

Expressing Adjectival Meanings in Chimakonde: A Prototype Perspective

Abstract

The focus of studies in languages with rich morphology and a well-established category of adjective has, to a larger extent, shifted from the descriptive question of whether the adjective category exists or does not exist to the theoretical question about the distributional patterns of noun-adjective and corresponding interpretations. (Alexiadou, Haegeman, & Stavrou, 2007). On the contrary, a long-standing question that seems to bother many scholars working on adjectives in Bantu languages is whether the adjective category exists and, if so, how to establish it in the respective languages. The current study contributes to the debate along similar lines of inquiry by arguing that Chimakonde (P.23, Bantu) expresses adjectival meanings through descriptive constructions and non-adjectival categories, primarily nouns and verbs. The methodology involved translating a 1982 Dixon's list containing semantic types into Chimakonde. The results indicated that the translated Dixon's adjectives had derivational bearing on either nouns or verbs, i.e., words describing property concepts are derivationally verbal or nominal. As such, it was concluded that Chimakonde exhibits no distinct adjective category with its own prototypical semantic and morpho-syntactic features but expresses adjectival meanings through several other methods, including derivation, lexicalisation, relativisation, and borrowing.

Keywords: adjectives, adjectival meaning, property words, prototype theory, Chimakonde

1. Introduction

The question about whether a language has a particular category or it does not is a linguistic question, to begin with the obvious. Specifically, it is a question about categorisation, and it alludes to the importance of categorisation in linguistics, and by extension, in human life. As Lakoff (1987) puts it, categorisation is basic to our thought, perception, and action, and it is a fundamental cognitive process which helps human beings process reality more easily (Rauh, 2010). Cars, for instance, are often categorised by make, model and engine size. Classifying a car like that helps buyers make informed decisions about what car to buy or avoid. In linguistics, a stretch of language can be categorised into words, phrases and clauses, an approach deemed crucial to the understanding of a language structure. At a word-level, determining the (non-)occurrence of a word category in a language is an important step towards the theory of meaning. The assumption held in linguistic theory is that every word category expresses a dedicated meaning (Saeed, 1997). Consequently, while the presence of a category in a language is ideal, the absence of it raises an important question as to how the meaning corresponding to that category is expressed in that language (Rauh, 2010). While a language may lack a category present in another, studies (Aboh, 2010; Asiimwe, 2014) have indicated that all languages possess internal grammatical or lexical methods to convey concepts that are represented by specific words in other languages. The most cited languages in this area are those that do not have articles, such as Polish (Cummins, 1999), Runyankore (Asiimwe, 2014), and Russian (Veselovská, 2018) among others. Articles are assumed to express the definiteness of a noun (Hawkins, 1978). A definite noun phrase is familiar and identifiable by the speaker and addressee (Lyons, 1999). While the term 'definiteness' is assumed to be universal (Cummins, 1999), not all languages have articles. This suggests that languages lacking articles express definiteness in their own ways. Taji (2020) points out that Chiyao, an article-less Bantu P.21 language, expresses definiteness through subject and object marking. In Swahili, an East African Bantu language spoken in

Tanzania (Kimambo, 2018) and Tsonga, a Bantu language spoken in southern Mozambique (Duarte, 2011), word order plays a crucial role in indicating definiteness. In both languages, a linguistic entity assumed to be identifiable is fronted. These examples clarify that no language lacks an internal mechanism to express a concept. Languages differ in terms of the mechanisms they employ to express a concept. The current study aims to explore whether Chimakonde possesses a prototypical adjective category, defined by the central semantic and morphosyntactic features, as outlined in Section 6.1. A prototypical notion of a syntactic category (Givón, 2001) is, therefore, adopted. This model permits the overlapping of features between internal and external members (Langacker, 1987). The assumptions and relevance of this theory are given in detail in Section 5. A Dixon's (1982) semantic list of adjectives will be translated into Chimakonde to determine counterparts. The related objective is to explore how adjectival meanings are expressed when no distinct adjective category is identified. The current study contributes to the language preservation efforts, as Chimakonde is insufficiently studied, particularly in morpho-syntactic analyses, compared to the other languages in the P20 zone, such as Yao (P21). The study also contributes to the ongoing debate about the nature of the adjective category in Bantu languages, as to whether it is an open or closed class or non-existent (Dixon, 1982).

2. An overview of the studies on the adjective category

The studies on adjectives abound both globally and locally (Mpofu, 2009; Mpobela & Lusekelo, 2017; Flanagan, 2014). Looking at the scope of these studies, one finds two major issues being pervasive in the linguistic literature on adjectives. The first is about the universality of an adjectival class. On the other hand, it is assumed that languages worldwide have adjectives (Dixon, 1982). This assertion hinges on the assumption that every language expresses property concepts, and property words are said to be an inherent feature of adjectives (Bhatt, 1994). In this respect, the languages differ only in class size (Givón, 2001). According to (Schachter & Shopen, 2007), an adjective class in a language can be open or closed. In a language with an open adjective class, Schachter and Shopen (2007) state that the members are numerous and new members can be accepted into the category more easily (Carnie, 2006). Crystal (2006) mentions cultural factors as being the major source of membership addition. English is a good example of a language with an open adjective class. For instance, over 7000 English adjective entries are listed in the Oxford Advanced Learner's Dictionary (OALD, 2017).

According to Dixon (1982), a language with a closed adjective class has between 10 and 50 members of the class. Chewa (N31), for instance, has adjectival roots below 15 (Seeger, 2008), but the number of adjectives in Swahili is above 200 (Kahigi, 2007). Furthermore, Dixon (1982) argues that languages with a closed adjectival class have adjectives mostly denoting dimension (e.g., large or small), colour (e.g., black or white), and age (old or young). However, Dixon argues that such languages do not have words expressing position (e.g., high or low), physical property (e.g., hard or soft), and human propensity (e.g., cruel or kind). Dixon adds that these languages have some of the adjectival meanings expressed by other word classes, mainly verbs and nouns.

On the other hand, the view that adjectives are not universal is not uncommon. As for the languages without a distinct adjective class, Dixon (1982) characterises them as having no discernible morpho-syntactic features. With these languages, Dixon notes that it is almost impossible to distinguish adjectives from nouns and verbs. He cites Mojave, a native American language, as having no distinct adjectival class.

The second is about the identification of the adjectival class. Three ways of identifying adjectives have been proposed, namely notional, morphological, and syntactic/functional. Each of these three ways contributes to our understanding of how adjectives differ from nouns and verbs. However, none of them is satisfactory. As for the notional identification, adjectives are known for what they express/denote. According to Schachter and Shopen (2007), adjectives denote properties and attributes. However, the most voiced objection to this kind of characterisation of adjectives is the lack of homogeneity and the presence of borderline cases. A counter-example to this notional definition is the word ‘whiteness’, which quintessentially expresses a quality/property, but it is not an adjective considering its distribution in a sentence. This word can be preceded by a determiner, as in ‘his/the whiteness’, which is a syntactic property of nouns (Carnie, 2006). In the phrase ‘fast train’, the word ‘fast’ expresses the manner in which the train moves. As such, one would think it is an adverb. Traditionally, an adverb is defined as a word which expresses manner, among other semantic notions (Quirk, Greenbaum, Leech, & Svartvik, 1982). However, considering its distribution, this word is an adjective (Nelson & Greenbaum, 2016). This situation suggests that semantic definitions may be misleading, and they need to be backed up by other linguistic identification methods.

Givón (2001) characterises adjectives in terms of time-stability. According to the scholar, prototypical adjectives express properties that are time-stable (inherent and durable), such as colour, size, and texture. Thus, a ‘white’ chair remains ‘white’ over a long period of time. However, such a property is not unique to adjectives. Nouns are also said to exhibit time-stable bundled properties (Givón, 2001). Further, the time-stability property does not cut across all members of the category. Some adjectives, such as ‘ephemeral’ and ‘mutable’, lack such permanence and steadiness. Bhat (1994) distinguishes adjectives from nouns along the number of properties criterion. According to him, adjectives express a single property, whereas nouns express multiple properties. Thus, while a horse may be white, big and old, there is only one property ‘whiteness’ on it.

The morphological criterion considers the suffixes and prefixes that an adjective takes. In English, for instance, an adjective normally takes -cal, -able, and -ish suffixes (Flanagan, 2014). However, it is not hard to come up with words that have such suffixes, and yet they are not adjectives. For instance, the Oxford Advanced Learner’s Dictionary (2017) lists the word ‘attic’ as a noun. In Bantu languages, adjectives bear gender/class morphemes. However, this is a pervasive feature of all nominal modifiers in Bantu languages.

In a typical noun-adjective modification relation, the number prefix on a noun and a modifier is homogenous. However, this homogeneity does not always obtain in some Bantu languages. According to some studies (e.g. Giusti, 2015), the agreement prefix on a modifier may be different from the prefix of the noun. For example, it is possible to hear a Swahili speaker utter the following: possible to hear the following utterance from the speakers of Swahili.

1. **Mtoto lijinga kama nini!**
m-toto li-jinga kama-nini
1-child 5-stupid interj
What a stupid child! (derogatory)
(author’s own sentence)

The situation as represented in (1) suggests that morphological endings on a word do not always reveal a syntactic category to which a word belongs. Furthermore, while a

modifier and a head noun in Bantu languages should typically agree in relevant features, such a syntactic relation does not always obtain. Instead, the modifier and the head noun may rather concord ¹than agree (Giusti, 2015).

Syntactically, adjectives are assumed to express various functions and take particular positions in a syntactic construction. According to Quirk et al. (1982), adjectives display four syntactic properties. First, they can be intensified. In English, the intensification of adjectives is done through words like ‘very’ and ‘so’, as in the following examples:

2. **(a) very hot**
 (b) so nice

Secondly, adjectives can occur in an attributive function. In English, this is a position before a noun, as in ‘soft wood’. Thirdly, an adjective can occur in a predicative position, i.e., in a copula construction, e.g., ‘the wood is soft’. Lastly, an adjective is gradable, i.e., properties expressed by adjectives can be compared along some scale. Quirk et al. (1982) refer to an adjective satisfying these four syntactic properties as central and those missing one of these properties as peripheral. Compare the adjectives ‘beautiful’ vs. ‘utter’ in English. The adjective ‘beautiful’ can be intensified (e.g., the very beautiful car); it can occur in an attributive position (e.g., the beautiful car); it can occur in a predicative position (e.g., the car is beautiful), and it can be graded (e.g., the more beautiful car). On the contrary, the adjective ‘utter’ can only occur attributively (e.g., the utter amazement) but not predicatively (e.g., *amazement is utter), nor can it be intensified or graded (e.g., *very utter amazement or more utter amazement, respectively). According to Quirk et al. (1982), the adjective ‘beautiful’ is, therefore, central, and the adjective ‘utter’ is peripheral. However, as Bhatt (1994) points out, categories cross-linguistically do not show uniform morpho-syntactic behaviour. Modification, for instance, can be done by other categories. Downing and Locke (2006) point out that a noun can be used as a modifier, as in example (3) below:

3. **(a) Petrol station**
 (b) School bus

In (3), the nouns ‘petrol’ and ‘school’ occur in the attributive position. However, Bhat (1994) argues that every syntactic category may have primary and secondary uses. The modification role for nouns, as in (3), is secondary. Bhat (1994) underscores that it is an adjective that typically modifies nouns. According to Bhat, nouns typically identify participants. However, Bhat opines that when a noun is used as an adjective, it acquires the properties of the adjective category. He illustrates the point by using the word ‘man’. In its primary use as a noun, the word ‘man’ denotes a male human being with a cluster of properties. A man can be tall, obese, coloured, lazy, etc. However, in its secondary use as an adjective, i.e., ‘manly’, the word denotes only one property in a given usage, such as being strong or resilient, e.g., ‘a manly virtue’.

3. **Studies on Adjectives in Chimakonde**

¹ According to Giusti (2015), agreement is a feature sharing syntactic relation triggered by selection, whereas Concord is a feature sharing syntactic relation triggered by modification. According to Giusti (2015), both the selector (head) and the selected (complement) in the agreement relation must have uninterpretable features. With Concord, only the modifier has uninterpretable features, Giusti explains.

As far as can be established, no study in Chimakonde has dedicated itself to investigating adjectives from any point of view. However, the available studies (Amani, 2010; Kraal, 2005; Makanjila, 2012) have a section in their manuscripts acknowledging the presence of the adjective class, and listing elicited adjectives in Chimakonde. In particular, Amani (2010) expresses the view that the adjective class in Chimakonde (Chimalaba) is closed, constituting a few central adjectival stems, the number of which is not identified. He further claims that most property concepts in Chimalaba are expressed by adjectives borrowed from Kiswahili. Makanjila (2012) studies the structure of the noun phrase in Chimakonde, focusing on the modifiers that occur with the head noun. In his study, Makanjila identifies an adjective as one of the noun modifiers, identifiable by taking the same agreement markers as the head noun and being modified by the intensifier ‘*namene*’ (very). The scholar acknowledges that these morphological criteria are not unique to adjectives, as other modifiers behave the same. Furthermore, Makanjila does not provide further criteria for identifying the adjective category in Chimakonde, claiming that it was beyond the scope of his study. Kraal (2005) is a comprehensive Makonde grammar based on the Chinnima variety. Kraal tries to understand the adjective class (and parts of speech generally) in Chinnima phonologically and phonetically. However, he points out that an adjective in Chinnima agrees with the noun it specifies, with no further morpho-syntactic properties outlined. Since all of these studies gave an adjective a cursory look, a need arises for a more comprehensive and systematic study dedicated to the exploration of the adjective class in Chimakonde to be undertaken.

Rugemalira (2013) compiled an abridged Makonde- Swahili-English dictionary, listing and giving the meanings of various parts of speech. Most words compiled in the dictionary were verbs and nouns. This is substantiated by the comment made in the preface section.

“Maneno mengi ni vitenzi na nomino. Maneno ya aina nyingine ni machache sana ambayo ni pamoja na vivumishi, vielezi, viwakilishi, viunganishi, tarakaimu, viingizi, na viingizi.” (Rugemalira, 2013, P.viii)

(Many words are verbs and nouns. Other kinds of words are very few. They include adjectives, adverbs, pronouns, conjunctions, numbers, interjections, and ideophones.)
(*Translation is mine.*)

As well as being a good starting point, the dictionary highlighted the importance of conducting a study to explore the nature of an adjective class in Chimakonde. Particularly, given a few adjectival stems attested in the dictionary, the most pertinent question of how adjectival meanings are expressed in Chimakonde needs to be answered.

4. Synthesis

As the ongoing discussion has revealed, none of the three methods of identifying syntactic categories seems satisfactory. These methods, taken together, have failed to provide an adequate characterisation of syntactic categories because of what may be termed as ‘perfection tendency’ towards categorisation, a tendency that traces back to the classical categorisation of parts of speech. Concerning this matter, Rauh (2010) notes that one of the purposes of the grammar of Dionysius Thrax (170-90), a classic grammar on which the most grammatical theories on syntactic categories are based, was to preserve ‘the *perfection*’ of language. What is implicitly behind each of these methods is the assumption that categories are clear-cut. However, given the assumption that language is an arbitrary system (Fromkin, 1992) and, by extension, the assignment of words into classes tends to be arbitrary or random,

semantically and morpho-syntactically clear-cut categories may not obtain. The related studies in Chimakonde have only provided an overview of the adjective in Chimakonde, with several morpho-syntactic issues on adjectives hanging in the balance. Against this background, the current study adopts a prototype approach to linguistic categorisation to establish, on empirical evidence, whether a distinct adjective category can be established in Chimakonde.

5. An alternative approach to adjective categorisation

Following the inadequacies of the notional and morpho-syntactic criteria for defining adjectives, an alternative approach has been proposed, namely the prototype approach. The basic premise of the prototype approach is that parts of speech are not distinct categories (Givón, 2001).

5.1 The Criterial-attribute Model

This study adopts the view advanced by proponents of the anti-Aristotelian model of categorisation, such as Rosch (1973) and Wittgenstein (1978), and by scholars such as Givón (2001). As such, the assumptions made by the Aristotelian model (Criterial-attribute model) are highlighted first. The Aristotelian model of linguistic categorisation, also known as the classical or Criteria-attribute model of classification, makes four assumptions about the nature of categories:

5.2.2. *The Assumptions of the Criterial-Attribute Model* (Taylor, Linguistic categorization: Prototypes in linguistic theory, 1995, pp. 23-24)

- i. *Categories are defined in terms of a conjunction of necessary and sufficient features*
This assumption draws its inspiration from the Law of Contradiction (Aristotle, 1005b). According to the Law, ‘a thing can’t both be and not be’. Correspondingly, a member of a category cannot possess a feature and not possess it at the same time.
- ii. *Features are binary.*
In defining the membership of a category, either a feature must be involved or not involved. In other words, every member of a category must have a feature characterising that category [+], or it won't be a member of that category [-].
- iii. *Categories have clear boundaries.*
According to this assumption, there are no fuzzy categories or borderline cases of category membership. So, there are members of the category and those that are not.
- iv. *All members of a category have equal status.*
This assumption holds that there are no superior or inferior members of the category. This is because membership in a category is determined by having all the defining features of that category.

5.3. The review of the Classical/Aristotelian Model of Categorisation

As most scholars have noted, assumptions (1) through (4) are valid and have been implemented in various linguistic and non-linguistic studies. In linguistics, the assumption that features are binary is held in many studies in phonology. For instance, sounds are classified as to whether they are voiced (+V) or unvoiced (-V) (Spencer, 1996). In syntax, the derivation of a construction involves merging two categories with particular features, such as interpretable versus uninterpretable, at a time (Adger, 2002). Moreover, the assumption about the universality of features is what underlies the nature of functional categories cross-linguistically.

Also, scholars in the modern era have adapted the classical feature system and made further assumptions concerning the nature of features in defining categories (Taylor, 1995). In Generative Grammar, Chomsky (1967) assumes that features are not only binary but also abstract. These points, among others, highlight why the classical approach to categorisation remains important.

Despite the crucial role that the classical/Aristotelian model has played in categorisation, the model suffers from many shortcomings. Most of the assumptions have been criticised for lacking empirical justification. In classifying both natural classes of items and linguistic categories, the classical approach seems inadequate. What defines the category GAME (cf. Wittgenstein, 1978), for instance? We have a variety of games, each with its own rules and regulations. So, there are no jointly sufficient features that can define the category ‘GAME’.

6. The criteria for determining adjective membership in Chimakonde

As the literature has indicated, the classification criteria for adjective membership are numerous and vary across theories. As the current study is motivated by the prototype theory, the linguistic features given below will be used to determine whether a Chimakonde word is a prototypical adjective. It should be noted that prototype theory does not define specific, mandatory features for an item to be considered a prototype. The theory only proposes that the prototypical members of a category are defined by a best example that holds the most representative features, allowing for flexible classification (Taylor, 2003). Thus, for the current study, a Chimakonde word is a prototypical adjective if it satisfies the working characteristics given below.

6.1. Working Characteristics of Adjectives in Chimakonde

A word in Chimakonde is an adjective if

- a) It modifies a noun in the sense of describing it.
- b) It occurs post-nominally as an attributive word.
- c) It does not come before an associative marker.
- d) It is not derived from other word classes.
- e) It can be graded through intensification or reduplication.
- f) It can take different kinds of prefixes homophonous with the head noun.

In most cases, the characteristics outlined in Section 6.1 define adjectives cross-linguistically. (See Radford, Atkinson, Britain, & Spencer, 2009, for English) and (Mpofu, 2009, for Shona).

7. Methods and Materials

The review of the literature indicates that the Chimakonde of Tanzania has very few credible written materials. This is because the language is underrepresented in linguistic descriptions. Thus, the data reported in this study were randomly drawn from varied sources, including digital materials collected from social platforms such as WhatsApp and Facebook groups involving Chimakonde speakers with varied demographic composition for ensuring the representativeness of the data (Dalieva, 2024). These materials provide invaluable data as the researcher does not intervene, thus avoiding the observer’s paradox (Cukor-Avila, 2000). I also used spoken texts (spontaneous dialogues) to get the data. As I speak the language

natively, I recorded tokens involving adjectival constructions in the course of conversations with fellow Chimakonde speakers. Furthermore, some of the data were obtained by translating semantic adjectives compiled by Dixon in 1982 into Chimakonde counterparts. As the adjectives are in English, I did the translation, but the translations were reviewed by two individuals fluent in both Chimakonde and English. Additionally, the study benefited from a Makonde-Swahili-English dictionary project compiled by Rugemalira in 2013.

8. Results and Discussion

8.1 Dixon's 1982 semantic classes of adjectives

Dixon (1982) proposes that every language has seven categories of adjectives that express the following general meanings: value (good, bad, rich, etc.), dimension (big, small, large, etc.) physical property (hard, soft, rough, etc.), speed (fast, slow, quick, etc.), human propensity (jealous, kind, generous, etc.), and age (old, young, ancient, etc.). To this list, Dixon (2004) adds six more categories, namely position (high, low, distant, etc.), difficulty (easy, tough, simple, etc.), similarity (similar, different, like, etc.), qualification (definite, true, normal, etc.), quantification (all, many, few, etc.) and cardinal numbers (one, two, three). However, Dixon's (2004) list contains the categories that overlap with his 1982 list. Furthermore, the 2004 list includes categories that serve quite different functions from adjectives. For instance, quantifiers and cardinal numbers can be viewed as determiners rather than adjectives as they restrict a noun to a relative amount without describing it (Downing & Locke, 2006). Therefore, Dixon's (1982) semantic classes were adopted for the current study.

Table 1: Chimakonde notional equivalents of Dixon's (1982) semantic adjectives

1. Dimension	Gloss	2. Colour	Gloss	3. Age	Gloss	4. Value	Gloss
-kulu/tupa	Big/wide	-dimbi	black	-nyakala	ancient	-nyata	ugly
-joko	Small	-nahe	white	-tangu	old	-huva	poor
-lehu	tall/long	-nahuvi	red	-hambi	new	-digala	rich
-injipala	Short					-aana	valuable
-tumbula	Fat						
5. Human Propensity	Gloss	6. Physical property	Gloss	7. Speed	Gloss		
-wiu	jealous	-dopa	heavy	-tukuta	speedy		
-nyata	Ugly	-peapea	light	-dabadanga	slow		
-lemwa	Lazy	-didima	cold	-kambakamba	hasty		
-aana	Kind	-nanopa	hard	-pea	quick		
-velu	Stupid	-vihi	unripe				
-mahe	Female	-kola	sharp				
-lume	Male	-tuha	blunt				

Source: Informants

9. Linguistic Properties of Equivalent Adjectival Words

Dimension adjectives

According to Dixon (1982), dimension adjectives express size and shape. Only three descriptive words corresponding to Dixon's dimension objectives were collected: - *kulu*

(big/large), *-joko* (small), and *-lehu* (tall/long). Each of these occurs in the attributive position and can modify any noun from any noun class. Furthermore, they can be intensified by ‘*namene*’ (very).

4. (a) **(Chilongo) chikulu namene**
Chi-longo chi-kulu namene
7-pot 7-big very
A very big pot
- (b) **(Munu) nnehu namene**
mu-nu n-nehu namene
1-person 1-tall very
A very tall person
- (c) **(Likaka) lijoko namene**
li-kaka li-joko namene
5-cassava 5-small very
A very small cassava

The fact that the head nouns can occur optionally suggests that the intensifier ‘*namene*’ modifies the descriptive words, not the head nouns. However, all of them are derivationally non-adjectives. The stems *-kulu*, *-joko*, and *-lehu* are derivationally related to the verbs ‘*kulumuka*’, ‘grow up’, *jokola* (be small), and *lepuka* (be tall), respectively. Thus, none of them is prototypical.

Colour adjectives

According to Dixon (1982), colour adjectives include basic colour terms, namely white, black, and red. Three adjectival words corresponding to the three colours were collected in Chimakonde, namely *-nahe* (white), *-dimbi* (black), and *-huvi* (red). According to Berlin and Kay (1969), as cited in Taylor (1995: 8), white, black, and red are basic colour terms in most languages as they are frequently used and are not collocationally restricted. Chimakonde, therefore, have only terms for basic colours. Non-basic colours such as green, blue, orange, blonde and purple have no native Chimakonde terms to describe them. To describe these non-basic colours, borrowing can be sought.

5. (a) **Chipula cha nahe/nadimbi/nahuvi**
chi-pula ch-a nahe/nadimbi/nahuvi
7-knife 7-ASS white/black/red
A white/black/red knife
- (b) **Vipula vya nahe/nadimbi/nahuvi**
vi-pula vi-a nahe/nadimbi/nahuvi
8-knife 8-ASS white/black/red
White/black/red knives

Each of these adjectival words occurs before an associative marker. It is an associative marker which agrees with the head noun, not the adjectival equivalent word itself. In Bantu languages, modifiers are expected to agree with the head nouns they modify in number, person and gender (Nurse & Philippson, 2003). The fact that each of these descriptive words requires an associative marker that governs agreement suggests that colour terms in Chimakonde are not prototypical adjectives. Moreover, the three adjectival equivalents are derivationally related to verbs. The stems – *nahe*, *-dimbi* and *-huvi* are from the verbs ‘*nava*’ (wash), ‘*dimba*’ (be dirty), and ‘*huvilila*’ (be red). The three words can each occur with the intensifier *namene*, as in (2a), but not immediately following any of them. The ungrammaticality of (2b) suggests that the word ‘*namene*’ intensifies the whole phrase associative phrase, not just any of these descriptive words.

6. (a) **Chipula cha nahe/nahuvi/nadimbi namene**
chi-pula ch-a nahe/nahuvi/nadimbi namene
7-knife 7-ASS white/red/black
A very white/red/black knife

- (b) ***nahe/*nahuvi/*nadimbi namene**
Very white/red/black

It can be inferred that the intensifier ‘*namene*’ occurs with a word which must have sufficient semantic and morpho-syntactic adjectival characteristics, as given in Section 6 above. Rugemalira (2007) characterises the category adjective in Bantu languages as having an ability to be modified by an intensifier, a syntactic criterion that distinguishes it from modifiers such as demonstratives and possessives. Following these observations, it is concluded that the colour terms in Chimakonde are non-adjectival.

Value adjectives

Dixon (1982) states that value adjectives express subjective and objective assessment. Included in this category are words like good, bad, delicious, ugly, and beautiful, among others. In Chimakonde, as Table 1 shows, words expressing value properties are derivationally related to nouns and verbs. Some of them are –*nyata* (be ugly) –*huva* (be poor), –*digala* (the rich), –*aana* (proper). All of these are post-nominal. The value words derived from verbs can be modified by the intensifier ‘*namene*’ ‘very’ while those derived from nouns cannot.

7. (a) **Mwali wa kunyata namene**
mu-ali w-a ku-nyat-a namene
1-girl ASS-1 15-be ugly-FV very
A very ugly girl

- (b) ***Nnume digala namene**
n-nume Ø-digala namene
1-man 1a-rich namene
A very rich man

According to Bhat (1994) and other prototypical theorists, a noun such as ‘*digala*’ (7b) denotes a host of concepts and as such it cannot be modified or intensified as modification singles out a single concept and therefore requires a category which expresses such a concept, namely an adjective. Furthermore, the word ‘*digala*’ in Chimakonde denotes an extremely rich person. This suggests that the word is already internally modified, thus

ruling out any further modification with an external intensifier, such as ‘*namene*’ (very), as that would be redundant.

The verb-related value word ‘*kunyata*’ (7a) requires an associative morpheme to be able to modify a head noun, confirming that it is not a prototypical adjective in Chimakonde. This morphological property extends to all verb-derived words expressing value concepts in Chimakonde. Thus, the equivalent words expressing value properties in Chimakonde are not adjectival as they do not satisfy the prototypical characteristics outlined above in Section 6.

Human propensity

Dixon (1982) defines human propensity as constituting adjectives expressing internal states, traits and emotions such as jealous, happy, kind, and clever, among others. As is the case with the other words expressing various concept properties described above, words expressing human propensities in Chimakonde are mainly nominal or verbal. Some of them are –*wiu* (jealous), –*nyata* (ugly), –*lemwa* (lazy), –*velu* (stupid), –*mahe* (female), and –*dabadanga* (weak). Their usage is given in the examples below.

8. (a) **Mmahe wa wiu**
m-mahe w-a Ø-wiu
1-woman 1-ASS 14-jealousness
A jealous woman (Lit. a woman of jealousy)
- (b) **Mwali wa kunyata**
m-uali w-a ku-nyat-a
1-girl 1-ASS 15-be ugly-FV
An ugly girl (Lit. a girl who is to be ugly)
- (c) **Mwana wa kuchimahe**
mu-ana w-a ku-chi-mahe
1-baby 1-ASS 15-7-female
A baby girl

As the glossing indicates, –*wiu* and –*mahe* in (8) are derivationally nominal, belonging to classes 14 and 1, respectively. The word –*nyata* is verbal. Note that in its use as an adjective, the word –*mahe* requires two morphemes from two different noun classes, namely class 15 (*ku-*) and class 7 (*chi-*). The prefixation of the morphemes *ku-* and *chi-* to a nominal stem transforms the stem into an adjective-like word. Furthermore, for any of these words expressing human propensity to be used adjectively, they need be embedded under an associative marker or occur within a relative construction. These words establish agreement with head nouns through an associative morpheme. Prototypically, none of them is therefore adjectival.

With respect to agreement, some equivalent words expressing human propensity show agreement with the head noun only in number but not in class. This is the case with nouns denoting humans (nouns from classes 1 and 2) when viewed as non- anthropomorphised, i.e. exhibiting weird behaviours, unexpected of any human being or having undesirable characteristics. In the opposite case, (Van de Velde, 2019) notes that, in some other Bantu languages, human beings with unusual characteristics are placed in other classes. In such cases, such nouns take the prefix of the respective noun class.

In Chimakonde, adjective-like words that modify class 1 and class 2 nouns typically take the class 5 morpheme (*li-*) and the class 6 morpheme (*ma-*). In Chimakonde, classes 5 and 6 typically constitute nouns denoting plants, parts of the body, and non-edible animals or birds.

9. (a) **Nnume lipyoto**
n-nume li-pyoto
1-man 5-stupid
An (extremely) stupid man
- (b) **Mmahe litumbulenge**
m-mahe li-tumbul-enge
1-woman 5-be fat-PERF
An extremely fat woman
- (c) **Valimu mavelu**
va-limu ma-velu
2-teacher 6-crazy
Very crazy teachers

In the three examples in (9), the head nouns and equivalent adjective-like words have homophonous number feature i.e. singular vs. plural for (9a&b) and (9c), respectively. However, the head nouns and the equivalent adjective-like words have distinct class feature. For (9a&b), the head nouns are in class 1 whereas the modifiers are in class 5. For (9c), the head noun is in class 2 whereas the modifier is in class 6.

This suggests that, when a noun from class 1 or 2 is not anthropomorphised, the number feature overrides the class feature, thus no identical phi-feature ²agreement obtains. This lack of identity in agreement morphemes between head nouns and modifiers challenges the mostly held assumption that modifiers in Bantu languages such as adjectives, *copy* the prefixes of the head nouns to establish agreement (Mpobela & Lusekelo, 2017; Mpofu, 2009). On this view, agreement is assumed to be a feature identity phenomenon (Chomsky, 1993). However, the data in (9) is an appeal to revisit our conception of agreement.

Physical properties

According to Dixon (1982), adjectives expressing physical properties denote observable and often measurable characteristics, such as hard, soft, heavy, and light. In Chimakonde, equivalent words expressing physical properties are *-dopa* (heavy), *-peapea* (light), *-didima* (cold), *-nanopa* (hard), *-ula* (ripe), *-vihi* (unripe/raw), and *-kola* (sharp), *-kola* (sharp), *-tuha* (blunt), among others.

10. (a) **Yembe ya kuula**
y-embe y-a ku-ul-a
9-mango 9-ASS 15-be ripe FV
A ripe mango
- (b) **Chipula cha kutuha**

² According to Chomsky (1993), phi-features comprise gender, number and person. Typically, nouns and modifiers agree in these features.

chi-pula ch-a ku-tuh-a
7-knife 7-ASS 15-be blunt-FV
A blunt knife

- (c) **Manda ivihi**
Ø-manda i-vihi
9-cooked rice 9-underdone
Underdone rice

On the list of elicited words denoting physical properties, only the word ‘-vihi’ is a proper adjective conforming to the properties of a prototypical adjective given in 6.1 above. This adjective is in the attributive position; it is not embedded under an associative word; it is not derived from any word class; it can be modified by ‘*namene*’, and takes an agreement morpheme homophonous to the head noun. The rest do not portray these characteristics.

Speed

Adjectives denoting speed express velocity, according to Dixon (1982). English words of this kind include slow, fast, quick, sharp, rapid, hasty, agile, brisk, blistering, and nimble, among others. In Chimakonde, equivalents can be found, but all of them are derived. Adjectives denoting speed are generally assumed to be unattested in Bantu languages (Petzell, 2008; Ström, 2013). As a compensatory strategy, verbs and nouns are widely used in Bantu languages to describe the velocity of nouns. In Chimakonde, verbs are the main words used adjectively in that capacity.

11. (a) **Mwali wa kukambakamba**
mu-ali w-a ku-kambakamb-a
1-lady 1-ASS 15-be hasty- FV
A hasty lady
- (b) **Mmutuka wa kutukuta**
m-mutuka w-a ku-tukut-a
3-car 3-ASS 15-run-FV
A speedy car

In (11), ‘*kukambakamba*’ and ‘*kutukuta*’ are verbal. As such, they must take an associative morpheme which syntactically establishes an agreement between the head nouns and the modifiers.

10. Expressing adjectival meanings in Chimakonde

The discussion above has shown that Chimakonde has only notional equivalents for each of the seven classes of adjectives, as proposed by Dixon (1982). In terms of the prototype theory, such a linguistic situation suggests that the language does not possess a class of adjectives with definitive semantic and morpho-syntactic features. However, this situation does not suggest that adjectival meanings cannot be expressed in the language. In this section, various ways of expressing adjectival meanings in Chimakonde are described.

10.1 Strategies of expressing adjectival meanings in Chimakonde

Derivation

The most common strategy for expressing adjectival meanings in Chimakonde is derivation i.e. using descriptive words whose stems can be traced to other word categories (Goodness, 2021). Almost all descriptive words are derived from verbs and nouns. When verbs and nouns are used descriptively to express adjectival meanings, they require an associative morpheme to co-occur with them for agreement. Most descriptive words given in the previous sections are derivationally verbal or nominal. To stress the ubiquity of nouns and verbs as descriptive words in Chimakonde, the following additional examples are provided.

12. (a) **Mbowa ya kunoa**
mbowa y-a ku-noa
Ø-stew 9-ASS 15-be sweet
Sweet stew
- (b) **Chinanda cha jing'ambale**
chi-nanda ch-a ji-ng'ambale
7- bed 7-ASS 7-rope
A rope bed
- (c) **Lina lya chimanga**
li-na ly-a chi-manga
5-name 5-ASS 5-foreigner
A foreign name

As the examples in (12) indicate, a great deal of adjectival meanings are expressed through nouns and verbs aided by associative phrases

Relativization

Adjectival meanings can be expressed through relativisation in Chimakonde.

13. (a) **Munu áhidile**
mu-nu a-hid-ile
1-man 1SM-die-PERF
A dead person (Lit. A person who is dead)
- (b) **Lilombe lilaleha**
li-lombe li-laleh-a
5-corn 5-sweet-FV
A sweet corn (Lit. A corn which is sweet)
- (c) **Chinu chílongolodile**
chi-nu chi-longolod-ile
7-thing 7-go first-PERF
The previous thing (Lit. the thing which came first)

Subject markers can be used as relative prefixes in Chimakonde when their segmental features are changed. Each relativised prefix in the relative constructions in (13) bears a high tone. In non-relative constructions, subject prefixes have a low tone. Thus, tone in Chimakonde is contrastive as it transforms a sentence into a relative construction.

Lexicalization

Some words in Chimakonde have become adjectives through lexicalisation. This process involves putting concepts into words in a given language to become established as conventional single units (Lipka, 2005)

14. (a) **nkanunu - a newly born child**
(b) **mmwidi - a deaf person**
(c) **nchiva - a lonely person**
(d) **nannidi - a bereaved woman**
(e) **mmahauvani - a poor person**
(f) **namasalanga - a wicked person**
(g) **nyapule - a living twin**
(h) **digala - a rich person**
(i) **sunuweki - a fair-skinned person (a person with albinism)**
(j) **nkongwe - old woman**

As they are lexicalised as adjectives, the words in (14) do not require other nouns to modify. The adjectival meaning is inherent in them.

Borrowing

As prototypical adjectival stems in Chimakonde are scant, borrowed adjectives contribute significantly to expressing adjectival meanings in Chimakonde. Swahili has become a main source through which many parts of speech, including adjectives, enter Chimakonde. Swahili and Chimakonde are spoken concurrently in the Chimakonde society. Swahili, a more prestigious lingua franca in Tanzania (Mapunda & Tove, 2015), exerts linguistic influence on Chimakonde.

15. (a) **Malove *mazito***
ma-love ma-zito
6-word 6-arocious
Atrocious words
- (b) **Chilo *chema***
Ø-chilo ch-ema
3-night 3-good
Good night
- (c) **Mwana *mfupi***
mu-ana m-fupi
1-child 1-short
A short child

In his paper about the outcomes of language contact in Chimalaba, a dialect of Chimakonde, Amani (2010) stresses how the language has been affected by lexical borrowing through contact with Swahili.

Copula constructions

This strategy is common when adjectival construction is predicative.

16. (a) **Mmahe anikatapala**
m-mahe a-ni-katapal-a
1-woman 1SM-TAM-be beautiful-FV
The woman is beautiful. (Lit. The woman, she is beautiful.)
- (b) **Likala linakalala**
li-kaka li-na-kalal-a
5-cassava 5SM-TAM-be bitter-FV
The cassava is bitter. (Lit. The cassava, it is sweet.)

Reduplication

In Chimakonde, a fully formed adjective or part of it can be reduplicated to form a new adjective. The meaning of the new adjective is either intensive or attenuative. However, the process is not very productive.

Table 2: Reduplicated adjectives

SN	Basic Adjective	Gloss	Reduplicated adjective	Gloss
1	-joko	small	-jokojoko	very small
2	-hambi	new	-hambihambi	very new
3	-diki	little	-dikidiki	very little
4	-nkulu	big	-kulukulu	Kind of big
5	-tangu	old/expired	-tangutangu	Kind of old
6	-nemba	childish	-nembanemba	Kind of childish
7	-longo	-kindred	-longolongo	Kind of kin-centric

Source: Informants

In reduplicating an existing form of an adjective in Chimakonde, the full form is employed. The prefix of the reduplicated adjective is homophonous with the prefix of the head noun.

11. Concluding remarks

This paper sought to find out whether a prototypical class of adjectives with characteristics proposed in section 6.1 could be established in Chimakonde. The empirical data has shown that the class of adjectives in Chimakonde is closed and small, considering the proposed criteria. A very few prototypical adjectival stems were established, mainly from the dimension, colour and age categories. As conceptual properties are universal, Chimakonde employs other strategies to express them, including derivation, lexicalisation, relativisation, copula constructions, and reduplication. With respect to derivation, it was found that nouns and verbs are the main sources of expressing adjectival meanings in Chimakonde. It was also established that a high tone forms relative constructions, which in turn are employed to express adjectival meanings in Chimakonde.

References

- Aboh, E. (2010). Information structure begins with the numeration. *Journal of Theoretical Linguistics*, 2(3), 12-42.
- Adger, D. (2002). *Core syntax: A minimalist approach*. Oxford: Oxford University Press.

- Alexiadou, A., Haegeman, L., & Stavrou, M. (2007). *Noun Phrase in the generative perspective*. Berlin: Mouton.
- Amani, H. (2010). *The influence of Kiswahili in Chimalaba: A case of lexical and structural borrowing*. University of Dar es Salaam.
- Asiimwe, A. (2014). *Definiteness and specificity in Runyankore-Rukiga*. Stellenbosch University.
- Bhatt, D. (1994). *The adjective category: Criteria for differentiation and identification*. Amsterdam: John Benjamins Publishing Company.
- Carnie, A. (2006). *Syntax: A generative introduction*. Stockholm: Wiley.
- Chomsky, N. (1967). *Aspects of the theory of syntax*. Massachusetts: The M.I.T Press.
- Chomsky, N. (1993). A minimalist program for linguistic theory. In K. L. Hale, & J. Keyser (Eds.), *The view from building 20: Essays in Linguistics in honor of Sylvain Bromberger*. Massachusetts: The M.I.T Press.
- Crystal, D. (2006). *Language and the internet*. Cambridge: Cambridge University Press.
- Cukor-Avila, P. (2000). Revisiting the observer's paradox. *American Speech*, 75(3), 253-254.
- Cummins, G. (1999). Indefiniteness in Czech. *Journal of Slavic Languages*, 6(2), 171-203.
- Dalieva, M. (2024). Methods, challenges, and ethical considerations in data collection of corpus compilation. *Methodical Research Journal*, 3(3), 1-6.
- Dixon, R. (1982). *Where have all the adjectives gone?, and other essays in semantics and syntax*. Berlin: Mouton.
- Dixon, R. (1982). *Where have all the adjectives gone?, and other essays in semantics and syntax*. Berlin: Mouton.
- Dixon, R. (2004). Adjective classes in typological perspective. In R. Dixon, & A. Aikhenvald (Eds.), *Adjective classes: A cross-linguistic typology* (pp. 1-49). Oxford: Oxford University Press.
- Downing, A., & Locke, P. (2006). *English grammar: A university course* (Vol. II). New York and London: Routledge.
- Duarte, F. (2011). Tense encoding, agreement patterns, definiteness and relativisation Strategies in Changana. In *Selected Proceedings of the 4th Annual*.
- Flanagan, P. (2014). *A cross Linguistic-investigation of the order of attributive adjectives*. Hill University.
- Fromkin, V. (1992). *Language: The basics*. Amsterdam: Taylor & Francis.
- Giusti, G. (2015). *Nominal syntax at the interfaces*. London: Cambridge Scholars Publishing.
- Givón, T. (2001). *Syntax: An introduction* (Vol. I). Amsterdam: John Benjamins Publishing Company.
- Goodness, D. (2021). Semantics of Kiswahili adjectives. *Kioo cha Lugha*, 19(1), 66-81.
- Hawkins, J. (1978). *Definiteness and indefiniteness*. Berlin: Croom Helm.
- Kahigi, K. K. (2007). Revisiting the adjective in Kiswahili. *Kioo cha Lugha*, 23-29.
- Kimambo, G. (2018). Object marking in Swahili: Definiteness, specificity, or both? *South African Journal of African Languages*. *South African Journal of African Languages*, 38(1), 27-35.
- Kraal, P. (2005). *The grammar of Makonde (Chinnima, Tanzania)*. Papendrecht.
- Langacker, R. W. (1987). *Foundations of cognitive grammar: Theoretical prerequisites* (Vol. III). Stanford: Stanford University Press.
- Lipka, L. (2005). Lexicalization and institutionalization: Revisited and extended. *SKASE Journal of Theoretical Linguistics*(2), 40-42.
- Lyons, C. (1999). *Definiteness*. Cambridge: Cambridge University Press.
- Makanjila, D. (2012). *The structure of the Chimakonde noun phrase*. University of Dar es Salaam.

- Mapunda, G., & Tove, R. (2015). Borrowing in Tanzanian Ngoni Lexicon: Some semantic Trends in a language contact situation. *Language matters*, 46(2), 180-194.
- Mpobela, L., & Lusekelo, A. (2017). Adjectives in Nyakyusa. *Journal of Language, Technology, and Entrepreneurship*, 8(1).
- Mpofu, N. (2009). *The Shona adjective as a prototypical category*. University of Oslo.
- Nelson, G., & Greenbaum, S. (2016). *An introduction to English grammar*. New York and London: Routledge.
- Nurse, D., & Philippson, G. (2003). *The Bantu languages*. London: Routledge .
- OALD. (2017). *Oxford Advanced Learner's Dictionary*.
- Petzell, M. (2008). *The Kagulu language of Tanzania: Grammar, texts, and vocabulary*. Brigham: Verlag.
- Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1982). *A university grammar of English*. Longman.
- Radford, A., Atkinson, M., Britain, D., & Spencer, A. (2009). *Linguistics: An introduction*. Cambridge: Cambridge University Press.
- Rauh, G. (2010). *Syntactic Categories: Their identification and description in linguistic theories*. Oxford: Oxford University Press.
- Rosch, E. (1973). Natural categories. *Cognitive Psychology*, 328-50.
- Rugemalira, J. (2007). The structure of the Bantu noun phrase. *SOAS Working Papers in Linguistics*, 15, 135-148.
- Rugemalira, J. (2013). *Makonde-Swahili-Dictionary*. Dar es Salaam: LOT.
- Saeed, J. I. (1997). *Semantics*. Blackwell Publishers Ltd.
- Schachter, P., & Shopen, T. (2007). Parts of speech systems. In T. Shopen (Ed.), *Language typology and syntactic description* (Vol. I, pp. 1-60). Cambridge University Press.
- Seeger, G. (2008). *Closed adjective classes and primary adjectives in African languages* .
- Spencer, A. (1996). *Phonology: Theory and description*. Oxford: Blackwell Publishing Company.
- Ström, E. (2013). *The Ndengeleko language of Tanzania*. Gothenburg: The University of Gothenburg.
- Taji, J. (2020). Definiteness in Chiyao. *Ghana Journal of Linguistics*, 9(2), 44-64.
- Taylor, J. R. (1995). *Linguistic categorization: Prototypes in linguistic theory*. Oxford: Clarendon Press.
- Taylor, J. R. (2003). *Linguistic categorisation*. Oxford: Oxford University Press.
- Van de Velde, M. (2019). Nominal morphology and syntax. In M. Van de Velde, B. Koen, D. Nurse, & G. Philippson (Eds.), *The Bantu Languages* (Vol. II, pp. 237-269). London: Routledge.
- Veselovská, L. (2018). *Noun phrases in Czech: Their structure and agreements*. Berlin: Peter Lang Group AG.
- Wittgenstein, L. (1978). *Philosophical investigations*. Oxford: Basic Blackwell.

Abbreviations

ASS:	Associative morpheme
FV:	Final Vowel
Interj:	Interjection
1-18:	Noun class
Ø:	Null morpheme
PERF:	Perfective

SM: Subject marking morpheme
TAM: Tense, Aspect, and Mood