason's (2001), Borrowing Scale (BS) and the Principle of Functional Explanation (PFE) guided the analysis. The BS predicts the level of intensity of contact with possible socio-historical factors for borrowing of particular structural features, whereas the PFE through a Multi-Causation Model (MCM) specifies the interplay of factors in promoting structural borrowing in a hierarchy. The findings indicate that bilingualism plays an intermediary role in promoting affix borrowing in Chimalaba. It has been revealed that bilingualism is a secondary factor, which itself is influenced by primary factors above it and tertiary factors below it to promote affix borrowing. Thus, bilingualism in itself does not explain the whole picture in affix borrowing, but it influences borrowing in combination with other factors.

Keywords: *bilingualism, structural borrowing, socio-historical factors, linguistic factors*

1. Introduction

Bilingualism, which is the ability to use two or more languages (Heine & Kuteva, 2005; Emeneau, 1962; Matras, 2009; Seifart, 2013), has been considered to be a prominent factor in promoting structural borrowing in contact situations. Structural borrowing involves the borrowing of features in phonology, morphology and syntax (Heine & Kuteva, 2005). It also involves borrowing of function words[1] because function words operate at sentential level in connecting words, phrases and sentences. In this regard, they are considered to be structural features as they carry with them grammatical functions (Matras, 2009). For a long time, the role of bilingualism on structural borrowing has been a matter of concern among contact linguists (Matras, 2009).

Many scholars in contact linguistics (c.f., Weinreich, 1953; Emeneau, 1962; Thomason, 2001; Field, 2002; Matras, 2009; Seifart 2013) attempted to embark upon the common raised question: Does bilingualism have effect on structural borrowing? In an attempt to

[1] They include grammatical categories such as demonstratives, independent personal pronouns, connectors etc.

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answer this question, almost all these scholars attributed the role of bilingualism on structural borrowing to the existence of unilateral bilingualism: a situation in which only one of the two communities in contact exhibits knowledge of the language of the other community and not two-sided. These scholars, however, differ in explaining the manner in which unilateral bilingualism plays its role on influencing structural borrowing.

Emeneau (1962: 435) asserts that the role of unilateral bilingualism in influencing structural borrowing is to induce speakers of the borrowing language to import word-forms from the source language (SL) into their own, leading to borrowing. With him, this takes place when speakers of the borrowing language converse with speakers of both the SL and recipient language (RL). However, Emeneau does not offer explanation as to whether speakers of the borrowing language import word-forms from the SL into their own language deliberately or involuntarily. Also, he does not make clear the manner in which imported word-forms become established structural loans in the RL.

Thomason (2001: 76) differs from Emeneau in explaining the role of unilateral bilingualism on influencing structural borrowing in that she sees unilateral bilingualism as the basis for speakers to develop conscious knowledge of the structural forms of the SL. Therefore, on the basis of their knowledge of the SL, which Seifart (2013:14) calls speakers' knowledge of the SL, speakers of the RL extract the structural features easily from the SL and use them in their language more freely. This also is maximized and speeded up when the typological profiles of the contact languages are congruent (Field, 2002: 35). So, Thomason sees that the process of extracting word-forms from the SL into the RL is conscious and deliberate.

Contrary to Emeneau and Thomason, Matras (2009: 57) sees that the situation of unilateral (or unidirectional, to use his term) bilingualism creates the circumstances where the SL dominates certain activity domains (such as business, education, religion, agriculture, politics, and so on) to which speakers of the RL require access, but this relationship is not reciprocal or two-sided. As a result, speakers of the RL import word-forms from the SL into their language acquired through interaction with speakers of the SL in the relevant domains.

Ultimately, all the three scholars (i.e., Emeneau, Thomason, Matras) recognize that it is *unilateral bilingualism* that leads to structural borrowing in contact situations. However, nobody has described why bilingual speakers of the RL import word-forms from the SL into their language, and how these innovations come to be established as borrowed features in the RL. There is also a lack of precise empirical explanation on the status of bilingualism in influencing structural borrowing and the manner it interacts with other factors in modelling structural borrowing. More importantly, most descriptions are deficient as they are not linked to actual examples of the cases of structural borrowings in tangible contact situations.

Following these shortcomings, this paper demonstrates the role of bilingualism on promoting structural borrowing by using concrete cases of affix borrowing from Kiswahili into Chimalaba. Its focus is on the status and potency of bilingualism in influencing affix borrowing, and the manner it interacts with other factors.

2. Methodology

The data were collected from seven villages of Mikindani, Mgao, Msangamkuu, Msimbati, Mkungu, Naumbu and Sudi. Sudi is in Lindi Rural in Lindi region and the rest are in Mtwara Rural in Mtwara region. Data were collected from these villages because they are considered to be Malaba centres; and have elaborate history of being in contact with the Arabs and Swahili[2] traders whose influence contributed to language changes in Chimalaba. All the data were collected through interviews, re-analysis of previously collected corpora, native narratives and targeted elicitation.

Interviews were employed to collect data on the socio-historical background of Malaba speakers, the state of bilingualism and the mode of language use. This information was supplemented by more information from a very rich history book by Liebenow (1971). Previously the collected corpora were used as the sources of data on the types of affixes, which have already been attested by previous endeavours of Odden (1990), Kraal (2005) and Amani and Mreta (2012). Native narratives were used to confirm the natural occurrence of previously attested affixes and to capture the natural occurrence of new borrowed affixes that were not captured in past attempts. Targeted elicitation was used to capture structural features that seldom appear in spontaneous speech through native narratives or story-telling such as derivational affixes.

The occurrence of structural features (i.e., sounds, affixes, function words and word order) borrowed from Kiswahili into Chimalaba was analysed by five stages of identifying and proving for structural borrowing by Thomason (2001: 93-94). The role of bilingualism and other factors on borrowing of affixes into Chimalaba was analysed by using the BS by Thomason (2001), and by the framework proposed by Seifart (2013). The interaction between bilingualism and other factors was analysed by using the PFE by Bekker and Hekking (1999), Bekker (2008) and Rendon (2008) through Multi-Causation Model (MCM) for structural borrowing.

The factors (i.e., primary, secondary and tertiary) were assessed basing on the criteria developed by Rendon (2008). Primary factors are those that first unchain a series of events leading to borrowing. They influence secondary and tertiary factors. Secondary and tertiary factors add to primary factors to advance or prevent borrowing. Secondary factors are those factors that do not act on their own but interplay with primary factors to influence borrowing. Their influence may be increased or reduced by tertiary factors. Tertiary factors are those factors that are classified as positive or negative. Positive tertiary factors speed up borrowing, while negative tertiary factors slow down borrowing. Tertiary factors do not act on their own but interact with secondary factors in such a way that the influence of secondary factors is increased or reduced.

3. Literature Review of the Structures of Kiswahili and Chimalaba from Previous Studies

Both Kiswahili and Chimalaba are Bantu languages and thus they have many similar features. While Kiswahili is a Bantu language of wider communication as it is spoken mainly in East

[2]The term 'Swahili' is used in this paper to refer to people who speak Kiswahili and the term 'Kiswahili' is used to refer to the language spoken by the Swahili people.

and Central Africa by about 120 million people, Chimalaba is said to be a dialect of Chimakonde (P23); a language spoken in Tanzania and Mozambique by about 1.3 million people (Kraal, 2005). The other dialects of Chimakonde are Chinnima, Chindonde and Chimatambwe (ibid.). We are aware that some publications like LOT (2009) list Chimalaba as a distinct language but this does not correspond to the actual linguistic status of Chimalaba. The studies by Kraal (2005), Amani (2010) and Amani and Mreta (2012) have all revealed that Chimalaba is genetically affiliated to Chimakonde as one of its dialect. The main evidence is that most of its basic structure is that of Chimakonde, and its matchlessness with other Makonde dialects, which seem to confuse some scholars upon its dialectal status, is just a result of massive lexical and structural borrowing from Kiswahili. In Tanzania, Chimakonde is mainly spoken in Mtwara Region, particularly in the districts of Newala, Tandahimba, Mtwara Rural, Mtwara Urban and Masasi (LOT, 2009).

Both Kiswahili and Chimalaba are agglutinating languages, that is, morphemes in each language are joined concatinatively (Katamba, 2003). Both have noun classes into which nouns are grouped (ibid.). Each noun class, in either language, is more or less associated with certain semantic characteristics. For example, there are classes for human beings, animals, artefacts and abstract concepts. Table 1 presents Kiswahili noun class.

Table 1: Kiswahili Noun Classes

Class	Prefix	Example	*Gloss*	Semantic category
1 (SG)	m-, mw-	**mpikaji**	*cook*	humans and their professions
2 (PL)	wa-, w-	**wapikaji**	*cooks*	
3 (SG)	m-	mlango	*door*	plants, names of trees, body parts.
4 (PL)	mi-	milango	*doors*	
5 (SG)	ji-, j-	jembe	*hoe*	fruits, animals, everyday objects, body
6 (PL)	ma-	majembe	*hoes*	parts.
7 (SG)	ki-	kiti	*chair*	objects, body parts, languages, things in
8 (PL)	vi-	viti	*chairs*	general.
9 (SG)	(N)-	ngoma	*wing*	animals, some objects,
10 (PL)	(N)-	ngoma	*wings*	
11 (SG),	u-	uso	*face*	long, or thin things, nouns of objects
10 (PL)	(N)-	nyuso	*faces*	
14	u-	**upikaji**	*manner of cooking*	substances, mass, singular abstract nouns
15	ku-	kula	*to eat*	verbal infinitives
16, 17, 18	pa-, ku-, mu-	mahali	*place*	locative 'at' (place outside, on top)

Source: Adapted from Petzell (2005:87)

Kiswahili noun classes presented in Table 1 have many things that look similar to those in Chimalaba due to both genetic affiliation to Bantu group as pointed above and due to the influence of Kiswahili on Chimalaba. Table 2 shows Chimalaba noun classes.

From Tables 1 and 2 we can easily note that the manner agent nouns *mpik**aji*** 'cook' and *vapik**aji*** 'cooks' in classes 1 and 2 are derived from the verb *pika* 'cook' in Kiswahili (see Table 1) resembles the way agent nouns *ntelekáaji* 'cook' and *vatelekáaji* 'cooks' are derived from the verb *teléeka* 'cook' in Chimalaba (see Table 2). In a similar way, the way manner noun *upikaji* 'the way of cooking' is derived from the verb *pika* 'cook' in Kiswahili

Table 2: Chimalaba Noun Classes

Gender/ Class	Nominal Prefix	Example	*Gloss*	Semantic category
1 (SG)	mu-, n-	**ntelekáaji**	*cook*	humans and their professions
2 (PL)	va-	**vatelekáaji**	*cooks*	
3 (SG)	mu-, n-	n-náandi	*tree*	plants, names of trees, body parts.
4 (PL)	mi-	miláandi	*trees*	
5 (SG)	li-	lichúungwa	*orange*	fruits, animals, everyday objects, body
6 (PL)	ma-	machúungwa	*oranges*	parts.
7 (SG)	chi-, ki-	**kiisu**	*knife*	objects, body parts, languages, things in
8 (PL)	vi-	**víisu**	*knives*	general.
9 (SG)	(N	ngóoma	*drum*	animals, some objects,
10 (PL)	diN, va	jingóoma	*drums*	
11 (SG)	lu-	lupáapa	*wing*	long or thin things, Nouns of objects
10 (PL)	ji-	jimáapa	*wings*	
14	u-	**upikáaji**	*Manner of cooking*	substances, mass, abstract singular nouns
15	ku	kúulya	*to eat*	verbal infinitives
16, 17, 18	pa-, ku-, mu-,	páali	*place*	locative 'at' (place outside, on top)

Source: Amani (2010:79)

resembles the way the manner noun *utelekáaji* 'the manner of cooking' is derived from the verb *teléeka* 'cook' in Chimalaba. These are similarities due to borrowing from Kiswahili into Chimalaba as will be explained in the next sections. Other similarities observed are due to genetic affiliation as pointed out by Katamba (2003).

The evidence that there are changes that have taken place in the nominal derivation in Chimalaba as pointed above is well captured when native Chimakonde noun classes to which Chimalaba is genetically affiliated as its dialect are also shown (see Table 3).

Table 3: Original Chimakonde Noun Classes

Class	Prefix	Example	*Gloss*
1 (SG)	mu-,n-	**nkuteléeka**	*person*
2 (PL)	va-	**vakuteléeka**	*persons*
1a (SG)	u-	unyúuchi	*bee*
2a (PL)	va-	vanyúuchi	*bees*
3 (SG)	mu/n	n-náango	*door*
4 (PL)	mi-	miláango	*doors*
5 (SG)	li-	lichúungwa	*an orange*
6 (PL)	ma-	machúungwa	*oranges*
7 (SG)	chi-	**chitelekéedi**	*manner of cooking*
8 (PL)	vi-	**vitelekéedi**	*manners of cooking*
9 (SG)	iN	ingóoma	*drum*
10 (PL)	N(di), (ji)	(di)jingóoma	*drums*
11 (SG)	lu-	lupáapa	*wing*
10 (PL)	(di), ji	(di)jimáapa	*wings*
12 (SG)	ka-	katáambo	*a little trap*
13 (PL)	tu-	tutáambo	*little traps*
14	u-	ulíindo	*hair*

15	ku-	kúulya	*to eat*
16	pa-	paháali/maháali	*place*
17	ku-	kukáaya	*home*
18	mu-	múuha	*above/in*

Source: Amani (2010:92)

Table 3 indicates that the way agent nouns *nkuteléeka* 'cook' is derived from the verb *teléeka* 'cook' is different from the way it is observed in Table 1 in Kiswahili and Table 2 in Chimalaba in classes 1 and 2. Where Chimalaba retains the native Chimakonde stem of the verb *teléeka,* the mechanism for deriving the agent known is copied from Kiswahili. This will be explained in details in the next sections. Also, the manner noun for *upikaji* as in Kiswahili and *utelekáaji* as in Chimalaba, which appear in class 14 for abstract nouns in both Kiswahili and Chimalaba, is assigned to class 7 *chitelekéedi* 'manner of cooking'. It also has its plural counterpart in class 8, which is *vitelekéedi* 'manners of cooking'.

Apart from having comparable noun classes, both Kiswahili and Chimalaba have complex verbs whose verb phrases show the fullest extent of the agglutinating nature of word structure (Nurse, 2008). The verbs are made up of roots that take various affixes. For instance, the typical affirmative form of Kiswahili or Chimalaba verb consists of a subject marker, tense, aspect and mood marker(s) (TAM), an optional object marker, a verbal root and several optional verbal extensions (e.g., causative, passive, reciprocal), plus a final vowel that signals the indicative or subjunctive mood. This is shown in (1) **a)**-Chimalaba and **b)**-Kiswahili below:

(1) a) ***Chimalaba***
tu-ni-va-yum-íil-a váana vilóongo
SBJ.1PL-PERF-2OBJ-buy-AP-FV 2 children 8pots
'we have bought the children pots'

b) ***Kiswahili***
tu-me-wa-nunu-li-a watoto vyungu
SBJ.1PL-PERF-2OBJ-buy-AP-FV 2 children 8pots
'we have bought the children pots'

Source: Field Data (2016)

Several optional verbal extensions (e.g. causative, passive, reciprocal) are also indicated in the following examples in both languages:

(2)

a) Chimalaba	**b) Kiswahili**	**(c) Native Chimakonde**	**Gloss**	**Extensions**
viní**ish**a	chezes**h**a	vin-**íih**a	'make dance'	Causative
viní**ila**	chez**ea**	viní**ila**	'dance with/for'	applicative
viniláa**na**	chezeana	viniláa**na**	'dance for each other'	reciprocal
viín**w**a	chezwa	viín**w**a	'be danced'	passive
viní**ik**a	chezeka	viní**ik**a	'been danced'	stative
vináa**nga**	-	vináa**nga**	'dance intensively'	Intensive

Source: Field Data (2016)

In both, all sentence constituents must agree with the verb in terms of the class and number of the noun prefix. Adnominals, that is, numbers, adjectives and other modifiers, must also agree with the head nouns they qualify. Both Kiswahili and Chimalaba have five vowels. They also have the canonical C(V) syllable structure, although Kiswahili has retained certain complex syllable structures in some of the words borrowed from Arabic.

3.1 Previously Attested Inflectional Affixes

It has been found in this study that there are a number of affixes that have been borrowed from Kiswahili into Chimalaba, both inflectional and derivational. The Inflectional affixes, had already been attested by Amani and Mreta (2012). In the current study the inflectional affixes are confirmed to be genuine cases of structural borrowing.

Inflectional affixes that have been previously attested as cited above, include noun class prefix *ki-* for class 7, imperative plural marker *-eni,* genitive form *-ake,* first person subject marker *ni-,* first person object marker *ni*, second person subject marker *mu-,* second person object marker *ku (eni),* negative forms i- for 1st person, *a-* for the rest and the final *-i,* loss of noun classes 12/13 with their prefixes, and loss of noun class prefix *i-* for class 9. All these are presented in Table 4 with examples:

Table 4: Inflectional Affixes Borrowed from Kiswahili into Chimalaba

Inflectional	Chimalaba	< Kiswahili	Native form	Gloss
ki- NPx 7	***kí****isu*	***ki****su*	***chi****púula*	knife
i- NPx 9 (loss)	*ndíízi*	*ndizi*	***i****ndiisi/****i****ng'oowo*	banana
NC 12/13 with NPx's *ka-* and-*tu* (loss)	doesn't exist	doesn't exist	kúuto/túuto	'little river/s'
-ake genitive	*ly-****ake*** *nnyéeni*	*l-****ake*** *mgeni*	*ly-****aanga*** *nnyéeni*	of the guest
*m-*CONC	*múunu* ***m****-móoja*	*mtu mmoja*	*múunu* ***yú****umo*	one person
-eni Imperative	*wen****éeni***	*nend****eni***	*wen****aanga***	(you PL) go
*ni-*1st SM (SG)	***ni****lya máanda*	***ni****nakula wali*	***ngu****lya imáanda*	I eat rice
*ni-*1st OM (SG)	*ani****ni****chéema*	*ame****ni****ita*	*ani****ngu****chéema*	he/she has called me
mu-2nd SM (PL)	***mu****lya máanda*	***mu****nakula wali*	*nlya imáanda*	you (pl) eat rice
*ku-(eni)*2nd OM (PL)	*ani****ku****chem*eeni	*ame****ku****i****teni***	*anivachem****aanga***	he/she has called you
*i-*NEG for 1st person	***i****liimi*	***si****li****i****mi***	*ni****ka****liima*	I don't cultivate
*a-*NEG for the rest	***a****liimi*	***ha****limi*	*a****ka****liima*	he/she doesn't cultivate
*i-*final vowel	*a****li****im****i***	*ha****li****m****i***	*a****ka****liima*	he/she doesn't cultivate

Source: Adapted from Amani & Mreta (2012:190).

3.2 Additional Attested Derivational Affixes

Additional borrowed affixes that have been identified are all derivational. Derivational affixes that have been borrowed from Kiswahili into Chimalaba are causative *ish-esh*, agentive n-*aji* and manner *u-aji.* These are new structural features that have been identified in this study and were not attested in the previous studies by Amani and Mreta (2012). Borrowed derivational affixes are described below for their in-depth understanding.

3.2.1 Causative Affix

Before presenting the borrowed causative affix, it is important to describe native Malaba verbal extensions. There are basically two main causative verbal extensions in native forms, which are - **ih-/-eh-** and **-is-/es (**Kraal, 2005). Causative affixes **ih-/-eh-** are illustrated by Kraal (2005: 21) as indicated below:

(3) yóocha 'roast' yochéeha 'make roast'
líinga 'try' lingíiha 'make try'
móowa 'cut hair' mowéeha 'make cut hair'
tóonya 'rain' tonyéeha 'make rain'
páanya 'beat' panyíiha 'make beat'

In other examples, Kraal (2005: 23) points out that the causatives **-ih-/eh** coexist with **-is/es.** He argues that causatives **-is/es** have their roots from Kiswahili loanwords like *kufundi**ish**a* 'to teach' whose final affix **-ish-** was substituted to **-is-** so as to suit in the structural system of native Chimalaba. This is illustrated as follows below:

(4) fupíisa <Kisw fupisha 'make short'
fundíisa <Kisw fundisha 'teach'
chemúusa <Kisw chemusha 'boil'

Other verbal extensions in native Chimalaba include applicative, stative, reciprocal, passive and intensive (or pluractional). As shown in section 2.2 in example 2 above, all these are still retained. Within the inflectional stem, the verbal base and the final (inflectional) suffix are always distinguished. As elsewhere in Bantu studies, the verbal base is viewed as a single morphological unit which includes the verb root together with any derivational extensions (whether these are employed productively or are lexicalized). The chart below indicates the different extensions and inflectional affixes employed in native Chimalaba:

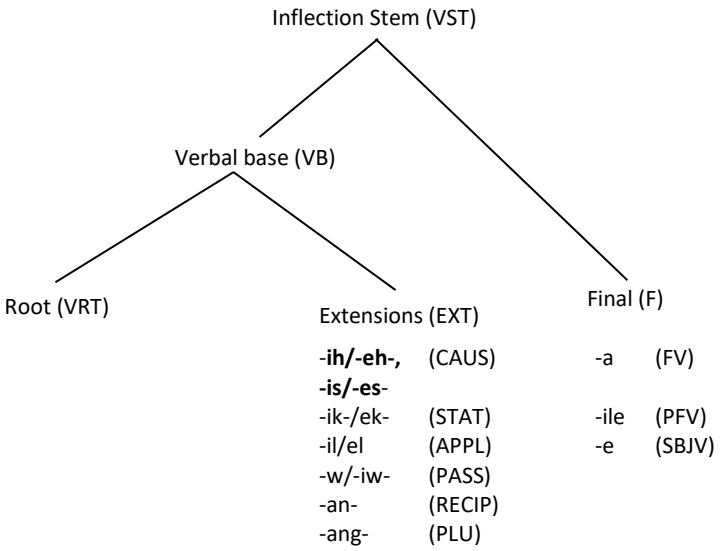


Figure 1: ***Chart Showing Verbal Inflection of Native Chimalaba***

Based on the verbal extensions used in native Chimalaba as indicated above, ten verbs from native Chimakonde based on Kraal (2005) were used as controlled constructions and given to selected informants in all seven Malaba villages visited to capture the verbal extensions. These verbs were selected from Kraal (2005) because Kraal collected the verbs from the Chinnima dialect, which is credited for maintaining archaic forms of Chimakonde. So, they stand as a good benchmark to base on in identifying retained forms and the borrowed ones. Also, ten verbs were seen to be enough for scrutiny as they passed through seven informants from different Malaba villages. Both forms—i.e., the native **-ih-** and the borrowed **-ish-** —are given in example (5) below:

(5)	**Native Forms**	**Chimalaba**		**Gloss**
	viní**iha**/**sa**	viní**isha**	< Kisw	'make dance'
	lingí**iha**/**sa**	lingí**isha**	< Kisw	'make try'
	twalí**iha**/**sa**	twalí**isha**	< Kisw	'make seize'
	tonyé**eha**/**sa**	tonyé**esha**	< Kisw	'make rain'
	tang'uní**iha**/**sa**	tang'uní**isha**	< Kisw	'make chew'
	pocheléé**eha**/**sa**	pocheléé**esha**	< Kisw	'make receive'
	pyailí**iha**/**sa**	pwailí**isha**	< Kisw	'make sweep'
	limí**iha**/**sa**	limi**isha**	< Kisw	'make cultivate'
	longeléé**eha**/**sa**	longeléé**esha**	< Kisw	'make talk'
	loléeha/**sa**	loléé**esha**	< Kisw	'make see'

The data in (5) above indicate how native Chimalaba verbs are added with borrowed causative extension **-ish/-esh.** The case for the borrowing of derivational affix from Kiswahili into Chimalaba attested above bears a resemblance to the claims put forward in the literature on the borrowability of affixes. Matras and Sakel (2007), for example, establish that although bound morphemes have been observed to be relatively resistant to borrowing, they can be introduced in the RL via lexical transfer. Matras (2009) states that loan verbs may be adopted for the first time, and their original inflection can be retained and used productively to the native forms. For example, this has taken place in Ngandi (Arnhem land language), which has borrowed verbal affixes from Ritharngu (Hearth, 1978: 105). A similar case has manifested itself in Chimalaba where causative affix **-ish-esh** has been borrowed from Kiswahili and is used productively in the native verbs.

3.2.2 Agentive Affixes

Other derivational affixes borrowed from Kiswahili into Chimalaba are a part of nominal derivation. These are affixes that derive agent and manner nouns from verbs. Before indicating the borrowed derivational affixes, it is worthy to describe how agent and manner nouns are derived from verbs in native Chimalaba.

According to Kraal (2005: 120), agent nouns are formed by the infinitive preceded by the noun class prefix (NPx) of class 1 and 2. The infinitive itself is a verb-to-noun derivation that consists of a verbal base, preceded by the NPx of class 15. This is illustrated below:

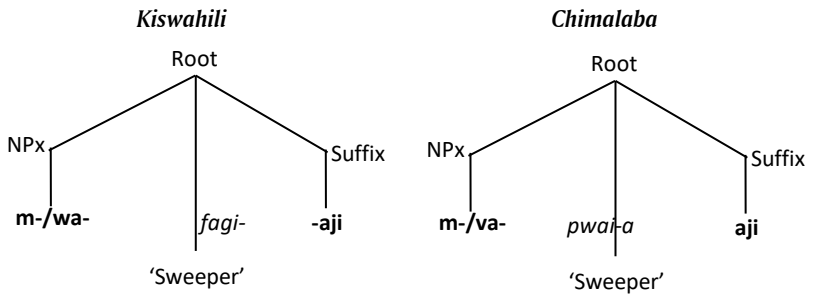
(6)	nkukaláanga/vakukaláanga	'frier/s'	cf.	kukaláanga	'to fry'
	nkuteléeka/vakuteléeka	'cook/s'	cf.	kuteléeka	'to cook'
	nkupochéela/vakupochéela	'receive/s'	cf.	kupochéela	'to receive'

The data collected from Odden (1990: 65) and then confirmed in all Malaba villages visited—basing on the same verbs as pointed out by Kraal (2005) and some few added ones—display a different method of deriving agent nouns from verbs in Chimalaba as illustrated in (7).

(7)	ntelek**áaji**/vatelek**áaji**	'cook/s'	cf. kuteléeka	'to cook'
	mpochel**áaji**/vapochel**áaji**	'receiver/s'	cf. kupochéela	'to receive'
	nkalang**áaji**/vakalang**áaji**	'frier/s'	cf. kukaláanga	'to fry'
	mpwail**áaji**/vapwail**áaji**	'sweeper/s'	cf. kupwaíila	'to sweep'
	ntwal**áaji**/vatwal**áaji**	'seizer/s'	cf. kutwáala	'to seize'

The data in (7) above indicate that in Chimalaba agentive nouns are derived similarly as in Kiswahili, where the NPx is attached to the stem of the verb with the addition of the suffix **-aji** to denote an agent. The parallel mechanism of deriving agent nouns from verbs in Kiswahili and Chimalaba can be well captured in the following illustration:

(8)



The mechanism of deriving agent nouns from verbs indicated in (7) differs significantly with the mechanism used in native Chimalaba as indicated above. Therefore, Chimalaba has dumped its native mechanism of deriving agent nouns from verbs as indicated in (8), and copied Kiswahili-like mechanism together with agentive suffix **-aji**. The native NPx for plural and verb stems are all retained.

3.2.3 Manner Affixes

Kraal (2005: 121) explains that in native Chimakonde manner nouns are derived from verbs by the use of a verbal base with the final **-i** preceded by the NPx of the class 7/8 or 6. The final **-i** changes a preceding consonant **l** into **d** just like in the causative **-y (i)** and the first vowel of the perfective **-ile**. This is illustrated below:

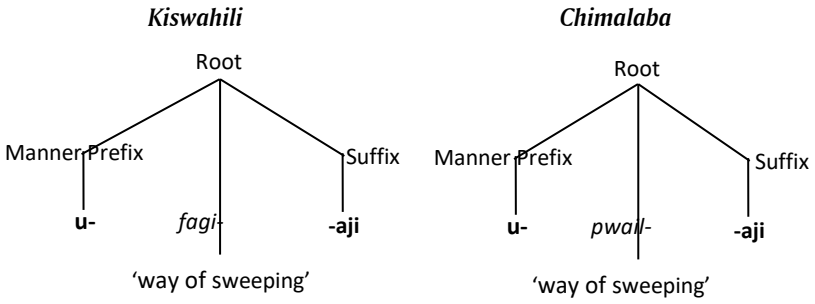
(9)	**chi**-pyaíi-**di**	'way of sweeping'	cf. pyail-a	'sweep'
	chi-twalíi-**di**	'way of seizing'	cf. twáal-a	'seize'
	chi-limíi-**di**	'way of cultivating'	cf. líim-a	'cultivate'
	chi-telekée-**di**	'way of cooking'	cf. teléek-a	'cook'

The data collected through parallel controlled constructions in Chimalaba display a different strategy used in Chimalaba to derive manner nouns from Kiswahili. In Chimalaba, Kiswahili-like mechanism is used where the manner prefix **u-** is used before the stem with the final suffix **-aji.** The affixes **u-** and **-aji** are attached to native stems. This is illustrated below:

(10)	**u**telekáa**ji**	'way of cooking'	cf. teléeka	'cook'
	utwaláa**ji**	'way of seizing'	cf. twáala	'seize'
	ulimáa**ji**	'way of cultivating'	cf. líima	'cultivate'
	upwailáa**ji**	'way of sweeping'	cf. pyaíila	'sweep'

The two parallel mechanisms of deriving manner nouns from verbs in Kiswahili and Chimalaba are illustrated below:

(11)



Therefore, native mechanism of deriving manner nouns from verbs in Chimalaba has been discarded and the mechanism used in Kiswahili has been adopted. The cases involving borrowing of derivational affixes in the nominal morphology is not exceptional to Chimalaba. It has been established in the literature that some affixes (especially those in nominal morphology) can be borrowed directly basing on speakers' knowledge of the SL and the chances of structural similarities of the involved subparts (Seifart, 2013). Masliyah (1996: 65), for example, provides an example of Iraqi Arabic which has borrowed agentive derivational suffix from Turkish.

Something peculiar to Chimalaba is that, where scholars (e.g., Matras & Sakel, 2007; Matras, 2009) note that prominent nominal derivational markers are easily borrowed because affixes attached to loan nouns have salient semantic meaning, the borrowing of agentive and manner deriving affixes in Chimalaba is not mediated by lexical transfer. The whole morphological procedure for marking agentive and manner nouns of Kiswahili has been replicated and used with native verb stems.

3.3 Theoretical Considerations

Basing on the fact that the occurrence of structural borrowing requires an explanation in terms of multiple causations, the proposed study was guided by the Borrowing Scale (BS) by Thomason (2001) and the Principle of Functional Explanation (PFE) framed by Bekker and Hekking (1999: 4) and Bakker (2008: 168), and then developed by Rendon (2008: 45). The central tenet of BS is that certain types of structural features are more likely to be borrowed if the intensity of contact between SL and RL is high. Intensity of contact refers to the degree of social pressure exerted by one group of speakers over the other in terms of length of contact, dominance, extent of bilingualism, prestige and attitudes towards the donor language. Intensity of contact is described into four ascending *levels* from casual to intense.

The BS provides a general guide on the identification of socio-historical and linguistic factors that promote structural borrowing, but it does not provide a precise clue on how those multiple factors interplay in promoting borrowing; and on the relative influence each of the types of factors exert on borrowing. As a supplement to this paucity, the PFE was also employed as it specifies the hierarchy of factors governing the borrowing process; and the division of labour between the factors on borrowing and their interplay in a causal relationship conceived in a MCM.

4. Discussions

4.1 Factors on Affix Borrowing in Chimalaba

The findings from the interviews on socio-historical information about Malaba community indicate that the Malaba community is characterized by the existence of prolonged contact with Swahili speakers since the 18th century, linguistic dominance of Kiswahili over Chimalaba in various domains of spheres of life, frequent speakers' mobility to external world for trade and fishing activities, and widespread bilingualism with Kiswahili. For the case of attitudes towards Kiswahili, Malaba speakers demonstrate positive attitudes to Kiswahili, and with the use of Kiswahili word-forms in their language. In language use, they feel more prestigious to use Kiswahili; and even borrowed words from it into their language. However, men and boys were seen to be very keen in using Kiswahili than women, girls and children.

In mapping this scenario into Thomason's Borrowing Scale (BS) (2001: 70-71) as an explanatory factor, it comes out clearly that the contact between Kiswahili and Chimalaba can be accurately rated as *more intense* contact at level 3 as socio-historical factors prevailing in the Malaba community are a typical characteristic of intensity of contact at level 3. Derivational and inflectional affixes are also part of the types of morphological items that are predicted to be borrowed at this level as outlined in the BS.

As noted above, the BS does not include other factors that happen to promote structural borrowing due to the fact that the factors are many, and it is difficult to encompass all in a single predictive tool. As a supplement, the framework proposed by Seifart (2013) of determining factors for affix borrowing by separating all borrowed affixes into directly and indirectly borrowed is employed. This is done by assessing the manner affixes in each category that have been borrowed by resorting to various tendencies addressed in the literature.

Therefore, for easier determination of factors that promoted affix borrowing in Chimalaba, all affixes are categorized on the basis of directly and indirectly borrowed. Table 5 presents all borrowed affixes in directly and indirectly borrowed.

The categories of affix borrowing presented in Table 5 indicate that the loss of noun class prefix *i-* for class 9, loss of noun classes 12/13 and prefixes *ka-/tu-*, causative suffix *-ish/s/esh*, noun class prefix *ki-* for class 7, numeral concordial marker *m-,* 1st person subject marker singular *ni-* , 1st person object marker singular *ni-,* 2nd person subject marker plural *mu-*, and 2nd person object marker plural *ku-(eni)* are cases of indirect structural borrowing from Kiswahili into Chimalaba. On the other hand, manner deriving affixes *u-aji*, agentive

deriving affixes *n-aji*, genitive form *-ake*, imperative plural marker *-eni*, negative affix for 1st person i-, negative affix for the rest a-, and final vowel *-i* are cases of direct structural borrowing from Kiswahili into Chimalaba.

Table 5: Indirectly and Directly Borrowed Affixes in Chimalaba

	Manner of Borrowing		**Category**	
Types of Affixes	***Directly***	***Indirectly***	***Derivational***	***Inflectional***
Manner deriving affixes	u-aji		√	
Agentive deriving affixes	n-aji		√	
Genitive Form	-ake			√
Imperative Plural Marker	-eni			√
NEG for 1st person	*i-*			√
NEG for the rest	*a-*			√
Final vowel	*i-*			√
Causative		-ish/-esh	√	
Noun Class Prefix for Class 7		ki-		√
Loss of noun Class Prefix for class 9		i-		√
Loss of noun classes 12/13 and prefixes		*ka-,tu-*		√
Numeral Concordial Marker		mi-		√
1st SM (SG)		*ni-*		√
1st OM (SG)		*ni-*		√
2nd SM (PL)		*mu-*		√
2nd OM (PL)		*ku-(eni)*		√

Starting with cases of indirect borrowing, the factors for borrowing involve indirect influence leading to loss of features, indirect borrowing via lexical transfer, and indirect borrowing through transfer of other structural features. The loss of noun classes 12 and 13, together with their diminutive prefixes *ka-/tu,* and the loss of noun class prefix *i-* for class 9, have been facilitated by indirect desire of Malaba speakers to make the nominal morphology of their language resemble that of Kiswahili. Classes 12/13 have almost been lost in Kiswahili, and so to speakers of Chimalaba. The noun class prefix *i-* has been completely dropped even in native nouns due to massive borrowing of nouns belonging to class 9 from Kiswahili. Malaba speakers then adopt Kiswahili loanwords as they are marked in Kiswahili without noun class prefix for class 9.

This tendency is also facilitated by the speakers' need to gain social approval and immerse in the cultural spheres of speakers of Kiswahili. Matras (2009:194) insists that in contact situation where one language is considered as minority and the other one as dominant, speakers in the minority language seek ways to restructure their language to resemble that of the dominant group. This is exactly what happened to Malaba speakers with regard to the loss of noun classes 12/13, and the prefix *i-* for class 9.

Causative suffix *-ish/s/esh* and noun class prefix *ki-* for class 7 have been indirectly borrowed through Kiswahili loanwords containing these affixes, which eventually spread in the community. The causative suffix *-ish/esh* came to be even used productively in the native stems, whereas the noun class prefix *ki-* for class 7 is restricted to loanwords only. Fig. 2 presents the diffusion of causative suffix *-ish/esh* from Kiswahili loanwords into native stems in Chimalaba.

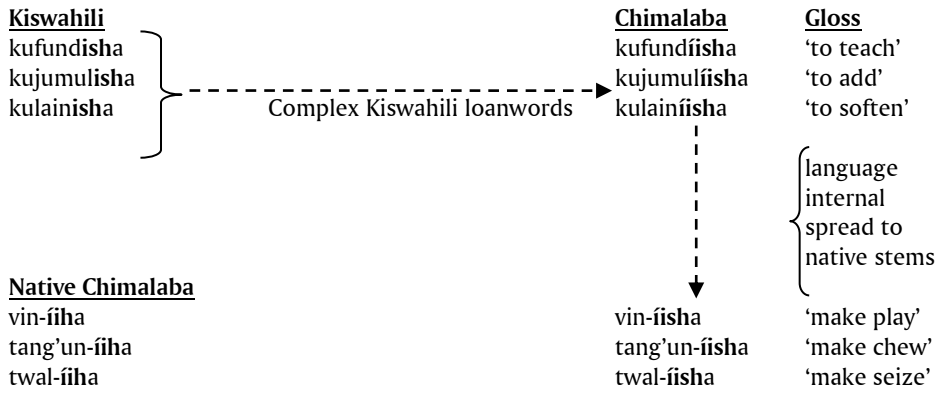


Figure: 2: ***Diffusion of Causative Suffix*** **-ish/esh** ***into Native Stems in Chimalaba***

It has also been observed in Chimalaba that the internal spread of causative suffix **-ish/-esh** was not only facilitated by the presence of large pool of similar loanwords in the language, but also by the existence of structural similarity in the verbal endings between Kiswahili and Chimalaba. This fact is also explained by Winford (2003: 386) as he claims that structural similarity between contact languages makes easy the process of language-internal analogical extension.

In Chimalaba, structural similarity as a linguistic factor for structural borrowing was seen to operate in combination with widespread bilingualism, prestige with Kiswahili (the donor language) and Malaba speakers' attitudes towards the adoption of foreign affixes. Without positive attitude towards the borrowing of Kiswahili affixes, the spread of Kiswahili affixes into native stems would have been blocked, and even the use of foreign affixes might have been limited to occasional occurrences in the discourse of individual bilinguals.

Factors that promoted the borrowing of numeral concordial marker *m-*, 1st person subject marker singular *ni-*, 1st person object marker singular *ni-,* 2nd person subject marker plural *mu-,* and 2nd person object marker plural *ku-(eni)* are entirely attributed to the linguistic properties of the languages involved in contact. It has been discovered in this study that these features were borrowed as a snowball effect of other borrowed features in the language.

The borrowing of the numeral name *móoja* 'one' from Kiswahili led to subsequent borrowing of numeral concordial marker from the same language. Likewise, the borrowing of independent personal pronouns *míipa* 'I', 'you SG', and *mwéepo* 'you PL' from Kiswahili through blending led to the subsequent borrowing of their subject and object markers *ni-* (1st SM), *ni-* (1st OM), *mu-* (2nd OM), and *ku-(eni)* (2nd OM), respectively.

Among the earliest linguists to identify borrowing of structural feature of this kind are Milroy and Milroy (1985: 348). They observe that a change may occur in one segment or a part of grammar, which then sparks off a chain reaction that seems to be internal to a

language system. They take an example of the English Great Vowel Shift in which the Middle English (ME) *ā* was first raised, and that as a consequence of this raising, the ME vowels above it in phonetic space were also raised (or diphthongized in the case of the highest vowel). Therefore, in such a case, speakers' innovation is relevant only to one vowel, and that movements in the other vowels are motivated by the language system.

The observation made by Milroy and Milroy (1985) somehow suits the case observed in Chimalaba, but their observation does not help to specify internal forces to apply the same in explaining the changes in Chimalaba. Maybe this limitation is due to the fact that Milroy and Milroy's observation was on sounds (i.e., vowels) and not on morphological properties like inflectional morphemes observed in the case of Chimalaba. McMahon (1994: 45) makes a more plausible explanation on cases of this kind by stating that there is in principle no morphological borrowing of a single sub-system, and that the borrowing language must undergo changes in more than one grammatical structure.

Basing on McMahon's (1994) description, Seifart (2012: 1) has revealed a morphological principle that accounts for the borrowing of morphological subsystem described by McMahon (1994). Seifart (2012) bases his detection on the analysis of massive morphological borrowing from Bora into Resigaro (Arawakan) languages spoken in the Northwest Amazon. He proposes the Principle of Morphosyntactic Subsystem Integrity (PMSI) in language contact to explain the cases involving borrowing of linguistic subsystems.

According to Seifart (2012), PMSI posits that in cases of massive morphological borrowing, the borrowed forms tend to be structured sets of morphologically interrelated forms rather than independent forms belonging to different morphosyntactic subsystems. This principle thus restricts 'mixing' of foreign and native subsystems. This implies that if a particular subsystem is borrowed from a particular language, it follows that another subsystem will also be borrowed from the same language to make the whole set that contains interrelated forms.

This is exactly what is displayed by the cases of numeral concordial maker *m-,* and subject and object pronouns markers borrowed from Kiswahili into Chimalaba. Numeral name *móoja* could not agree with native concordial marker *yu-,* hence the borrowing of the form *m-* and independent personal pronouns *míipa* and *mwéepo* would not agree with native subject and object markers in Chimalaba; hence borrowing them from Kiswahili.

Lastly, manner deriving affixes *u-aji*, agentive deriving affixes *n-aji*, genitive form *-ake*, imperative plural marker *-eni*, negative affixes *i-* for 1st person, *a-* for the rest and the final vowel *-i* have been directly borrowed. It has been found that all these affixes have been directly extracted from the SL basing on Malaba speakers' knowledge of Kiswahili, without mediation of complex loanwords within the RL as in the cases of causative suffix described above. Under direct affix borrowing, affixes in Kiswahili are recognized by Malaba speakers in their knowledge of Kiswahili; and use them in the native Chimalaba stems as soon as they borrow them with no intermediary phase of occurrence in Kiswahili complex loanwords only. This process is illustrated in the Fig. 3.

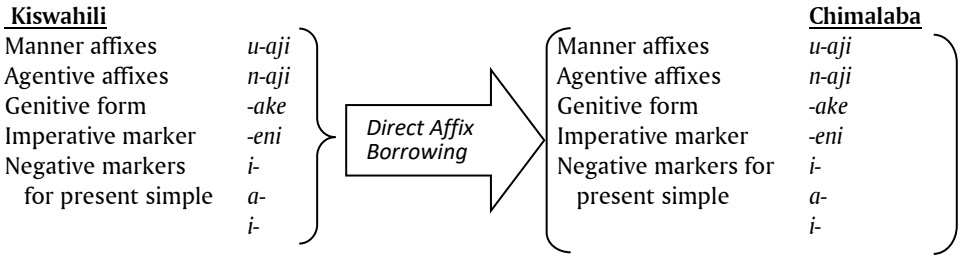


Figure 3: ***Direct Borrowing of Affixes from Kiswahili into Chimalaba***

The main factors that have been discovered as triggers for direct affix borrowing are extensive bilingualism and structural compatibility between Kiswahili and Chimalaba. Malaba speakers (who know Kiswahili very well) tend to develop some mechanisms for equating 'similar' structural sub-parts and categories across Kiswahili and Chimalaba. So, as they find these 'equivalent relations', then they easily import foreign affixes from Kiswahili and integrate them in Chimalaba. Therefore, the knowledge of Kiswahili gives them a chance to identify similar patterns between the two languages, and structural congruence allows them to integrate extracted affixes from Kiswahili into Chimalaba.

The twin role of bilingualism and structural similarity on facilitating direct affix borrowing has received a great attention in the literature. Heine and Kuteva (2005: 4) describe this as 'formulas of equivalence' or 'isomorphism'. They describe that this direct borrowing demonstrates two facts: (a) there must be a structural feature in the SL known to speakers in the RL for them to borrow; and (b) there must be a relevant subpart in the RL structure into which the borrowed affix will be integrated.

Seifart (2013: 46) points out similar cases of direct affix borrowing motivated by speakers' knowledge of the SL and structural compatibility between the contact languages. He provides examples of an affix *-ba* (which is a classifier used for fruits, logs and drinks) borrowed directly from Bora into Resigaro. It was extracted directly from Bora and used in Resigaro in native stems like *nanaana-ba* 'pineapple fruit', *avaana-ba* 'log', etc.

Matras and Sakel (2007: 38) add that direct affix borrowing is also an indicator of borrowing for prestige. They provide a criterion for determining borrowing for prestige as the presence of direct extraction of the a foreign affix that replaces the native equivalent one. To them, there would be no other reason as to why speakers need to borrow a feature that they already have in their own language without attributing this to borrowing for fashion.

Therefore, it can be noted that the fundamental difference between direct and indirect affix borrowing is from where speakers take the affix: *from the complex loanwords* or *from their knowledge of the SL* (Seifart, 2013). The factors that have been discovered as triggers for both direct and indirect affix borrowing from Kiswahili into Chimalaba are summarized as extensive bilingualism, speakers' positive attitude, prestige, heavy lexical borrowing, Snowball effect of already borrowed structural feature (or PMSI), structural similarity, and semantic saliency.

4.2 The Role of Bilingualism on Affix Borrowing

After analyzing socio-historical factors that are a characteristic of the Malaba community (i.e., prolonged contact with Kiswahili, dominance of Kiswahili over Chimalaba and speakers' mobility) with those factors that are sociolinguistic (i.e., widespread bilingualism, speakers' attitudes, prestige), and those that are linguistic (i.e., heavy lexical borrowing, structural similarity, PMSI and semantic saliency), it came to be well established that bilingualism is a prominent factor in promoting affix borrowing in Chimalaba, but it plays an *intermediary role*.

This means that the primary driving forces for the occurrence of affix borrowing in Chimalaba are those factors that are socio-historical (or extra-linguistic) in nature. These are prolonged contact, dominance of Kiswahili and speakers' mobility. These three factors unchained a series of events leading to the emergency of widespread bilingualism in the Malaba community. So, these are the primary factors, and bilingualism is a secondary factor. This implies that in the absence of primary factors everything would have been cancelled, including the emergence of bilingualism itself. Bilingualism as a secondary factor is, therefore, influenced by primary factors, and it does not operate on its own.

Bilingualism has been seen to be the main source of introducing innovative word-forms (i.e., derivational and inflectional affixes) from Kiswahili into Chimalaba by bilingual Malaba speakers. It has been noted in this study that Malaba speakers (who exhibit unilateral bilingualism) are obliged to maintain tight control over their selection of word-forms when communicating in Kiswahili since any carry-over of word-forms from their own native language would not be understood; and might lead to a breakdown in communication. But when communicating with fellow Malaba speakers, most of whom are bilingual, control is lax: word-forms from Kiswahili are understood and their use during interaction in Chimalaba is usually tolerated.

Something that is very interesting is that bilingualism interacts with other factors in promoting the use of Kiswahili word-forms. At the level of initiation of innovation, the use of Kiswahili word-forms is also facilitated by speakers' prestigious feelings towards Kiswahili and the use of its word-forms, heavy lexical borrowing from which Kiswahili word-forms can be extracted and eventually be used productively with native stems, structural similarity which allows for direct morpheme substitution, the PMSI which balances the internal sub-systems, and so on.

All this means that the use of Kiswahili word-forms in Chimalaba in itself does not constitute a change if such an innovation does not spread to the entire community and is used by all members, including monolingual speakers. Therefore, at the level of the spread of innovation to the entire community, bilingualism interacts with speakers' attitudes associated with the use of Kiswahili word-forms at the community level. Bilingual speakers have influence in the use of innovations. They do not operate in the spread of innovations in the speech community to be accepted and used widely as established borrowings. The spread of innovations can be accepted or blocked by community attitudes towards the SL and borrowing RL (Matras, 2009).

For example, according to Thomason (2001), speakers of Montana Salish, a member of the Salishan language family spoken in Northwest American territories, have been under intense cultural pressure with Anglo American speakers with a reasonable level of bilingualism enough to compel them borrow structural features. Exceptionally, however, they have not borrowed structural features from English (ibid: 95). This is because their attitudes towards borrowing were negative, and as a result it blocked any chance of borrowing structural features in the presence of long contact with high bilingualism.

In demonstrating the intermediary role played by bilingualism and its interaction with other factors in a hierarchy, all the factors discovered to have promoted affix borrowing in Chimalaba are presented in the MCM developed by Rendon (2008) as shown in Fig. 4.

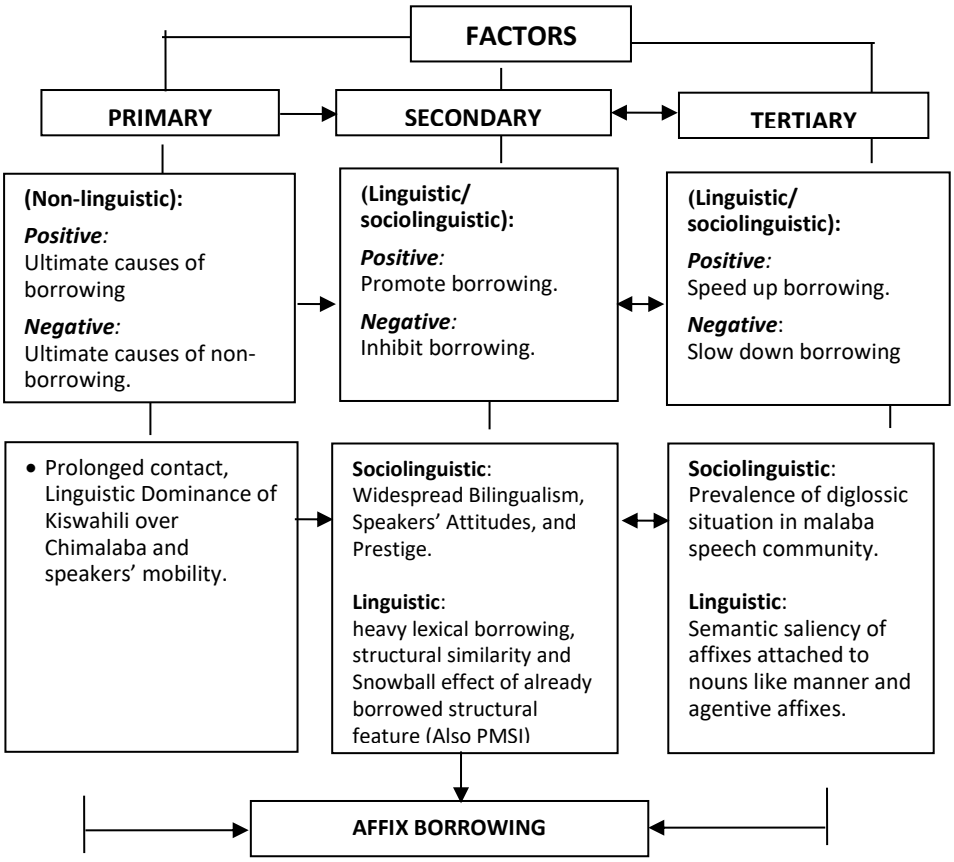


Figure 4: *Multi-Causation Model for Affix Borrowing*

All socio-historical and linguistic factors presented in Fig. 4 are classified as primary, secondary, and tertiary factors. The primary factors are basically non-linguistic. These include prolonged contact between Kiswahili and Chimalaba, linguistic dominance of Kiswahili over Chimalaba, and speakers' mobility. In the hierarchy, these factors act as the

main cause of affix borrowing because, at first they unchained a series of events leading to developing of other factors like widespread and unilateral bilingualism, speakers' attitudes, and prestige; and through them they ultimately brought about borrowing.

Primary factors do not influence affix borrowing on their own but through sociolinguistic and linguistic factors that are secondary. Therefore, bilingualism in combination with heavy lexical borrowing from Kiswahili, speakers' positive attitudes towards adopting foreign affixes, the PMSI and structural similarity: all promoted the borrowing of affixes from Kiswahili into Chimalaba.

Lower in the hierarchy is the prevalence of diglossic situation in the Malaba speech community and semantic saliency of affixes attached to nouns like manner and agentive affixes (Matras & Sakel, 2007). All these two speeds up the rate of affix borrowing.

5. Conclusions

The findings in this study fall under three main themes. First, previously attested inflectional affixes (see Amani & Mreta, 2012) have been confirmed to be genuine cases of structural borrowing. This adds more confidence in the claim that Chimalaba has borrowed a lot of structural features from Kiswahili in a unique way that is not demonstrated by any other ethnic community language under the influence of Kiswahili.

Second, additional structural features that are nominal derivational affixes **n-aji** for agentive nouns, **u-aji** for manner (abstract) nouns, and verbal derivational affix **-ish** which is causative, have been attested. This conforms to the claim by Matras (2009) that when a language borrows inflectional affixes, it also follows that derivational affixes have been borrowed too. Previous attestation of borrowed structural features by Amani and Mreta (2012) did not focus on derivational affixes, and thus this study has been an extension of the previous work basing on the plausible prediction by Matras (2009).

Third, findings have indicated that bilingualism plays an intermediary role in promoting affix borrowing in Chimalaba. It does not stand as an ultimate force from which all types of structural changes that have occurred in derivational and inflectional morphology in Chimalaba due to its contact with Kiswahili can be attributed to. Bilingualism, therefore, induces structural borrowing as a secondary force after the existence of certain socio-historical circumstances prior to its emergency. In its operation, it interacts with many other factors in a hierarchy and complementary manner; with a clear division of labour as illustrated in the MCM developed by Rendon (2008) (cf. Fig. 4).

References

Amani, H. 2010. The Influence of Kiswahili in Chimalaba: A Case of Lexical and Structural Borrowing. MA dissertation, University of Dar es Salaam.

Amani, H. & A. Y. Mreta. 2012. Mechanisms of Structural Borrowing in Chimalaba. *Journal of African Affairs,* 32(8): 211–232.

Bakker, D. 2008. Spanish Meets Guaraní, Otomí and Quichua: A Multilingual Confrontation. In S. Thomas,, D. Bakker & R. Polomo, (eds.) *Aspects of Language Contact: New Theoretical, Methodological and Empirical Findings with Special Focus on Romanicisation Processes*. Berlin: Vervuert, pp. 165–238.

Bakker, D. & E. Hekking. 1999. A Functional Approach to Linguistic Change through Language Contact: The Case of Spanish and Otomí. *Working Papers in Functional Grammar,* 71: 1–32.

Emeneau, M. B. 1962. Bilingualism and Structural Borrowing. *American Philosophical Society,* 106(5): 430–442.

Field, F. 2002. *Linguistic Borrowing in Bilingual Contexts*. Amsterdam: Benjamins.

Hearth, J. 1978. *Linguistic Diffusion in Arnhem Land.* Canberra: Australian Institute of Aboriginal Studies.

Heine B. & T. Kuteva. 2005. *Language Contact and Grammatical Change*. Cambridge: Cambridge University Press.

Katamba, F. 2003. Bantu Nominal Morphology. In: D. Nurse & G. Philippson (eds.), *The Bantu Languages*, pp. 103–120. London: Routledge.

Kraal, P. 2005. *A Grammar of Makonde*, PhD thesis, Leiden University.

Liebenow, J. 1971. *Colonial Rule and Political Development in Tanzania: The Case of the Makonde*. Evanston: Northern University Press.

Languages of Tanzania (LOT). 2009. *Atlasi ya Lugha za Tanzania.* Dar es Salaam: Languages of Tanzania Project.

Masliyah, S. 1996. Four Turkish Suffixes in Iraqi Arabic: -li, -lik, -siz and -c¸i. *Journal of Semitic Studies* 41: 291–300.

Matras, Y. 2009. *Language Contact*. Cambridge: Cambridge University Press.

Matras, Y. & J. Sakel, (eds). 2007. *Grammatical Borrowing in Cross- Linguistic Perspective*. Berlin & New York: Mouton de Gruyter.

McMahon, A. M. S. 1994. *Understanding Language Change.* Cambridge: Cambridge University Press.

Milroy, J. & L. Milroy. 1985. Linguistic Change, Social Network and Speaker Innovation. *Journal of Linguistics,* 21(4): 339–384.

Nurse, D. 2008. *Tense and Aspect in Bantu*. Oxford: Oxford University Press.

Odden, D. 1990. Tone in the Makonde Dialects: Chimalaba. *Studies in African Linguistics,* 21: 149–187.

Petzell, M. 2005. Expanding the Swahili Vocabulary. *Africa & Asia*, 5: 85–107.

Rendón, G. 2008. *Typological and Social Constraints on Language Change: Amerindian Languages in Contact with Spanish*, PhD Thesis, University of Amsterdam.

Seifart, F. 2013. *Direct and Indirect Affix Borrowing*. Leipzig: Max Planck Institute for Evolutionary Anthropology.

Seifart, F. 2012. The Principle of Morphosyntactic Subsystem Integrity in Language Contact: Evidence from Morphological Borrowing in Resígaro (Arawakan). *Diachronica,* 29(7): 471–504.

Weinreich, U. 1953. *Languages in Contact: Findings and Problem.* New York: Mouton de Gruyter.

Winford, D. 2003. *An Introduction to Contact Linguistics*. Oxford: Blackwell.

Abbreviations

APPL	Applicative
CAUS	Causative
CONC	Concordial Marker
F	Final
FV	Final Vowel
KISW	Kiswahili
LOT	Languages of Tanzania Project
MCM	Multi-Causation Model
ME	Middle English
NEG	Negation
NPx	Noun Class Prefix
OBJ	Object
OM	Object Marker
PASS	Passive
PFE	Principle of Functional Explanation
PFV	Perfective
PL	Plural
PLU	Pluractional
PMSI	Principle of Morphosyntactic Subsystem Integrity
RECIP	Reciprocal
RL	Recipient Language
SBJV	Subjunctive
SG	Singular
SL	Source Language
SM	Subject Marker
STAT	Stative
VB	Verbal Base
R	Verbal Root
VST	Verb Stem
EXT	Extensions

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Agreement Between *n*Ps and Modifiers in Bantu DPs

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Abstract

Agreement is one of the conspicuous characteristics of structural relations holding among the categories or elements in syntactic constituents—clauses and phrases—in Bantu languages. This paper focuses on agreement relations in nominal phrases, specifically agreement between nouns (*n*Ps) and respective elements, also called modifiers, in Bantu languages. The paper is premised around the Noam Chomsky's minimalist approach, which assumes that items or elements in a phrase or clause standing in an agreement configuration are arranged via successive Merger binary operations taking place in a bottom-up fashion. Using evidence from Kiswahili, the paper argues that the agreement between head nouns and its modifiers of DP in Bantu languages stem from the raising of the head noun – *n*P. The approach to deriving agreement in Bantu DPs pursued departs from head specifier relations via government and the raising of N to class prefix via probe goal relations. The paper has assumed that proper agreement is a function of syntactic operations, specifically the raising of XP (*n*P) to Spec DP.

Keywords: *agreement, Bantu, DP, Kiswahili, modifiers*

1. Introduction

This paper focuses on agreement relations in nominal phrases, specifically agreement between nouns (*n*Ps) and respective elements; also called modifiers, in Bantu languages. The analysis of Bantu DPs is in line with Chomsky's (2000, 2001a, 2001b) minimalism showing that there is affinity between specifiers and respective heads and not otherwise. The paper argues that Bantu DPs exhibit agreement via Spec head relations, contrary to the view which suggests that agreement via Spec head relations is not possible in Bantu languages. In addition, the paper departs from agreement by probe goal relations involving noun stem and class prefix since this structural relation does not suggest how postnominal agreement on postnominal modifiers is achieved. The paper argues that Spec head agreement relation is achieved through the raising of *n*P to a specifier position of modifiers in DP structure. The analysis of DP structure adopted in the paper is in line with Ndomba's (2017) XP movement suggested for deriving Bantu DPs.

This paper is organized into eight sections. Section one is the introduction. Section two describes agreement in Bantu DPs. Section three describes theoretical issues regarding agreement. Section four presents a description of the structure of agreement in Bantu DP. Section five presents approaches to deriving agreement. Section six presents alternative derivation, and section seven presents non-agreeing *n*Ps and modifiers. Section eight is a conclusion. The next section attempts to conceptualize the general agreement phenomenon in Bantu nominal expressions to set ground for more discussion of the structure of agreement in these languages.

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2. Agreement in Bantu DPs

Yanco (1984) points out that the characteristic Bantu system of agreement[1] has two manifestations. First, the verb agrees with respective subject noun. Second, the modifier agrees with its head noun (*n*P). In (1)–(2), the two parallel agreement patterns, are illustrated in Lingala, drawn from Bokamba (1977) in Yanco (1984:141). According to Yanco (1984), these examples represent the general principle of agreement as it operates in Bantu languages.

1. *E-lɔkɔ e-nɛnɛ e-kwey-aki awa.*
   thing big(ness) fall PAST here
   'A large object fell down here.'

2. *Bi-lɔkɔ bi-nɛnɛ bi-kwey-aki awa.*
   things big(ness) fall PAST here
   'Large objects fell down here.' *[Lingala, Yanco (1984:141)]*

Yanco (1984) points out that in (1)–(2), agreement is achieved via what are termed agreement prefixes that appear on verbs and subjects or modifiers and head nouns. Two categories of agreement are identified in the examples. First, verbs *e-kwey-aki* 'fall' in (1) and *bi-kwey-aki* 'fall' in (2) agree in class and number with their respective subjects *e-lɔkɔ* 'thing' and *bi-lɔkɔ* 'things'. The agreement between these verbs and their subjects is accomplished via the class prefixes *e-* and *bi-* for *e-lɔkɔ* 'thing' and *bi-lɔkɔ* 'trees' in (1) and (2). The two agreement prefixes function as number–singular/plural, morphology of respective nominals. Thus, *e-* in (1) codes 'singularity' (meaning one), and *bi-* in (2) codes 'plurality' (meaning not one).

Second, modifiers agree with respective noun heads – DP internal agreement. The adjective (modifier) *-nɛnɛ* 'big(ness)' takes the class prefixes *e-* and *bi-* drawn from respective head nouns. Similar to agreement on verbs, the prefixes on the modifiers function as class (noun class 1/2) and number morphology (singular and plural).

This paper focuses on DP internal agreement, which basically involves head nouns (*n*Ps) and their respective modifiers (dependents). The whole body of literature have examples showing agreement forms in Bantu languages (Carstens, 1991, 1993, 2008; Contini-Morava, 1996, 1999; Déchaine et al., 2014; Fortune, 1984; Katamba, 2003; Maho, 1999; Nurse et al., 2003; Rugemalira, 2007). Katamba (2003) points out that each dependent that co-occurs with *n*P in a noun phrase (NP) bears a special marker identifying it with the class prefix of that respective *n*P. In the structure of Bantu DPs, an agreement agrees with the class and number of the head *n*P to which it is related. According to Katamba (2003), agreement can be alliterative or non-alliterative as illustrated in (3)–(4).

3. *Ki–kapu ki–dogo ki– mefika.*
   cl.7 basket cl.7 little cl.7 arrived
   'The little basket arrived.'

[1]Agreement is considered as the structural relations holding between categories. Literature analyses agreement phenomenon as concord that targets adnominals and verbs (Maho, 1999). Agreement is also approached as agreement based on gender and number marked using noun classes (Carstens, 2017). This paper considers agreement as a specific structural relation holding between head nouns and modifiers expressing class and number of respective head nouns.

4. *M–toto m–dogo a - mefika.*
   cl.1 child cl.1 little cl.1 arrived
   'The little child arrived.' *[Kiswahili, Katamba (2003:111)]*

Alliterative agreement is observed in (3) where the pattern of agreement of the noun, adjective, and verb is *ki-ki-ki;* while non-alliterative agreement is observed in (4) where the pattern of agreement of the noun, adjective, and verb is *m-m-a.* According to Katamba (2003), the words—adjective and verb—in (3)–(4) take appropriate matching markers that belong to the respective *n*Ps in class and number. In (3) the adjective *-dogo* 'little' and the verb *-mefika* 'arrived' each take the appropriate noun class prefix *ki-,* which corresponds to a class 7 prefix on the *n*P *ki-kapu* 'basket'. Similarly, in (4) the adjective *-dogo* 'little' and the verb *-mefika* 'arrived' take corresponding class 1 markers *m-* and *a-* of the head *n*P *m-toto* 'child'.

The alliterative and non-alliterative agreement patterns are also found in some other Southern Bantu languages like Shona. Shona examples are illustrated in (5)–(6).

5. *Chì-kómáná chì-rèfú ì-chì chì-nò-fámbá*
   C7-boy C7-tall DEM-C7 C7.SM-HAB-walk
   'This strong sturdy tall boy walks'

6. *Mù-kómáná mù-rèfú ù-yù à-nò-fámbá*
   C1-boy C1.tall DEM-C1 C1.SM-HAB-walk
   'This tall boy walks.' *[Shona, Déchaine et al. (2014:41)]*

Shona data in (5)–(6) is similar to the Kiswahili data (Katamba, 2003) in (3)–(4) since they both illustrate two patterns of agreement: alliterative and non-alliterative. In (5) the agreement pattern is perfect alliteration *chi-chi-chi-chi,* and in (6) the agreement pattern is non-alliterative *mu-mu-yu-a.*

In all cases, agreement forms—alliterative or non-alliterative—tend to mark class and number distinctions. In (5), for instance, *mu-* functions as singular marker and Class 1 noun for humans and/or animates of respective noun. This observation agrees with Baker (2008) who states that modifiers, like adjectives, show agreement in class and number.

3. The Structure of Agreement in Bantu DP

According to Barlow and Ferguson (1988), agreement is a situation in which the presence of one element in a sentence (the agreeing element) is dependent on the co-presence of another element (the controller). This phenomenon is illustrated in Kiswahili examples in (7)–(8).

7. *Vi-ko vi-wili vi-dogo vy-eupe.*
   8 pipe 8 two 8 small 8 white
   'Many small white pipes.'

8. *Mi-ti mi-wili mi-dogo my-eupe.*
   4 tree 4 many 4 small 4 white
   'Many small white trees.'

In (7)–(8), the appearance of the class prefixes *vi-* and *mi-* on the modifiers—-*wili* 'two' (numeral), *-dogo* 'small' (adjective) and *-eupe* 'white' (adjective)—is dependent on the appearance of corresponding noun class prefixes on the nouns *-viko* 'pipes' and *miti* 'trees'. This kind of syntactic dependency results into a phenomenon called agreement. Agreement pattern would be different if the nouns were from different classes altogether as illustrated in (9)–(10).

9. *Ma-ua* *ma-wili* *ma-dogo* *m(a)-upe.*
   6 flower 6 two 6 small 6 white
   'Two small white flowers.'
10. *Wa-tu* *wa-wili* *wa-dogo* *w(a)- eupe.*
    2 person 2 two 2 small 2 white
    'Two small white people.'

In (9)–(10) the agreement forms of the modifiers in (7)–(8) have changed following a change of nouns to which they agree. This means that agreement forms are not independent of the nouns: their forms depend on the nouns in both number and class. Miyagawa (2010) calls this situation of agreement asymmetric because one element is deemed the source of the information for the other. The above examples show that nouns are deemed sources of their own information communicated on the modifiers in terms of the number and class.

To approach the subject of agreement and determine how elements are assigned agreement, Contini-Morava (1996) adopts three assumptions from Lehmann (1988). First, agreement is assumed to be redundant in the sense that a covariance of two or more elements contributes no independent semantic content to the message being communicated, but it is merely a mechanical copying of features of the controller into the controlee or the target (Corbett, 1991). Features of the controlee—number and class—on modifiers are said to emanate from the controller noun such that the structures are ungrammatical when there is a mismatch of features between the modifiers (controlees) and head nouns (controllers), as shown in (11)–(12).

11. **Ma-ua* *wa-nne* *w(a)-eupe.*
    6 flower 2 four 2 white
    'Four white flowers.'
12. **Wa-tu* *ma-nne* *m(a)-upe .*
    2 person 6 four 6 white
    'Four white people.'

The examples in (11)–(12) are ungrammatical because the modifiers—number *-nne* 'four' and adjective *-eupe* 'white'—have agreement forms that do not correspond with the noun classes of the respective *n*Ps. It is characteristic that the structure of agreement on the modifiers must correspond in number and class with *n*Ps (head nouns); any mismatch leads to ungrammaticality.

Second, it is assumed that agreement is unidirectional in that the grammatical properties of one element in the sentence or phrase (the target of the agreement) are determined by those of another element (i.e., the controller), and not vice versa. In other words, this

means that agreement is asymmetric, and that one of the elements participating in the covariance relation provides agreement information, while the other receives it. The grammatical examples in (7)–(10) and their ungrammatical counterparts (11)–(12) attest to this fact, showing that forms of modifiers with respect to agreement are determined by head nouns that stand as controllers. This wise, modifiers and head nouns come to have the same agreement features with an assumption that the features originate from *n*Ps (controllers) and not otherwise.

Third, it is assumed that both the elements taking part in the agreement relations—controller and controlee—must be present in the local configuration: the controller must co-occur in a sentence or phrase with the controlee. The examples cited reveal that the modifiers and nouns co-occur in DP structure, and that controlee-controller relations would be lacking in the absence of either. Lehmann (1988) (in Contini-Morava, 1996: 252) adopts the traditional approach to agreement and formalizes agreement using a set of conditions in (13).

13. Agreement conditions
    Constituent *B* agrees with constituent *A* (in category *C*) if and only if the following three conditions hold true:
    a. There is a syntactic or anaphoric relation between *A* and *B*.
    b. A belongs to a subcategory *c* of a grammatical category *C*, and *A*'s belonging to *c* is independent of the presence or nature of *B*.
    c. *c* is expressed on *B* and forms a constituent with it. *(Lehmann, 1988:55)*

These conditions, according to Contini-Morava (1996), explain in part what is known about structural relations of agreement, especially feature spreading or copying, assuming that agreement markers are copies motivated by communicative needs: a semantic approach. Contini-Morava (1996) argues that agreement markers in Kiswahili, like those belonging to the animate class and deictic markers (DM), are determined by independent semantic contexts (speech context or narrative context), and not by formal properties of the referent (grammatical rules of agreement). This view is illustrated in (14)–(15).

14. *M-toto* *yule* *a–li - anguka.*
    N1 child DM1-PS 'that' DM1-Tpast -VS 'fall'
    'That child fell.'

15. *Ki-ti* *ki-le* *ki–li -anguka.*
    N7 chair DM7-PS 'that' DM7-Tpast-VS 'fall'
    'That chair fell.'

16. *Ki-faru* *yu-le* *a–li - anguka.*
    N7 rhinoceros DM1-PS 'that' DM1-Tpast-VS 'fall'
    'That rhinoceros fell.' *(Contini-Morava, 1996:257)*

It is observed above that DM in Class 1 and Class 7 follows classes of the head nouns in (14) and (15), except in (16). In (16), according to Contini-Morava (1996), the mismatch of the deictic pattern is observed when the deictic pattern for an animate noun in Class 7 is identical to that of the Class 1 in (14). It is argued that (16) should be viewed as a counter example of agreement rules stated in terms of the syntactic notion of class, and that

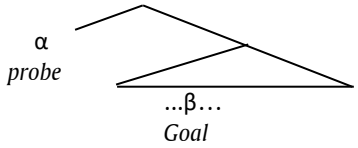
proper positing of the observed agreement should be premised on semantic grounds. Although the semantic approach can account for what happens in (16), there is no way the semantic approach can illustrate how agreement markers come to have the forms they have—be it overt forms (as in (14)–(15)) or underlying forms (as in (16))—and how they come to appear in the positions in which they are. Since the semantic approach might not sufficiently explain such mismatches as in (16), we now turn to syntactic theoretical issues surrounding agreement in the next section.

4. Theoretical Issues on Agreement

This paper is premised around Chomsky's (2000, 2001a, 2001b) minimalist approach that assumes that items or elements in a phrase or clause standing in an agreement configuration are arranged via successive merger binary operations taking place in a bottom-up fashion. The merging of elements is assumed to be distant, involving probes (source of agreement) and goals (target of agreement). The probes are unvalued—semantically meaningless—hence bear *u*(ninterpretable) *F*(eatures) -*u*F. The probes seek matching features called goals under closest c-command. The process in which probes seek goals is called Agree. Agree is accomplished when the *u*F of probes are valued by their goals via the deletion of the same on goals. Carstens (2005) formalizes Agree as a condition in (17) and (18).

17. Agree (α, β) if c-commands β; α, β have matching features; there is no γ with matching features such that α c-commands γ and γ c-commands β (Carstens, 2005:221).

18.



(Carstens, 2005:221)

In addition to valuing *u*F, as noted above Agree marks the features for deletion: the deletion of features is necessary before probes are assigned semantic interpretation. An item or category that serves as goal in Agree must also have the corresponding *u*F of the probe, otherwise it is not 'active'. In DP, corresponding *u*Fs are number and class in the case of Kiswahili. In some languages the corresponding *u*F extends to case and gender. Like *u*F of the probe, *u*F of the goal is deletion marked in an Agree relation. A category with only deletion-marked *u*F remains relevant in the computation of closest c-command as a 'defective intervener'. These interveners are not able to value probe's features, but block Agree relations from reaching across them nonetheless.

It is assumed that the *u*F of probes include uninterpretable phi-features[2] (*u*ϕ–features) such as class and number of agreement. These grammatical features raise the goal of an

[2] Formalist tradition defines phi-features (ϕ–features) in terms of agreement relationship between two terms of a syntactic structure, e.g., the subject and finite verb that show agreement for person and number (Den Dikken, 2011). This paper, however, focuses on agreement relations of class and number between head nouns and modifiers. It is assumed that class and number are the main functional instantiations of agreement forms among DP modifiers in Bantu languages.

Agree relation to the probe's specifier position, leading to Spec head Agree (SHA) relation (Carstens & Kinyololo, 1985; Koopman, 1992; Rizzi, 1990). The formulation of Spec head agreement adopted from Carstens (2005) is formalized under the Spec head Agreement hypothesis (SHAH), in (19).

19. $[_{XP}\ YP_{\phi}\ [X]] \rightarrow [_{XP}\ YP_{\phi}\ [X_{\phi}]]$ (*Carstens, 2005:220*)

The above shows that there is a close relationship between specifiers (YP) and respective heads (X). The close affinity between specifiers and heads presupposes the lack of privileged relationship between heads and specifiers, in line with Chomsky (2000, 2001a, 2001b). In this view, Agree relation that values and deletes agreement features—called uninterpretable ϕ–features or *u*ϕ—relies instead on closest c-command of a category β with ϕ–features—called the goal—by the agreeing category α illustrated earlier in (17) and (18).

Carstens (1991, 1993, 2008) illustrates that in Bantu languages DP probe *u*F features are class and grammatical gender. Carstens uses the term gender to refer to groupings of nouns based on shared (noun) classes. Viewed in this way, Class 1/2, 3/4, 5/6, and 7/8 are instantiations of Genders A (humans/animates), B (plants or trees), C (uncountables, liquids), and D (objects, things). However, in the Meinhoff tradition, nouns are categorized in classes, and each noun class forms singular-plural pairs. In each pair, odd numbers are assumed to represent plurality, and even numbers singularity. This study adopts the term class instead of gender to refer to class prefixes to be on a par with broad literature in Bantu linguistics.

As shown in (17)–(18), if the probe α also has class-feature and number-feature, it raises the goal β to Spec α. Raising to Spec is thus dependent on the existence of a prior Agree relation. Given the correlation between the raising of class and number features in Bantu DPs, I formalize Agree condition as in (20).

20. In Bantu DP, a modifier has class and number feature if head noun has the same *u*ϕ.

It can be observed that head nouns in Bantu examples cited earlier have uninterpretable features—class and number—which also serve to initiate Agree relations; the features class and number must be deleted by a matching feature of the closest c-commanded class prefix for the structure to be grammatical. The next section attempts to revisit some of the approaches that attempt to derive the structure agreement in Bantu languages.

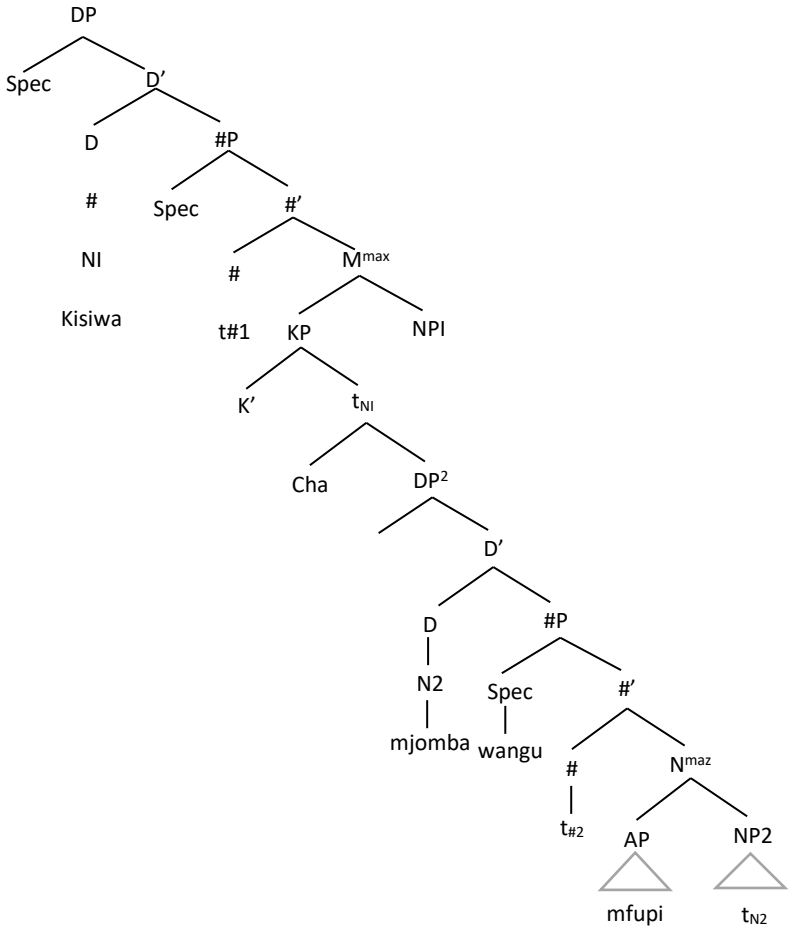
5. Approaches to Deriving the Structure of Agreement in Bantu DP

5.1 Agreement via Head Specifier Relations under Government

Carstens (1991) points out that agreement among the different elements in DP configuration is realized either through government or Spec head relations. In both cases, agreement is said to spread hierarchically from the head noun (N) in the left to other elements in the right in a top-down fashion. Carstens (1991, 1993) notes, however, that the common Spec head agreement is not possible in Kiswahili as the case in other Bantu languages; and that the only viable option is to derive Bantu DPs as those found in Kiswahili via government. In government, Carstens notes that agreement is achieved through structural relations involving heads and respective specifiers. This phenomenon is illustrated in (21) (author's example) and (22).

21. *Kisiwa cha m-jomba w-angu m-fupi.*
7 island 7 of 1 uncle 1 my 1 short
'My short uncle's island.'

22.



Carstens, 1991:124

In (22), Carstens (1991) illustrates that the *-a* phrase *cha* 'of' is the head of a case phrase (KP), and that [D[*[N *kisiwa*]]] governs KP using government transparency corollary (GTC). The trace at t_{N1} is an indication of the government relations following the raising of N1 to D. [D [* [N *kisiwa*]]] also governs *-a* as the head of KP since there is no projection that acts as a barrier for its head: an assumption that is supported by minimality. According to Carstens (1991), government is responsible for the transmission of ϕ feature [Class 7, singular] from D down to *-a* heading KP. Since KP includes DP *mjomba wangu mfupi* 'my short uncle', and excludes the head noun *kisiwa* 'island' and members of its chain–$t_{\#1}$ and t_{N1}, KP is a barrier for D^0 under minimality. From this analysis it is expected that all elements in DP2 would

agree with N2 following the illustration. Stated thus, Carstens (1991) assumes that feature agreement spreads from D via government, and that the common Spec-head agreement relation is not found in Kiswahili. These facts are explicated when supposing that N occupies D, and that the other elements are analyzed as specifiers. The consequence of this approach is to conclude that Spec head agreement is not possible in the DP structure of Kiswahili, and that the only possible relation of agreement is that of head specifier under government.

5.2 Agreement via Probe-Goal Relations

Lusekelo (2013) explains agreement on modifiers in terms of phi-features of probe and goal and relates agreement forms to certain modifiers only; and these include demonstratives, numerals, quantifiers, and possessives as illustrated in (23).

23.

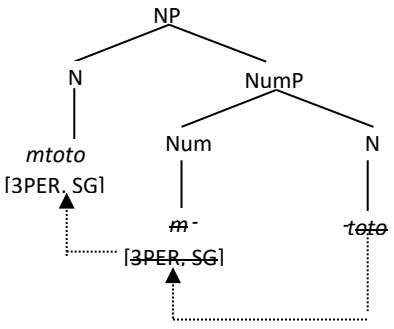
Category	**Kimakonde**	**Kiswahili**	**Kinyakyusa**	**Gloss**
Nouns:	munu	mtu	mundu	'person (singular)'
	isibiki	viti	ifikota	'chairs (plural)'
Possessives:	vyake	yake	fyake	'her (singular)'
	lyenu	yenu	ɟinu	'your (plural)'
Numerals:	vatatu	tatu	itatu	'three'
	ncheche	nne	ina	'four'
Demonstratives:	achi	hiki	iki	'this (singular)'
	avala	wale	ßala	'those (plural)'
Quantifiers:	voohe	wote	ßoosa	'all'3
	-ingi	-ingi	-ingi	'many'

Lusekelo, 2013:22

The claim that agreement is only possible with the sets of items in (23) raises several concerns. First, it is not clear why agreement features should target only these items and not, for instance, the adjectives. Second, although it is explained that the mentioned categories show a number distinctions, the data is far from the fact since agreement markers are not distinguished as singular or plural in some cases. Third, the probe and goal analysis assumed is not explained in any clear terms in relation to the data.

In deriving agreement in Bantu DP, Lusekelo (2013) points out that agreement stems from the movement of N to Num where it takes [3PER(SON), Num(ber)] features as illustrated in (24).

24.



Lusekelo, 2013:28

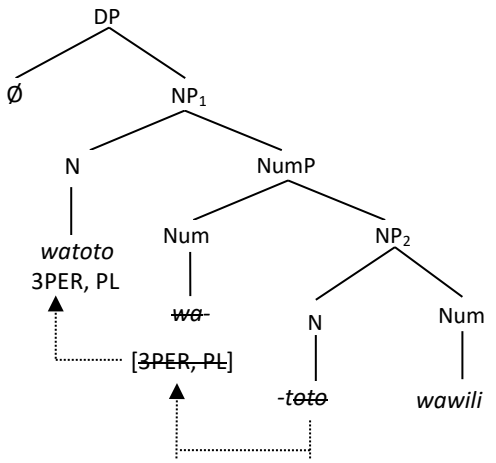
It is assumed in (24) that agreement is accomplished via movement of N to Num where it acquires agreement features before it raises to N. Even in this derivation, there are theoretical agreement questions surrounding the probe-goal relation that remains to be answered. For instance, probe and goal items that are involved in the process of checking of the features are not identified in any way, nor is the feature checking process made explicit. While it might be possible to account for the SG (singular) feature as number-based on the Class 1 prefix *m-*, which inflects for singularity, it is not possible to determine 3PER feature on a noun. A person feature is always observed in the structure of verbs that take markers of subjects as illustrated in (25)–(26).

25. *M-toto* *m-zuri* *ni -* *na* *- kwenda* *shule.*
1 child 1 beautiful 1 SM[1PERS SG] PRES go to school
'(The beautiful child) I am going to school.'

26. *Wa-toto* *wa - zuri* *wa* *- na -* *kwenda* *shule.*
2 child 2 beautiful 2 SM[3PERS PL] PRES go to school
'Beautiful children (they) are going to school.'

In (25)–(26), the difference in agreement between the modifiers and verbs is observed in terms of person (Subject Marker (SM)) added on verbs. While verbs mark the features of class, number and PERS(son)—first person, second person, and third person—modifiers mark number and class only unlike what is presented in (24). The suggested derivation appears to be more confusing when the numeral is added to the nominal expression (DP) as in (27).

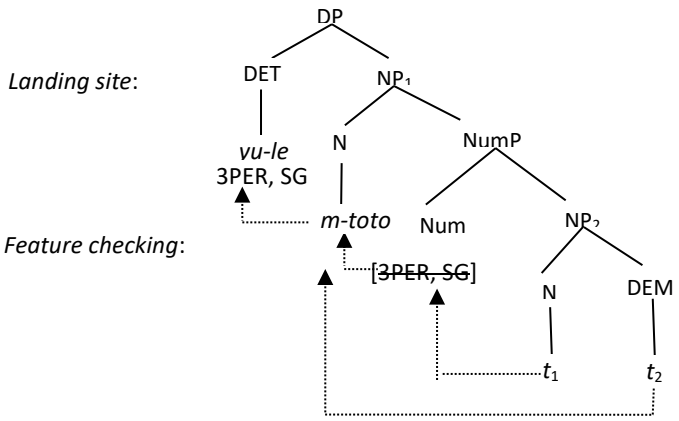
27.



Lusekelo, 2013:29

In (27), the third person feature and number are maintained on the class prefix as in (24). However, it is not clear how the stranded numeral *wawili* 'two' acquires the claimed person and number features of the noun *watoto,* considering the raising phenomenon in (24). Just like in (24), the derivation in (27) does not attempt to attest the claims on probe-goal relations: the probe seeks the obtained features from the goal. In a different twist, it is claimed that the head noun features are inherited from the raising of the Dem(onstrative) *yule* 'that' in Kiswahili as illustrated in (28).

28.



Lusekelo, 2013:30

In (28) the movement of the demonstrative from Dem to Spec DP via N is assumed to result into the agreement observed. However, it is not clear how the demonstrative triggers agreement on the head noun in (28), specifically when the probe-goal relation is not made clear. It is not even explained how Dem comes to obtain its features prior to its raising to Spec DP. The derivation in (28) also needs to explain the reason Det occupies Spec DP instead of the usual D position as in Carstens (1991, 1993). It should be noted, nevertheless, that in Chomsky's agreement framework (2000, 2001a, 2001b), there is no privileged relationship between heads and specifiers. Thus, Det would not, under normal conditions, trigger agreement with the respective head noun.

It can be observed that both Carstens (1991) and Lusekelo's (2013) analyses of agreement fail to capture significant aspects of Spec head agreement. In the next section, we are going to depart from the approaches above and suggest that agreement relations between head nouns and respective modifiers are better explained in terms of syntactic operations involving the movement of a functional category (XP) to Spec DP. The consequence of this movement is to suggest that agreement is achieved via Spec head relations on par with Chomsky (2000, 2001a, 2001b).

6. Agreement via XP movement

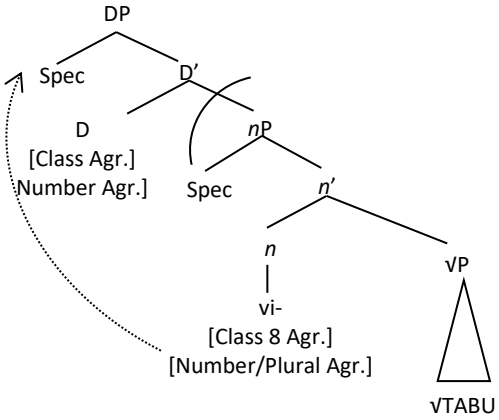
The derivation of the structure of agreement in Bantu languages adopted in this section departs from feature copying or spreading of Carstens (1991, 1993) and Contini-Morava (1996). It is argued instead that agreement in Bantu languages is determined by syntactic operations, specifically the movement of XP under EPP (extended projection principle) (Chomsky, 2000, 2005; Kuroda, 1988; Miyagawa, 2005; Pesetsky & Torrego, 2001) within DP.

Initially, EPP was a condition that required clauses to have specifiers. Later, EPP came to be a condition for phrases to have specifiers, suggesting that DP internal agreement stems from movement: XP to Spec DP, parallel to the movement of verb internal subject (Koopman & Sportiche, 1991) to Spec TP. The movement of XP in DP is assumed to observe similar operations in clauses where the verb internal subject moves to Spec DP; the only difference being that the agreement relations in DPs target head nouns and modifiers, while the

relations in clauses target subjects and verbs. We assume with Ndomba (2017) who points out that in Bantu languages, like Kiswahili, the DP is formed by the movement of the functional category (XP) to a specifier position. This understanding is combined with agreement conditions proposed by Lehmann (1988) to show that agreement is not just a matter of feature copying or spreading in a top-down fashion, but a result of movement of XP and consequent checking of underlying agreement features of XP on modifiers.

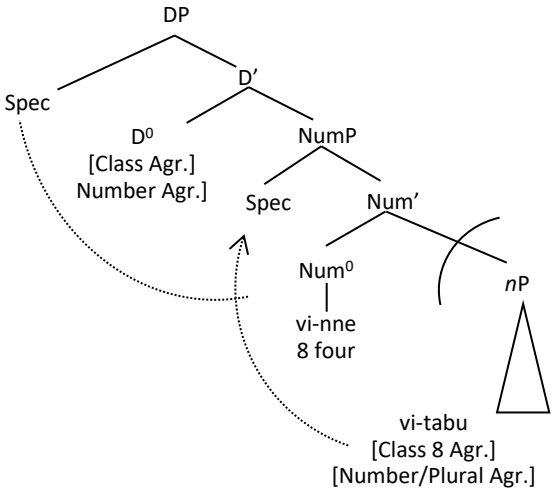
In illustrating both movement and agreement, it is suggested that agreement on DP modifiers (also called elements) stem from features of the head noun (*n*P) in D, which must be checked via raising of the noun to a specifier position of DP (Ndomba, 2017). This structure is illustrated in (29) using *vi-tabu* 'books'.

29.



In (29) internal agreement of *vitabu* 'books' is checked in a Spec head relation via movement of *n*P to Spec DP. The derivation above suggests that agreement is the product of the raising of XP. This process is maintained even when modifiers are added to *n*P as in *vitabu vinne* 'four books' illustrated in (30).

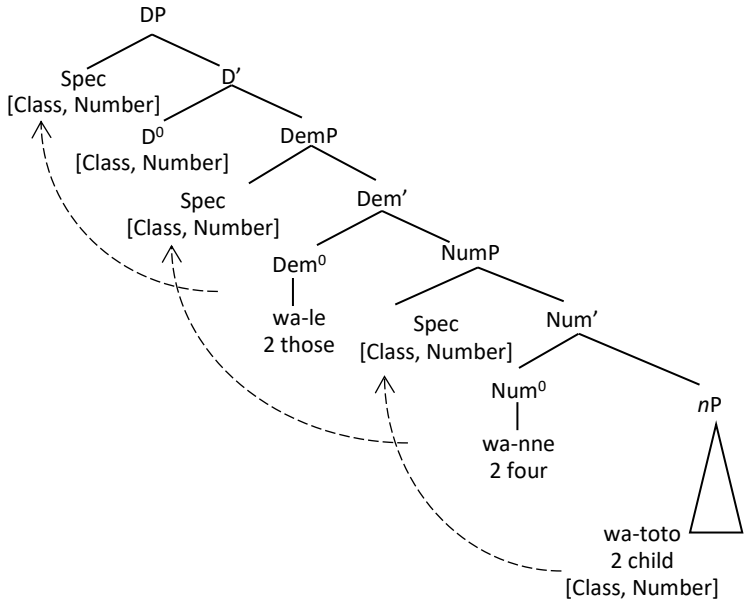
30.



In (30), the DP is formed by the cyclic raising of *n*P to Spec DP. The raising *n*P bearing features of Class and Number raises to Spec DP under EPP. According to Ndomba (2017), when modifiers accompany *n*P, the raising *n*P ensures that the relevant class and number features are checked against every functional head of the modifiers in each step of the raising, leading to agreement. This approach is illustrated in (31)–(32).

31. *Wa-toto* *wa-le* *wa-nne*.
    2 child 2 those 2 four
    'Those four children.'

32.



In (32), base-generated *n*P *wa-toto* 'children' bears abstract class and number (plural) features. These features, according to the approach adopted in this paper, must be checked in a Spec head relation. Checking of the relevant features in a Spec head relation is accomplished via cyclic raising of the base-generated *n*P to Spec DP across the modifiers from one functional head to another: Num, Dem and D. The successive raising of *n*P via Spec NumP, Spec DemP, and finally Spec DP leaves the underlying abstract class and number features, which are realized as markers on the modifiers across the entire DP structure.

This process explains how the Deictic Markers in (16) have agreement markers of the underlying Class 1 for animates/humans despite the surface realization of Class 7. Commenting on the supremacy of animate gender in Kiswahili, Katamba (2003:113) notes that "… animacy considerations are paramount and hence an animate noun takes gender 1/2 agreement regardless of the class membership of the noun itself but with non-animates the gender of the noun determines its agreement." The following examples are illustrative.

33. *Ki-boko* *m-kubwa.*
cl. 7-hippo cl. 1-large
'Large hippo.'

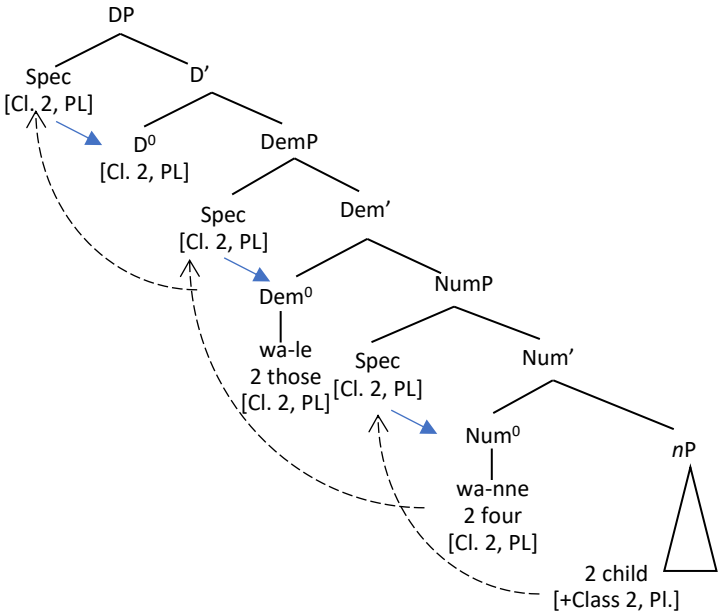
34. *Ki-durango* *m-bingwa.*
cl. 7-dwarf cl. 1-clever
'Clever dwarf.'

35. *Ki-tabu* *ki-kubwa.*
cl. 7-book cl. 7-large
'Large book.' *(Katamba, 2003:113)*

The above shows that regardless of the class membership of the noun dependents of animate nouns would bear the underlying agreement as in (33)–(35) where Class 7 animate nouns *ki-boko* 'hippo' and *ki-durango* 'dwarf' bear Class 1 agreement. On the contrary, class of inanimate nouns themselves determines agreement as in (35) where Class 7 noun brings about Class 7 agreement on the adjective.

It has been assumed so far that agreement is by movement of *n*P via feature checking the process, which is accomplished in Spec head relations. The process of feature checking is explained briefly, showing how feature checking mechanism aids the understanding of agreement patterns observed in Kiswahili. Carnie (2007) demonstrates that the checking of features occurs in a local domain called local configuration; defined in terms of the features involved. In this view, *n*P checks features at every step of its raising ensuring Spec head relation and agreement are maintained locally. Based on these facts, Spec head configuration for (32) is illustrated in (36).

36.



In (36), *n*P raises to Spec DP via Num and Dem in the way explained earlier. The raising *n*P check its own features against respective heads in each step of raising (indicated by arrows). As noted earlier, feature checking is accomplished by feature deletion on each successive head during raising. The successive raising is significant in the sense that each element of DP is analyzed independently from others. Hence, rather than having one long jump from *n*P to Spec DP, *n*P raises cyclicly. The raising *n*P is responsible for agreement features of Class and Number through Spec head relation. The Spec head relation ensures in turn that the specifier and respective head agree; hence Spec NumP → Num, Spec DemP → Dem, and Spec DP → D. The illustrated relations between specifiers and respective heads within nominal phrases (DPs) result into agreement observed in Spec head relations. This agreement relations is formalized as a condition in (37).

37. Spec-head Agreement
    A head (X) and its specifier (Spec-XP) must agree in relevant features
    (Ouhalla, 1999:124).

In (37), the Spec head agreement is expressed in terms of relations of relevant features. The features express such information as number and classes in Bantu DPs; and are located in the noun class prefixes of *n*Ps. Since *n*Ps raise to specifier positions in Bantu DPs, the *n*Ps check the relevant successive features on heads. *n*Ps check their relevant features on each stage of raising to Spec DP position. It should be noted that agreement features embedded on the nominal classes are abstract; and are expected to be present in any *n*P.

It should as well be noted that a mismatch of features leads to ungrammaticality as illustrated in examples in (38)–(39) repeated from (11)–(12).

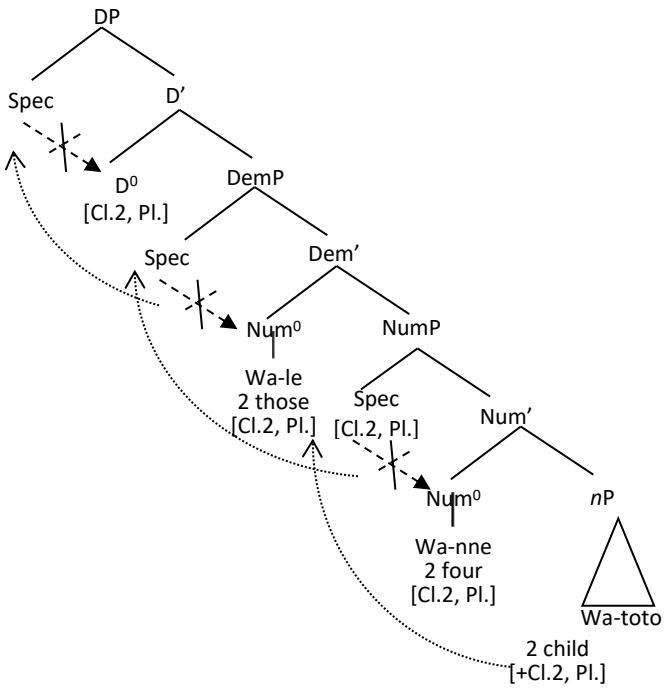
38. **Ma-ua* *wa-nne* *w(a)- eupe.*
    6 flower 2 four 2 white
    'Four white flowers.'

39. **Wa-tu* *ma-nne* *m(a)-upe .*
    2 person 6 four 6 white
    'Four white people.'

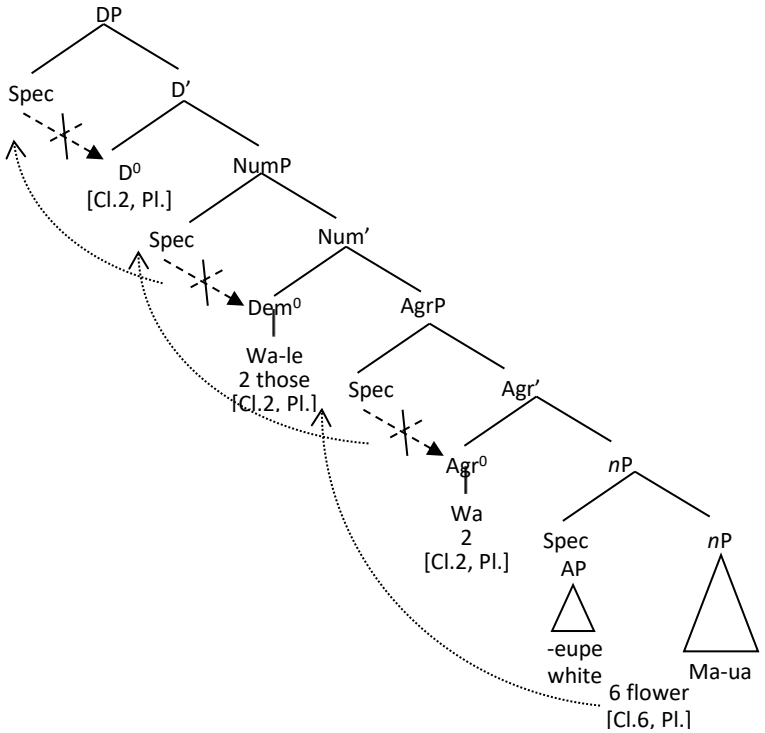
In (38)–(39) there is a non-agreeing of features between *n*Ps *maua* 'flowers' and *watu* 'people'. In the two examples, a mismatch in agreement of features leads to ungrammaticality. Feature clash is illustrated using (38) and (39) in (40) and (41).

Examples in (40) and (41) illustrate a fact explained earlier: that a mismatch of the abstract agreement features (Class, Number) between *n*Ps and respective modifiers leads to ungrammaticality. In (40) and (41) *n*Ps *ma-ua* 'flowers' and *wa-toto* 'children' raise to Spec DP in the usual way. In these instances, *n*Ps check their own features against respective heads in each step of their raising—Spec AgrP → Agr and Spec NumP → Num—before raising to the highest position, Spec DP. However, the checking of the abstract features of *n*Ps against the modifiers—numerals and adjectives—clashes (indicated by dashed crosses). Consequently, the clashing of the abstract features leads to ungrammaticality.

40.


DP
Spec
D'
D⁰
[Cl.2, Pl.]
DemP
Spec
Dem'
Num⁰
NumP
Wa-le
2 those
[Cl.2, Pl.]
Spec
[Cl.2, Pl.]
Num'
Num⁰
nP
Wa-nne
2 four
[Cl.2, Pl.]
Wa-toto
2 child
[+Cl.2, Pl.]

41.


DP
Spec
D'
D⁰
[Cl.2, Pl.]
NumP
Spec
Num'
Dem⁰
AgrP
Wa-le
2 those
[Cl.2, Pl.]
Spec
Agr'
Agr⁰
nP
Wa
2
[Cl.2, Pl.]
Spec
AP
nP
-eupe
white
Ma-ua
6 flower
[Cl.6, Pl.]

The clashing of the agreement features shown above result from the raising of the *n*P bearing abstract features that do not correspond with the agreement features on the modifiers. It was mentioned earlier that agreement facts shared in this section attest to one fact: agreement stems from syntactic operations involving movement or raising of XP. This position appears to be more plausible when compared to some other approaches used to explain agreement phenomenon. The raising of XP within DP provides strong account on agreement even in cases where modifiers and their head nouns appear to be non-agreeing. This fact is explained in the next section.

7. Agreement of Non-Agreeing Modifiers and *n*Ps

There are cases where overt agreement is lacking. Such cases are called counter examples of agreement phenomenon. An illustration is provided in (42), repeated from (16).

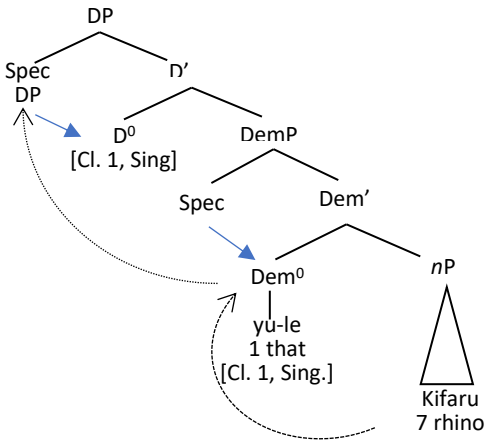
42. *Ki-faru* *yu-le* *a–li - anguka.*
N7 rhinoceros DM1-PS 'that' DM1-Tpast-VS 'fall'
'That rhinocerous fell.' *(Contini-Morava, 1996:257)*

In (42) the animate noun *kifaru* 'rhino' takes the underlying Class 1 rather than Class 7 agreement on the demonstrative, as would be expected in the usual way illustrated in (43).

43. **Ki-faru* *k-ile* *ki-lianguka.*
7 rhinoceros DM7–PS 'that' DM7-Tpast-VS 'fall'
'That rhinoceros fell.'

In (43) the DP is unacceptable although its agreement pattern reflects what is expected in Kiswahili and other Bantu languages. While (43) is unacceptable despite surface agreement pattern on modifiers, (42) is acceptable despite surface non-agreeing DM. According to Contini-Morava (1996), (42) is an instance of counter example of agreement rules. However, according to the preceding discussion, the grammaticality of (42) stems from the underlying animate abstract agreement features of the noun *kifaru* 'rhinocerous'. These agreement features of *kifaru yule* 'that rhino' on the modifiers are assumed to stem from the cyclic raising of *n*P to Spec DP position as illustrated in (44).

44.



In (44), the *n*P bearing the underlying [Cl.1, Sing] features raises to specifier positions of DemP and DP to check its underlying agreement features at Dem^0 and D^0. The feature checking process is accomplished at the highest point of raising at Spec DP. The syntactic operation of movement helps to recover the underlying features despite the fact that the *n*P belongs to a different noun class: Class 7. The above further attests the fact that the abstract underlying features of *n*P are paramount, and that the modifiers of *n*P would always maintain agreement via the underlying features even when the head noun possesses belongs to a different noun class.

8. Conclusion

The paper has argued that agreement between head nouns and its modifiers of DP in Bantu languages stem from the raising of the head noun *n*P. The approach to deriving agreement in Bantu DPs pursued departs from head specifier relations via government and raising of N to class prefix via probe goal relations. The paper has assumed that proper agreement is the function of syntactic operations, specifically the raising of XP (*n*P) to Spec DP.

The paper has illustrated that the raising of *n*P to Spec DP is not a one long jump of *n*P to Spec DP, rather it is cyclic, step-by-step. It has been explained that the raising *n*P drops its abstract features on the heads at each step of the raising. The dropped features are realized on the modifiers as formal linguistic forms of agreement. It has further been argued that the process of feature checking is accomplished at the highest position in Spec DP. The paper has also explained that not all aspects of non-agreeing lead to ungrammaticality given that some cases of non-agreement are grammatical, resulting from the underlying features of *n*P rather than the class where *n*P actually belongs.

References

Baker, M. C. 2008. *The Syntax of Agreement and Concord*. Cambridge: Cambridge University Press.

Barlow, M. & C. Ferguson, 1988. *Agreement in Natural Language: Approaches, Theories, Descriptions*. Stanford, CA: Center for Study of Language and Information.

Bokamba, E. G. 1977. *Ekolongonelo ya Lingala: An Introductory Course*. Urbana, Illinois: University of Illinois.

Carnie, A. 2007. *Syntax: A Generative Introduction* (2nd ed.). Malden: Blackwell Publishers.

Carstens, V. 1991. *The Morphology and Syntax of Determiner Phrases in Kiswahili*. PhD. Dissertation, Los Angels, University of California.

—. 1993. On Nominal Morphology and DP Structure. In S. A. Mchombo (Ed.), *Theoretical Aspects of Bantu Grammar* (pp. 151–180). Stanford: CSLI Publishers.

—. 2005. Agree and EPP in Bantu. *Natural Language and Linguistic Theory*, *23*(2): 219–279.

—. 2008. The Structure of DPs: DP in Bantu and Romance. In C. De Cat & D. Catherine (Eds.), *The Bantu-Romance Connection: A Comparative Investigation of Verbal Agreement, DPs, and Information Structure Volume 131)* (pp. 131–166). Amsterdam: John Benjamins B.V.

—. 2017. *Cocnord and Labeling*. Illinois.

Carstens, V. & K. W. K. Kinyololo. 1985. *On IP Structure: Tense, Aspect and Agreement*. ms. UCLA & Cornell University.

Chomsky, N. 2000. Minimalist Inquiries: The Framework. In R. Martin, D. Michaels & J. Uriagereka (eds.), *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik* (pp. 89–155). Cambridge, Mass: MIT Press.

—. 2001a. Beyond Explanatory Adequacy. *MIT Occasional Papers in Linguistics (No.20)*, 1–28.

—. 2001b. Derivation by Phase. In M. Kenstowicz (Ed.), *Ken Hale: A Life in Language* (pp. 1–52). Cambridge, Mass.: MIT Press.

—. 2005. Three Factors in Language Design. *Linguistic Inquiry*, *36*, 1–22.

Contini-Morava, E. 1996. "Things" in a Noun-Class Language. In E. Andrew & Y. Tobin (eds.), *Toward a Calculus of Meaning: Studies in Markedness, Distinctive Features and Deixis,* 43: 251–290. Amsterdam: John Benjamins Publishing.

—. 1999. Noun Class as Number in Kiswahili. In E. Contini-Morava & Y. Tobin (Eds.), *Between Grammars and the Lexicon* (pp. 3–29). Amsterdam: Benjamins.

Corbett, G. 1991. *Gender*. Cambridge: Cambridge University Press.

Déchaine, R. M., R. Girard, C. Mudzingwa & M. Wiltschko. 2014. The Internal Syntax of Shona Class Prefixes. *Language Sciences*, *43*: 18–46. http://doi.org/10.1016/j.langsci.2013.10.008

Den Dikken, M. 2011. Phi-feature Inflection and Agreement: An Introduction. *Natural Language and Linguistic Theory*, 29(4): 857–874.

Fortune, G. 1984. *Shona Grammatical Constructions (Vol.1)* (3rd ed.). Harare: Mercury Press.

Katamba, F. 2003. Bantu Nominal Morphology. In D. Nurse & G. Philippson (eds.), *The Bantu Languages* (pp. 103–120). London: Routledge Taylor & Francis Group.

Koopman, H. 1992. On the Absence of Case Chains in Bambara. *Natural Language and Linguistic Theory*, *10*, 555–594.

Koopman, H. & Sportiche, D. 1991. The Position of Subjects. *Lingua*, 85: 211–258.

Kuroda, S. Y. 1988. Whether we Agree or Not: A Comparative Syntax of English and Japanese. *Lingvisticae Investigationes*, 12(1): 1–47.

Lehmann, C. 1988. On the Function of Agreement. In M. Barlow & C. Ferguson (Eds.), *Agreement in Natural Language: Approaches, Theories, Descriptions* (pp. 55–56). Stanford, CA: Center for Study of Language and Information.

Lusekelo, A. 2009. The Structure of the Nyakyusa Noun Phrase. *Nordic Journal of African Studies*, 18(4): 305–331.

—. 2013. DP-internal and V-external Agreement Patterns in Bantu: Re-statement of the Facts on Eastern Bantu Languages. *Journal of Linguistics and Language in Education*, 7(1): 19–47.

Maho, J. 1999. *A Comparative Study of Bantu Noun Classes*. *Orientalia et Africana Gothoburgensia* (Vol. 13). Acta Universitatis Gothoburgensis. Retrieved from http://www.african.gu.se/ research/ diss_bantu.html.

Miyagawa, S. 2005. On the EPP. In M. McGinnis & N. Richards (eds.). *Perspectives on Phrases* (pp. 201–236). Cambridge, Mass: MIT Working Papers in Linguistics 49.

—. 2010. *Why Agree? Why Move: Unifying Agreement-Based and Discourse Configurational Languages*. Cambridge, Mass.: MIT Press.

Ndomba, R. G. 2017. The Structure and Derivation of the Determiner Phrase in Kiswahili. PhD thesis, University College Dublin.

Nurse, D., G. Philippson & D. Odden, 2003. *The Bantu Languages*. In D. Nurse & G. Philippson (eds.). London: Routledge.

Ouhalla, J. 1999. *Introducing Transformational Grammar: From Principles and Parameters to Minimalism*. London: Hodder Headline Group.

Pesetsky, D. & E. Torrego. 2001. T-to-C Movement: Causes and Consequences. *Current Studies in Linguistics Series*, 36: 355–426.

Rizzi, L. 1990. *Relativized Minimality*. Cambridge, Mass: MIT Press.

Rugemalira, J. M. 2007. The Structure of the Bantu Noun Phrase. *SOAS Working Papers in Linguistics* (Vol. 15).

Yanco, J. J. 1984. Modifiers in Bantu: Evidence from Spoken Lingala. *Studies in the Linguistic Sciences*, *4*(2): 139–147.