Citshwa Nominal Morphology

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Abstract. The current article aims to describe the nominal morphology and agreement patterns on Citshwa (S50-51), spoken in Mozambique. It follows from a general observation that many studies have shown that nouns in almost all Bantu languages are grouped into noun class categories and, that each noun comprises of a prefix and a nominal root (Ngunga, 2014, Lipola, 2015, Ngunga and Faquir, 2011), just to mention a few of several authors. Similarly, in Citshwa, a noun is composed of two parts, one being a noun class prefix and the second, a nominal root. When one examines the agreement patterns of Citshwa, it becomes clear that in this particular language, there are different patterns of nominal agreement which are determined by the morphophonological processes envolving the nominal root and its prefix, as well as the head noun and its qualifiers.

Keywords: Nominal Morphology, Agreement Patterns

Languages: Citshwa

1.0   Introduction

The main goal of this article is to describe Citshwa nominal morphology, a Bantu language (S50-51), spoken in Mozambique, particularly in Inhambane Province. The population census (INE 2017) pointed out that there were about 697. 533 native speakers of five years or older. However, the statistical figures do not include Citshwa speakers found outside of Inhambane province, namely, those who are located in South of Manica and Sofala provinces, as well as Citshwa native speakers found in the meridional regions of the Republic of Zimbabwe and South Africa, particularly in Transvaal province (Ngunga and Faquir 2011). Given that the statistical numbers exclude the Citshwa native speakers located out of Inhambane province, it can be stated that the actual accurate number of language speakers is unknown. The major objective of this study is to present, describe and analyze the noun structure and the agreement patterns in Citshwa, focusing on Cidzivi dialect spoken in Homoíne districts in Mozambique.

The description and analysis presented in this paper take into account the following structure. Section 1 presents an introduction, followed by previous studies in section 2, in order to show how several authors share some similarities on their views about the structure of nouns in Bantu languages, but they also present some differences. The research problem is found in section 3 and section 4 is reserved for hypothesis. Theoretical framework is discussed in section 5, while research methodology is found in section 6. Data presentation and analysis of data are given in section 7. Finally, section 8 deals with conclusions and recommendations.

2.0   Literature Review

In this section, we address the issue of literature review considering relevant works which are available, splitting the discussion into two subsections. In 2.1 we look at nominal morphology in Bantu languages broadly, and in 2.2 we examine the previous research on Citshwa. The classification of the languages listed for the present study is based on Guthrie (1967-1971) with updates introduced by Maho (2009).

2.1   Nominal Morphology in Bantu Languages

We start by making an overview on works that discuss nominal morphology in Bantu languages broadly. The choice of a particular work or author for the current analysis was driven by three fundamental factors, namely, (i) source availability for consultation; (ii) the way by which the subject matter is directly engaged on the topic, and (iii) an independent research character.

It follows from a general observation that all previous works on Bantu nominal morphology including Bleek, Wilhelm (1862-1869), Odden (1996), Hyman (2003), Ngunga (2002), among others, agree that a noun shares the same basic structure, which includes a noun prefix and a nominal root. In this respect, Citshwa follows the same general pattern. One other general point shared by all previous studies is the recognition that a typical and dominant feature in Bantu languages is that nouns are grouped into classes indicated by noun prefixes, conventionally numbered from 1 to 23. However, the actual number of noun class prefixes vary from language to language. All studies reveal that the prefixes are grouped in singular vs plural pairs, but some prefixes do not have a correspondent pair member. In this particular aspect, Citshwa is similar to other Bantu languages.

Although a number of similarities can be found in many Bantu languages, several works recognize some morphological differences in the actual number, shape and linguistic function of noun class prefixes. Previous works examining different Bantu languages spoken in Cameroon show a clear picture on both similarities and some differences between languages. Atindogbe (2013), in describing the morphology of Mokpe (A20), spoken in Cameroon, points out that the language has only 12 noun class prefixes, grouped into nine grammatical pairs of singular vs plural. Similarly, Hyman (2003) shows that the morphology of Basaá (A43a), also spoken in Cameroon reveals the existence of nouns organized within separate groups determined by a limited number of noun class prefixes, which differ from Mokpe (A20). Mous (2003) examines the morphology of Nen (A44), another Bantu language of Cameroon. According to this author, Nen has 12 noun class prefixes, just like Mokpe seen above, a number that differs from Makaa (A83), a language described by Heath (2003), spoken in

the same language zone, which exhibits only 10 noun class prefixes. The author noted that in this particular language, the noun class prefixes 4, 6, 8 and 10 do not form singular vs plural pairs. These four class prefixes express not only the formal relationships between morphemes, but also express other categorial relationships in the grammar, such as things "objectification", the semantically attributed to events, actions and concepts, among other things, taking into account the symbolic values of the language.

The analysis of the morphological structure of the languages of A Zone provided here reveals that, although there are differences in number and formal relationship of the prefixes, the noun morphological structure of all languages presents a prefix followed by a nominal root.

Comparing the former languages of A Zone with those of B, C, D and E Zones, we notice that some similarities on noun structure are tested, but there are also considerable differences. Okoudowa (2005) shows from a preliminary descriptive study of noun morphology of Lembaama (B62), spoken in Gabon that the language has 12 noun class prefixes, sharing the same general pattern in terms of prefix number as seen in some languages of A Zone. Leitch (2003) described nominal morphology of Babole (C101), spoken in Congo Brazzaville. The author has shown that this language exhibits 16 noun class prefixes, which form singular vs plural pairs. But he stressed that there are some prefixes in the language which do not necessarily entail the formal relationship capturing the singular vs plural opposition. It should be noted that while the number of noun prefixes of the languages of A Zone varies from 12 to 13, the Babole of the B Zone displays a relatively larger number of noun prefixes. Additionally, Botne (2003) shows that Lega or Kilega noun morphology (D25), spoken in eastern Congo presents a total number of 18 noun class prefixes which form genders, some of which opposing the singular vs plural formal relationship between morphemes. The author points out that just like in Babole, there are prefixes which do not form singular vs. plural opposition, instead they serve to indicate a state of things and their relationship in nature. A similar case is reported by Lutz (2003) who describes nominal morphology in Luganda (E15), spoken in Uganda, who shows that the language present 25 noun

class prefixes, including locatives which do not form singular vs plural pairs.

Some researchers consider typological differences on noun class prefixes from historical evolutionary standpoint. In this respect, Ngunga (2014) argues that languages fallowed different directions from Proto-Bantu (PB). According to Ngunga, some languages maintained quite the same number and shape of noun prefixes, while others have reduced the initial number of nominal prefixes and, still others languages have yet to innovate the list by introducing new noun prefixes. This seems to be the case of Citshwa discussed in the following section.

It is worth mentioning that there are some cases to consider when it comes to overview the typology of nominal prefixes in Bantu languages. The Ki-Nata language (E40), spoken in Tanzania and described by Johannes (2007) reveals the existence of 20 noun prefixes making it to be the first one with a greater number of prefixes compared to the languages presented before. Interestingly, Mwita (2008) reveals that from a typological viewpoint, Ki-Kuria (E43), spoken in Kenya presents a different pattern of noun morphology. Instead of two parts structure composed by prefix and nominal root, Kuria has three parts nominal structure, namely pre-prefix, prefix, and root. The occurrence of multiple nominal prefixes opens a possibility of an approach that calls into question the classic analysis of nominal prefixes, according to which the grouping of names in classes must capture not only the singular vs plurality opposition, but also the uniqueness of lexical items. For instance, in many Bantu languages like Herero (R30), spoken in Namibia and Botswana described by Jeruka U. Kavari and Lutz Marten (2009) is reported there are 18 noun prefixes grouped in pairs that indicate singular vs plural, except that the infinitive and locative prefixes do not form prefix pairs. A particular case is also found in Makhuwa or Emalhuwa (P30) widely spoken in Mozambique, described by Kaputha (1983). Noun prefix typology in Makhuwa differs from other Bantu languages, since there is a general pattern of a consonant loss before vowel prefixes, resulting in a noun prefix represented solely by a vowel.

Recent and representative works on Bantu languages spoken in Mozambique include Ngunga (2014), Ngunga and Simbine (2012), Liphola

(2015), Langa (2012), Ngunga (2002) among others. Langa (2012) examines the morphology of Changana (S53), spoken in Mozambique, focusing on grammatical categories. According to Langa the noun class prefixes 16, 17 and 18 are absent, therefore, do not pattern in pairs with other prefixes. The class prefixes 16, 17 and 18 do not even behave as a class of locatives as in many Bantu languages, due to their lexicalization. Changana performs locativization morphologically by suffixation, as found in Kiswahili (G40), spoken in Tanzania, Uganda, Rwanda, Burundi, Kenya (Wald, 2003), as well as in some areas of Malawi, Somalia, Zambia, Mozambique and the Democratic Republic of Congo (personal communication, Liphola, 2017).

Ngunga and Simbine (2012) show some morphological similarities between Changana (S53) and Citshwa (S51). The former is widely spoken in Gaza province and the second language discussed in the current paper is spoken in Inhambane province. A full description provided by Ngunga and Simbine (2012) covers several linguistic fields including phonetics, phonology, nominal morphology, verbal morphology, syntax, and semantics. Particular attention is drawn to nominal morphology of Changana, thus, less attention is given to Citshwa nominal morphology. The above mentioned researchers state that in Changana nouns are organized in a total of 15 noun class prefixes, which are grouped into singular vs plural pairs. Ngunga and Simbine emphasize, among other things, that from a morphological analysis standpoint, in Changana the agreement is made by placing the prefix of agreement to the name and modifiers with which they maintain a morphosyntactic dependence relationship. Ngunga and Simbine (2012) go even further by claiming that the relationship between a prefix and the corresponding noun root must account for the semantic category, as well as for phonetic similarities of the first sound. Though this could be a case in some Bantu languages including Changana, we find no clear evidence from Citshwa linguistic data showing that prefixes must share semantic properties with the corresponding roots. Ngunga and Simbine (2012) accounts correctly that in some Bantu languages the class prefix of infinitive and locatives (*ku-*, *mu-*) do not pair with any other class prefixes. This is true in many other Bantu languages, as Liphola (2015) shows based

on the data from Shimakonde (P23) nominal and verb morphology, spoken in Cabo Delgado and southern Tanzania. According to Liphola (2015) a minimal morphological unit of meaning in this language includes a morpheme, and an allomorphic variances can be fully accounted for taking into account morphophonological processes. Following a traditional approach proposed in Spencer (1991), Liphola argues that morphemes can be free or imprisoned, but that fact does not provide linguistic evidence which allows one to determine the semantic dependence of a particular noun prefix and the corresponding root morpheme. It follows that in Shimakonde, some noun prefixes may be grouped into several classes, because they act as functional categories in the language.

The major point to be noted is that all previous works agree that the nominal root is the central morpheme of a word with basic lexical meaning, to which a set of other morphemes are attached to modify the meaning. In the other hand, a theme is defined as a compound composed of root and a thematic vowel that comes to its right. Additionally, all works stress that there are morphological operations, including those consisting on morpheme combinations attached to a free morpheme, which may affect the morphological structure of a morpheme or a word. Taking into account previous analyses, a preliminary conclusion is that several morphological operations occurred in all Bantu languages, including Citshwa. However, the actual morphological operations vary from language to language.

Unlike Changana (S35) with fifteen noun class prefixes, Liphola (2015) shows that Shimakonde (P23) has eighteen noun prefixes grouped into eight singular-plural pairs, except that the noun prefixes 15, 16, 17 and 18 do not pair. In this respect, Shimakonde differs from Changana, but is similar to Yao (P20) described by Ngunga (2012, and discussed later in this paper). There is also morphological differences between these two languages regarding the presence of locative morphemes *-eni*, and *-ni* which occur in Changana, but they are absent in languages of the P zone.

All previous studies show that there are regularities pertaining to agreement patterns. As Liphola (2001) points out Shimakonde presents two types of agreement, namely, one that occurs within a word determined by the morphological structure involving the nominal root and the noun class

prefix, and the second pattern involving the words in an interaction between syntax and phonology at phrase level. In the later domain, there is an agreement pattern capturing the relationships between the noun and all other grammatical categories such as a verb, adjectives, possessives, demonstratives and numerals. It follows that, like Shimakonde, Citshwa shows the same two patterns of noun agreement. A part from the agreement pattern which accounts for the relationship between morphemes word internally, there is an agreement pattern involving words at the phrase level. Within this domain, morphological features of the head noun are shared in the following words.

Finally, we consider one more study presented by Ngunga (2002), which discuses nominal morphology within a broader analysis of elements of Yao language (P20) grammar, spoken in Niassa province, Mozambique, as well as in the neighboring countries, namely Malawi, Zambia and Tanzania. To begin with, Ngunga states that like in many Bantu languages, Yao has noun prefixes grouped accordingly to noun classes which reflect the agreement patterns. The same author shows that a noun by nature distinguishes two parts, namely, a variable noun prefix and a theme. The nominal theme carries the noun lexical meaning. The nominal theme incorporates the root or radical, and a final vowel, which may vary. Ngunga (2002) also shows that apparently, the semantic differences of a noun are due to different prefixes and different suffixes that may be attached to the radical.

One other important point made by Ngunga (2002) is that there is no clear correlation between the grouping of noun class prefixes and the semantic value of the prefixes. The same author assumes that in Yao, extralinguistic factors as the degree of respect between language speakers may dictate the selection of a particular noun prefix, showing a functional use of a prefix in a particular noun class prefix. What we see is that Yao share morphological similarities with Shimakonde as seen above. Thus, we shall demonstrate that Citshwa shows the same general internal word structure and a similar agreement pattern seen in Yao as well as in Shimakonde, with some differences to be shown later.

Apart from agreement patterns found word internally established by a noun class prefix and its corresponding theme, Ngunga (2002), points out that another way of determining a noun class is by examining the agreement pattern imposed by the head noun to other elements such as adjectives, possessives, demonstratives, and numerals at phrase level. One major conclusion that can be made from the previous works on nominal morphology in Bantu languages broadly is that there are recurring pattern agreements found word internally in several languages and, there are also some differences driven by morphological categories. Up to now, we have shown that nominal morphology in Bantu languages shares some similarities on the general agreement patterns word internally, as well as at the syntagmatic level. Some differences can be observed not only within the noun prefixes, but also with regards to the morphological operations. For instance, in some Bantu languages the co-occurrence of multiple noun prefixes is allowed, but in others a noun class prefix highlights a variable typology in terms of the syllable structure. It was shown that there are few Bantu languages as those spoken in some areas of Congo linguistic zones which constitute an exception in terms of noun class prefix grouping. Similarly, we have mentioned further exceptions related to the structure of a noun class prefixes. For instance, in a considerable number of Bantu languages a prefix comprises a CV syllable structure, while in others languages a noun class prefix is represented by a single V. These exceptions can be better accounted for taking into account language parameters.

2.2   Previous Research on Citshwa

In this section, we now consider preliminary studies on Citshwa that can be grouped into three major categories, according to the main topics treated in each category. The first category involves Biblical works, including bible translation from an European language into Tsonga (S50-51). According to Guthrie's (1967-71) and Maho (2009) classification, Citshwa was fallen into Tsonga Bantu language, but it has been shown later (NELIMO, 1989) that they were two independent languages. The most representative example of this category includes Berthoud and Creux (1875), who attempted to transcribe the Bible into Tsonga. The second class of previous studies on

Citshwa involves socio-anthropological works carried out by a number of authors, but here we consider few of them, such as Mukhombo (1955) and Mbanze (1993) who published the *Nkutsulani wa Matimu ya Vatshwa* and the *Ngangu wa Mutshwa*, respectively. Both authors discussed issues which relate to culture of (vatshwa) Citshwa native speakers. The third and final category integrates very preliminary studies which included some elementary language data analysis covering different linguistic subfields. Within this category, publications of dictionaries and elements of a rudimentary grammar of the language can be noted, with a particular focus on the bilingual English-Citshwa dictionary, "Outlines of Tshwa Grammar" by Persson (1928, 1932) and the *Portuguese-Citshwa Practice Dictionary* by R. Wilson (1980).

A quick observation of the above-mentioned studies reveals that none of them incorporate relevant Citshwa language data. All previous studies include basic data without covering crucial grammatical categories of the language. A closer observation allows one to state that the previous works on Citshwa although important from the historical point of view, they do not provide a clear picture for better understanding of the Citshwa grammar. They neither present relevant discussion about regularities pertaining to processes occurring in the language nor they attempt to come up with analysis of a specific phenomenon occurring in the language grammar. Indeed, in the "Outlines of Tshwa Grammar" by Persson (1928) there are some basic phonetic, morphological and syntactic data, however, they have not been systematized in order to get a clear picture on what language looks like. Therefore, no generalizations can be made about the language.

Some relatively recent studies of Citshwa are found covering several issues on linguistic subfields. The more extensive discussion involving different areas on Bantu languages spoken in Mozambique started in the 1980s, when NELIMO (1989) took a lead in organizing the first Seminar on the Standardization of the Orthography of Mozambican languages. From that starting point, various studies were carried out covering different linguistics subfields. For instance, Chamusso (1996) examines the impact of the cultural context for the interpretation and translation of the metaphor-

based on proverbs of Citshwa to Portuguese. Chambela (1999) discusses the problematic of Citshwa variants, which questioned whether Xinyai was a Citshwa variant or a variant of other related Bantu language different from Citshwa.

One common feature of the relatively recent works on Citshwa is that very few of them discuss nominal morphology of the language. The major interest of the recent studies on Citshwa fall into several issues such as verbal extensions (Laisse 2000), morphological, phonetic and phonological properties of ideophones (Sefo 2000), relative clauses (Macuácua 2005), locativization strategies (Chunguane 2003) and verb agreement within a complex nominal syntagma (Mutemba 2005). Additional works are also found which deal with constructions of double object as discussed by Cumbane (2008), as well as the syntax of a complex head nouns in the language (Uetela 2009). The only study dealing with prosodic properties is found in Ugembe (2012), who describes verbal tone patterns of Citshwa. Finally, there is a work on lexical morphology and phonology (Gundane 2015) focusing on TAMP categories.

As shown, all previous studies on Citshwa do not provide a full description of nominal morphology of the language. This fact has also motivated the current paper which aims to provide a first detailed and extensive analysis on the nominal morphology and agreement patterns in the language.

3.0   Research Problem

Citshwa still lacks an extensive descriptive studies, fact that hinders not only the better understanding of the functioning of the language grammar, but specially the production of materials for different language users. Taking into account the above statement, a research problem can be formulated as follows: does Citshwa present the same noun structure and the same agreement patterns found in most Bantu languages or in other Bantu languages with which it is mutually intelligible? In the following sections, we attempt to come up with some consistent data analysis which may allow to partially answer the above question.

4.0   Hypothesis

Two major hypothesis are considered for the current study, namely:

(1) Citshwa presents the same noun structure as found in most Bantu languages that is constituted by two parts (the nominal class prefix and the nominal root).

(2) Citshwa presents the same patterns of agreement observed in other Bantu languages (showing slight morphological and phonetic morphemic differences).

5.0   Theoretical Framework

In the current approach and data description we follow the Morphology and Lexical Phonology theoretical framework as proposed by Kiparsky and Mohanan (1982, 1985), Mohanan (1982).

The basics of the above mentioned theory are here considered. First at all, the Morphology and Lexical Phonology postulates that some phonological rules apply in the lexicon with morphological operations and other rules are applicable in the post-lexical domain. Secondly, the model assumes that morphological operations such as affixation and composition occur in different strata. Thirdly, the morphological rules that affix morphemes to certain themes or radicals in their application domains are specified in terms of strata. This third approach is exactly that provides best supports our work, since it allows to observe and formulate in a simple way that morphological rules that affix morphemes to certain themes or radicals in their application domains are specified in terms of strata.

The choice of the theoretical model of Morphology and Lexical Phonology was also due to the fact that it is an instrument of theoretical analysis that explains in a simple way the different processes at the lexical level and the processes that occur when morphology and syntax interact with a particular domain in Citshwa grammar.

6.0   Research Methodology

A qualitative approach is adopted. The choice of this particular approach is justified by the fact that the investigation to be developed makes a detailed data description of the language and, explains the actual factors that motivate the occurrence of certain morphological operations in the language. The data collection that is part of the actual corpus of our study was made through three complementary techniques, namely, bibliographic consultance, interviews conducted with Citshwa native speakers and introspection based on our own linguistic intuition.

The adoption of cross-methodological techniques was assumed in order to bring a wide range of data varieties which allow us to capture the main issues treated in the subject matter. The interviews conducted to native speakers not only provided a clear picture on how the native speakers evaluate and make judgment about noun agreement patterns of their language, but also showed that in some cases, the motivations for grouping noun prefixes into several classes are not clear, since extralinguistic factors may play an important role. Finally, as a native speaker of Citshwa, our own knowledge of the language was a crucial tool for making proper analysis and judgement on language structures, particularly in cases where appropriate answer was required.

7.0   Data Presentation and Analysis

In Citshwa, the grouping of nouns into different classes follow the same general pattern found in most Bantu languages. More specifically, a noun comprises two parts, one being that of the class prefixes and the second part includes the nominal root. In general, Citshwa presents a total of 17 noun classes. The classes from 1 to 14 are grouped in singular and plural pairs, but some nouns may select more than one noun class prefix to agree with. The noun classes 15, 16 and 17 do not form pairs opposing singular vs. plural. Instead, these noun classes stand for infinitive (class 15) and locatives (classes 16 and 17). The examples in Table 1 show a full list of Citshwa noun class prefixes.

Table 1: *Noun Class Prefixes in Citshwa*

Prefix	Class	Examples	Gloss
mu-	1	mu-nhu	'person'
va-	2	va-nhu	'people'
mu-	3	mu-ti	'home'
mi-	4	mi-ti	'homes'
ø-	5	ø-tiku	'country'
ma-	6	ma-tiku	'countries'
ci-	7	ci-godo	'tree trunk'
zvi-	8	zvi-godo	'tree trunks'
N-	9	m-buti	'goat'
ti-	10	ti-m-buti	'goats'
li-	11	li-davi	'branch'
ti-	10	ti-davi	'branches'
wu-	14	wu-hlalu	'bed'
ma-	6	ma-hlalu	'beds'
ku- (infin.)	15	ku-famba	'to walk'
ka- (loc.)	16	ka-hloko	'on the head'
ka- (loc.)	17	ka-Bukuxa	'to/for Bukuxa'

From the data provided above, we see that noun classes are grouped in a number of agreement pairs, such as 1/2, 3/4, 5/6, 7/8, 9/10, 11/10 and 14/6. We also see that the noun prefixes 5 which is not morphologically overt is realised as zero (ø) 5 and 14 make agreement with noun class 6, while the noun class prefixes 9 and 11 make morphological agreement with the noun prefix 10. As seen, the class prefixes 15, 16 and 17 do not form singular vs. plural pairs, due to the reasons indicated above.

The examples provided in Table 2 are partially repeated from Table 1 and show the patterns of morphological agreement on noun class prefixes.

Table 2: *Singular vs. Plural Agreement in Citshwa*

Class	Noun	Number	Gloss
1	mu-nhu	sg.	'person'
2	va-nhu	pl.	'people'
3	mu-ti	sg.	'home'
4	mi-ti	pl.	'homes'
5	ø-tiku	sg.	'country'
6	ma-tiku	pl.	'countries'
7	ci-godo	sg.	'tree trunk'
8	zvi-godo	pl.	'tree trunks'

9	n-hongani	sg.	'fly'
10	ti-n-hongani	pl.	'flies'
11	li-davi	sg.	'branch'
10	ti-davi	pl.	'branches'
14	wu-hlalu	sg.	'bed'
6	ma-hlalu	pl.	'beds'

We see from the data in Table 2 that classes 5 and 14 make morphological agreement with class 6 and classes 9 and 11 make the plural with class 10. There are few other remarks that need to be made. First, the noun class 9 has an overt nasal noun prefix (*N-*) which undergoes morphological operations when followed by a consonant. When the singular nasal noun prefix (*N-*) agrees with the corresponding plural noun prefix (*ti-*), the nasal remains overtly in a morphological structure, resulting in a pattern of double noun class prefixes as illustrated in Table 3.

Table 3: *Pattern Agreement of Noun Class Prefix 9*

m-buti	'goat'
ti-m-buti	'goats'
n-hongani	'fly'
ti-n-hongani	'flies'
n-dleve	'ear'
ti-n-dleve	'ears'
n-dawu	'place'
ti-n-dawu	'places'
n-goti	'string'
ti-n-goti	'strings'
n-janji	'fish'
ti-n-njanji	'fishes'

The noun class agreement pattern seen in Table 3 represents just one kind of complication of noun class grouping in Bantu languages. Taking into account an observation made by Liphola (2001), there is a number of complications involving noun grouping in Shimakonde (P23) Bantu language. Similar complications are found in Citshwa as illustrated below in Table 4.

Table 4: *Pattern Agreement of Noun Class Prefix 9 (N-) with Class 10 (ti-)*

m-buti	'goat'	ti-m-bu-ti	'goats'
m-boni	'witness'	ti-m-boni	'witnesses'
n-dlela	'way'	ti-n-dlela	'ways'

n-dleve	'ear'	ti-n-dleve	'ears'
n-dawu	'place'	ti-n-dawu	'places'
n-goti	'string'	ti-n-goti	'strings'
n-janji	'fish'	ti-n-njanji	'fishes'
n-tive	'wise'	ti-n-tive	'wises'
ny-angwa	'entry'	ti-ny-angwa	'entries
ny-oka	'snake'	ti-ny-oka	'snakes'
n-hovu	'nose'	ti-n-hovu	'noses
n-hamu	'neck'	ti-n-hamu	'necks'

The examples given in Table 4 further illustrate the noun pattern agreement seen in Table 3, where a singular nasal noun prefix of the class 9 remains overtly in a morphological structure after the corresponding noun class prefix 10 (*ti-*).

The examples in Table 4 allow one to come up with a preliminary conclusion that apart from a small complication shown by double prefixation, in Citshwa, the morphological agreement of a noun class prefix 9 follows a general pattern found in other Bantu languages.

The additional data provided in Table 5 reveal that Citshwa presents a noun category with non-morphological overt noun class prefix; instead, that prefix is zero (ø), making morphological agreement with class 10 word internally, as is illustrated with the following data.

Table 5: *Pattern Agreement of Noun Class Prefix 5 (ø-) with Class 10*

ø-simbi	'iron'	ti-simbi	'irons'
ø-salu	'scab'	ti-salu	'scabies'
ø-tlari	'smart'	ti-tlari	'smarts'
ø-whari	'bush chicken	ti-whari	'bush chickens'
ø-hawu	'monkey'	ti-hawu	'monkies'
ø-homu	'ox'	ti-homu	'oxes'
ø-hosi	'chief'	ti-hosi	'chiefs'
ø-huku	'chiken'	ti-huku	'chickens'

Comparing between the examples in Table 4 and Table 5, we see that in the first case the morphological noun agreement word internally is made by involving the prefix of class 9 (*N-*) in singular, but in the corresponding plural form, that nasal prefix appears before nominal theme and after the noun prefix 10 (*ti-*). In the second case, the non-morphological overt prefix in singular is zero, but theoretically that zero prefix still remains before the nominal theme and after the noun class prefix 10.

The data given in Table 5 illustrate that in Citshwa, on one hand, there is a category of nouns with the noun prefix *ø-* that behave morphologically as if they were in class 9, in terms of morphological agreement word internally. On the other hand, the fact that the names of class 9 pattern with class 10 by allowing double noun prefixes (*ti-N-*) occurring overtly in the morphological structure suggest that the two prefixes are morphologically functioning as a grammaticalized monolithic entity, putting aside their formal properties. In this particular case, the nasal class prefix 9 does not work as a morphological entity with inherent formal properties, but rather than a single category when preceded by the prefix 10, resulting in double noun prefix *ti-N-*.

Considering the data provided before from Tables 3, 4, and 5, we can make two preliminary generalizations concerning the class 9 grouping in Citshwa. First, in Citshwa, there is a category of names that make morphological agreement word internally involving the classes 2, 4, 8 and 10, accounting partially for semantic properties and formal properties observed in different Bantu languages. Second, there is another category of nouns that make morphological agreement word internally with one or more noun classes accounting for the need of variation and language change or even extralinguistic factors imposed by a lexicon which acquires a grammatical value, due to the need for pluralization, concreteness and abstraction impinged on the socio-cultural knowledge translated by language use.

In Table 6 we show that in Citshwa there are nouns with zero (*ø-*) noun prefix which do not make morphological agreement word internally with class 10. This noun category reveals that makes morphological agreement with noun class prefix 6 (*ma-*), as illustrated in Table 6.

Table 6: *Pattern Agreement of Noun Class Prefix 5 (ø-) with Class 6 (ma-)*

ø-dzolo	'knee'	ma-dzolo	'knees'
ø-lembe	'year'	ma-lembe	'years'
ø-levu	'beard'	ma-levu	'beards'
ø-rama	'cheek'	ma-rama	'cheeks'
ø-rambu	'bone'	ma-rambu	'bones'
ø-raku	'buttock'	ma-raku	'buttocks'

ø-siku	'day'	ma-siku	'days'
ø-sindza	'porcelain'	ma-sindza	'porcelains'
ø-thanga	'thigh'	ma-thanga	'thighs'
ø-tsala	'barn'	ma-tsala	'barns'
ø-tiku	'country'	ma-tiku	'countries'
ø-tilu	'sky'	ma-tilu	'skies'
ø-tino	'tooth'	ma-tino	'teeth'
ø-kamba	'sheet'	ma-kamba	'sheets'
ø-khamba	'thief'	ma-khamba	'thieves'
ø-khala	'coal'	ma-khala	'coals'
ø-khutla	'frog'	ma-khutla	'frogs'
ø-kwati	'forest	ma-kwati	'forests'
ø-woko	'arm'	ma-woko	'arms'

The examples in Table 6 establish that in Citshwa there is another category on nouns of class 5 (*ø-*) including names of different semantic values that make morphological agreement word internally with noun class prefix 6 (*ma-*). We see that the data in Table 6 are similar to those seen in Table 5, in terms of having a noun class prefix 5, however, these apparently similar examples differ in the way they make the agreement pattern. While in Table 5 there is patterning of *ø-/ti-*, in Table 6 noun class 5 patterns with noun class prefix 6, resulting in *ø-/ma-*. It can be seen from these data that both nouns in two subcategories have different semantic properties, so we see no clear evidence supporting noun class grouping based on semantic properties of the word.

7.1   Nominal Pattern Agreement in Citshwa

At the beginning, we have indicated that nominal morphology as a study of noun structure encompasses the mechanisms of word formation, which entails the recognition of minimal units and the ways they combine themselves within a particular word. It was also stated that there are two dimensions of looking at noun morphology and its agreement patterns, namely, word internal dimension (combination of morphemes within a word) and at syntagmatic dimension (syntax/morphology interface). Looking at the first dimension, Langa (2012) states that each prefix of a nominal class governs the agreement pattern of the lexical units under its

domain. Thus, the prefix of class 1 determines that the names under the domain of the nominal nucleus must comply with the pattern of agreement of this class. The same view is found in Odden (1996), when he mentions that the division of names in classes is partially determined by the pattern of agreement induced by the nominal nucleus. The major difference between the above mentioned authors is that the former assumes categorically that noun prefix governs the agreement patterns, while the later author recognises a partial determination of the agreement patterns in grouping names in classes. Based on what we have seen from previous data in Tables 4-6 of Citshwa, we share Odden's view according to which the division of names in classes is partially determined by the pattern of agreement. Otherwise, we could not account for the fact that names of class 5 are grouped under class 6 and 10.

Examining the pattern agreement of the second domain, Langa (2012) makes explicit that, in general, the morph-syntactic system of agreement in Bantu requires that when a word Y does the agreement with the word Z, then Y belongs to the same nominal class as Z. However, the author acknowledges the existence of complications in the agreement pattern within a domain, due to irregularities in some noun structures. In fact, we will see further that agreement patterns are partially controlled by the morphological category of the noun, as well as other extralinguistic factors socially determined by language use in a wider context.

In Citshwa, as in other Bantu languages, the agreement pattern is generally dominated by the nominal nucleus. The examples in Table 7 show the relationship between the prefixes of the noun class and the prefixes of the subject marker (SM).

Table 7: *Agreement with Subject Marker (SM)*

Class	Prefix	SM	Example	Gloss
1	mu-	ndzi-	ndzi-wawile	'I had fallen down'
1	mu-	hi-	hi-wawile	'we had fallen down'
1	mu-	u-	u-wawile	'you had fallen down'
1	mu-	mu-	mu-wawile	'you had fallen down'
1	mu-	a-	a-wawile	'he had fallen down'
1	mu-	va-	va-wawile	'they had fallen down'

1	mu-	a-	mu-nhu-a-wawile	'the person had fallen'
2	va-	va-	va-nhu-va-wawile	'people had fallen'
3	mu-	wu-	mu-ti-wu-wawile	'the house had fallen
4	mi-	yi-	mi-ti-yi-wawile	'the houses had fallen'
5	ø-	gi-	ø-rambu-gi-wawile	'the bone had fallen'
6	ma-	ma-	ma-rambu-ma-wawile	'the bones had fallen
7	ci-	ci-	ci-godo-ci-wawile	'the trunk had fallen'
8	zvi-	zvi-	zvi-godo-zvi-wawile	'the trunks had fallen'
9	N-	yi-	m-buti-yi-wawile	'the goat had fallen'
10	ti-	ti-	ti-mbuti-ti-wawile	'the goats had fallen'
11	li-	yi-	li-davi-yi-wawile	'the branch had fallen'
14	wu-	gi-	wu-hlalu-gi-wawile	'the bead had fallen'
15	ku-	ku-	ku-tlarila-ku-wawile	'the cleverness had fallen down
16	ka-	ku-	ka-lhoko-ku-wawile	'on the head had fallen'
17	ka-	ku-	ka-bukuxa-ku-wawile	'for Bukuxa had fallen'

From the data provided in Table 7 we see that with the exception of the grammatical second person plural, the remaining SMs are not morphologically similar to the prefix of the noun class 1 (*mu-*). We can also observe that there are other SM of the grammatical person which do not coincide morphologically with the prefix of the respective noun class.

However, it is clear from the data considered in Table 7 that the SM of classes 2, 6, 7, 8, 10 and 15 are morphologically similar to the prefixes of the corresponding nominal classes. Exceptionally, the subject marker of the remaining nominal classes does not morphologically match to the prefixes of their corresponding nominal classes. The noun classes 4, 9 and 11 display the same SM (*yi-*), while the subject marker of the classes 5 and 14 is similar (*gi-*). Class 3, whose nominal class prefix is *wu-*, is the only one with this particular morpheme. Finally, the nominal classes 16 and 17 exhibit the prefix *ku-*, which is distinct from the nominal class prefixes. In fact, as locatives, the prefixes 16 and 17 are not intended to form pairs to oppose singular and plural, but rather, as Ngunga (2000) points out, these morphemes play a morphological and semantic secondary role.

Unlike Xichangana Bantu language (S53) where, according to Langa (2012), each prefix of a nominal class governs the agreement pattern of the lexical units under its domain, Citshwa behaves slightly in a different way,

to the extent that a set of prefixes may govern a certain pattern of agreement, but other prefixes neither determine the grouping of names in classes nor they govern the agreement pattern. Based on the examples in (7) we may come up with a generalization according to which in Citshwa, the division of names in classes is partially determined by the pattern of agreement induced by the nominal nucleus. Partial determination of the agreement pattern between the nominal class and the nucleus is justified by the existence of names of certain nominal classes whose agreement pattern does not strictly comply with the above mentioned requirement that when a word Y does the agreement with the word Z, then Y belongs to the same nominal class as Z. It follows that in some Bantu languages, like Yao (P20), mentioned by Ngunga (2002), Shimakonde (P23) described in Liphola (2015) and Citshwa (S51), the subject matter of the current study, show similarities and some differences, regarding the way nouns are grouped into classes. Additionally, it is not only the subject marker that presents the co-reference within the morphological unit that follows, but also other grammatical categories present cognitive properties that can stablish co-reference relationship depending on strategies adopted to integrate nouns in nominal classes.

Ngunga (2002) points out three different strategies for integrating nouns into nominal classes, namely, the names semantic category, which scans semantic features, such as [+human] to determine morphological agreement word internally. The second strategy is the phonetic similarities of the first sound and, finally, the non-occurrence of an overt noun class prefix does not imply, necessarily the absence of a noun class. Ngunga argues that a particular noun prefix may not be realised overtly, but still leave in place its class features which triggers the expected agreement pattern in the language grammar. The above mentioned author does not mention one more strategy that should be considered in this analysis, not only looking at the agreement patterns in Bantu languages broadly, but taking into account linguistic evidence from Citshwa.

The last strategy to consider for integrating nouns into classes is the lexicon restriction which simply says that due to restrictions imposed by a

lexicon item, a particular prefix must agree with a particular nominal root, as shown in Table 8.

Table 8: *Lexicon Restrictions on Noun Grouping into Classes*

a.	ø-raku	'buttock'	ma-raku	'buttocks'
	ø-siku	'day'	ma-siku	'days'
	ø-sindza	'porcelain'	ma-sindza	'porcelain'
b.	ø-simbi	'iron'	ti-simbi	'irons'
	ø-salu	'scab'	ti-salu	'scabs'
	ø-huku	'chicken'	ti-huku	'chickens'

Looking at the data in Table 8, we see that there is no apparent reason why a lexicon item for 'porcelains' (*ma-sindza*) in (8a) is grouped in noun class 6 (*ma-*) while a word for 'scabies' (*ti-salu*) in (8b) belongs to the noun class 10 (*ti-*). This and other related cases of noun grouping in classes can be fully accounted for by assuming that certain lexicon restrictions play an important role in

7.1.1   Agreement with an Object Marker (OM)

According to Ngunga and Simbine (2012), when within a verb phrase (VP) entails a transitive verb it is expected to have a name called direct object or its morphological marks to complement the meaning. That grammatical category also called object marker (OM) has correlation with a prefix of the noun class. The examples provided in Table 9 from Citshwa stablish that there is an agreement pattern imposed by the VP with the OM that partially captures the morphological properties of the noun class prefix.

Table 9: *Agreement Pattern with an Object Marker (OM)*

Class	Prefix	OM	Example	Gloss
1	mu-	-ndzi-	va-ndzi-wutisile	'they asked me'
1	mu-	-ku-	va-ku-wutisile	'they asked you'
1	mu-	-mu-	va-mu-wutisile	'they asked him'
1	mu-	-hi-	va-hi-wutisile	'they asked us'
1	mu-	-mu-	va-mu-wutisile	'they asked you'
1	mu-	-hi-	va-hi-wutisile	'they asked us'
1	mu-	-mu-	va-mu-kumile mu-nhu	'they found the person'
2	va-	-va-	va-va-kumile va-nhu	'they found the people'
3	mu-	-yi-	va-yi-kumile yindlu	'they found the house'
4	mi-	-ti-	va-ti-kumile ti-yindlu	'they found the houses
5	ø-	-gi-	va-gi-kumile rambu	'they found the bone'
6	ma-	-ma-	va-ma-kumile ma-rambu	'they found the bones'

7	ci-	-ci-	va-ci-kumile ci-godo	'they found the trunk'
8	zvi-	-zvi-	va-zvi-kumile zvi-godo	'they found the trunks'
9	N-	-yi-	va-yi-kumile mbuti	'they found the goat'
10	ti-	-ti-	va-ti-kumile ti-mbuti	'they found the goats
11	li-	-yi-	va-yi-kumile li-davi	'they found the branch'
14	wu-	-gi-	va-gi-kumile wu-hlalu	'they found the bead'
15	ku-	-ku-	va-ku-wonile tolo	'they saw you yesterday'

It can be seen in Table 9 that the agreement pattern involving the object marker is transparent for classes 2, 6, 7, 8 10 and 15, where the object marker is morphologically similar to the noun prefix, namely *mu-*, *va-*, *ma-*, *ci-*, *zvi-*, *ti-*, and *ku-*. The generalization is that in Citshwa, the agreement pattern with an OM is partially determined by the noun class prefix. The data in Table 9 also show that the object marker for the second-person singular and third-person singular is also similar to the corresponding noun class prefix.

There are some differences to be noted. The first- and second-person plural as well as the third-person plural exhibit distinct OM from the noun class prefix. The classes 3, 9 and 11 present the morpheme *yi-* for OM, which is morphologically different from the noun class prefixes. Finally, the classes 5 and 14 exhibit the morpheme *gi-* for OM that is also morphologically distinct from the noun class prefix. The facts shown in (9) are consistent with language data. As previously noted, in Citshwa, the nominal agreement pattern is determined by a number of factors, including the formal morphological properties, semanticity, phonetic similarities, the zero category of noun class (overt presence/absence of a prefix) and lexicon restrictions.

7.1.2 Agreement with Reflexive Pronouns

In Citshwa, regardless the grammatical person, the reflexive pronoun is always the morpheme *-ti-*, independently from the noun class prefix with which combine. Relevant data are given in Table 10.

Table 10: Agreement with Reflexive Pronoun

SM	Class	Example	Gloss
ndzi-	1	ndzo-ti-tsuva	'I'm scratching myself'
		ndzo-ti- ambexa	'I'm dressing myself'
		ndzo-ti-xanisa	'I'm punishing myself'

		ndzo-ti-xavisa	'I'm selling myself'
hi-	1	ho-ti-tsuva	'we're scratching ourselves'
		ho-ti- ambexa	'we're getting dressed'
		ho-ti-gondzisa	'we're teaching ourselves'
		ho-ti-tsakisa	'we're scratching ourselves'
u-	1	wo-ti-tsuva	'you're scratching yourself'
		wo-ti-ambexa	'you're getting dressed'
		wo-ti-nyenya	'you're rejecting yourself'
		wo-ti-cava	'you're afraid of yourself'
mu-	1	mo-ti-tsuva	'you're scratching yourselves'
		mo-ti-ambexa	'you're wearing your own'
		mo-ti-wona	'you're seeing themselves'
		mo-ti-dzunda	'you're proud of yourselves'
a-	1	o-ti-tsuva	'he's scratching himself'
		o-ti-ambexa	'he's getting dressed himself'
		o-ti-wona	'he's watching himself'
		o-ti-tsika	'he's letting be himself'
va-	2	vo-ti-tsuva	'they are scratching themselves'
		vo-ti-nyenya	'they are rejecting themselves'
		vo-ti-ambexa	'they are dressing themselves'
mu-	3	mu-kwana wu-ti-petsile	'knife folded up itself'
mi-	4	mi-kwana yi-ti-petsile	'knives folded up themselves'
ø	5	khele ga-ti-tsuva	'the frog is scratching itself'
ma-	6	ma-khele ma-ti-tsuva	'the frogs are scratching themselves'
ci-	7	ci-manga co-ti-tsuva	'the cat is scratching itself'
zvi-	8	zvi-manga zvo-ti-tsuva	'the cats are scratching themselves'
N-	9	mbuti yo-ti-tsuva	'the goat is scratching itself'
ti-	10	ti-mbuti to-ti-tsuva	'the goats are scratching themselves'
li-	11	li-davi yo-ti-tsuva	'the branch is breaking up by itself'
ti-	10	ti-davi to-ti-tsuva	'the branches are breaking by themselves'

The examples in Table 10 show that Citshwa presents a single and non-variable reflexive pronoun, regardless the prefix of the noun class. The reflexive pronoun (-*ti*-) always occurs provided that the verb is transitive. In this respect, Citshwa is similar to many Bantu languages, that exhibit the reflexive morpheme that is not morphologically dependent to the noun head or to noun class. It is worth mentioning that in Citshwa, by coincidence, the reflexive pronoun is phonetically similar to the noun prefix of class 10. The two morphemes are morphologically distinct from one another and does they are not in dependence relationship.

There is one more important aspect that comes on the surface from the data considered in Table 10, which requires additional explanation. It relates to the differences between the morphemes that indicate the SM of the first, second, and third grammatical persons, considering the agreement

pattern of noun class prefixes 2, 6, 7, 8, 10 and the subsequent ones. We see that apparently the SM differs from the actual SM that appears in the VP. The apparent morphological differences result from morphological operations which interact with other morphemes such as tense-aspect categories, and the reflexive pronoun. For instance, we can see that the morpheme *ndzi-* alternates with *ndzo*, *hi-* appears as *ho-*, *va-* alternates with *vo-*, and so on. The apparent alternation of morphemes in Table 10 is illustrated in the Table 11.

Table 11: *Morpheme Alternation*

Subject Marker	Modified Subject Marker
ndzi-	ndz-o
yi-	y-o-
u-	w-o-
mu-	m-o-
a-	o-
va-	v-o-
wu-	w-o-
gi-	g-o-
ma-	m-o-
ci-	c-o-
zvi-	zv-o-
ti-	t-o-
gi-	g-o-

We will not get into details to explain the morpheme alternations in Table 1, but it is useful to mention that the basic morphological unit is the same. The interaction between morphology and phonology triggers sound change resulting in an apparent morpheme differences in the first and second columns.

For additional information on morpheme alternations, Liphola (2015) states that there are two distinct ways of morphological analysis. The first consists of morpheme coalescence. According to the traditional ontological approach, morphemes are like the word 'things' or 'being' which combine to form words. Within this perspective, the difference between the data would be explained based on allomorphic variances. The allomorphic approach assumes that languages have pieces which may alternate within the morphological structure. The traditional analysis that treats morphemes as 'things' believes the being, by itself, is an essence, therefore, there is no need for taking into account the factors that contribute

to the actual changes in the language grammar. Modern linguistics has shown that morphemes do not constitute beings with non-modified essence. Morphemes are a product of morphological operations that interact with other grammatical processes in a particular language.

The second way to explaining small morphological differences between morphemes is to assume that morphemes are rules. Liphola (2015) states that morphemes as 'rules' constitute the final product of processes or morphological operations that can affect the structure of words. The second approach is assumed in the current study, since linguistic evidence from Citshwa shown that there is a VP structure like SM-V-Reflexive, with different components, where V stands for a verb containing tense-aspect marks.

We conclude that the examples in Table 10 follow a general agreement pattern found in the language, where there a subject marker before the reflexive pronoun, followed by other morphological units including tense-aspect marks, verbal root and final vowel. The following examples in Table 12 are partially repeated from Table 10 and illustrate the tense-aspect morphemes and its variation.

Table 12: *Morphological Structure of the Verbal Pre-Theme*

Class	Person	Prefix	Pre-Theme
1	1S	ndzi-	oti-
	1P	hi-	oti-
	2S	u-	oti-
	2P	mu-	oti-
	3S	oti-	oti-
2		va-	oti-
6		ma-	oti-
7		ci-	oti-
8		zvi-	oti-
10		ti-	oti-

The partial data illustrated in Table 11 corroborate with the examples in Table 10. We can see that in Table 10 there is an occurrence of structures like *o-ti-tsuva*, *o-ti-tsika*, *o-ti-ambexa*, *o-ti-wona*, where the SM is not realised overtly in the morphological structure, but the morpheme of tense-aspect *-o-* appears explicitly.

Summarizing the discussion on alternations envolving morphemes that trigger the agreement patterns in Table 10, we can state that the

apparent change involving the *ndzi~ndzo-*, *hi-~ho-*, *u-~wo-*, *zvi-~zvo-*, *yi-~yo-*, *va-~vo-*, morphemes result from distinct morphophonological operations interacting with phonological operations in the language grammar. The actual forms such as *ho-ti-ambexa* ('we are dressing ourselves') or *ndzo-ti-ambexa* ('I'm dressing myself') are derived from *hi-o-ti-ambexa* and *ndzi-o-ti-ambexa*, respectively. We see that there are operations envolving suppression of the vowels within morphemes of the verb.

The next examples in Table 13 provide clear evidence on how apparently different morphological structures can be derived by assuming an approach of morphological operations. The basic idea behind this approach is to show that morphemes are not 'things,' but rather a product of morphological operations.

Table 13: *Derivations of Morphological Structures*

a.	ndzi-o-ti-tsuva	Morphological Structure
	ndzø-o-ti-tsuva	Morphological Operations
	ndzo-ti-tsuva	Final Product
b.	ma-o-ti-tsuva	Morphological Structure
	mø-o-ti-tsuva	Morphological Operations
	mo-ti-tsuva	Final Product
c.	u-o-ti-tsuva	Morphological Structure
	w-o-ti-tsuva	Morphological Operations
	wo-ti-tsuva	Final Product

As demonstrated with derivations above, both morphological and phonological processes are responsible for morpheme alterations, due to interactions determined by agreement patterns and restrictions imposed by the Citshwa grammar. As shown, morphological and phonological operations may modify the morphological structure of the morpheme as well as the actual morpheme shape.

7.1.3 Agreement with Demonstratives

There are two generalizations about demonstrative in Citshwa. First, the morphological structure of a demonstrative entails two syllables. The first syllable contains a basic form of a demonstrative morpheme and the second syllable is, generally a copy of the noun class prefix, with some exceptions.

The second generalization is that a vowel quality of the first syllable may vary depending on the vowel quality of the SM or of the noun prefix.

Factual observation from the language data allows one to say that the agreement pattern envoluing a noun and demonstrative generally follows the same pattern found in the previous data, with some exceptions. First, there are nominal classes that share the same agreement pattern, including the classes 1, 4, 9, and 11, whose demonstrative is *le-yi*. Second, the noun classes 5, 14 and 17 take *le-gi* demonstrative. The major generalization about agreement pattern with demonstratives in Citshwa is that there is a dependence relationship between the demonstrative prefix and the corresponding class prefix of the head noun. Generally, the subject marker of the head noun appears in the last syllable of the demonstrative, as shown in Table 14.

Table 14: *Noun+Demonstrative Agreement*

Class	SM	Noun + Demonstrative		Gloss
1	mu-	mu-nhu	lwe-yi	'this person'
2	va-	va-nhu	la-va	'these people'
3	wu-	mu-ti	lo-wu	'this house'
4	yi-	mi-ti	le-yi	'these houses'
5	ø-	rambu	le-gi	'this bone'
6	ma-	ma-tiku	la-wa	'these countries'
7	ci-	ci-godo	le-ci	'this trunk'
8	zvi-	zvi-godo	le-zvi	'these trunks'
9	yi-	m-buti	le-yi	'this goat'
10	ti-	ti-mbuti	le-ti	'these goats'
11	yi-	li-davi	le-yi	'this branch'
14	gi-	wu-hlalu	le-gi	'this bed'
15	ku-	ku-runga	lo-ku	'this sew'
16	ka-	ka-mati	la-wa	'on this water'
17	ka-	ka-tiku	le-gi	'this country'

As previously stated, the data in Table 14 reveal that the demonstrative consists of two parts. The first part is a basic and invariable component, constituted by a CV-syllable structure. The consonant of that CV-syllable structure is always an alveolar lateral followed by mid or low vowel. The second part of the demonstrative is composed of a morpheme which is a copy of the SM, with some exceptions, as we shall see. The demonstratives

of classes 1, 5, 6, 16 and 17 that do not copy the prefix of the subject mark. The demonstrative of the remaining classes show that the second syllable of the demonstrative is a copy of the SM morpheme as shown previously.

Taking into account these data, it is assumed that if the subject marker is *wu-*, as in *wu-wawile* ('it had fallen'), the corresponding demonstrative pattern is *lo-wu* (class 3), where the last syllable of the demonstrative is a copy of the SM prefix. If the SM is *yi-* as in *yi-wawile* ('it had fallen'), the corresponding demonstrative is *le-yi* (class 4) and, when the SM is *ci-* and *zvi-*, the demonstratives appear with the morphemes *-ci* and *-zvi*, as in *le-ci* and *le-zwi*, respectively (classes 7 and 8), in the final syllable.

However, it is useful to mention that there are few complications, basically resulting from interaction between morphological and phonological operations. For example, the vowel quality of the first demonstrative syllable is generally affected by the final vowel of the variable morpheme, due to the vocalic harmony, the issue that will not be discussed in details in the current paper. It is concluded that in Citshwa, the agreement pattern envolving a name and demonstrative follows a general pattern found in other Bantu languages, with some differences dictated by morphological factors that relate to language specific.

7.1.4 Agreement with Possessives

Generally, in most Bantu languages including Citshwa, two forms of possessive are distinguished. There is a prepositional possessive that morphologically interacts with syntax. The prepositional possessive presents a basic structure of X of Y. In Citshwa, generally, the prepositional possessive is more productive involving head nouns of all nominal classes. The possessive forms like *n'wana wa Chivambo* ('son of Chivambo') or *buku ga Chivambo* ('book of chivambo') are common.

There are few exceptions of non-prepositional possessive in the language involving exclusively nouns of classes 1 and 2, where structures such as *n'wana mina* ('my son/daughter') are possible. Notice that *n'wana mina* is morphologically different from *n'wan wa mina* ('son/daughter of mine'). Although the two types of possessives are morphologically distinct,

in this study we transcribe all possessives as if they were non-prepositional. So in *n'wana wa hina* ('son of ours'), we transcribe as 'our son'.

There are two generalizations about the possessive agreement pattern in Citshwa. The first generalization is that the possessive is carried out preferentially through a connector on the morphological structure, linking the possessor and the possessed, following a general structure of X of Y, as illustrated above. There is also a limited class of nouns that allow a non-prepositional possessive, as it illustrated. The second generalization about possessives in Citshwa says that the prefix of the possessive agreement pattern or the possessive mark (PM) is morphologically distinct from the noun class prefix, except for classes 2, 7, 8, 10 and 15. For these classes, the PM is morphologically identical to the corresponding noun class prefix. The PM of classes 7, 8, 10 and 15, however, present small morphological differences when compared to the basic prefixes of noun classes, as seen in Table 15.

Table 15: *Noun+Possessive Agreement*

Class	Name	Possessive	PM	Gloss
1	makabzi	wa-mina	wa	'my brother
1	n'wana	wa-mina	wa	'my daughter/son'
1	dadani	wa-mina	wa	'my father'
1	mu-nhu	wa-bukuxa	wa	'person of Bukuxa'
1	mu-nhu	wa-mina	wa	'my person'
2	va-nhu	va-mina	va	'my people'
3	mu-ti	wa-mina	wa	'my house'
4	mi-ti	ya-mina	ya	'my houses'
5	ø-tiku	ga-mina	ga	'my country'
6	ma-tiku	ya-mina	ya	'my countries'
7	ci-godo	ca-mina	ca	'my trunk'
8	zvi-godo	zva-mina	zva	'my trunks'
9	m-buti	ya-mina	ya	'my goat'
10	ti-mbuti	ta-mina	ta	'my goats'
11	li-davi	ya-mina	ya	'my branch'
10	ti-davi	ta-mina	ta	'my branches'
14	(w)u-hlalu	ga-mina	ga	'my bead'
6	ma-hlalu	ya-mina	ya	'my beads'
15	ku-runga	ka-mina	ka	'sew'
16	ka-ndawu	ya-mina	ya	'on my place'
17	ka-muti	wa-mina	wa	'to my house'

The examples provided show that the possessive is introduced by a connector morpheme. That morpheme, generally, shares morphological properties of the corresponding noun class prefix, though with some exceptions. In Citshwa, the possessive agreement pattern presents similar morphological characteristics found in other language categories. However, there are some differences determined by morphological operations and lexicon restrictions.

Considering the actual form of a possessive prefix in Table 15, it is possible to distinguish four sub-categories of possessives. First, there is a possessive sub-category involving nouns of classes 4, 6, 9, 11, and 16, where the prefix of the agreement pattern is *ya-*. Second, there is another group represented by noun classes 1, 3 and 17 selecting the possessive prefix *wa-*. The third category is represented by nominal classes 5 and 14 with possessive prefix *ga-* and, finally, there is a fourth sub-category involving five classes, namely, 2, 7, 8, 10 and 15 with possessive prefixes which are morphologically identical to the basic noun class prefixes, displaying, however, small differences between them.

A closer look at the prefixes of the possessive agreement pattern of noun classes 2, 7, 8, 10 and 15 reveals two situations. The first situation is that the possessive prefix *va-* is morphologically identical to the corresponding class 2 noun prefix. The second situation involves possessive prefixes *ca-*, *zva-*, *ta-*, and *ka-*, which present small morphological differences from the corresponding basic noun class prefixes *ci-*, *zvi-*, *ti-*, and *ku-*. We see that the possessive agreement marks of these classes exhibit slight morphological differences due to morphological operations that take place at morphosyntactic domain. To explain the small morphological differences, we assume that there is a correlation between *ci-/ca-*, *zvi-/zva-*, *ti-/ta-*, and *ku-/ka-*, based on our approach that considers morphemes as "processes" and not as 'things.' Taking into consideration a morphological approach that considers morphemes as 'things,' one could have to admit the existence of two allomorphs. According to allomorphic based approach, the prefix changes can be explained by assuming the existence of a number of noun class prefixes with morphological characteristics other than those of the possessive prefix.

The second morphological analysis assumed in this article is that morphemes are the final product of morphological operations. Thus, noun classes 7, 8, 10 and 15 and the corresponding possessive prefixes in Table 15 are basically identical. The small differences between them can be explained on the basis of application of morphological processes, as illustrated in Table 16.

Table 16: *Possessives of Noun Classes 7, 8, 10 and 15*

Class	Noun	Possessive	Gloss	Agreement Marker
7	ci-godo	ci-amina	'my trunk'	ca-
8	zvi-godo	zvi-amina	'my trunks'	zva-
10	ti-m-buti	ti-amina	'my goat'	ta-
15	ku-runga	ku-amina	'my sew'	ka-

We see from the data above that the syllabic structure of the possessive is #CV-V.CVCV as in *ci-amina* ('of mine'). Since the occurrence of the syllable structure #CV-V is avoidable in the language, it creates an appropriate context for the triggering operations that result from interaction between morphology and other level of language grammar of phonology. Thus, the actual morphemes in Table 16 are affected by processes which turn them into new final product as shown in Table 17.

Table 17: *Possessive Prefixes* Before/After Morphological Operations

	Before		After	
7	ci-godo	ci-amina	ci-golo c-amina	'my trunk'
8	zvi-godo	zvi-amina	zvi-godo zv-amina	'my trunks'
10	ti-m-buti	ti-amina	ti-mbuti t-amina	'my goat'
15	ku-runga	ku-amina	ka-runga k-amina	'my sew'

As seen from the illustration above, the possessive prefixes *ca-*, *zva-*, *ta-*, and *ka-* are derived due to morpheme modifications that affect the basic sounds with noun prefixes *ci-*, *zvi-*, *ti-*, and *ku-*, respectively. The suppression of the linguistic operations affecting the morphemes in Table 17 are shown in Table 18.

Table 18: *Morphophonological Operations Affecting Possessives*

zvi-godo zvi-amina	Morphological Structure before Operations
zvi-godo zvø-amina	Morphological Processes
zvi-godo zva-mina	Morphological Structure after Operations

Based on the derivations above, we conclude by saying that small differences between noun prefixes for classes 7, 8, 10 and 15 and the corresponding possessive prefixes are well accounted for by assuming that morphemes are the final product of interacting operations.

The additional examples in Table 19 provide further evidence that in Citshwa a possessive has a basic structure of X of Y, following the same general pattern of agreement found in the language.

Table 19: *Noun+Possessive Agreement*

Class	Noun	Possessive	PM	Gloss
1	munhu	wa-xivale	wa	'person of Xivale'
2	vanhu	va-teresa	va	'people of Teresa'
3	mu-ti	wa-wena	wa	'your house'
4	mi-ti	ya-yena	ya	'his houses'
5	ø-tiku	ga-yena	ga	'your country
6	ma-tiku	ya-n'wina	ya	'your countries'
7	ci-godo	ca-hina	ca	'our trunk'
8	zvi-godo	zva-hina	zva	'our trunks'
9	m-buti	ya-wena	ya	'your goat'
10	ti-m-buti	ta-n'wina	ta	'your goats'
11	li-davi	ya-yena	ya	'his branch'
10	ti-davi	ta-yena	ta	'your branches
14	w(u)-hlalu	ga-hina	ga	'our bead'
6	ma-hlalu	ya-hina	ya	'our beads'
15	ku-runga	ka-n'wina	ka	'your sew'
16	ka-ndawu	ya-yena	ya	'on his place'
17	ka-muti	wa-mina	wa	'to the house of me

These examples establish that there is a category of possessives with agreement pattern determined by the noun class prefix and that there are other possessives which do not fall into these same category. The examples also show that there are categories of possessives whose agreement prefixes are morphologically distinct from the noun class prefixes fact that can be explained taking into consideration the different factors that determine the grouping of nouns into separate noun classes.

In Table 20, we provide examples envolving possessives with no overt possessive prefix morphologically in Citshwa. These optional and limited cases only occur with nouns of class 1 and 2, as shown below.

Table 20: *Noun+Non-Periphrastic Possessive*

Example	Gloss
n'wana mina	'my son/daughter'
vananga	'my children/ daughters'
kata mina	'my wife/husband'
vakatanga	'my wives/husbands'
kata n'wina	'your wives/husbands'
nuna hina	'our husband'
vanuna hina	'our husbands'

These data reveal that in Citshwa, the non-prepositional possessive dispenses the overt connecter. Given the restrictions of this type of non-prepositional possessive structures in the language, we consider it to be an exception, compared to a general case envolving possessives with the X of Y structure.

7.1.5   Pattern Agreement of Noun + Adjective

It is a generalization that in Citshwa, all adjectives present agreement prefixes. The typical agreement pattern between head noun and an adjective in Bantu languages is that the adjective agreement prefix (AdjM) is the copy of the noun class prefix of the head noun with which the adjective agrees. In Citshwa, the adjective prefix follows, in general, the same agreement pattern found with possessives in Bantu languages.

In Citshwa, the noun classes 2, 7, 8, 10 and 15 have AdjM that are identical to the corresponding noun class prefixes, with some differences due to morphological processes. The second major generalization about adjectives is that the AdjM prefixes exhibit two possible allomorphs with, namely *ca-* and *co-*, depending on actual adjective which is involved. Consider the examples in Table 21.

Table 21: *Noun+Adjective Agreement*

Class	Noun	Adjective	Agreement Prefix	Gloss
1	mu-nhu	wo-saseka	wo-	'beautiful person
2	va-nhu	vo-wondza	vo-	'people lean out
3	mu-ti	wa-hombe	wa-	'big house
4	mi-ti	ya-yi-tsongwani	ya-	'small houses'
5	ø-tiku	go-saseka	go-	'beautiful country'

6	ma-tiku	ya-hombe	ya-	'big countries'
7	ci-godo	co-vevuka	co-	'trunk light trunk'
8	zvi-godo	zvo-bhindza	zvo-	'heavy trunk'
9	N-buti	yo-nandziha	yo-	'tasty-flavorful goat'
10	ti-m-buti	ta-ntima	ta-	'black goat'
11	li-davi	yo-leha	yo-	'fulfilled branch'
10	ti-davi	to-koma	to-	'short branches'
14	(w)u-hlalu	go-basa	go-	'white bean'
6	ma-hlalu	ya-ntima	ya-	'black beans'
15	ku-runga	ko-saseka	ko-	'beautiful sewing'
16	ka-ndawu	yo-rula	yo-	'on the quiet place'
17	ka-muti	wa-hombe	wa-	'to the big-house'

As seen from the examples provided in Table 21, the adjective agreement prefixes for classes 2, 7, 8, 10 and 15 are *vo-*, *co-*, *zvo-*, *ta-/to-*, and *ko-*, resulting from modifications of the noun prefixes *va-*, *ci-*, *zvi-*, *ti-*, and *ku-*. It should be noted that the class 10 shows variations of *to-* or *ta-* adjective prefix, depending on the adjective type involved, and that can be explained based on the lexicon restrictions in the language.

Apparently there are morphological differences between the adjective agreement prefix and the corresponding noun class prefix, being more prominent in some cases and less evident in other cases. As it was demonstrated previously, the agreement pattern adjective prefixes can be modified from their morphological basic structure. This same pattern is found in adjectives as illustrated in Table 22.

Table 22: *Similarities among the Prefixes of Nouns, PMs, and AdjMs*

Class	Noun Prefix	PM	AdjM
2	va-	va-	vo-
7	ci-	ca-	co-
8	zvi-	zva-	zvo-
10	ti-	ta-	to-/ta-
15	ku-	ka-	ko-

We see from these examples that there are similarities between prefixes that determine the agreement patterns in Citshwa, as we also see some morphological differences. As noted, the AdjM of class 10 displays two forms *to-* or *ta-*. We have been assuming in this analysis that morphemes constitute the final product of morphological operations and that these

differences result from interaction processes. Thus, the linguistic form *ti-davi ta-yena* ('their branches') is derived from *ti-davi ti-a.yena*.

Similarly, we see that generally, all adjectives in Table 21, except for classes 3, 4, 6, and 17, exhibit round vowel in the final position. In order to capture the same generalization of morphological analysis on the grammar of Citshwa, we assume that the adjective prefixes of classes 2, 7, 8, 10 and 15 are morphologically analogous to the corresponding basic noun prefix and morphological operations, then affect morphemes in order to derive apparent new forms. In fact, examining the data from Citshwa, it is clear that there are two subcategories of adjectives in the language, taking into account the agreement pattern. The first category is represented by the highest number of adjectives including *wo-*, *vo-*, *go-*, *co-*, *zvo-*, *yo-*, *to-* and *ko-*. Within this subcategory, the adjective prefix is similar to the head noun of classes 2, 7, 8, 10 and 15. As noted, previously, there are, however, apparent differences that can be explained on the basis we have just assumed, by looking at morphemes as processes.

The second subcategory of the adjective prefixes includes *wa-*, *ya-*, and *ta-*. Within this subcategory, the prefixes *wa-*, *ya-*, *ta-*, or *ta-*, *ya-*, *wa-* involve head nouns of classes 3, 4, 6 and 17, and classes 3 and 17 with adjective prefix *wa-*, whereas classes 4 and 6 have adjective prefix *ya-*. Taking into consideration the data in analysis, we assume that the adjective prefixes *vo-*, *co-*, *zvo-*, *to-*, *yo-*, and *ko-* are derived from *va-o-*, *ci-o-*, *zvi-o-*, *ti-o-*, and *ku-o-*, respectively, due to interacting operations as shown by derivations Table 23.

Table 23: *Morphological Operations Involving the Adjective*

a.	ci-godo ci-ovevuka	Morphological Structure
	ci-godo cø-ovevuka	Morphological Process
	ci-godo co-vevuka	Final Product
b.	zvi-godozvi-obhindza	Morphological Structure
	zvi-godozvø-obhindza	Morphological Process
	zvi-godozvo-bhindza	Final Product

The derivations show that the form *ci-godo co-vevuka* ('light trunk') comes from *ci-godo ci-o-vevuka*. Similarly, the form *zvi-godo zvo-bhindza* ('heavy trunks') results from operations affecting *zvi-godo zvi-o-bhindza*. Notice that the classes 9, 11 and 16 present the adjective prefix *yo-*, while classes 4

and 6 have adjective *ya-*. On the other hand, class 10 presents the adjective prefixes *ta-* and *to-*. The traditional ontological approach refers to this type of alternation of morphemes as allomorphy, since that analysis takes morphemes as unchangeable entities or things. As you can grasp from this view, both cases of class 10 are strongly lexicon restricted dependent. In one case, we have *ti-okoma* and in the other we have *ti-antima*, but the subject prefix morpheme has undergone interacting processes.

We also note that the data in Table 21 involve the alternation of the prefixes *ya-/yo-* and *wa-/wo-*. These cases are assumed as having undergone morphological processes, and that the for *wo-sakeka* ('beautiful/beautiful-looking') is derived from *wa-o-sakeka*. The same analysis correctly accounts for alternations for adjective prefixes *ga-*, *go-*, and *gi-* of classes 5 and 14. The additional examples provided in Table 24 show that the agreement pattern of an adjective prefix is determined partially by the noun class prefix as well as by the head noun.

Table 24: *Noun+Adj*

Class	Noun	Adj	AdjM	Gloss
1	mu-nhu	u-a-hombe	wa	'big person'
2	va-nhu	va-hombe	va	'big people'
3	mu-ti	wa-wu-tsongwani	wa	'small house'
4	mi-ti	ya-yi-tsongwani	ya	'small houses'
5	ø-tiku	ga-gi-tsongwani	ga	'small country'
6	ma-tiku	ya-ma-tsongwani	ya	'small countries'
7	ci-godo	co-leha	co	'long trunk'
8	zvi-godo	zvo-leha	zvo	'long trunks'
9	m-buti	yo-kuluka	yo	'fat goat'
10	ti-m-buti	to-kuluka	to	'fat goats'
11	li-davi	yo-basa	yo	'white branch
10	ti-davi	ta-ntima	ta	'black branches
14	(w)u-kosi	gi-nene	gi	'perfect power'
6	ma-kosi	ma-nene	ma	'perfect powers'
15	ku-runga	ko-bzekela	ko	'pie sewing'
16	ka-ndawu	yo-eta	yo	'on the deep place
17	ka-muti	wo-bhiha	wo	'for the house ugly'

These examples attest for the occurrence of a general agreement pattern envolving a noun plus an adjective. These examples also show that classes

3, 4, 5, and 6 have adjective prefixes *wa-*, *ya-*, *ga-*, similar to noun classes *wu-*, *yi-*, *gi-*, and *ma-*. The class 10 has adjective prefixes *to-* and *ta-*, which are similar to a noun prefix *ti-*, as in *ti-davi to-koma* ('short branches') or *ti-davi ta-ntima* ('black branches'). We have shown that the differences between *to-* and *ta-* result from morphological operations, since *tidavi t-okoma* derives from *tidavi ti-ontima*, while *tidavi ta-ntima* is from *tidavi ti-a.ntima*.

7.1.6 Agreement with Numbers and Numerals

In Citshwa, the agreement with numbers and numerals is characterized by the existence of two types (NumPref) or number agreement prefixes. There is a category of NumPref that is morphologically identical with the prefix of the nominal class. There is the second category of numbers and numerals whose agreement prefixes do not match the prefixes of the nominal classes. The most representative examples are indicated in Table 25.

Table 25: *Noun+Number Agreement*

Class	Prefix	Noun	Numeral	NumPref	Gloss
1	mu-	mu-nhu	mu-n'we	mu-	'one person'
2	va-	va-nhu	va-mbiri	va-	'two people'
3	mu-	mu-ti	wu-n'we	wu-	'one house'
4	mi-	mi-ti	yi-mbiri	yi-	'two houses'
5	ø-	tiku	gi-n'we	gi-	'one country'
6	ma-	ma-tiku	ma-mbiri	ma-	'two countries'
7	ci-	ci-godo	ci-n'we	ci-	'one trunk'
8	zvi-	zvi-godo	zvi-mbiri	zvi-	'two logs'
9	N-	N-buti	yi-n'we	yi-	'one goat'
10	ti-	ti-m-buti	ti-mbiri	ti-	'two goats'
11	li-	li-davi	yi-n'we	yi-	'one branch'
10	ti-	ti-davi	ti-mbiri	ti-	'two branches'
14	(w)u-	wu-hlalu	gi-n'we	gi-	'one bead'
6	ma-	ma-hlalu	ma-mbiri	ma-	'two beads'
15	ku-	ku-famba	ku-n'we	ku-	one walk'

This reveals two patterns of agreement patterns in the language when numbers and numerals are involved. The first pattern shows that the prefix of agreement morpheme in number or numeral is identical to the corresponding noun class prefix as illustrated by the examples of classes 1, 2, 6, 7, 8 and 10. The second pattern of agreement with numbers and

numerals shows that NumPref is morphologically distinct from the prefix of a noun class, shown in classes 3, 4, 5, 9, 11, and 14, where the noun class prefix does not match the NumPref.

Generally, the agreement of numbers and numerals in Bantu languages shows that adjectives, numerals, possessives, demonstratives and the verbs are all dependent on the head noun. Consider the examples in Table 26 below.

Table 26: *Noun+Numeral Agreement*

Class	Noun	Numeral	NumPref	Gloss
1	mu-nhu	mu-n'we	mu-	'one person'
2	va-nhu	va-nharu	va-	'three people'
2	va-nhu	va-mune	va-	'four people'
2	va-nhu	va-tlanu	va-	'five people'
2	va-nhu	va-tlanu ni-mun'we	va-	'six people'
2	va-nhu	va-khume	va-	'ten people'
2	va-nhu	va-zana	va-	'hundred people'
4	khumi	ga-mi-ti	ga-	'ten houses'
5	zana	ga-tiyindlu	ga-	'hundred houses'
8	zana	ga-zvi-godo	ga	'hundred trunks'
6	ma-tiku	ya-khume	ya-	'ten countries'
2	va-nhu	va-muni wa mazana	va-	'four hundred people'
8	zvi-godo	zva-khumi ni zvi-mbiri	zva-	'twenty-two trunks'
10	ti-mbuti	ta-ma-khumi manharu	ta-	'thirty goats'

These data have the same pattern described previously in Table 25. The examples show some regularity on agreement patterns in NumPref and the nouns of classes 2, 8 and 10. The example of class 8 reveals how morphological operations affect the form *zvi-godo zva-khumi ni zvi-mbiri* ('twenty two trunks'). Notice that the form *zva-khumi* tested by **zvi-khumi* is not allowed. It follows that *zva-khumi* is derived from *zvi-a-khumi*, while *zvi-mbiri* comes from *zvi-a-mbiri*. This fact illustrates how interacting operations give motivate different morphemic structures.

The second agreement pattern with numbers and numerals shows that the NumPref does not match the nominal class prefix, as shown with nouns of classes 4, 5, and 6. Consider the additional data in Table 27.

Table 27: *Noun+Ordinal Numerals*

Class	Noun	Numeral	Prefix	Gloss
1	mu-nhu	wo-sungula	wo-	'first person'
1	mu-nhu	wa-wumbri	wa-	'second person'
1	mu-nhu	wa-wu-nharu	wa-	'third person'
1	mu-nhu	wa-muni	wa-	'fourth person'
1	mu-nhu	wa-wutlanu	wa-	'fifth person'
1	mu-nhu	wa-wukhumi	wa-	'tenth person'
2	va-nhu	va-khumi	va-	'tenth people'
3	mu-ti	wo-sungula	wo-	'first house'
4	mi-ti	yo-sungula	yo-	'first houses'
5	ø-tiku	go-sungula	go-	'first country'
6	ma-tiku	yo-sungula	yo-	'first countries'
7	ci-godo	ca-tlanu wamakhuni	ca-	'fiftieth person'
8	zvi-godo	zva-khumi nimuni	zva-	'eighteenth trunk'
10	ti-mbuti	ta-makhumi manharu	ta-	'thirtieth goat'
11	li-davi	ya-tlanu nimuni	ya-	'ninth branch'

This shows that the agreement with ordinal numerals presents similar patterns described previously, but with considerable differences. More specifically, there is a more general pattern of agreement pattern which shows that there are some similarities between a numeral prefix and a noun class, as tested with the examples of classes 2, 7, 8 and 10. The second agreement pattern shows that the numeral NumPref is different from a noun class prefix as we see in classes 1, 3, 4, 5, and 11.

8.0   Conclusion

In this article we have attempted to make an extensive data presentation and analysis on the nominal pattern agreement in Citshwa. We have described a wide range of data and shown that there are different factors affecting the agreement patterns in the language. It has been shown that, in general, the prefixes of dependent elements with a morphological or syntactic structures share some properties with the noun class prefix or the head noun. In particular, the article showed that the prefixes associated to subject, object, demonstrative, possessive, adjective, numbers and numerals markers share a general agreement pattern, as well as entail some differences. In Citshwa, like in other Bantu languages, nouns are grouped into seventeen different classes, but the basis on which the noun grouping is made can be motivated taking into account several factors. Looking specifically at the morpheme

alternations, we have shown that some differences are dictated by interacting processes capturing basic regularities which occur in the language. Since this is the first extensive description of Citshwa noun morphology, we are aware of not being able to get into details that would allow for further generalization, but we have provided important work tool for additional field research. Let us strongly recommend a critical reading of this article in order to supply possible gaps left behind.

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