

# **A MINIMALIST ANALYSIS OF OBLIGATORY REFLEXIVITY IN CHICHEWA**

**by**

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## **Declaration**

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own original work, that I am the authorship owner thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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## Abstract

This study deals with the phenomenon of obligatory reflexivity in Chichewa, a language belonging to the Bantu family. Obligatory reflexivity occurs in constructions where a pronominal element – e.g. the reflexive marker (RFM) *-dzi-* in the verbal complex in Chichewa – is referentially dependent on some other expression in the sentence, its antecedent. Constructions of this type have not received systematic attention in the literature on Chichewa syntax, except in the works of Mchombo (1993, 2004, 2007). The first objective of the study is to fill this empirical gap by providing a detailed description of the different types of construction in which obligatory reflexivity is found in Chichewa. The second objective is to provide an analysis of the relevant facts within the broad framework of Minimalist Syntax (e.g. Chomsky 1995, 2000; Hornstein, Nunes & Grohmann 2005; Radford 2009). More specifically, the study seeks to determine whether the recent minimalist approach to the analysis of obligatory reflexive constructions put forward by Oosthuizen (2013), the so-called Nominal Shell Analysis (NSA), provides an adequate framework for analysing reflexive constructions in Chichewa. The analysis that is set out in this study focuses on three types of reflexive construction, namely verbal object reflexives, infinitival verbal reflexives, and infinitival nominal reflexives. It is argued that an analysis that incorporates the core hypotheses and devices of the NSA can provide a proper description and explanation of the facts of obligatory reflexivity as reflected in these three types of construction. In particular, it is claimed that such an analysis can account for the establishment of a coreferential relationship between the RFM *-dzi-* and an antecedent, without requiring any special devices or devices that are incompatible with the basic assumptions of the minimalist approach to linguistic inquiry. In brief, according to the analysis, the RFM *-dzi-* and its antecedent are initially merged into a light noun phrase, *nP*, with the RFM representing the functional *n*-head of this phrase. In this configuration, the coreferential relationship between the antecedent and *-dzi-* is established when the antecedent provides the RFM with  $\phi$ -values (i.e. values for the grammatical features person, number and noun class). In the course of the discussion, several proposals are also put forward in connection with other, related aspects of Chichewa syntax, including the agreement relationship between the subject/object and their respective markers in the verbal complex.

## Opsomming

Hierdie studie handel oor die verskynsel van verpligte refleksiwiteit in Chichewa, 'n lid van die Bantoe-taalfamilie. Verpligte refleksiwiteit kom voor in konstruksies waar 'n pronominale element – bv. die refleksiefmerker (RFM) *-dzi-* in die verbale kompleks in Chichewa – referensieel afhanklik is van 'n ander uitdrukking in die sin, die antesedent. Konstruksies van hierdie tipe het nog nie sistematies aandag gekry in die literatuur oor Chichewa sintaksis nie, behalwe in die werke van Mchombo (1993, 2004, 2007). Die eerste hoofmerk van die studie is om hierdie empiriese gaping te vul deur 'n gedetailleerde beskrywing te gee van die verskillende tipes konstruksie waarin verpligte refleksiwiteit in Chichewa aangetref word. Die tweede hoofmerk is om 'n analise te gee van die tersaaklike feite binne die breë raamwerk van Minimalistiese Sintaksis (bv. Chomsky 1995, 2000; Hornstein, Nunes & Grohmann 2005; Radford 2009). In meer spesifieke terme word daar nagegaan of die minimalistiese benadering tot die analise van verpligte refleksiwiteit wat onlangs voorgestel is deur Oosthuizen (2013), die sogenaamde Nominale Skulp-analise (NSA), 'n toereikende raamwerk bied vir die analise van refleksiefkonstruksies in Chichewa. Die analise wat uiteengesit word in hierdie studie fokus op drie tipes refleksiefkonstruksie, naamlik verbale objek-refleksiewe, infinitiewe verbale refleksiewe, en infinitiewe nominale refleksiewe. Daar word geargumenteer dat 'n analise wat gebruik maak van die kernhipoteses en meganismes van die NSA 'n behoorlike beskrywing en verklaring kan bied van die feite van verpligte refleksiwiteit soos dit voorkom in hierdie drie tipes konstruksie. In besonder kan so 'n analise 'n beskrywing en verklaring gee van die manier waarop 'n koreferensiële verhouding tussen die RFM *-dzi-* en 'n antesedent bewerkstellig word, sonder die nodigheid van spesiale nuwe meganismes of meganismes wat onversoenbaar is met die basiese aannames van die minimalistiese benadering tot taalondersoek. Die analise hou kortliks in dat die RFM *-dzi-* en sy antesedent aanvanklik saamgevoeg word in 'n ligte naamwoordfrase, *nP*, met die RFM wat optree as die funksionele *n*-hoof van hierdie frase. In dié konfigurasie word die koreferensiële verhouding tussen die antesedent en *-dzi-* bewerkstellig wanneer die antesedent die RFM van  $\phi$ -waardes voorsien (d.i. waardes vir die grammatikale kenmerke persoon, getal en naamwoordklas). In die loop van die bespreking word daar ook verskeie voorstelle gemaak oor ander, verwante aspekte van Chichewa sintaksis, onder meer oor die kongruensie-verhouding tussen die subjek/objek en hulle onderskeie merkers in die verbale kompleks.

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# Chapter 1

## Introduction

### 1.1 Focus and Language Background

This study focuses on the grammatical properties of obligatory reflexive constructions in Chichewa, a Bantu language spoken in several eastern, central and southern African countries. The phenomenon of obligatory reflexivity has not yet received detailed and systematic attention in the literature on Chichewa syntax.

Chichewa belongs to the Benue-Congo branch of the Niger-Kordofania language family. According to Guthrie's (1967-1971) classification of Bantu languages, Chichewa is placed in Zone N, unit N31. It is a variety of Nyanja, a wide-spread language that is classified as belonging to unit N30 (Mchombo 2006:142; 2007:204). The different varieties of Nyanja are spoken in some parts of eastern, central and southern Africa, specifically in Malawi, Mozambique (in the Tete and Niassa provinces), Zambia (in the Eastern Province) and Zimbabwe (Mchombo 2004: :1). In Malawi, Chichewa is the mother tongue of the largest part of the population, and is used as a lingua franca throughout the country (Baldauf Jr & Kaplan 2004, Kayambazinthu 1998:371).<sup>1</sup> The variety investigated in this study is the Malawian one that is generally considered as "standard Chichewa".

The Constitution of the Republic of Malawi (1966) does not contain a specific language policy.<sup>2</sup> However, at the 1968 convention of the then ruling Malawi Congress Party, English was declared the official language of Malawi and Chichewa the national language (Kishindo 2001:265, (Kayambazinthu 1998:369). The general pattern since independence in 1964 is that English is the

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<sup>1</sup> The only population census that captured linguistic demographics in Malawi was that of 1966 which showed that more than 50.2% of the population spoke Chichewa. The 1998 population and housing census did not specifically record linguistic statistics, but did capture ethnic demographics. Based on the assumption that ethnic classification is likely to reflect linguistic demographics as well, (Matiki 2009:536) reports that, based on the 1998 census, the majority languages in Malawi are Chichewa (70%), Chiyao (10%) and Chitumbuka (9.5%), with the remaining languages –including Chilomwe, Chisena, Chitonga, Chikhokhola, Chinkhonde, Chilambya, Chisukwa, Chinyakyusa, Chimambwe, Chibandia, Chinyiha and Chindali – each spoken by less than 3% of the population. The most recent census was held in 2010, but did not provide insightful information about the linguistic landscape.

<sup>2</sup> This also holds for the subsequent revisions of the constitution (Kayambazinthu 1998:369,410). In 2007, as part of a Constitutional review process, the government appointed a task team to investigate the linguistic landscape in Malawi, and specifically to consider writing an explicit language policy into the Constitution (Malawi Law Commission Report No.18, August 2007). Except for some general newspaper reports, the official findings of this task team have unfortunately not yet been made public

language mainly used in institutional contexts such as Parliament and Courts of Law, and in formal (especially written) communication (Kayambazinthu 1998:407, 410). It should however be noted that Chichewa is also widely used in the media, in trade and commerce, and increasingly for political purposes.

As the national language, Chichewa was taught as a subject in both primary and secondary schools from 1968 until 1995, with English remaining the language of instruction. In 1996 a decision was made to re-introduce mother tongue instruction in grades 1-4, as was the case before 1968. In terms of this decision, the choice of language for mother tongue instruction was tied to the dominant language of a particular area; for instance (and with reference only to some of the larger languages), Chitumbuka and Chitonga in the northern parts of the country, and Chichewa and Chiyao in the central parts and also, together with Chisena, in the southern parts (Chilora 2000:4). In 2014, following a controversial review of the language in education policy in the previous year, the government announced that this practise will be discontinued, arguing that the use of the indigenous languages for teaching purposes in the early grades is not conducive for the development of proficiency in English (The Malawi Gazette Supplement. 2012:43, Malawi Nation Newspaper, 8 March 2014).

## **1.2 Aims and objectives of the study**

As stated in the previous section, this study focuses on the grammatical properties of obligatory reflexive constructions in Chichewa. More specifically, an attempt will be made to develop an analysis of obligatory reflexivity within the framework of Minimalist Syntax, the most recent model of grammar within the generative approach to linguistic inquiry.

Previous studies on Chichewa reflexives are to a large extent descriptive and limited to what may be called “verbal object constructions”, that is, constructions where the verbal complex contains a transitive verb with a subject marker (SM) and a reflexive marker (RFM) (cf. e.g. Mchombo 1993, 2004). An example of such a construction is given in (1), where *u-* represents the SM and

*dzi-* the RFM. In this sentence, *dzi-* is interpreted as co-referential with the subject *mkango* (“lion”) (Mchombo 2004:103).<sup>3</sup>

1.       Mkango           u - na - dzi - supul - a.  
           3.lion           3SM-T/A-RFM-bruise-FV  
           “The lion bruised itself.”

In addition to verbal object constructions, obligatory reflexivity is also found in several other types of constructions in Chichewa. For instance, the RFM forms part of the verbal complex of an infinitival construction in (2) and an expletive construction in (3).

2.       Ana               a-ma-fun-a               [ku - dzi - kand - a]  
           2.children       2SM-T/A-want-FV       INF-RFM- scratch - FV  
           “The children wanted to scratch themselves”
3.       **Ku** - na - l - i               [ku - dzi - lum - a]  
           EXP-T/A-be - FV       INF-RFM-bite-FV  
           “‘There was biting oneself.”

As far as could be ascertained, no analysis of reflexivity in constructions such as (2) and (3) has been presented in the literature on Chichewa syntax. Moreover, no analysis of the phenomenon of reflexivity in Chichewa and other Bantu languages has yet been attempted within the broad framework of Minimalist Syntax, although some studies do incorporate some of the insights and mechanisms associated with previous generative models such as Government and Binding theory. Among these studies are those of Mchombo (1993, 2004) on Chichewa, Storoshenko (2009) on Shona and Sikuku (2012) on Lubukusu.<sup>4</sup> In contrast, much research within Minimalist Syntax and its precursors has been done on various reflexive constructions in other language

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<sup>3</sup> Here and in all other cases where Bantu examples have been taken over from a particular study, the glossing in the source is modified to fit the format used in this study.

<sup>4</sup> The proposals put forward in these three studies will be discussed in Chapter 3. In that chapter, attention will also be given to some of the ideas of Amidu (2004, 2011), who takes a very critical view of, amongst others, generative approaches to the study of Bantu languages. In his description of reflexives in Kiswahili, Amidu (2004:xiii) challenges “the claims of corporate linguistic theories and models on the subject of argument structure, transitivity, binding and anaphoric relations in grammars” and also “the salient claims of syntactic theory generally regarding subject versus object relations in Kiswahili Bantu syntax and ultimately in general linguistics.”

families, including the Germanic and Romance families.<sup>5</sup> One recent analysis of reflexivity within Minimalist Syntax is that of Oosthuizen (2013). Although Oosthuizen focuses on obligatory reflexivity in Afrikaans, a West-Germanic language, he does make concrete proposals regarding the extension of his “nominal shell analysis” for the description of this phenomenon in languages of the Bantu family, such as the Southern Bantu language isiXhosa.

Against this background, the first main objective of the present study is to provide a detailed description of the facts of obligatory reflexivity in Chichewa. To this end, specific attention will be given to the morphosyntactic properties of the reflexive affix *dzi-* and its antecedent(s) in verbal object, infinitival and expletive constructions. The second main objective is to determine whether the minimalist nominal shell analysis of obligatory reflexivity proposed by Oosthuizen (2013) can provide an adequate framework for analysing the relevant facts of Chichewa. In this regard, particular attention will be given to two broad questions: (i) what are the specific steps in the derivation of the various reflexive constructions in Chichewa? and (ii) exactly how and by means of which mechanisms is the coreferential relationship between the reflexive affix and its antecedent(s) established?

### **1.3 Organisation of the study**

The rest of the study is organized as follows. Chapter 2 presents a non-formalistic description of Chichewa reflexive forms and reflexive constructions. The aim of this chapter is to provide background of the organisation of Chichewa verbal complex, where the reflexive morpheme occurs. Further to that, the chapter describes various types of constructions where the reflexive morpheme is used namely, verbal object, infinitival and expletive constructions.

Chapter 3 provides a brief overview of previous studies on reflexive constructions in Chichewa and other related languages. The chapter specifically reviews the proposals in Mchombo (1993, 2004, 2007), Storoshenko (2009), Sikuku (2012) and Amidu (2004, 2011).

Chapter 4 provides the theoretical background for the analysis of reflexivity in Chichewa to be developed in chapter 5. The chapter is divided into two sections. The first section, section 4.2

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<sup>5</sup> Cf. e.g. the following studies, Keenan (2009) and Van Gelderen (2000) for Germanic languages and Maldonado (2000) and Waltereit (2000) for Romance languages.

describes the core assumptions and devices of minimalist syntax in general while the second, section 4.3 discusses the core hypotheses of the NSA as outlined in Oosthuizen (2013).

Chapter 5 presents a theoretical analysis of Chichewa reflexive constructions within the framework of Minimalist syntax, more specifically the nominal shell analysis. Chapter 6 provides a summary of the entire discussion. It also concludes the discussion; this is followed by a highlight of topics for further research.

## Chapter 2

### Reflexives and reflexive constructions in Chichewa

#### 2.1 Introduction

This chapter presents a non-formalistic description of reflexive forms and reflexive constructions in Chichewa. The chapter is divided into two main parts. The first part, section 2.2, provides a brief overview of Chichewa verb morphology, focusing on the various affixes that can combine with the verb root, their functions, and the grammatical relationships into which they enter. This serves as background for the discussion in the second part, section 2.3, which deals with aspects of reflexivity in Chichewa. More specifically, the discussion in section 2.3 will focus on the morphological notion of reflexivity as realized in the reflexive morpheme *-dzi-* that forms part of the verb complex in verbal object, infinitival and some expletive constructions. The main findings of the discussion are summarised in section 2.4, the concluding section.

Before starting, it should be noted that reflexive interpretations are also found in at least two other types of construction in Chichewa, namely possessive constructions and prepositional object constructions. Examples of these constructions are given in (1) and (2), respectively. Consider, firstly, the sentence in (1). Here the verbal complex does not contain a reflexive marker. However, the direct object *mabuku* (“books”) is followed by the possessive expression *ake* (corresponding to the possessive pronoun *his* in English).<sup>6</sup> The expression *ake* can be interpreted in two ways. On the one hand, it can be interpreted reflexively, that is, coreferential with the subject of the sentence: the books belong to *Jimu*. On the other hand, *ake* can be interpreted non-reflexively, that is, non-coreferential with the subject: the books belong to someone else not mentioned in the sentence.

- |    |                         |                  |               |            |
|----|-------------------------|------------------|---------------|------------|
| 1. | <b>Jimu</b>             | a - na - gaw - a | <i>mabuku</i> | <i>ake</i> |
|    | Jimu                    | 1SM-T/A-share-FV | 6.books       | his        |
|    | “Jimu shared his books” |                  |               |            |

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<sup>6</sup> Possessive elements such as *ake* are made up of two morphemes. Firstly, a variable morpheme that agrees with the noun class of the object (“the possessee”), e.g. *a-* in the case of *ake*. Secondly, a variable possessive morpheme encoding person and number features (e.g. *-ke*, 3<sup>rd</sup> pers. sing. in the case of *ake*).

Consider next, the sentence in (2). In this case, too, the verbal complex lacks a reflexive marker. The DP *iye* (“him/her”) forms the object of the preposition *ndi* (“with”). This DP can be interpreted in two ways: either as referring to (i) the subject *mwana* (“the child”) or (ii) someone not specified in the sentence.

2.        **Mwana**            a - na- ik - a                    mabuku            pafupi    ndi        iye.  
           1.child            1SM-T/A-put-FV                6.books            close    with        him/her  
           “The child placed the books close to him/her.”

The current study focuses on *obligatory* reflexive constructions in Chichewa. Constructions like those in (1) and (2), which are compatible with both a reflexive and a non-reflexive interpretation, will therefore not be examined further here.

## 2.2 The structural organization of the verbal complex in Chichewa

Chichewa, like the other Bantu languages, has a rich system of agglutinating verbal morphology. This means that the verbal complex contains a verb stem and various affixes that serve a range of semantic and grammatical functions. The verb stem itself is complex in the sense that it is obligatorily composed of a verb root (VR) and a final vowel (FV). However, various suffixes can occur between the VR and the FV. These suffixes, generally referred to as “verbal extensions”, can serve to introduce a range of arguments or to reduce the number of arguments associated with the verb. The verbal extensions comprise morphemes such as the causative (CAUS), applicative (APPL), reciprocal (RECP), and passive (PASS) (Mchombo 2004:51, 75 and Good 2005:12). Schematically, the VR and its associated suffixes can be represented as follows:<sup>7</sup>

3.                    VR - (CAUS) - (APP) - (PASS) - (RECP) - FV

Like the post-VR segment, the pre-verb stem segment also contains a range of affixes. These include the prefix that encodes negation (NEG), the subject marker (SM) that encodes subject agreement, the tense/aspect (T/A) marker, the modality (MOD) marker, and the object marker

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<sup>7</sup> This schema and the generalized one in (4) below are based on the observations in Mchombo (2007:70) and Good (2005:2-3, 11, 19).

(OM) that encodes object agreement. Combining the post-VR segment in (3) with the pre-verb stem segment, the various affixes occurring in a verbal complex, and the linear order in which they occur, can be illustrated in the form of the generalised schema in (4).<sup>8</sup> The examples in (5)-(7) illustrate some of the possible combinations of verbal extension elements provided for in this schema.<sup>9</sup>

4. (NEG) - SM - TS/ASP - (MOD) - (OM) - VR - (CAUS) - (APP) - (PASS) - (RECP) - FV
5. (a) Mwana a - na - dy - a  
1.child 1SM-T/A-eat-FV  
“The child ate”
- (b) Mtsikana a - na - dy - ets - a mwana  
1.girl 1SM-T/A-eat-CAUS-FV 1.child  
“The girl made the child eat”
6. (a) Chakudya chi - na - gw - a  
7.Food 7SM-T/A-fall-FV  
“The food fell”
- (b) Mbuzi zi - na - gw - ets - er - a ana chakudya  
10.goats SM-T/A-OM-fall-CAUS-APPL - FV 2.children 7.food  
“The goats made the food fall for/on the children”

<sup>8</sup> As shown in (4), the SM and the T/A marker are obligatory in tensed sentences. Infinitival constructions can also contain a marker that serves to indicate aspect, as well as one which marks the verb as infinitival and/or serves as an SM (see section 2.3.2 for discussion). In imperative constructions, an overt SM and T/A marker are both absent, though in such cases it could be argued that the FV expresses some or other notion of tense/aspect; cf. e.g. Good (2005:12,56). Cf. also note 11 below.

<sup>9</sup> Some of the combinations that appear to be possible in terms of this schema are in fact ruled out in Chichewa. For instance, the combinations of (in either order) [PASS + RECP] and [OM+RECP] are not possible in “un-extended verb” constructions (Mchombo 2004:83); this is illustrated in (i) and (ii) respectively.

- (i) \* a - na - dy - edw - an - a  
1SM-T/A-eat-PASS-RECP-FV
- (ii) \*a - na - chi - dy - an - a.  
1SM-T/A-7OM-eat-RECP-FV

However, as shown in (iii), it is possible for PASS and RECP to co-occur (in this order) when the verb is extended, e.g. by means of the CAUS:

- (iii) a - ku - lodz - an - its - idw - a ndi alendo  
1SM-T/A-bewitch-RECP-CAUS-PASS-FV with 2.visitors  
“They are being made to bewitch each other (by the visitors)”

For more detailed discussion of verbal extensions in Chichewa and related languages, cf. e.g. Mchombo (2004:75-85, 90-111); Baker (1988:10-11, 147-228) and Good (2005).

7. (a) Aphunzitsi a - dza - gul - a mabuku  
 1.teachers 1.SM-T/A-buy-FV 6.books  
 “The teacher will buy books”
- (b) Aphunzitsi a- dza - gul - ir - an - a  
 1.teacher 1.SM-T/A-buy-APP-RECP-A  
 “Teachers will buy books for each other.”

The SM and OM slots in (4) are of particular importance for the purpose of this study. As illustrated in (8) below, the SM is obligatory and precedes the T/A marker.<sup>10</sup> The only affix that can precede the SM is the NEG marker in negative (non-imperative) sentences, as shown in (9).<sup>11</sup>

8. (a) Galu a - na - chi - lum - a chilombo  
 1.dog 1SM-T/A-7OM-bite-FV 7.beast  
 “The dog bit the beast”
- (b) A - na - chi - meny - a  
 1SM-T/A-7OM-beat-FV  
 “They beat it”
9. (a) si - ti - na - bwer - e dzulo  
 NEG-SM-T/A-come-FV 5. yesterday  
 “We did not come yesterday”

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<sup>10</sup> Note that (8b) lacks both an overt subject and an overt object, although it does contain an SM and an OM interpreted as “they” and “it”, respectively. As mentioned in note 8, the SM is not phonetically realised in imperatives in Chichewa; this is shown in the following example, where the verb *nyamuka* (“leave”) lacks an overt SM:

- (i) Nyamuk - a msanga  
 Leave quickly  
 “Leave immediately!”

<sup>11</sup> The NEG marker occurs after the SM in imperative sentences, as illustrated in (i), and also in subjunctive constructions, as shown by the implied desire or wish in (ii).

- (i) U - sa - bwer - e wekha  
 SM-NEG-come-FV alone  
 “Do not come alone.”
- (ii) A - sa - dza - bwer - e.  
 SM-NEG-T/A-come-FV  
 “They must not come (in the remote future).”

- (b) Chimanga si - chi - dza - gul - idw - a  
 7.maize NEG-7SM-T/A-buy-PASS-FV  
 “The maize will not be bought” (remote future)

Turning to the OM in Chichewa, this affix comes immediately before the verb stem, as shown in (10). In sentences containing an overt nominal expression functioning as the direct object, the OM is optional; however, in such cases the direct object must occur immediately to the right of the verb complex (Mchombo 2004:19-20). This is shown by the difference in grammaticality between (10b and c).<sup>12</sup>

10. (a) Apolisi a - na - mu - gwir - a wakuba  
 2.police 2SM-T/A-2OM-catch-FV 1.thief  
 “The police caught the thief.”
- (b) Apolisi wakuba a - na - mu - gwir - a  
 2.police 1.thief 2SM-T/A-1OM-catch FV  
 “The police caught the thief.”
- (c) \*Apolisi wakuba a - na - gwir - a  
 2.police 1.thief 1SM-T/A- catch FV
- (d) \*Apolisi a - na - gwir - a  
 2.police 2SM-T/A-catch
- (e) Apolisi a - na - mu - gwir - a  
 2.police 2SM-T/A-1OM-catch-FV  
 “The police caught him/her.”

In the light of the foregoing facts, Chichewa is generally analysed as a *head marking* language (Mchombo 2004:51). This means that, in the case of the verbal complex, the SM and the OM are affixed to the verb stem to reflect grammatical agreement between the verb and the relevant

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<sup>12</sup> The question of whether the OM is an obligatory element in reflexive constructions will be addressed in section 2.3 below. It should be noted that, in contrast to Chichewa, the OM is obligatory with certain types of nouns in other Bantu languages, e.g. in Kiswahili with Class 1 nouns, which are used to refer to animate entities and humans (Mchombo 2004:85).





be used. As regards object agreement, (13c) illustrates agreement between the first person pronominal plural object *ife* (“us”) and the OM *ti-*; the use of the singular agreement morpheme *ku-* yields an ungrammatical construction. Similarly, (13d) shows agreement between the second person singular pronoun *iwe* (“you”) and the OM *ku-*; here, the third person plural OM *wa-* (“them”) cannot be used.

13. (a) Ine ndi-/ \*(mu -) dza - gwir - a chilombo  
 1<sup>st</sup> sing.I 1<sup>st</sup> singSM-TA- catch-FV 7.beast  
 “I will catch the beast.”
- (b) Inu mu-/ \*(ndi -) na - gwir - a chilombo  
 2<sup>nd</sup> pl.you SM-T/A-catch-FV 7.beast  
 “You caught the beast.”
- (c) Chilombo chi - dza - ti-/ \*(ku -) thamang - its - a ife  
 7.beast 7SM-TA-OM-run-CAUS-FV 1<sup>st</sup> pl.us  
 “The beast will chase us.”
- (d) Chilombo chi - dza - ku-/ \*(wa -) thamang - its - a iwe  
 7.beast 7SM-T/A-run-CAUS-FV 2<sup>nd</sup> sing.you  
 “The beast will chase you.”

Subject and object agreement in terms of, specifically, noun class is illustrated in (14). In (14a) the class 8 plural subject, *zilombo* (“beasts”) agrees with the SM *zi-*; this subject cannot occur with the singular SM *chi-* that is associated with class 7. In a similar manner, in (14b) the pronominal object *zilombo* agrees with the plural OM for class 7 *zi-*, and cannot occur with the singular OM *chi-*.

14. (a) Zilombo zi/ \*(chi -) ma - gwir - a zinthu  
 8.beasts 8SM-T/A-catch-FV 8.things  
 “Beasts catch things.”
- (b) Anthu a - na - chi/ \*(zi -) meny - a chilombo  
 2.people 2SM-T/A-7OM-beat-FV 7.beast  
 “People beat the beast.”

In addition to the agreement relations illustrated in (13-14), it will be assumed here that the SM and the OM also enter into agreement relations involving features that relate to thematic roles and structural case (Mchombo 2004:51).<sup>17</sup> In (15a) the verb *gona* (“sleep”) is a one place predicate requiring a subject argument; to put it differently, the verb requires an expression that can satisfy its particular thematic requirement, in this case, one with the theta role of Experiencer. The sentence in (15a) contains the overt subject *chilombo* (“the beast”). In (15b), in contrast, the subject is not phonetically realised; in this case, the verb’s theta requirement is satisfied due to the presence of the SM, with the Experiencer being interpreted as “he/she”. In view of these facts, it thus seems plausible to claim that the (overt or covert) subject and the SM agree in terms of a theta feature. A similar observation holds for objects and OMs. This is illustrated in (16) where the transitive verb *luma* (“bite”) requires two arguments, a subject functioning as Agent and a direct object functioning as Theme (or Patient). The sentence in (16a) contains the overt direct object *mwana* (“child”), whereas in (16b) the object is not spelled out; in the latter case, the verb’s relevant thematic requirement is satisfied by the OM, with the Theme being interpreted as “he/she”.

15. (a) Chilombo      chi - na - gon - a  
       7.beast        7SM-T/A-sleep-FV  
       “The beast slept.”
- (b)      chi - na - gon - a  
               7SM-T/A-sleep-FV  
               “It slept”
16. (a) Galu      a - na - lum - a              mwana  
       1.dog    1SM-T/A-bite-FV        1.child  
       “The dog bit the child.”
- (b) Galu      a - na - mu - lum - a  
               1.dog    1SM-T/A-1OM-bite-FV  
               “The dog bit him/her.”

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<sup>17</sup> It is likely that further agreement features can be identified for Bantu languages. Buell, Riedel & Van der Wal (2011:700), for instance, argue for features such as topic and wh-features that come into play in Bantu agreement relationships.

The notion of structural case is a controversial issue in the literature on Chichewa and most other Bantu languages. It is argued in some studies that there is no structural case feature in Bantu (cf. e.g. Diercks 2012:254), while others adopt standard generative assumptions about the nature and effects of case (e.g. Mchombo 2004:51; Buell et al. 2011:700). Mchombo (2004:51) mentions in passing that “as evidenced in the restricted domain of personal pronouns, [these pronouns – PM] manifest changes associated with case marking.” This claim can be illustrated with the SM and OM variation for the second person pronouns *iwe* (singular “you”) and *inu* (plural “you”). In most constructions the SM and OM have the same form irrespective of whether the DP argument with which they are associated is in the subject or object position. However, in the case of the second person pronouns *iwe* and *inu* the SM and the OM have different forms depending on whether the pronoun functions as the subject or the object, as shown in (17) and (18) below. According to Mchombo (2004:51), the different forms of the SM and OM associated with the second person pronouns reflect the effects of structural case. In (17a) the pronominal subject *iwe* (singular “you”) enters into an agreement relationship with the SM *u-*; however, when this pronoun is in the object position as in (17b), the OM takes a different form, namely, *ku-*. In fact, as shown by the ungrammaticality of (17c), the OM associated with the object *iwe* cannot take the expected form *u-* that is found with the SM. A similar pattern is observed in (18) where the SM and the OM associated with the second person plural pronoun *inu* (“you”) take two different forms, namely, *mu-* and *ku-* respectively.

17. (a) Iwe                      u - na - gund - a                      galu  
           1<sup>st</sup> sing.you            1<sup>st</sup> sing SM-T/A-hit-FV            1.dog  
           “You hit a dog.”
- (b) galu      a - na - ku - lum - a                      iwe  
           1.dog    1SM-T/A-1<sup>st</sup> sing OM-bite-FV            2<sup>nd</sup> pl.you  
           “The dog bit you.”
- (c) \*galu      a - na - u - lum - a                      iwe  
           1.dog    1SM-T/A-1<sup>st</sup> sing OM-bite-FV            2<sup>nd</sup> sing.you
18. (a) Inu                      mu - na - gund - a                      galu  
           2<sup>nd</sup> pl.you            2<sup>nd</sup> pl SM-T/A-hit-FV            1.dog  
           “You hit a dog.”

- (b) Chilombo      chi - na - ku - meny - a - ni      inu  
 7.beast      7SM-T/A-2<sup>nd</sup> pl OM-hit-FV-Hon    2<sup>nd</sup> pl -you  
 “The beast hit you.”
- (c) \*Chilombo      chi - na - mu - meny - a - ni      inu  
 7.beast      7SM-T/A-2<sup>nd</sup> pl OM-hit-FV-Hon    2<sup>nd</sup> pl you

The SM/OM pattern observed in (17) and (18) suggests that one form is associated with expressions that are assigned nominative case and the other with expressions that are assigned accusative case. Based on these observations, in (19a) the subject DP *aphunzitsi* (“teacher”) is assigned nominative case while the object DP *mwana* (“child”) is assigned accusative case. Since subject and object arguments need not be phonetically spelled out in Chichewa, as shown in (19b), the functions of these arguments are generally taken to be expressed by the relevant SMs and OMs. It seems plausible, therefore, that these morphemes also agree with their antecedents in terms of case features. Hence, in the case of (19a), it is claimed that there is (i) nominative case agreement between the subject DP *aphunzitsi* and the SM *a-* and (ii) accusative case agreement between object DP *mwana* and the OM *mu-*; similar case agreement is found in (19b) between the SM and the OM and the respective covert subject and object arguments.

19. (a) aphunzitsi      a - na - mu - meny - a      mwana  
 Teacher      SM-T/A-OM-whip-FV    child  
 “The teacher whipped the child.”
- (b) a - na - mu - meny - a  
 SM-T/A-OM-whip-FV dog  
 “She/they/he whipped him/her.”

### 2.3 The reflexive construction in Chichewa

Obligatory reflexive interpretations in Chichewa are found with constructions that include the reflexive morpheme (RFM) *-dzi-* in the OM slot of the verb complex, as shown in (20).

20. (a) Chigawenga chi - na - dzi - bay - a  
7.bandit 7SM-T/A-RFM-stab-FV  
“The bandit stabbed him/herself.”
- (b) Galu a - na - dzi - lum - a  
1.dog 1SM-T/A-RFM-bite-FV  
“The dog bit itself.”

This reflexive morpheme does not co-occur with any other OM,<sup>18</sup> suggesting that the reflexive morpheme occupies the place of the OM. This is supported by the ungrammaticality of (21) where *-dzi-* occurs together with the OM *-mu-*.

21. (a) \*Mnyamata a - na - dzi - mu - chek - a  
1.boy 1SM-T/A-RFM-OM-cut-FV
- (b) \*Mnyamata a - na - mu - dzi - chek - a  
1.boy 1SM-T/A-OM-RFM-cut-FV

It is generally accepted in studies on Bantu reflexives that the reflexive *-dzi-* in Chichewa – and also its counterparts in other languages – serves the same grammatical and semantic function as the OM. Mchombo (1993:194), Storoshenko (2009:49, 55) and Sikuku (2012:8) claim that the reflexive morpheme satisfies the argument requirements of the verb, just as the OM would.<sup>19</sup> Support for this claim is provided by the ungrammaticality of the sentence in (22), where the transitive verb *cheka* (“cut”) lacks a Patient argument.<sup>20</sup>

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<sup>18</sup> The Chichewa verb complex only accepts one OM; however, some languages in the Bantu family, for instance Luganda, Lunyambo, Kihaya, and Kinyarwanda, allow two or more OMs in the same verb complex. In such languages, the co-occurrence of the OM and the reflexive is allowed. As mentioned above, this possibility is not allowed in Chichewa (Mchombo 1993:186).

<sup>19</sup> Mchombo (2004:51), Storoshenko, 2009:9 and Sikuku (2012:8) furthermore claim that, like the OM, the reflexive represents an incorporated pronominal. An alternative view is taken by Buell et al. (2011: 690-691) and Riedel (2009:73), who do not regard the OM as an incorporated pronominal but simply as an agreement marker; on this view, then, the RFM *-dzi-* would also be analysed as an agreement marker rather than an incorporated pronominal.

<sup>20</sup> Transitivity in Chichewa is not as straightforward a matter as it seems to be in some other languages. In Chichewa, inherently intransitive verbs such as *gwa* (“fall”) can be turned into transitives through the use of verbal extensions such the APPL, CAUS, etc. Like regular transitive verbs, such transitivity verbs require an object and can also take a reflexive morpheme as illustrated in (ic). However, Baker (1988:254-258) observes that verbs

22. \*Mnyamata a - na - chek - a  
1.boy 1SM-T/A-cut-FV

Despite sharing certain grammatical and semantic properties, the reflexive *-dzi-* differs from the conventional OM on two counts: Firstly, unlike the OM which shows different forms depending on the object DP with which it agrees, the reflexive has a single invariant form. To put it informally, in contrast to other OMs, there is no overt grammatical agreement between the RFM and its antecedent.<sup>21</sup> Secondly, while the OM enters into an agreement relation with the object DP, the reflexive morpheme typically takes its reference from the subject DP (or the SM).<sup>22</sup> These two properties are illustrated by the examples in (23a, b). As shown in (23c), selection of an OM which agrees with both the SM and the subject DP – thereby expressing the idea that the object and the subject refer to the same entity – results in ungrammaticality.

23. (a) Mwana<sub>i</sub> a<sub>i</sub> - na - **dzi**<sub>i</sub> - meny - a.  
1.child 1SM-T/A-RFM-hit- FV  
“The child hit itself”
- (b) Chilombo<sub>i</sub> chi - na - **dzi**<sub>i</sub> - meny - a  
7.child 7SM-T/A-RFM-hit- FV  
“The beast hit itself.”

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which are transitivised through the use of APPL and CAUS extensions differ in meaning from regular transitive verbs occurring with these extensions; in other words, with transitivised verbs the use of APPL and CAUS bring about a change in meaning. For instance, the transitivised verb *gvera* (where *-era-* represents the APPL) expresses a meaning that involves a direct object, as shown in (ib).

- (i) (a) Mwana wa - gw - a  
1.child 1SM-fall-FV  
“The child has fallen.”
- (b) Mwana wa - gw - er - a galu  
1.child 1SM-fall-APPL-FV .dog  
“The child has fallen on the dog.” (“??The child has fallen for the dog.”)
- (c) Mwana wa - dzi - gw - ets - a  
1.child 1SM-RFM-fall-CAUS-FV  
“The child has caused itself to fall.”

<sup>21</sup> However, this does not necessarily rule out the possibility that the RFM and its antecedent enter into a covert grammatical relationship. We return to this issue in chapter 5; see also the discussion of the examples in (23) below.

<sup>22</sup> Mchombo (2007:209) proposes that the reflexive *-dzi-* takes the SM as its antecedent, (as demonstrated in what he calls “long distance anaphoric relationship”). The essence of this proposal will be incorporated into the analysis presented in Chapter 5. In section 2.3.2 attention is given to the question of whether the RFM can enter into an agreement relationship with some other, non-subject expression, or with a subject expression that forms part of a different clause.

- (c) Chilombo<sub>k</sub>      **chi**<sub>k</sub> - na - \***chi**<sub>k</sub>/**chi**<sub>j</sub> - meny - a  
 7.beast            7SM-T/A-OM-hit-FV  
 “The beast hit it.”

Based on the properties of the reflexive morpheme illustrated in (23), it has been argued that this morpheme does not represent some sort of object marker in the Bantu languages (see e.g. Amidu 2011:98-100). An alternative view, and the one that will be assumed here, is that of Mchombo (1993, 2004, 2007), Storoshenko (2009) and Sikuku (2012) who argue that the RFM morpheme forms a subset of the larger set of OMs. We return to this issue in Chapter 5. Moreover, the fact that the reflexive morpheme is coreferentially linked with the subject DP, which in turn stands in an agreement relationship with the SM, repeating the agreement features of the SM on the RFM in the same verb complex will result in the same type of redundancy that is shown by an English construction such as *John<sub>i</sub> hit John<sub>i</sub>*. This could well explain the invariant form of the RFM, e.g. -*dzi*- in Chichewa.

The next three subsections explore the various Chichewa constructions in which the reflexive morpheme -*dzi*- can be found.

### 2.3.1 Verbal Object Constructions

The expression “verbal object construction” is used in this study to refer to a construction that contains a transitive verb and any one of the following obligatory elements: (i) a syntactic object, (ii) an OM, (iii) a syntactic object as well as an OM, or (iv) the RFM -*dzi*-. These four possibilities are illustrated in (24) below. In sentences (24) the monotransitive verb stem -*baya* (“stab”) occurs with an object DP, an OM, and a combination of these two elements, respectively.<sup>23</sup> In (24d) the RFM -*dzi*- functions as the verbal object. As shown in (24e), the verb cannot occur on its own, that is, without any of the four expressions mentioned.

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<sup>23</sup> A monotransitive verb is one which requires a single (direct) object argument; this is in contrast to a ditransitive verb (see 25 below) which selects two complement DPs, namely an indirect object argument and a direct object argument, in this order (see also 23 above). For references, cf. chapter 4, note 64.

24. (a) Mtsikana a - na - bay - a chilombo  
1.girl 1SM-T/A-stab-FV 7.beast  
“The girl stabbed the beast”
- (b) Mtsikana a - na - chi - bay - a  
1.girl 1SM-T/A-7OM-stab-FV  
“The girl stabbed it”
- (c) Mtsikana a - na - chi - bay - a chilombo  
1.girl 1SM-T/A-7OM-stab-FV 7.beast  
“The girl stabbed it, the beast”
- (d) Mtsikana a - na - dzi - bay - a  
1.girl 1SM-T/A-RFM-stab-FV  
“The girl stabbed herself”
- (e) \*Mtsikana a - na - bay - a  
1.girl 1SM-T/A-stab-FV

A similar pattern is observed with ditransitive verbs as shown in (25). The verb stem *pats-a* (“give”) in (25a) requires both the direct object DP *chakudya* (“food”) and the indirect object DP *mlendo* (“visitor”). In (25b) the indirect object is retained but the direct object is omitted and represented by the OM *-i-*; the ungrammaticality of this sentence demonstrates that Chichewa does not allow the direct object in ditransitive predicates to be expressed only with the OM.<sup>24</sup> In (25d) the direct object is also omitted, but in this case the OM slot is filled by the RFM; in contrast to (25b), this sentence is grammatical.

25. (a) Mwana wa - pats - a mlendo chakudya  
1.child 1SM+T/A- give -FV 1.visitor 7.food  
“The child has given the visitor some food”

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<sup>24</sup> Grimes (2002:10) describes languages with this property as “asymmetric object languages”. Such languages permit only one object marker and show restricted ordering of postverbal objects, with the indirect object preceding the direct object. Marten & Kula (2012:248) observe that in some Bantu languages, including Chichewa, only the benefactive can be expressed by an OM, whereas in others, such as Otjiherero, this restriction does not apply.

- (b) \*Mwana wa - chi - pats - a mlendo  
1.child 1SM+T/A-7OM-give-FV 1.visitor
- (c) Mwana wa - mu - pats - a chakudya  
1.child 1SM+T/A-1OM-give-FV 7.food  
“The child has given him/her some food.”
- (d) Mwana wa - dzi - pats - a chakudya  
1.child 1SM+T/A -RFM- give -FV 7.food  
“The child has given itself some food”

The examples in (24) and (25) all contain an SM as well as an overt subject DP. In the (d) examples in (24) and (25) the RFM is interpreted as coreferential with both the subject DP and the SM. This raises the question of whether the RFM acquires its interpretation via the SM or the subject DP, in other words, what serves as the antecedent of the RFM. Support for the idea that it is actually the SM that serves as the antecedent is provided by reflexive constructions like those illustrated in (26) below. These examples all lack an overt subject DP; however, the interpretation of the RFM is consistent with that of the SM, as reflected in the glosses.<sup>25</sup>

26. (a) Ndi - na - dzi - pwetek - a  
1<sup>st</sup> sing SM -T/A-RFM-hurt-FV  
“I hurt myself”
- (b) Wa - dzi - pats - a ndalama.  
2<sup>nd</sup> sing SM+T/A-RFM-give-FV 10.money  
“S/he gave her/himself some money”
- (c) Cha - dzi - ph - a  
7SM - RFM-kill-FV  
“It has killed itself.”

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<sup>25</sup> This view is in contrast to that of Amidu (2004). Referring to the reflexive marker *-ji-* in Kiswahili-Bantu (the counterpart of *-dzi-* in Chichewa), Amidu (2004:69) argues that “If {ji} replaces an object prefix such as {m} and is coreferential with an accessible subject NP and its SM prefix, the {m} must also be coreferential with the same accessible subject and its SM prefix. The neutralization of SM and OM that ensues contributes nothing to understanding reflexivisation and argument-predicate relationships in Kiswahili Bantu. *We need, therefore, to deny coreferentiality, accessible subjects and even antecedents to some extent* (emphasis added – PM) in order to rescue reflexivization structures in Kiswahili from chaos.” On this analysis, however, it remains to be clarified how the difference in interpretation between the RFM *-dzi-* in “subject-less” sentences and *ku-*expletive constructions (see section 2.3.3 below) can be explained. This issue is addressed in Chapter 5.

In sum, it was shown above that the reflexive morpheme *-dzi-* satisfies the verb's object argument requirements in verbal object constructions. As far as its interpretation is concerned, the reflexive enters into a coreferential relationship with the overt or covert subject DP, a process that is possibly mediated by the SM. The next section examines constructions that contain the reflexive morpheme but do not have an SM in its verbal complex.

### 2.3.2 Infinitival constructions

Infinitival expressions in Chichewa show the typical properties of finite verbal expressions. For instance, they can be negated, can be extended by means of verbal suffixes, can take a direct object and can be modified by adverbs and locatives. Infinitival expressions can moreover be inflected for tense-aspect-mood (TAM; but see below). However, in Chichewa, as in Bantu languages in general, infinitival expressions also show nominal properties. For this reason, they are generally described in the literature as class 15 nouns, a noun class that is characterised by the prefix *ku-*.<sup>26</sup> In addition to carrying this noun prefix, in its nominal use the infinitival expression shows other properties typically associated with nominal expressions. For example, (i) they can appear in the positions associated with nominal arguments such as the subject and the direct object, and (ii) they enter into agreement relations with other nominal markers, for example those found in the verbal complex and with adjectives.<sup>27</sup>

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<sup>26</sup> Noun class 15 is often referred to as the “infinitive class” in the traditional literature; cf. e.g. Doke (1965) and Cole (1955:96). Below, attention will be given to a more recent proposal about the classification of infinitives in Bantu. It should also be noted here that the prefix *ku-* can be used in various different functions; for example, as a class 17 prefix where it marks location, and also as an expletive marker. This multifunctionality of *ku-* and its counterparts in related languages is a widespread phenomenon in the Bantu family; Blommaert (1986:265), Du Plessis & Visser (1992:87), Creissels & Godard (2005:72-73, 77) and Tunzelana (1993:8-11).

<sup>27</sup> In Chichewa, an adjective agrees with the noun that it qualifies, a phenomenon that is also found where the adjective is used to qualify a nominal infinitival expression. For instance, in (ia) below agreement is indicated by the noun class 7 prefix *chi-/cho-* which occurs on both the noun *chilombo* (“beast”) and the adjective *choopsa* (“fierce”) (where the vowel difference is due to a phonological process). Similarly, in (ib) the use of the noun class 15 prefix *ku-/ko-* shows agreement between the nominal infinitival expression *kumenyana* (“fighting”) and the (same) adjective *koopsa* (“fierce”).

- |     |    |   |                       |
|-----|----|---|-----------------------|
| (i) | a. | chilombo<br>7.beast<br>“a fierce beast”                   | cho-opsa<br>AP-fierce |
|     | b. | ku - meny - an - a<br>INF- beat-RECP<br>“a fierce fight.” | ko-opsa<br>AP-fierce  |

Referring specifically to Xhosa, Du Plessis (1982:95), Du Plessis & Visser (1992:87) and Visser (1989:162) argue, however, that an infinitive expression should not be classified as solely belonging to noun class 15, but rather as belonging to any of three category types, namely (i) S: clausal complement of a verb, (ii) NP (dominating S): nominal infinitive and (iii) N: infinitival noun (class 15). As illustrated by the examples in (27a-c), respectively, this classification holds for Chichewa as well. (For presentational purposes, the infinitival clause in (27) and similar examples below are given in square brackets.)

27. (a) Ana                    a -ma - fun - a                    [ku - val - a                    nsapato]  
          2.children                    2SM-T/A- want - FV                    INF-dress-FV                    10.shoes  
          “The children wanted to wear shoes.”
- (b) Ti - ma - dikir - a                    [ku - lir - a                    kwa                    belu]  
          1<sup>st</sup> pl.SM-T/A-wait-FV                    INF-cry-FV                    of                    5.bell  
          “We were waiting for the ringing of the bell.”
- (c) Ku - wal - a                    ku - ma - chok - er - a                    ku - chipinda  
          15-glow - FV                    15SM-T/A-leave-APPL-FV                    17LOC-room  
          “The light was coming from the room.”

Some clarification is needed at this point about the above distinction between nominal infinitives, as illustrated in (27b), and infinitive nouns, as in (27c). In line with the proposals made by Du Plessis (1982:95), Du Plessis & Visser (1992:87) and Visser (1989:162), an expression would be classified as a *nominal infinitive* in Chichewa if it takes the form of a DP dominating an infinitival phrase carrying the prefix *ku-*. In contrast, an *infinitive noun* (belonging to class 15) would be analysed as a regular DP, that is, one that does not dominate an infinitival phrase. Note, however, that nouns belonging to class 15 carry a prefix that is homophonous to the one found in nominal (and verbal) infinitives, namely *ku-*, as shown by typical class 15 noun such as *kuwala* (“light”), *kufunda* (“warmth”), *kuda* (“darkness”). As a consequence, an expression like *kuwala* would be classified in two distinct ways: (i) as a nominal infinitive with the infinitive marker *ku-*, as in (27b), and (ii) as an infinitive noun with the noun class 15 prefix *ku-*, as in (27c).

The next two subsections focus on reflexive infinitival expressions in their verbal and nominal use, respectively.

### 2.3.2.1 Reflexive infinitival constructions in their verbal use

In Chichewa, infinitival constructions in their verbal use (“verbal infinitives”, for short) occur without an overt DP in the structural subject position. Moreover, the slot where the SM would normally occur in the (finite) verbal complex is invariably filled by *ku-*. These facts are illustrated in the example in (28).<sup>28</sup>

28. (a) Ana                    a- ma - fun - a                    [ku - gon - a]  
           2.children            2SM-T/A-want-FV                INF-sleep-FV  
           “The children wanted to sleep”

The grammatical status of the prefix *ku-* in verbal infinitives is not at all clear. On the one hand, it could simply be analysed as an infinitive marker, the implication being that such constructions lack an SM altogether.<sup>29</sup> On the other hand, it could be argued that *ku-* has a “dual” character, incorporating features that are associated with both a nominal element (like the SM) and a verbal element (like an (infinitival) tense marker). Creissels & Godard (2005:79-81, 85), working within the framework of Head-Driven Phrase Structure Grammar propose an analysis along these lines for Tswana; however, their analysis relates to structural aspects of the entire infinitival expression, and does not specifically focus on the grammatical properties of the infinitival prefix. Still, on Creissels & Godard’s (2005) view, it would seem plausible to take *ku-* as occurring in the SM slot.<sup>30</sup>

<sup>28</sup> The absence of an overt subject in verbal infinitives seems to be a general feature of Bantu languages; see e.g. Creissels & Godard (2005:72-73, 77) and Visser (1989:159).

<sup>29</sup> This approach would be compatible with the analysis proposed by Du Plessis & Visser (1982:95) and Visser (1989:155-159). Such an analysis is also considered for Tswana by Creissels & Godard (2005:79); they nevertheless reject it on morphological grounds. As far as could be ascertained, a similar analysis has not yet been considered for Chichewa.

<sup>30</sup> The possibility that *ku-* fills the TAM slot is ruled out by the fact that it can co-occur with a TAM marker in verbal infinitive constructions, as shown in (i). In this example, the prefixes *ma-* and *dza-* are arguably used to express progressive aspect and future tense, respectively.

- (i) a. Anthu            a - ku - fun - a                    [ku-**ma-dza**-i-dy-a                    nyama]  
           2.people    2SM-TA-want-FV                    inf-T/A-T/A-OM-eat                    9.meat  
           “The people want to be eating meat.” (in the remote future)
- b. Ana                    a - ku - fun - a                    [ku-sa-**ma-dza**-gon-a]  
           1.child            1SM-T/A-want-Fv                    inf-NEG-T/A-T/A-sleep-FV  
           “The children do not want to be sleeping.” (in the remote future)

As in the case of finite clauses with a transitive verb, the verbal complex in infinitival clauses can contain an OM or a RFM. This is illustrated in (29) below. In (29a), the infinitival clause contains the direct object DP *fodya* (“tobacco”); however, the verbal complex lacks an OM, containing only the INFIN marker *-ku-*. In (29b), the verbal complex of the infinitival clause contains the OM *-mu-* and in (29c) the RFM marker *-dzi-*.

29. (a) Anthu                    a - ma - fun - a                    [ku - sut - a                    fodya]  
           2.people                2SM-T/A-want-FV                INF-smoke-FV    1.tobacco  
           “The people wanted to smoke cigarettes”
- (b) Anthu                    a-ma - fun - a                    [ku - mu - sut - a                    fodya]  
           2.people                2SM-T/A-want-FV                INF-1OM-smoke-FV    1.tobacco  
           “The people wanted to smoke (it) the cigarettes”
- (c) Atsogoleri                a-yener-a                    [ku - dzi - lemekez - a]  
           2.leaders                2SM-supposed-FV                INF-RFM- respect - FV  
           “The leaders should respect themselves”

The apparent absence of an overt SM in infinitival clauses raises a potential problem for the idea put forward in section 2.2, namely that the RFM enters into an agreement relationship with the SM. There are at least two possible solutions to this problem. One is to argue that the SM is in fact still present in the verbal complex, but in an abstract form. The other possibility is to analyse the prefix *-ku-* as incorporating the features of both the (abstract) SM and the infinitival marker, the result of a specific merge operation. On this second analysis, the RFM would then enter into an agreement relationship with the “featurally expanded” element *ku-*. Note furthermore that, in the case of the example in (29c), the RFM *-dzi-* takes its reference from the subject of the matrix clause, *atsogoleri* (“leaders”), even though *-dzi-* forms part of the infinitival verbal complex. In this regard, it could be claimed that the agreement relationship between the RFM and the matrix

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According to Mchombo (2004:29), however, “tense/aspect markers do not” appear in infinitival constructions, “with the exception of the habitual marker *-ma-*. He (2004:28) furthermore states that the prefix *-dza-*, which is indicated as a future tense marker in (ia,b), is actually a directional marker that happens to be phonetically indistinguishable from the future tense marker *-dza-*. It is not clear how such an analysis can be justified for the above examples, since they do not express any obvious sense of directionality. The issue of the grammatical status of *-dza-* is left here as a topic for further investigation.

subject DP is mediated by the SM *a-* in the matrix verbal complex.<sup>31</sup> The issue of exactly how the coreferential relationship between the RFM and the matrix subject is established will be examined in Chapter 5.

To end this section, it should be noted that the verb complex in the matrix sentence and in the infinitival clause can concurrently contain a reflexive morpheme in Chichewa, as shown by the examples in (30). In each case, the two RFM prefixes *dzi-* enter into a coreferential relationship with the (overt or covert) matrix subject, most likely mediated by the relevant SMs.

30. (a) Munthu uyu wa - dzi - kakamiz - a [ku - dzi - ph - a]  
 1.person 2<sup>nd</sup> sing.this 1SM+T/A-RFM-force-FV INF-RFM-kill-FV  
 “This person has forced her/himself to kill her/himself.”
- (b) Nda - dzi - kakamiz - a [ku - dzi - bay - a]  
 1<sup>st</sup> sing.SM+T/A-RFM-force-FV INF-RFM-stub/inject-FV  
 “I have forced myself to stab/inject myself”

In sum, it has been shown above that the RFM *-dzi-* in Chichewa verbal infinitives enters into a coreferential relationship with the subject DP and/or SM of the matrix clause. The next section deals with the interpretation of *dzi-* in nominal infinitival constructions.

### 2.3.2.2 Reflexive infinitival constructions in their nominal use

Nominal infinitives containing the RFM affix commonly occur in subject and prepositional object position.<sup>32</sup> These constructions lack an overt expression that could serve as antecedent of the RFM, with the latter invariably interpreted as “oneself”. These facts are illustrated in 31. In

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<sup>31</sup> In view of the preceding remarks, it is possible that the establishment of the agreement relationship involves two further elements. One such element could be an abstract SM in the infinitival verbal complex (either on its own or merged with the infinitival marker *ku-*). Another element could be the PRO subject of the infinitival clause; that is, similar to what is proposed for Afrikaans by Oosthuizen (2013:22), it could be argued that *-dzi-* “takes as its antecedent the PRO subject of the infinitival clause which in turn is semantically controlled by the subject of the matrix clause.”

<sup>32</sup> It could perhaps be argued that some nominal infinitives, particularly those found in copular constructions, should be analysed as verbal complements; we return to this possibility shortly.

(31a) the reflexive nominal infinitive *kudzipweteka*, which functions as the subject of the sentence, has been derived by combining the affixes *ku-* and *dzi-* to the verb stem *pwetek-a* (“injure/hurt”), with *-dzi-* being interpreted as referring to a non-specific, unidentified entity. In (31b) the reflexive nominal infinitive *kudzikonda* functions as a prepositional object, that is, the complement of the preposition *za* (“about”). In this case, the infinitive was derived by affixing *ku-* and *dzi-* to the verb stem *konda* (“love”). In contrast to (31a), (31b) does contain an overt indication of the subject, either spelled out as the first person plural pronoun *ife* (“we”) or represented by the associated SM *ti-*. Still, similar to (31a), *-dzi-* in (31b) receives the interpretation “oneself”, not “ourselves”.<sup>33</sup>

31. (a) [ku - dzi - pwetek – a] pa ntchito ndi tsoka  
 INF-RFM-injure-FV at 9.work is bad luck  
 “Injuring oneself at work is bad luck.”
- (b) (Ife) ti - dza - imb – a za [ku - dzi - kond - a]  
 1<sup>st</sup> pl.we 1<sup>st</sup> pl.SM-T/A-sing-FV about INF-RFM-love-FV  
 “We will sing about loving oneself.”

It was stated above that reflexive nominal infinitives are commonly found in subject and prepositional object position. Consider the following example in this regard:

32. Njira ina ndi [ku - dzi - ph – a]  
 9.way other is INFIN-RFM-kill-FV  
 “The other way is to kill oneself.”

On the face of it, the infinitival clause in (32) seems to function as the complement of the copular verb *ndi* (“is”), that is, as a verbal infinitive.<sup>34</sup> As pointed out in section 2.3.2.1, however, the RFM *-dzi-* in verbal infinitives takes the subject of the sentence as its antecedent, whereas in (32) it has the arbitrary interpretation “oneself”, which is typical of nominal infinitives. Also, in

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<sup>33</sup> In his discussion of the interpretation of the reflexive pronoun *oneself* in English, Radford (2009:96) states that constructions containing this pronoun have a PRO subject serving as the antecedent of the reflexive. He goes on to claim that such a PRO lacks a discourse controller, which means that it has arbitrary reference “and so denotes ‘any arbitrary person you care to mention’.”

<sup>34</sup> It is questionable, however, whether copulas represent transitive verbs, as implied by such an analysis.



Against this background, it seems plausible to analyse the reflexive infinitival clause in a copular construction such as (33) as a nominal infinitive, its postverbal position being the result of predicate raising, as informally indicated in 34.

34. [Njira ina ndi] ku - dzi - ph - a [ \_ ]  
 ↑ \_\_\_\_\_ ]

The lack of agreement between the RFM and an overt antecedent in nominal infinitives is also found in Chichewa expletive constructions, to which we now turn.

### 2.3.3 Expletive constructions

Expletive constructions in Chichewa involve the use of two verbal affixes, namely *ku-* or, less commonly, *pa-*. This is illustrated by the examples in (35a,b), respectively.<sup>37</sup>

35. (a) **Ku** - dza - khal - a [ku - dzi - funs - a mafunso]  
 EXP-T/A-be – FV INF-RFM-ask-FV 6.questions  
 “There will be asking oneself questions.”
- (b) **Pa** - na - li [ku - dzi - tam - a kwambiri]  
 EXP - T/A-be INF-RFM-praise-FV a lot  
 “There was a lot of praising of oneself.”

Consider first the prefix *ku-*. As pointed out in section 2.3.2, *ku-* can be used in various functions in Chichewa: (i) as a (locative) noun class 17 prefix<sup>38</sup>, (ii) as an infinitive marker (cf. the

<sup>37</sup> On the face of it, a related construction is the one containing the verbal prefix *zi-* (corresponding to the English impersonal pronoun *it*, and taking the form *za-* when followed by an affix expressing the present). An example of such a *zi-* construction is given in (i). As is the case with the expletive markers *ku-* and *pa-* in the constructions in 35, *zi-* in (i) does not have any descriptive meaning.

(i) **Zi**-ku-onek-a [kuti mphunzitsi wanu a-ma-dy-a mbewa]  
 SM-T/A-seem-FV COMP 1.teacher your 1SM-T/A-eat-FV 9.mice  
 “It seems that your teacher eats mice.”

According to Bresnan & Kanerva (1989:10), *zi-* “is the regular agreement marker for *kuti* complementizer clauses”. For an alternative analysis, cf. Msaka (2013:16-17). It is also possible that sentences like (i) represent so-called “extraposition constructions” of the sort analysed in previous versions of generative grammar (cf. e.g. Haegeman (1994:63). An analysis of *zi-* constructions falls outside the scope of this study and will not be attempted here.

infinitival clauses in (35), (iii) as a T/A marker (cf. note 30), and (iv) as an expletive affix, as shown in (35a). Similar to *ku-*, the prefix *pa-* can also be used as a (locative) noun class prefix, specifically class 16<sup>39</sup>, and as an expletive prefix as in (35b).<sup>40</sup>

A salient characteristic of expletive sentences in Chichewa is the absence of an overt DP in subject position, as shown in (35).<sup>41</sup> In these examples, the RFM *-dzi-* that follows the *ku-*

<sup>38</sup> According to Bresnan (1991:62), “in Chichewa, locatives are ... gender classes; that is, they are part of a system that signals contrasts between grammatical categorizations of people, things, locations, qualities, and the like – kind of things (genera) designated by NPs”. This use of locatives is illustrated by the example in (i) from Bresnan (1991:60). For discussion of locatives in other Bantu languages, cf. e.g. Salzmann (2004), Demuth (1990).

- (i) a. Mwana a - na - pez - edw - a      **ku** - dambo  
1.child 1SM-T/A-find-PASS-FV 17.LOC-swamp  
“The child was found in the swamp.”
- b. **Ku** - dambo      ku - na - pez - edw - a      mwana  
17.LOC-swamp 17SM-T/A-find-PASS-FV 1.child  
“In the swamp was found the child.”

<sup>39</sup> This use is illustrated by the following example from Bresnan (1994:112)

- (i) a. A-lendo a-ma-pa-kond-a      **pa** - mudzi.  
2.visitors 2SM.-T/A-love-FV 16.LOC-3.village  
'Visitors love it, the village.'
- b. **Pa** - mudzi      pa-ma-kond-edw-a      ndi      alendo.  
16.LOC-3.village 16SM-T/A-love-PASS-FV by 2.visitors  
'The village is loved by visitors.'

In addition to *ku-* and *pa-*, the prefix *mu-* is also used as a locative expression in Chichewa (corresponding to the English preposition *in/inside*); an example illustrating this use of *mu-* is given in (ii). However, unlike *ku-* and *pa-*, *mu-* cannot be used as an expletive marker in Chichewa.

- (ii) a. Galu a - na - gon - a      mu - galimoto  
1.dog 1SM-T/A-sleep-FV 18.LOC-5.car  
“The dog slept in the car.”

<sup>40</sup> The prefixes *ku-* and *pa-* seem to be interchangeable in their expletive use. In other words, (35a) would be acceptable with the expletive *pa-* and (35b) with *ku-*, although it must be noted that the judgements of native speakers are not very firm in these two particular cases. In contrast, a sentence such as the following seems to be fully acceptable with either *ku-* or *pa-* in their expletive use:

- (i) a. **ku** - li - be      ku - gon - a      lero  
EXP-be-NEG INFN-sleep-FV today  
“There is no sleeping today.”
- b. **pa** - li - be      ku - gona      lero      today  
EXP-be-NEG INF-sleep today  
“There is no sleeping today.”

It should also be noted that there is a subtle difference in interpretation between expletive sentences containing *ku-* and *pa-*. In an intuitive sense, sentences with *ku-* seem to involve “some general situation somewhere else”, whereas those with *pa-* seem to involve “some identifiable situation in the discourse context”, as illustrated by the examples in (i a,b), respectively. Although it seems plausible that this difference can be ascribed to some or other pragmatic factor, it will be left here as a topic for further investigation. For a discussion of a similar difference between *ku-* and *pa-* in their locative use in Chichewa and other related languages, cf. Salzmann (2004), Bresnan 1994, 1991

<sup>41</sup> Bresnan & Kanerva (1989:10) argue that there is no evidence of expletive constructions in Chichewa, and that *ku-* constructions actually represent “locative inversion” constructions. However, it is claimed in studies of other

infinitival marker in the infinitival clause does not enter into a coreferential relationship with any overt expression in the sentence. As in the case of nominal infinitives, the RFM is invariably interpreted in expletive sentences like (35) as “oneself”.

To summarise, it was shown in sections 2.3.1-2.3.3 that the RFM in Chichewa invariably takes the form *-dzi-*, that is, it does not show any morphophonological agreement with an overt antecedent expression. Still, *-dzi-* does enter into a coreferential relationship with the subject of the sentence, most likely mediated by the SM. It will be argued in Chapter 5 that, in constructions lacking an overt subject, *-dzi-* nevertheless enters into a coreferential relationship with a covert subject, namely PRO.<sup>42</sup>

## 2.4 Conclusion

The main objective of this chapter was to provide a non-formalistic description of reflexives and obligatory reflexive constructions in Chichewa. In section 2.2, the structural organization of the Chichewa verbal complex was described as background for the analysis of the reflexive marker, which surfaces as a verbal affix in Chichewa. Section 2.3 started with a general description of reflexive forms in Chichewa. The section illustrated the distribution of the reflexive affix *-dzi-* in three different types of construction, namely verbal object constructions, infinitival constructions, and expletive constructions. It was observed that the use of *-dzi-* in verbal object constructions and in infinitives in their verbal use yields obligatory reflexive interpretations, with the RFM entering into a coreferential relationship with the subject DPs, likely mediated by the SM. However, when used in infinitival constructions in their nominal use, that is, where the construction lacks an overt subject, *-dzi-* invariably receives the arbitrary interpretation “oneself”.

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Bantu languages that expletive constructions do in fact occur in this language family; cf. e.g. Perez (1983) and Du Plessis (2010). Many of the observations made in these studies are also consistent with Chichewa data, thus providing a measure of support for the expletive analysis adopted in this study.

<sup>42</sup> Because of the limited scope of this study, expletive reflexive constructions will not be examined in chapter 5. As will be made clear in section 5.3.4, it is likely that this type of construction can be analysed in the same manner as infinitival nominal reflexive constructions.

## Chapter 3

### Previous analyses of reflexives in Chichewa and other Bantu languages

#### 3.1 Introduction

This chapter presents a review of previous analyses of reflexive constructions in Chichewa and related languages of the Bantu family, though it should be noted that not much has been written on this topic. The available literature is broadly concerned with two issues. The first is to provide a description of the reflexive affix (RFM), specifically to determine whether it is a type of OM or a valence-changing morpheme such as the reciprocal marker (RECP). Related to the first, the second issue is to provide an account of how reflexive constructions are derived and how the relationship between the RFM and its antecedent is established. The aim of this chapter is to describe, in broad outline, how these issues have been dealt with in the relevant works. The rest of the chapter is organised as follows. Section 3.2 reviews the studies on Chichewa reflexives reported in Mchombo (1993, 2004, 2007). Section 3.3 reviews the analysis of Shona reflexives put forward in Stroschenko (2009). The next section, section 3.4, reviews Sikuku's (2012) analysis of the reflexive construction in Lubukusu. Finally, section 3.5 presents Amidu's (2004, 2011) analysis of reflexives in Kiswahili. As will be shown, Amidu's views on reflexivity differ significantly from those of Mchombo, Stroschenko and Sikuku.

#### 3.2 Mchombo's (1993, 2004 & 2007) analyses of reflexives in Chichewa

This section reviews three works that deal with some aspects of Chichewa reflexives, namely Mchombo (1993, 2004, 2007).<sup>43</sup> In all these works Mchombo analyses the RFM in Chichewa as “a syntactic argument functioning as the object of a transitive verb”, in other words, a pronominal argument that is incorporated into the verbal complex. In Bantu studies the incorporation of an object argument has traditionally been associated with the OM. According to Mchombo (2007:208), the OM is “an incorporated pronominal argument that is anaphorically bound by an

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<sup>43</sup> Mchombo's main objective in these works is not to develop an analysis of Chichewa reflexives per se, but to provide supporting arguments based on the description of reflexives and reciprocals for treating syntax and morphology as distinct modules of the grammar.

antecedent *within the discourse structure* (my italics – PM).”<sup>44</sup> However, Mchombo (1993:197) states that the RFM “differs from the OM in being an anaphor in the traditional sense, that is, a syntactic argument which is referentially dependent and whose referential dependency must be resolved *within an appropriate local domain* (my italics – PM).” In broad terms, then, Mchombo’s analysis implies that the derivation of the RFM would be along essentially the same lines as that of the conventional OM, the only difference being the domains in which the antecedent of the OM and the RFM is established, namely a discourse domain vs. a local structural domain that is defined in terms of c-command.

As regards the establishment of a coreferential relationship with the subject, Mchombo (1993:200), working within the theoretical framework of Lexical Functional Grammar (LFG), claims that the RFM and the subject antecedent participate in a type of “syntactic binding” which occurs in the f(unctional) structure.<sup>45</sup> He further claims that it is at this level of the grammar that “the functional attribute OBJ is linked to the functional attribute of SUBJ to indicate syntactic binding of the object by the subject” (Mchombo 1993:200). As regards the bound nature of the RFM, he goes on to argue that the question whether “functional attributes are encoded as a free standing lexical item or as a morphologically bound unit” is addressed at the more concrete level of what is termed “c(onstituent) structure” in LFG. The interpretation of the reflexive is therefore determined by two important factors. The first is the structural configuration that enables the subject of the sentence to enter into a particular relationship with the RFM, in this case within a particular local domain.<sup>46</sup> The second is that elements that are found in this configuration can have their functional attributes, SBJ and OBJ, linked.

Although this analysis seems to account for examples such as the one in (1) below (Mchombo 2007:209), two potential problems should be raised here. Firstly, the analysis does not explain how and why the functional attributes OBJ and SBJ would be linked when found within the local

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<sup>44</sup> Cf. e.g. Bresnan & Mchombo (1986, 1987); Chimbutane (2003); Deen (2004); Dlayedwa (2002); Letsholo (2002); Rubanza (1988). For alternative analyses of the OM, especially those taking the OM as an agreement marker, cf. Kramer (2011), Buell (2011), Riedel (2009); cf. also section 2.3, fn. 19.

<sup>45</sup> Within LFG, the f-structure is an abstract level of the grammar which is equivalent to the s-structure in GB theory (Sells 1985:136).

<sup>46</sup> This local domain seems to be similar to a c-command domain within GB. Although Mchombo(1993) was not explicit on this point, in his later work on reflexive constructions in Chichewa (Mchombo 2007:207) he explicitly shows the binding conditions as involving a configuration [...X...[...Y...]] where Y is the dependent element (the bindee) which “has its construal determined by its binder”, X in this case.

domain configuration. For instance, it remains to be explained why these attributes are linked in the case of a subject and a RFM but not in the case of a subject and a OM.

1. Anyaní a-ku-dzí-mángílil-á ku nthámbí  
 2.baboon 2SM-pres-reflex-tether-fv 17.loc 9.branch  
 “The baboons are tethering themselves to the branches.”

The second, related problem concerns sentences such as the one in (2) that Mchombo (2007:209) describes as expressing a “long-distance anaphoric relationship”.

2. Mikángó sí-í-ku-fún-á kutí nkhandwe zi-uz-é anyaní kutí  
 4.lion Neg-4SM-pres-want-fv that 10.fox 10SM-tell-subjun 2.baboon that  
 í-ma-dzi kând-a  
 4SM-hab-reflex-scratch  
 “The lions do not want the foxes to tell the baboons that they (lions) scratch themselves”

According to Mchombo (2007:209), the interpretation of the reflexive in (2) is through the aid of the intervening SM *-i*, where the SM gets its interpretation from the subject *mikango* (“the lions”). However, in this case the SM is not in the local domain of the subject; hence Mchombo claims that SM is bound by *mikango* in the broader discourse domain.<sup>47</sup> Turning to the coreferential relationship between the RFM *-dzi-* and the SM *-i-*, Mchombo (2007:209) states that it is “certainly, an aspect of syntactic binding in the standard sense, constrained by principles of bound anaphora”, where syntactic binding is characterised as the “strategy by which referential dependencies are resolved in linguistic expressions” (Mchombo, 1993:198). The question that arises, however, is what would prevent the RFM from participating in the long distance (discourse-based) coreferential relationship. In short, it would seem that Mchombo’s analysis fails to go beyond a mere description of the properties of reflexives in Chichewa.

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<sup>47</sup> Cf. also Partee (1978:2) in this regard.

### 3.3 Storoshenko's (2009) analysis of reflexives in Shona

In the course of describing the syntax of reflexivity in Shona, Storoshenko (2009) also provides an overview of this phenomenon in four other Bantu languages, namely Xhosa, Tswana, Kikamba and Zulu. In terms of Storoshenko's analysis, there are no significant differences between Shona reflexive constructions and those of the four other Bantu languages. The observed similarities between these languages also hold for the reflexive constructions in Chichewa. In all these languages the RFM is a bound morpheme occurring between the T/A slot and the verb stem, as illustrated by the Shona example in (3) (Storoshenko 2009:42).

3. Mbuzi ya-ka-zvi-pis-a  
 9.goat 9SM-PST-RFM-burn-FV  
 "The goat burned itself."

Similar to Mchombo, Storoshenko (2009) also addresses the two central problems of Bantu reflexive constructions, namely (i) the grammatical status of the RFM and (ii) how to account for the coreferential relationship between the RFM and the subject. As regards the first problem, Storoshenko argues that the RFM belongs to a set of OMs. However, he (2009:43) does not take a firm position on the grammatical status of the OM in Bantu in general, stating instead that irrespective of whether it is viewed as a clitic pronoun or a marker of agreement, the OM "represents an argument in the original theta-role position of the object." In this regard, the Shona RFM morpheme "zvi should be considered as a member of the set of object markers, interpreted at the theta position of the argument it replaces" (Storoshenko, 2009:51). In other words, like Mchombo, Storoshenko analyses the RFM as a type of OM.

Having analysed the RFM in this manner, Storoshenko (2009:53) proposes that the relationship between the RFM and its antecedent, the subject, can best be analysed as "semantically...falling under a bound variable analysis." It should be noted, though, that Storoshenko's conception of bound variables differs from that associated with the conventional antecedent-anaphor approach assumed in Mchombo's analyses.<sup>48</sup> In terms of the conventional approach, the antecedent and the

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<sup>48</sup> Storoshenko's (2009) conception of bound variables seems to be in line with Pinker's (1994:378) statement that bound variables do not enter into the usual antecedent-pronoun relationship but rather figure in the logical relationship obtaining between "a quantifier" and "a bound variable". For example, in *Everyone returned to their*

anaphor agree with regard to particular features (person, number, etc.), with the anaphor representing the bound variable. In contrast, in his analysis of reflexivity in Shona, Storoshenko (2009:54) advocates “a generalised quantifier analysis” of the antecedent-anaphor relationship where all nominal expressions, including proper names, are treated as quantifiers. On this analysis, “all uses of *zvi* [are brought – PM] under one binding analysis.”

The proposal that all nominal expressions in Shona (and by extension, the other members of the Bantu family as well) should be treated as quantifiers raises the question of how the grammar will differentiate between DPs modified by “real quantifiers” such as *all*, *every*, *some*, etc. and regular non-quantified DPs, for instance between the Chichewa expressions *mwana aliyense* (“every child”) and *mwana* (“the/a child”), respectively.

The idea that the reflexive is simply a placeholder (cf. note 47) that does not agree in terms of  $\phi$ -features with its antecedent is also not in line with the facts of reflexivity described in chapter 2. In section 2.3.2 and 2.3.3 it was showed that even though the RFM has the invariant form *-dzi-* in Chichewa, its interpretation is sensitive to the  $\phi$ -features of its antecedent, yielding readings such as “he”, “they”, “it”, “oneself”, etc.<sup>49</sup>

### 3.4 Sikuku’s (2012) analysis of reflexives in Lubukusu

Sikuku’s (2012) study deals with reflexive constructions in Lubukusu, a Bantu language spoken in Western Kenya. The description that he provides shows that reflexivity in Lubukusu is expressed in the same manner as in the other Bantu languages referred to in the preceding sections. As illustrated in (4), the RFM in Lubukusu takes the form *-i-* (Sikuku 2012:1).

4.       Yohana           a-a-i-bon-a  
           John           SM-PST-RFM-saw-fv  
           “John saw himself.”

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*seats* the pronoun *their* is simply a placeholder, as shown in the logical expression “For all X, X returned to X’s seat”, where X “does not refer to any particular person or group of people” (Pinker 1994:378). Evidence for this view comes from the lack of number agreement between *everyone* and *their*; in this case there is no plural number agreement because *their* “refers neither to one thing nor to many things; it does not refer at all” (Pinker 1994:378). Notice that this view cannot be applied to reflexives since they do in fact refer to some or other entity, albeit via the antecedent.

<sup>49</sup> It will be argued in section 5.3.3 that the RFM *-dzi-* lacks certain  $\phi$ -features in infinitival nominal constructions.

There are however some aspects of Lubukusu syntax that have not been reported in the studies referred to in the preceding sections. The first relates to the phenomenon that the RFM is doubled in clauses that contain a ditransitive verb, as illustrated in (5a). In this case; RFM doubling has the effect that two distinct RFMs enter into a coreferential relationship with the same antecedent.<sup>50</sup> In contrast, doubling of the OM is not permitted, as shown by the ungrammaticality of (5b) (Sikuku 2012:10).

5. (a) Khalayi            a-a-**i-i**-siim-isy-a  
           Khalayi            SM-T/A-RFM-RFM-like-Caus-FV  
           “Khalayi made herself like herself”
- (b) \*Wamalwa        a-**mu-ba**-siim-isy-a  
           Wamalwa        SM-OM-OM-cook-APP-fv  
           “Wamalwa made him like them.”

As shown in (5a) the doubled *-i-* in the verbal complex *aa<sup>i</sup>isiim<sup>i</sup>isya* expresses double reflexivity.

The second aspect pertains to co-occurrence restrictions involving the OM, the RFM and object expressions. These restrictions are summarised in (6) (Sikuku 2012:7).

6. (a) \*OM+OM  
      (b) \*OM+nominal object DP  
      (c) \*RFM+nominal object DP.

However, the OM and the RFM can each co-occur with a pronominal expression as illustrated in (7) (Sikuku 2012:7). In (7a) the RFM *-i-* co-occurs with the morphologically complex pronominal form *omueene* (“himself”), and in (7b) the OM *-mu-* co-occurs with the object pronoun *niye* (“him”).<sup>51</sup>

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<sup>50</sup> In Chichewa this would be expressed by two independent verbs in which the reflexive can only be used once, as shown in (i):

- (i) Mnyamata            a - na - dzi - chit - its - a            ku - dzi - kond - a.  
      1.boy                1SM-T/A-RFM-do-CAUS-FV            INF-RFM-love-FV  
      “The boy made himself to love himself.”

<sup>51</sup> The glossing (specifically the use of the term Foc(us) provided by Sikuku for the sentence in (5b) suggests that the pronoun serves to express emphasis. Note that the pronominal expression co-occurring with the RFM in (5a) is

7. (a) Wekesa a-a-**i**-siim-a **o-mu-eene**  
 Wekesa SM.1-Pst-RFM-like-fv c1-c1-own  
 “Wekesa likes himself.”
- (b) Wekesa a-a-**mu**-siim-a **ni-ye**  
 Wekesa SM.1-Pst-OM1-like-fv Foc-him  
 “Wekesa likes him.”

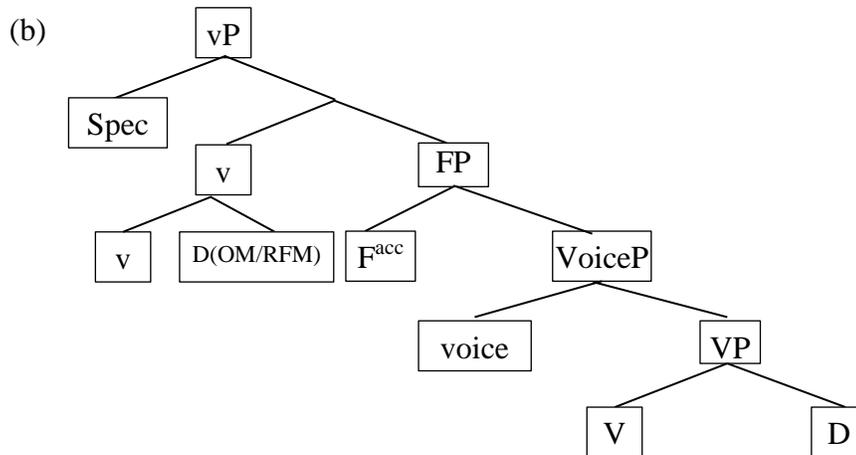
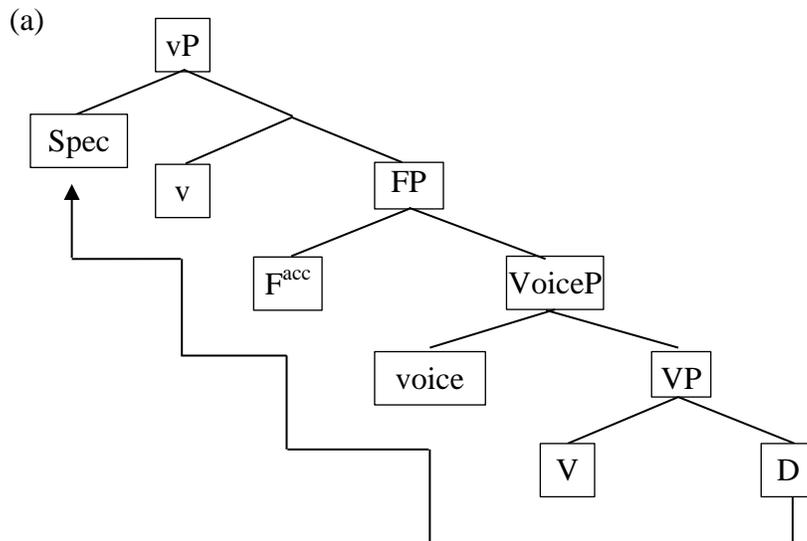
Based on facts such as those presented above, Sikuku (2012:8) argues that the similarities between the RFM and the OM can be accounted for by analysing both these affixes as pronominal elements that initially occupy the same object argument position. In essence, this analysis is in line with Mchombo’s (1993, 2004, 2007) and Storoshenko’s (2009) view that the RFM in Bantu is a type of OM.

Sikuku (2012:12) claims that the differences between the RFM and the OM in Lubukusu can be accounted for in derivational terms, stating that the RFM “targets a different kind of head from that of the OM”. More specifically, he (2012:12) analyses the RFM as a voice marker, similar to the reciprocal (RECP) and the passive marker. The RFM is therefore claimed to occupy a slot that is different from the one occupied by the OM. In terms of Sikuku’s analysis, the verbal complex is syntactically derived through a number of stages involving several functional heads (see the structures in (8) below). In such a derivation, the slot for the RFM is claimed to be lower than the slot targeted by the OM; where the latter is taken to be a  $F^{acc}$  (FC) head. As noted above, Sikuku (2012:7, 13) argues that the OM and the RFM are both generated in the V’s complement position [V, DP]; these elements subsequently undergo D movement to [spec  $vP$ ] via their respective functional heads as illustrated in (8) below. Hence, according to Sikuku (2012:13), the facts relating to the RFM and OM can be explained by means of two operations: (i) D movement to [spec  $v$ ] via the relevant functional heads, and (ii) merger of the D head into the light verb resulting in a verbal complex. The D movement and merge operations are illustrated in the diagrams in (8a) and (8b), respectively.

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equivalent to what we have termed a “reflexive emphasiser” in Chichewa (cf. section 2.3, cf. also Jokwani 1991:83).

8.



Similar to the other studies reported in the preceding sections of this chapter, one potential problem with Sikuku's analysis is that it does not address the issue of how the RFM eventually comes to be interpreted as coreferential with the subject DP. This issue is central to the analysis of reflexivity in Chichewa that will be put forward in chapter 5.

### 3.4 Amidu's (2004, 2011) analyses of reflexives in Kiswahili

Consider the typical Kiswahili reflexive construction in (9) (Amidu 2011:34). As shown in this example, reflexivity in Kiswahili is expressed by means of the RFM *-ji-*. As in the other Bantu languages described above, the RFM occupies the slot between the T/A marker and the verb stem.

9. Ahmed a - na - ji - pend - a  
 Ahmed SM-T/A-RFM-love-FV  
 “Ahmed loves himself.”

According to Amidu (2011:92), previous studies of Kiswahili grammar, such as Ashton (1947) and Vitale (1981), have analysed the RFM *-ji-* as “a special type of object marking referring to an object NP which is coreferential to another NP” in the structure. These studies take a similar view of Bantu reflexivity as that found in the works of Mchombo, Storoshenko, and Sikuku.

In contrast to this view, Amidu (2004, 2011) observes that Vitale’s (1981) analysis of reflexive constructions in Kiswahili was presented within the specific framework of generative grammar, a general linguistic theory that was essentially developed by scholars investigating Indo-European languages. He argues that the assumption that such general linguistic theories are necessarily also applicable to languages belonging to other families, led to a complete disregard of the “Kiswahili Bantu specific pattern of reflexivisation” (Amidu 2011:34). In this regard, Amidu (2011:1) claims that his works offer a novel description of reflexives and reciprocals in Kiswahili, one that does not adopt the assumptions and devices of conventional (specifically generative) linguistic theories. He (2011:3, 39, 56) moreover claims to have identified two reflexive elements in Kiswahili – besides the affix *-ji-* illustrated in (9) – which have apparently not been considered in any detail before, namely what he refers to as the “nominal reflexive anaphors” *nafsi* (“self, life, spirit”) and *roho* (“soul, self, life”).<sup>52</sup> The use of these elements is illustrated in (10a,b), respectively. Note that the reflexive forms *nafsi/roho* in (10) co-occur with the OM *-i-* in the verbal complex; this OM furthermore agrees with the accompanying nominal reflexive anaphor in terms of  $\phi$ -features (Amidu 2011:93).

10. (a) Ahmed a - na - i - pend - a [nafsi yake]  
 Ahmed SM-T/A-OM-love-FV self POSS  
 “Ahmed loves himself.” (lit. “Ahmed loves his self/being/spirit.”)

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<sup>52</sup> Interestingly, these two reflexive elements are also found in some varieties of Arabic, including Standard, Palestinian and Western Libyan Arabic, where they take the forms *rooh(ruh)/nafs*+personal (or perhaps possessive) pronoun as in *rooh ha* and *nafs ha* (“herself”); cf. e.g. Fehri (1993, 2007); Kremers (1997); Mohammad (2000); Tawfiq (2009). It is quite likely that Kiswahili has borrowed these elements from Arabic, since there is a long history of contact between these languages (cf. e.g. Baldi 1988; Versteegh 2006). Additionally, the behaviour of these anaphors seems to be similar to expressions which, in Oosthuizen’s (2013:26) words, describe an “inalienable or non-transferable attribute”. An example of such an expression in English would be *John cherished her memory in his heart*. These observations will not be pursued further in this study.

- (b) Kijana yule a - li - i - tet -e - a [roho yake]  
 youth that SM-T/A-OM-obstruct-APPL-FV life POSS  
 “That youth defended his/her life.”/ “That youth defended himself/herself”

Based on these observations, Amidu (2011:93) argues that the RFM “{ji} is not an object prefix or object marker in Kiswahili Bantu”; he instead claims that the RFM is like the nominal reflexive anaphors *nafsi* and *roho*, the only difference being that the RFM is “an incorporated monosyllabic NP that cannot stand as an independent constituent in the post-verbal position of a PC [predicate constituent structure - PM] by itself.” Amidu (2011:94) goes on to argue that the RFM “{ji} is a parasitic morpheme, mostly likely a noun in origin that occupies the slot of OMs in PCs. As far as we know, nouns do not function as agreement concord markers in Kiswahili Bantu.”

As regards the RFM’s noun class features, Amidu (2011:102) argues that since the RFM behaves like the nominal reflexives *nafsi* and *roho*, which belong to noun classes 9 and 10 respectively, the RFM should also be analysed as belonging to these classes. He claims that the RFM has two phonetic forms, *ji-1* and *ji-2*, which represent allomorphs of the abstract form *Ji*. In this analysis the lexical meaning of *Ji/ji* is regarded to be equivalent to the item *-self* of English (Amidu, 2011:106).

Amidu (2004:80-85) states that there are instances where nominal expressions (NPs, in his terms) are coreferential but fail to give a reflexive reading. For this reason, he (2011:127) rejects the idea that coreferentiality is necessarily linked to reflexivity in Kiswahili. On his analysis, reflexive elements enter the derivation just like any other object complements, with no link between the reflexive and an antecedent. At least structurally, then, there is no distinction between a reflexive and a nominal expression that does not enter into any coreferential relationship. Clearly, what remains to be clarified is how a coreferential relationship between the reflexive and some other expression – especially where such a relationship is obligatory, as in (9) – is established. Amidu (2004, 2011) fails to address this issue, however.

### 3.5 Summary

This chapter presented a brief overview of four relatively recent studies of reflexive constructions in Chichewa and other Bantu languages. These studies are generally concerned with two key issues: (i) the grammatical status of the RFM and (ii) the establishment of the coreferential relationship between the antecedent and the RFM. As regards the first issue, the four analyses share the view that the RFM represents a type of incorporated argument that functions as the complement of a transitive verb. As regards the second issue, three of the studies take essentially the same approach, namely that the reflexive element co-occurs with its antecedent in a particular structural configuration; however, these studies differ as to how the coreferential relationship between these elements is established. More specifically, Mchombo (1993, 2004, 2007) posits a LFG-based binding relationship between the antecedent and the RFM, whereas Storoshenko (2009) proposes a bound variable analysis of the RFM. Sikuku (2012), working within a minimalist framework, does not address the question of how coreferentiality is established, focusing instead on the differences in nature between the RFM and the OM. The fourth study, that of Amidu (2004, 2011), differs radically from the others in that it rejects the idea that coreferentiality and reflexivity are necessarily linked in Kiswahili. On Amidu's analysis, reflexives are syntactically indistinguishable from other nominal complement expressions. This raises the question of how instances of obligatory reflexivity would be accounted for, an issue that is not addressed by Amidu (2004, 2011). In short, all four of the analyses fail to provide a proper account of how the coreferential relationship between the RFM and the antecedent is established.

## Chapter 4

### Theoretical framework

#### 4.1 Introduction

The main aim of this chapter is to describe a recent minimalist account of reflexive constructions in Afrikaans, as well as some proposals regarding its extension to Bantu languages such as isiXhosa. The first section, section 4.2, provides a brief overview of the core assumptions and devices of Minimalist Syntax that are relevant for the subsequent discussion. This overview is organised around the minimalist conception of the human language faculty and some architectural features of (a) grammar. This is followed by a description of various formal devices used in minimalist analyses of sentence structure, in particular devices such as merge and move, probe and goal, grammatical features, and feature valuation. The second section, section 4.3, provides a description of the minimalist analysis of obligatory reflexivity, the Nominal Shell Analysis (NSA), proposed by Oosthuizen (2013). In describing the NSA, the focus will be on the manner in which this analysis accounts for the derivation of Afrikaans verbal object constructions containing an (obligatory) reflexive pronoun. Section 4.4, the final section of the chapter, provides a brief outline of a similar analysis applied to isiXhosa, a Southern Bantu language.

#### 4.2 Some Minimalist Assumptions and Devices

Minimalist Syntax (MS) represents the most recent model of grammar within the broad generative approach to linguistic inquiry.<sup>53</sup> The general line of inquiry taken within MS is characterised as follows by Chomsky (1995:1):

This work is motivated by two related questions: (1) what are the general conditions that the human language faculty should be expected to satisfy? and (2) to what extent is the language faculty determined by these conditions, without special structure that lies beyond them? The first question in turn has two aspects: what conditions are imposed on the language faculty by virtue of (A) its place within the array of cognitive systems of the mind/brain, and (B) general considerations of conceptual naturalness that have some independent plausibility, namely, simplicity, economy, symmetry, non-redundancy, and the like?

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<sup>53</sup> MS developed out of the so-called Government-Binding (GB) model. For a detailed discussion of the similarities and differences between MS and GB, cf. e.g. Chomsky (1995) and Hornstein et al. (2005).

The MS assumptions and devices that are relevant for the present study can be grouped into two broad types, namely (i) those that concern the general model of the human language faculty and (ii) those that concern the technical aspects involved in sentence derivation. A brief outline of these assumptions and devices is given below.

Within the MS framework, the human language faculty is assumed to consist of two broad modules, a lexicon and a computational system (Chomsky 1995:6; Hornstein et al. 2005:15). The lexicon contains substantive lexical items, each with their general and idiosyncratic properties, as well as functional items. In order to construct a sentence, a set of relevant items – referred to as a Numeration or a lexical array – is selected from the lexicon.<sup>54</sup> The computational system incrementally arranges items from the Numeration in a specific way to form a pair, a phonetic form (PF) object and a logical form (LF) object (Nunes 1998:13). These two types of output, PF and LF objects, are mapped to the phonetic component (yielding a phonetic spell out of the structure) and the semantic component (specifying the linguistic aspects of the structure's meaning), respectively (Radford 2009:14). Within MS, the levels of linguistic representation are limited to only these two. Chomsky (1995:393) posits that the PF and the LF form the input to, respectively, the articulatory-perceptual (A-P) and the conceptual-intentional (C-I) performance systems, two distinct modules of the mind.

Another key assumption of MS concerns the interface between linguistic levels and the performance systems.<sup>55</sup> In terms of this assumption, LF and PF representations which are sent to the thought and speech interface systems, respectively, “should contain only elements which are legible by the appropriate interface system – so that the semantic representations handed over to thought systems contain only elements contributing to meaning, and the PF representations handed over to speech systems contain only elements which contribute to Phonetic Form (i.e. to determining how the sentence is pronounced)” (Radford 2009:10). In short, if the LF and PF objects formed by the computational system contain features that are legible at the relevant

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<sup>54</sup> According to Hornstein et al. (2005:69), “If the computational system had direct access to the lexicon at any time, it's not obvious how it could be determined when a given derivation has finished and this in turn may lead to unwanted economy computations.”

<sup>55</sup> Radford (2009:9) states that, for Chomsky, “language is a perfect system of optimal design in the sense that natural language grammars create structures which are designed to interface perfectly with other components of the mind – more specifically with speech and thought systems.”

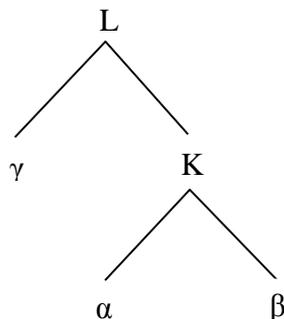
interface system (i.e., if they satisfy the principle of Full Interpretation),<sup>56</sup> the derivation is said to converge at LF and at PF, respectively. However, if either one of the outputs are illegible (i.e., fail to satisfy Full Interpretation), the derivation is said to crash at their respective interface levels (cf. e.g. Hornstein et al. 2005:15; Nunes 1998:12).

The nature and function of some of the grammatical features that are involved in a derivation will be made clear in the course of the discussion below. Next, we present a brief account of how a syntactic structure is derived within the MS framework.

### 4.2.1 Merge and Move Operations

Within MS, a sentence is derived by combining elements in a stepwise, binary fashion through a syntactic operation known as Merge. Two general types of Merge are provided for, namely External and Internal Merge (Hornstein et al. 2005:ch.6; Radford 2009:ch.2). These two types can be illustrated as follows. Given a Numeration containing the three lexical items  $\{\alpha, \beta, \gamma\}$ , External Merge selects two of these items,  $\alpha$  and  $\beta$ , to form the structure, K. A second application of External Merge then combines K with the third item of the Numeration,  $\gamma$ , to project the structure L (Hornstein et al. 2005:210). The result of these two steps can be represented in the form of either the tree diagram in (1a) or the equivalent labelled-bracketing in (1b).

1. (a)



(b)  $[_L \alpha P [_K \alpha \beta ] ]$

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<sup>56</sup> For the principle of Full Interpretation, cf. e.g. Chomsky (2005:27, 151) Hornstein et al. (2005:8, 15).

The category label of K is determined by one of its constituent parts. For instance, if  $\alpha$  is a verb taking  $\beta$ , a nominal expression, as its complement, then K would be labelled  $VP^1$  with the verb forming the head of the phrase; and if  $\gamma$  is a nominal expression selected as the specifier of the verb, then L would be labelled  $VP^2$ , which means that the verb has projected twice.<sup>57</sup> In the configuration just described, the head  $\alpha$  enters into two local relationships, namely a head-complement relation (between  $\alpha$  and  $\beta$ ) and a spec(ifier)-head relation (between  $\alpha$  and  $\gamma$ ) (Hornstein et al. 2005:202).

In contrast to External Merge, Internal Merge does not involve items that are directly selected from the Numeration, but only items that have already been merged in previous stages of the derivation. This type of operation is applied when an item in an existing structure is copied and the copy is then merged in some other position (or in a projection) of that structure, thus creating the effect of movement.<sup>58</sup> Movement (i.e. Copy-Merge) is generally taken to be triggered by a property of a grammatical feature that needs to be satisfied. Next we briefly explore the types and properties of some of the grammatical features that are involved in a derivation.

#### 4.2.2 Features and feature valuation

It was stated earlier that for an LF object and a PF object to be legible at their respective interface, they should only be carrying LF-related and PF-related features, respectively. The general set of grammatical features includes phi( $\phi$ )-features (e.g. gender, number and person), case features (e.g. nominative, accusative), and tense features (e.g. past, present, future). The interpretation of a particular feature is closely linked to the category carrying it. For instance,  $\phi$ -features are interpretable at C-I if they are part of a noun but not as part of a verb; however, in a language such as English the  $\phi$ -features of person and number are interpretable with both nouns and verbs at the A-P interface as is evident from overt subject-verb agreement. In contrast, case-features are interpreted on English nominal expressions at A-P but not at C-I, as shown by the different pronoun forms in that language (Nunes 1998:26). To put this more concretely, consider

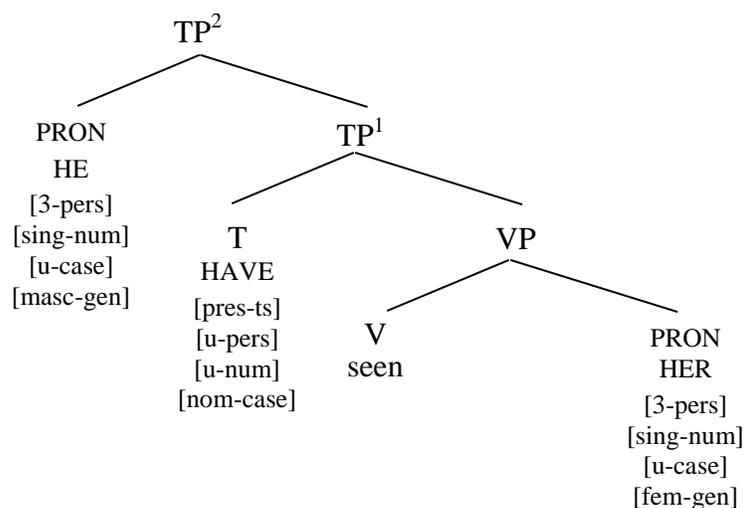
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<sup>57</sup> The projections  $XP^1$  and  $XP^2$  used in this study (where X = N, V, T, C, etc.) correspond to the projections  $X'$  (= X-bar) and XP in studies that (explicitly or implicitly) use the terminology associated with  $X'/X$ -bar-theory; cf. e.g. Hornstein et al. (2005), Radford (2009).

<sup>58</sup> Cf. e.g. Hornstein et al. (2005:212-216) for the Copy-Merge approach to movement operations.

the sentence *He has seen her*. It is generally assumed that personal pronouns enter the derivation with already valued  $\phi$ -features. Hence both *he* and *her* would have the features third person ([3-pers]) and singular number ([sing-num]), differing only with regard to gender, *he* being masculine gender ([masc-gen]) and *her* feminine gender ([fem-gen]). Similarly, a finite T(ense) constituent enters the derivation with a valued tense feature, present tense ([pres-tns]) in the case of the above example, resulting in HAVE eventually being spelled out as *has*. However, the person and number  $\phi$ -features of the T are unvalued ([u-pers, u-num]) as shown in the highly simplified structure in (2).<sup>59</sup> Note that the V and the T both contain a valued case feature, namely [acc(usative)-case] and [nom(inative)-case], respectively. In contrast, the two pronouns are both unvalued for case ([u-case]). (Following Radford's (2009:284) notation, HE and HER each represent a "case-independent characterisation" of the word which may receive different spell-outs (*he/him/his*, *she/her*) depending on the case that is assigned to it in the course of the derivation; similarly, HAVE can be spelled out as *has/have* depending on the  $\phi$ -feature values provided by *he*.)

2.



It is standardly assumed within MS that an unvalued feature on a category gets valued by the corresponding valued feature carried by some other category. In (2), for example, the unvalued  $\phi$ -features of the T are valued by those of the pronoun HE. The unvalued case features of the PRNs HE and HER are likewise valued by the case features carried by the T and the V, respectively. In

<sup>59</sup> This structure is broadly based on the one discussed by Radford (2009:284-7). For the sake of simplicity, the structure does not incorporate either the VP Internal Subject Hypothesis or the Verbal Shell Hypothesis; we consider these hypotheses in section 4.2.3 below. Also for the sake of simplicity, it is simply assumed in (2) that the auxiliary HAVE enters the derivation as an element under the T.

technical terms, the T and the V in (2) are known as “probes” and the two PRNs as “goals”. According to Hornstein et al. (2005:317), a probe is “a head with [un]interpretable features and a goal is an element with matching interpretable features”. There are a number of factors that constrain the way a goal is accessed. Firstly, it must occur within the probe’s c-command domain.<sup>60</sup> Secondly, a goal will only be accessible to the probe if no other element with the relevant features intervenes between it and the probe. Thirdly, a goal is only active if it has unvalued features; it becomes inactive and unable to participate in any feature valuation relationships once its features have all been valued (Hornstein et al. 2005:318). Valued features that are uninterpretable at C-I are eliminated or “stripped away” at the stage (technically known as the “phase”) where the relevant part of the structure is transferred to the LF component.<sup>61</sup>

### 4.2.3 Argument structure and theta role assignment

Taking the general spec(ifier)-head-complement configuration described in (1) as point of departure, let us now consider the manner in which the relationship between a predicate and its argument(s) is accounted for within MS. In line with proposals made in GB-theory, the expressions functioning as the direct object and the subject are both taken to originate in the predicate (or verbal) part of the sentence. This claim is expressed in the form of the VP Internal Subject Hypothesis (VPISH). According to this hypothesis, the internal argument  $\alpha$  (i.e. the direct object) and the external argument  $\beta$  (i.e. the subject) enter the derivation in the positions indicated in the simplified schema in (3) (Hornstein et al. 2005:80-81; Radford 2009:244).

$$3. \quad [{}_{VP}^2 \beta [{}_{VP}^1 V \alpha]]$$

In this configuration, the internal argument  $\alpha$  is theta marked (i.e. supplied with a particular semantic role, such as Agent, Theme, etc.) by the V in a head-complement relationship, whereas

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<sup>60</sup> The concept ‘c(onstituent)-command’ entails the following structural relationship (Chomsky 1995:35):

A constituent A c-commands a constituent B if A does not dominate B and every C that dominates A also dominates B.

For instance, in (2) the T c-commands the VP and everything dominated by the VP; the V, however, does not c-command anything outside of the VP.

<sup>61</sup> Cf. e.g. Hornstein et al. (2005:290-294, 345-351) in connection with the elimination of valued features that are uninterpretable at the C-I interface. For a discussion of the concepts ‘phase’ and ‘phase head’, cf. e.g. Hornstein et al. (2005:345-351) and Radford (2009:379-383).

the external argument  $\beta$  is theta marked by the  $VP^1$  in a spec-head relationship.<sup>62</sup> This analysis is problematic on several counts, however.<sup>63</sup> For instance, it fails to account for sentences containing a so-called ditransitive verb, as in the example in (4) where the verb *gave* takes both an indirect object and a direct object. Note that in a ditransitive construction the indirect object is not accompanied by a preposition and also precedes the direct object.<sup>64</sup>

4. He gave her a book.

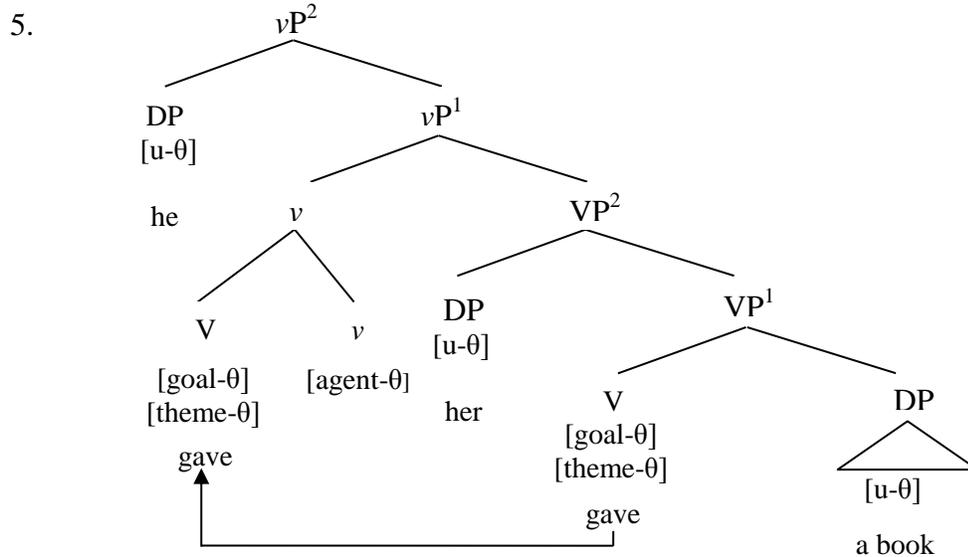
In this example, the verb apparently selects two internal arguments, *her* and *a book*, to which it assigns the theta roles of Goal and Theme, respectively. However, the schema in (3) does not provide for two internal arguments. The standard solution to this problem is to incorporate the notion of a light verb *v*, a functional category which takes a VP as its complement (Larson 1988; Chomsky 1995:62-63; Hornstein et al. 2005:80-98; Radford 2009:241-273). On this proposal, the external argument (i.e. the subject) originates in the specifier position of the light verb, from which it receives its theta role, whereas the direct object and the indirect object enter the derivation as the complement and the specifier of the V, respectively. The resulting structure will then take the form of the verbal shell configuration illustrated in (5). This structure incorporates two assumptions that will be addressed below, namely (i) the lexical V is raised to the light verb position and (ii) the lexical verb and the light *v* both contain valued  $\theta$ -features whereas these features are unvalued in the case of the three DP arguments.

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<sup>62</sup> We return shortly to the precise manner in which theta roles are assigned to the various arguments.

<sup>63</sup> For a discussion of the various problems raised by an analysis incorporating the structure in (3), cf. e.g. Hornstein et al. (2005:92-100), Larson (1988) and Radford (2009:345-368).

<sup>64</sup> Malchukov, Haspelmath & Comrie (2010:1) define a ditransitive (double object) construction as “a construction consisting of a (ditransitive) verb, an agent argument (A), a recipient-like argument (R), and a theme argument (T).” For discussion of such constructions, cf. e.g. Malchukov et al. (2010), Larson (1988).

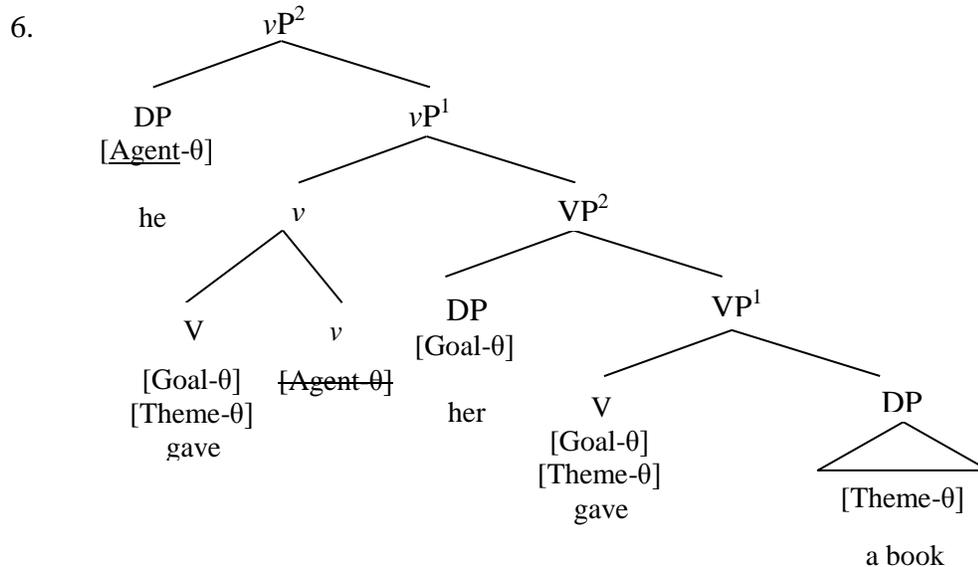


According to Hornstein et al. (2005:98) the *v* in (5) is phonetically null, and its meaning is “roughly speaking, heavily dependent on the meaning of its complement”, in this case the  $VP^2$  headed by *gave*. Note that the  $VP^2$  that is merged with the light verb already contains two internal arguments. The external argument is subsequently merged into the specifier position of the light verb, resulting in the verbal shell  $vP^2$  in (5). To achieve the surface word order in (4), the *v* is raised and merged with the light verb, as shown in (5).<sup>65</sup>

The structure in (5) incorporates the hypothesis that the lexical verb and the light verb both carry  $\theta$ -features. On the one hand, the  $\theta$ -features of the lexical verb serve to provide the unvalued  $\theta$ -features of the arguments in its complement and specifier positions with the values Theme and Goal, respectively; on the other hand, the light verb values the argument in its specifier position as Agent (Radford 2009:248, Oosthuizen 2013:47).<sup>66</sup> These  $\theta$ -valuation operations are indicated by the dotted lines in (6) below. In this structure, the features that have been valued in the course of the derivation are underlined, whereas the uninterpretable features supplying the relevant values are indicated by means of ~~strike through~~. These conventions will be followed throughout the rest of the study.

<sup>65</sup> According to Hornstein et al. (2005:99) the V-to-*v* raising is triggered by “a strong V-feature” carried by the light verb. Biberauer & Roberts (2006:282) characterise V-to-*v* raising as “a standard and possibly universal operation”.

<sup>66</sup> Cf. also Lee-Schoenfeld (2007) and Boeckx et al. (2010).



In short, then, theta role assignment is taken to be an instance of  $\theta$ -feature valuation in a probe-goal configuration, in essence the same type of operation that is assumed in the case of tense and  $\phi$ -feature agreement and case assignment.

### 4.3 The Nominal Shell Analysis of Obligatory Reflexivity

#### 4.3.1 Introduction

The purpose of this section is to provide a brief outline of the Nominal Shell Analysis of obligatory reflexivity (NSA) as proposed in Oosthuizen (2013). The key assumptions, devices and claims of the NSA will be described with reference to the derivation of the verbal object reflexive construction in Afrikaans. The final part of the section deals with Oosthuizen's proposals for extending the NSA to Southern Bantu languages such as isiXhosa.

#### 4.3.2 Core assumptions and devices of the NSA

To start with, consider the Afrikaans reflexive construction in (7) as contrasted to its non-reflexive counterpart in (8) below. In (7a), the subject *die man* ("the man") is interpreted as obligatorily coreferential with the pronoun *homself* ("himself"), whereas in (8) the subject and the pronoun cannot be interpreted as coreferential. As illustrated with the use of the subscripts, (8a)

shows that the subject and the pronoun are not coreferential – a coreferential interpretation is not possible in the case of (8b).

7. (a) Die man<sub>i</sub> haat homself<sub>i</sub>  
 the man hates himself  
 “The man hates himself”
- (b) \*Die man<sub>i</sub> haat homself<sub>j</sub>
8. (a) Die man<sub>i</sub> haat hom<sub>j</sub>  
 the man hates him  
 “The man hates him”
- (b) \*Die man<sub>i</sub> haat hom<sub>i</sub>

Based on the idea that the interpretation of the sentences in (7) and (8) are constrained in certain principled ways, Oosthuizen (2013:32) makes the following key assumptions concerning the derivation and the interpretation of reflexive sentences such as that in (7a).

The structural relationship between a reflexive pronoun and an antecedent expression is established by syntactic devices in a particular syntactic configuration. By contrast, the semantic interpretation of this relationship – specifically, interpreting the pronoun as coreferential with or referentially dependent on the antecedent – is determined by a device of the semantic component.

The conceptualisation of how the reflexive and non-reflexive pronouns in (7) and (8) are derived is captured in (9), stated as Hypothesis A in Oosthuizen (2013:33).

9. Non-reflexive and reflexive pronouns are syntactic compounds which are formed from the same category-neutral lexical root,  $\sqrt{\text{PRON}}$ .

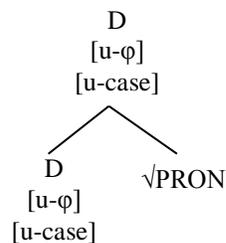
As regards their difference in interpretation, Oosthuizen (2013:33) posits that pronouns such as *homself* and *hom* in (7) and (8) respectively are constrained as follows.

10. (a) A non-reflexive pronoun is derived by merging  $\sqrt{\text{PRON}}$  with an N constituent that contains interpretable, valued  $\phi$ -features and an uninterpretable, unvalued case feature.

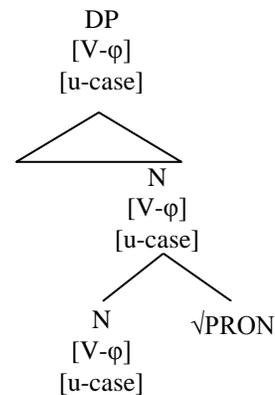
- (b) A reflexive pronoun is derived by merging  $\sqrt{\text{PRON}}$  with a D constituent that contains interpretable, unvalued  $\phi$ -features and an uninterpretable, unvalued case feature.

In contrast to previous generative analyses of reflexive constructions, the hypotheses in (10) claim that the difference between the two types of pronouns is not determined by lexical features (e.g. [anaphor] and [pronominal], as in GB theory) or by a feature that is added to “a pronoun in a particular syntactic configuration (e.g. [+coreferential], as in Zwart’s (2002) analysis ...) but rather by the category of the item with which  $\sqrt{\text{PRON}}$  is merged” (Oosthuizen 2013:34). According to these hypotheses, a non-reflexive pronoun is a derived N which is subsequently merged with a D to form a larger nominal phrase, a DP. In contrast, “a reflexive pronoun is a derived D representing both the minimal and the maximal projection of the phrase it heads (i.e. D = DP)” (Oosthuizen 2013:34). The implication of the hypothesis in (10) is that a RFM pronoun, unlike a non-reflexive one, is dependent on an antecedent expression to supply it with  $\phi$ -feature values. The two types of pronouns would take the structures illustrated in (11).

11. (a) Reflexive pronoun



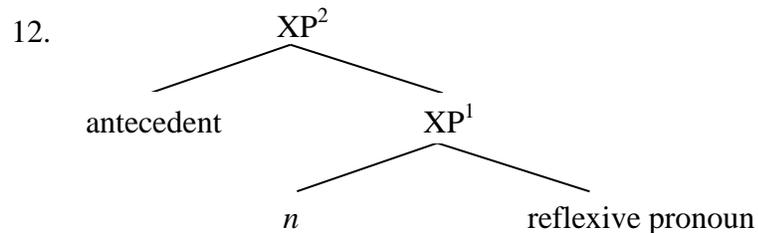
(b) Non-reflexive pronoun



The next task is to account for the derivation of the entire reflexive construction, *die man haat homself*. The major objectives at this point are (i) to show the initial positions in which the reflexive pronoun and its antecedent are first merged into the construction, and (ii) to show how the relevant grammatical features are valued in the course of the derivation.

As regards the first objective, the general assumption in NSA is that the reflexive pronoun and its antecedent “start together”. More specifically, Oosthuizen (2013:38) posits that the reflexive element and its antecedent are externally merged in a local configuration in a spec-head and head-complement fashion. The head in this case is proposed to be a light noun (*n*), a functional

category, with the RFM being merged as the complement and its antecedent as the specifier of this *n*-head (Oosthuizen 2013:38).<sup>67</sup> This configuration is illustrated schematically in (12).



The light noun in (12) is claimed to carry a feature, “identity focus” [id-focus], that crucially enters into the establishment of a coreferential relationship between the reflexive pronoun and its antecedent.<sup>68</sup> Oosthuizen (2013:39) further proposes that the [id-focus] *n*-head serves as the locus of the *-self* affix which is spelled out as part of the reflexive pronoun in Afrikaans. The *n* is also claimed to contain, at least, unvalued  $\phi$ -features and an unvalued case feature (Oosthuizen 2013:39). Having established the structural relationship between the reflexive, the antecedent and the *n*-head that make up the identity focus structure in (12) above, we now turn to the specific steps that are involved in its derivation.

To derive the structure in (12), the reflexive expression in (11a) is externally merged with the light noun. Specifically, the light noun selects the reflexive pronoun as its complement. This is followed by an internal Merge operation: the D, in the form of REFL PRON, is raised to *n*.<sup>69</sup> The structure resulting from these operations is illustrated in (13). Note that the features of the *n*-head are also present on its projections. (As shown in (13), movement of the D results in a copy being left behind in its original position; this copy is subsequently deleted in the phonological component. Such copies will be indicated by means of outline font.)

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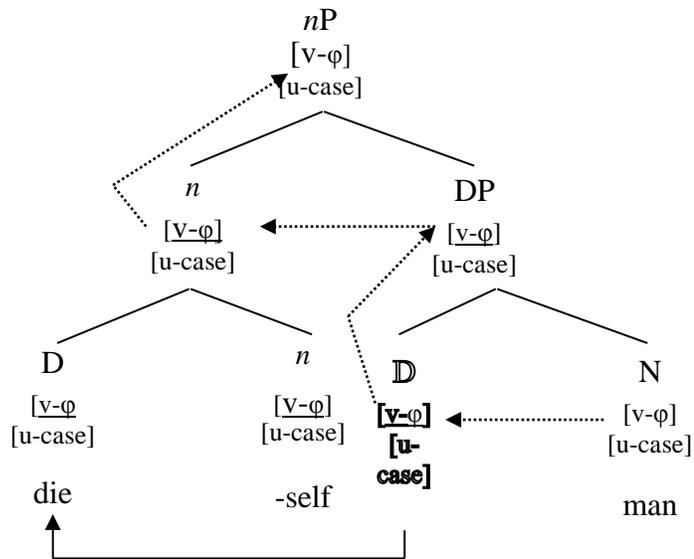
<sup>67</sup> According to (Oosthuizen 2013:38), this analysis builds on a long line of research on nominal projections, including e.g. Abney (1987) and Chomsky (2006). Cf. also Zeller (2008) for an analysis of subject markers in Bantu that makes use of a light noun with the feature [+focus].

<sup>68</sup> Oosthuizen 2013:42 suggests that “the identity focus *n*-head expresses the notion that the reflexive [such as that in the configuration in 11] serves to emphasise the relationship of referential identity”.

<sup>69</sup> This operation is similar to the V-to-*v* operation discussed in section 4.2.3.

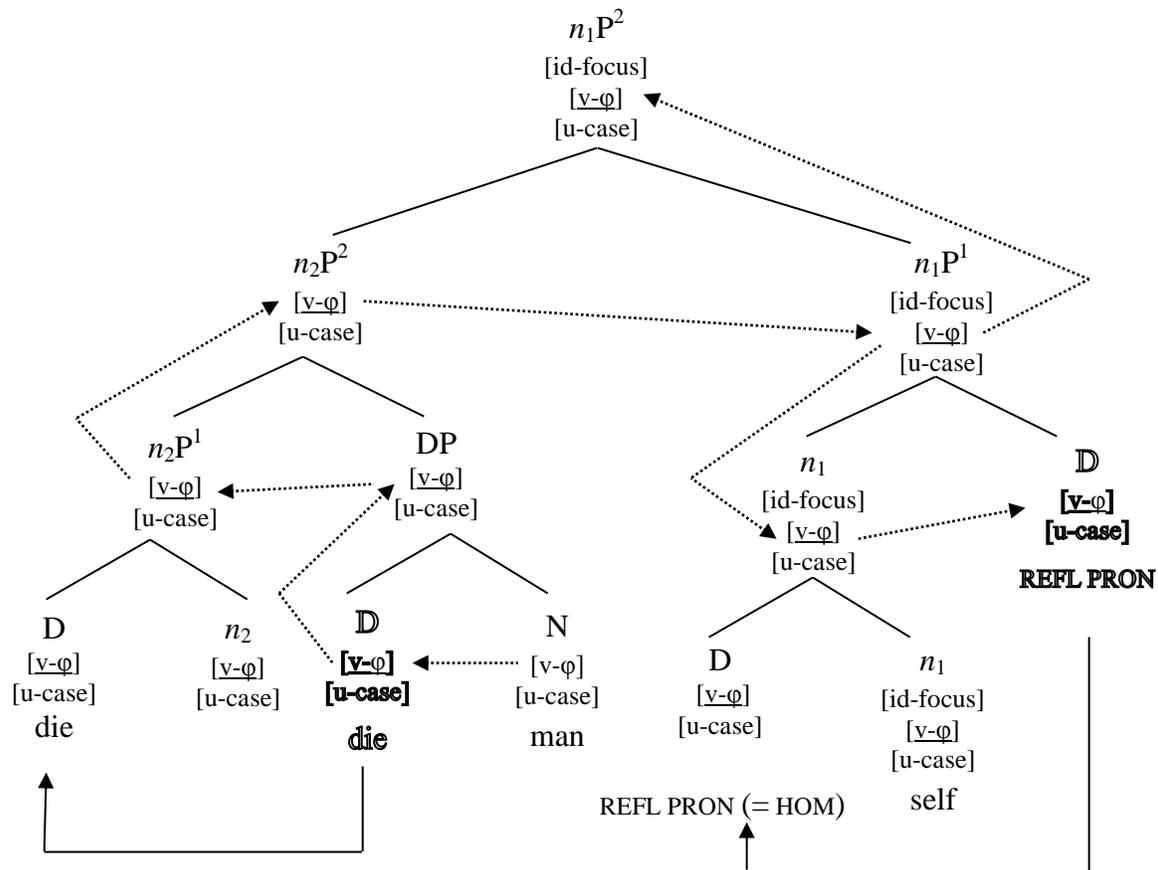


14.



Having illustrated the internal structure of the reflexive element in (13) and the antecedent in (14), we now consider how these two elements are merged into an identity focus nominal shell. The derivation starts by merging the antecedent *nP* as a specifier of the identity focus *nP* in (13), yielding the structure in (15) below. In terms of NSA, this is the configuration that is “required for establishing an obligatory coreferential relationship between a reflexive pronoun and an antecedent expression” (Oosthuizen 2013:44-45). In (15), the  $n_2P$  values the  $\phi$ -features of the  $n_1P^1$ , with the valued  $\phi$ -features of  $n_1$  percolating to its projections resulting also in the valuation of the  $\phi$ -features of the D REFL PRON. Subsequently, this valued “D is semantically interpreted as a (reflexive) anaphor and the  $n_2P$  as its antecedent; i.e. the D is interpreted as obligatorily coreferential with the  $n_2P$ ” (Oosthuizen 2013:45).

15.

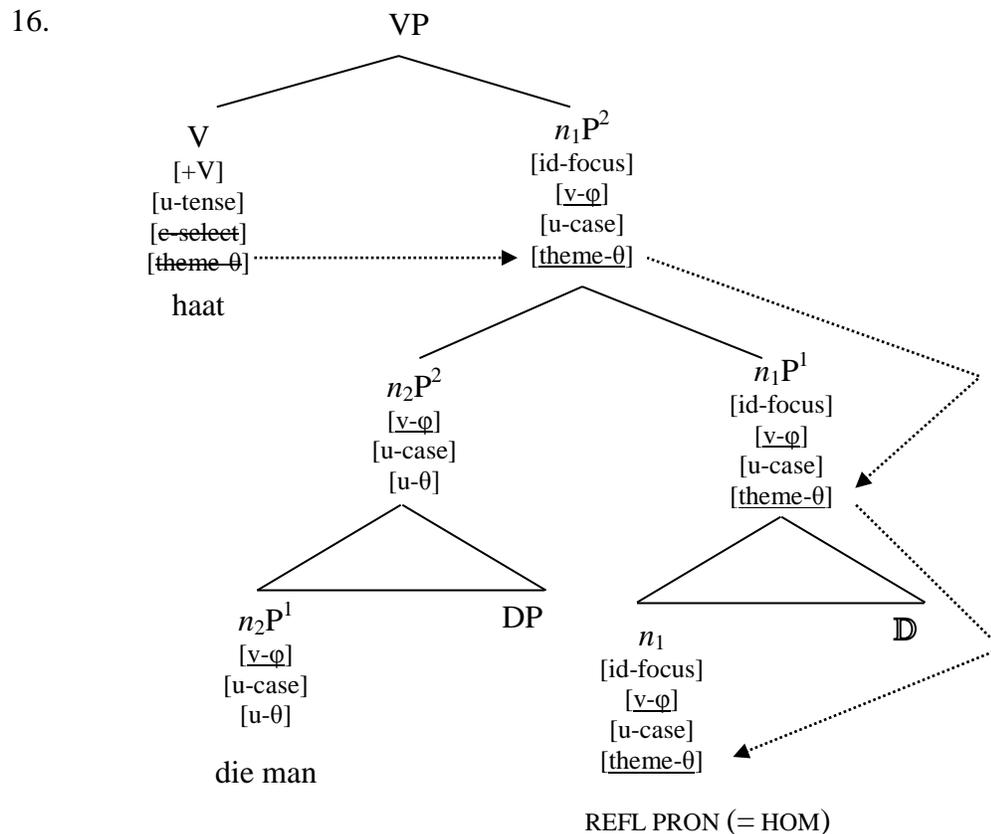


Notice that since the antecedent  $n_2P$  is merged in the spec-head position of the identity focus noun, the entire nominal complex is headed by the  $n_1P^2$ ; hence it remains an identity focus nominal complex.

Continuing with the derivation of the sentence in (7a), the identity focus  $n_1P^2$  in (15) is merged with the verb *haat*. Although *haat* is not an inherently reflexive verb it can be used reflexively; for this reason, it is claimed to select “as its complement a nominal expression that is headed by an  $n$  with the feature [id-focus], that is, an identity focus  $nP$ ” such as (15) above (Oosthuizen 2013:45).<sup>70</sup> The verb enters the derivation with V-related features such as the categorial feature [+V], an unvalued tense feature ([u-tense]), a [c-select] feature and a [theme- $\theta$ ] feature (Oosthuizen 2013:46-47). The V assigns its [theme- $\theta$ ] to its complement, that is, the  $n_1P^2$  headed

<sup>70</sup> “In grammatical terms, then, a “reflexive construction” is defined as one in which the verb selects an identity focus  $nP$  as its complement (obligatorily in the case of inherently reflexive verbs like *misgis* [= “misjudge” – PM]). Conversely, a “non-reflexive construction” is grammatically defined as one in which the verb does not” (Oosthuizen 2013:46).

by *herself*. The resulting VP and the various feature valuations involved at this stage of the derivation are illustrated in the structure in (16).



The VP in (16) next merges with a light verb  $v$  that carries the features [+V], [c-select], [agent-θ], [acc-case] and [u-tense]. This merger triggers a number of operations that run simultaneously. One such operation is the raising of the lexical V to the  $v$ . Secondly, the  $v$  supplies the accusative case value to the identity focus  $n_1P^2$ . Thirdly, the  $\phi$ -features of the light verb are valued by the  $\phi$ -features of the identity focus  $n_1P^2$ . Lastly, the valued  $\theta$ -feature on the light verb values the  $nP$  *die man* as experiencer [exp-θ].

Oosthuizen (2013:50) assumes that movement operations in Afrikaans are triggered by some sort of edge feature that is associated with the  $\phi$ -features of a probe, where this edge feature “may be thought of as a generalised EPP-feature”.<sup>71</sup> Following Biberauer et al. (2008), Oosthuizen

<sup>71</sup> “EPP” stands for Extended Projection Principle. This principle was proposed within the GB-framework to account for the fact that the derived subject position of a sentence (i.e. the specifier position under the TP) is obligatorily

(2013:49-52) takes the edge feature to be in the form of a movement diacritic  $\hat{\ }$  that is appended to the unvalued  $\phi$ -features of both the light verb and the T, i.e.  $[u- \phi^{\hat{\}}]$ . In the case of the goal  $n_1P^2$   $\phi$ -valuing the light verb, as described above, the movement diacritic triggers raising of the goal to the specifier position of the  $v$ . In Afrikaans, this raising operation can take place in two ways: either (i) the  $n_1P^2$  is raised on its own out of the VP containing it (leaving the VP and the rest of its constituents stranded), or (ii) the VP as a whole is pied-piped along with the goal  $n_1P^2$ . The effect of the two raising operations is illustrated by the difference in word order between the following examples (Oosthuizen 2013:52).

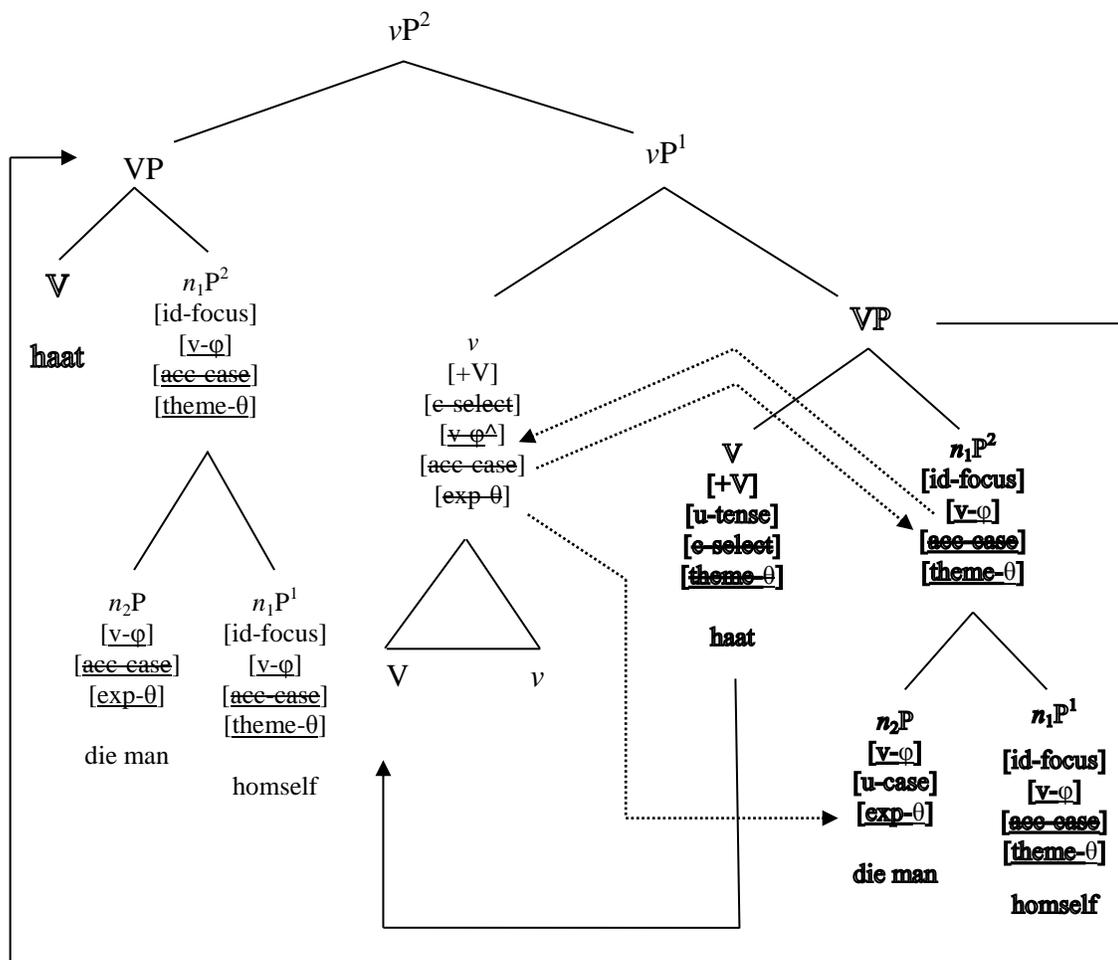
- |     |    |   |                |
|-----|----|---|----------------|
| 17. | a  | Ek weet dat hy die boek gelees het.<br>I know that he the book read has<br>“I know he read the book”          | (standard)     |
|     | b. | Ek weet dat hy het die boek gelees.   | (non-standard) |
| 18. | a. | Ek weet dat die man homself haat.<br>I know that the man himself hates<br>“I know that the man hates himself” | (standard)     |
|     | b. | Ek weet dat die man haat homself.   | (non-standard) |

The various feature valuation and raising operations following the merger of the VP and the  $vP$  are shown in the structure in (19); in this structure, raising of the  $n_1P^2$  is accompanied by pied-piping of the containing VP.

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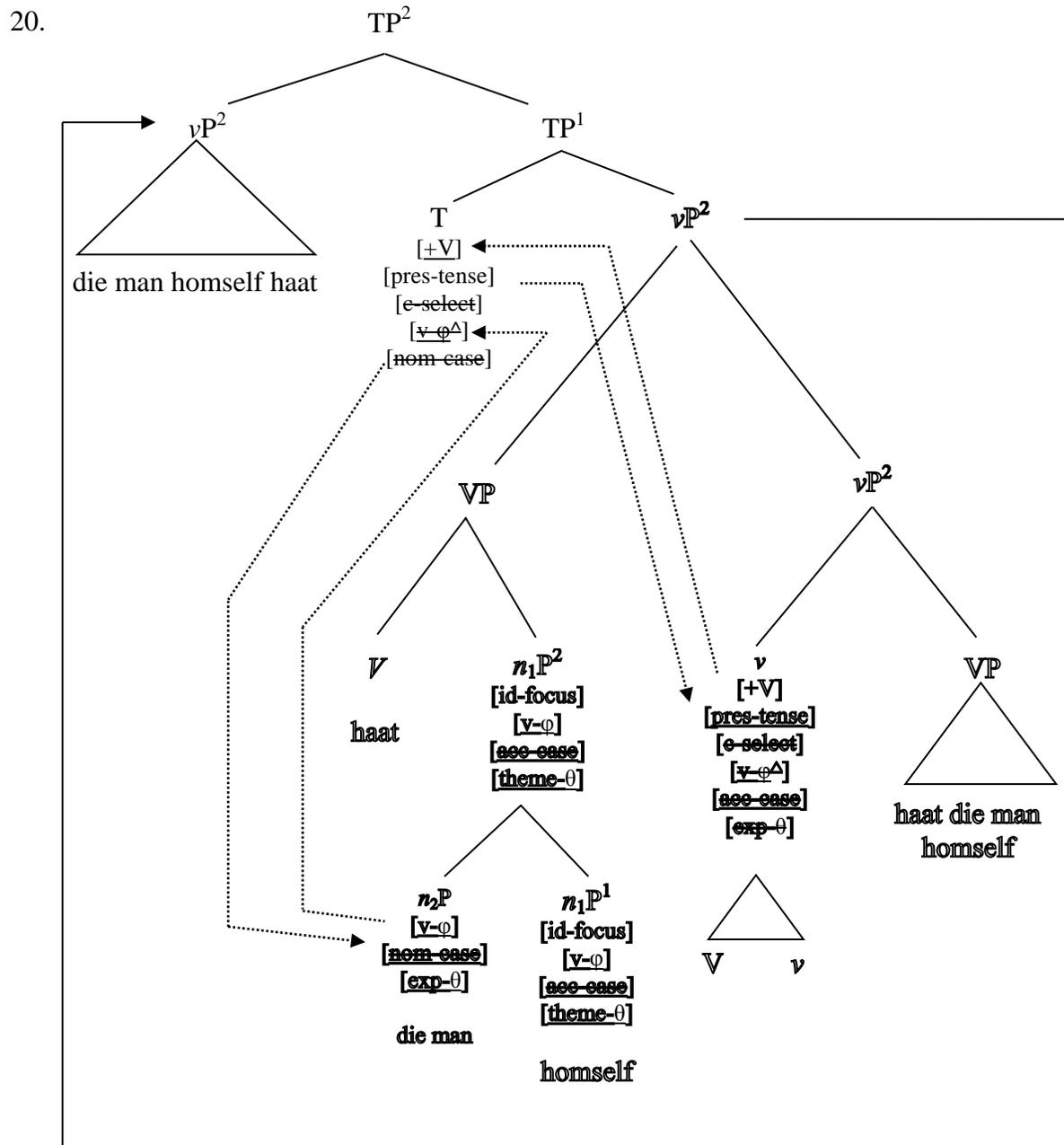
filled in the course of the derivation; the EPP-feature was taken to be associated with the T-head (cf. e.g. Chomsky 1982; Hornstein et al. 2005).

19.



The next step in the derivation involves merging the  $vP$  in (19) with the T-head, which contains (i) the V-related features [c-select], [uV] and [pres-tense] and (ii) the D-related features [u- $\phi^{\Delta}$ ] and [nom-case]. Since the T and the  $vP$  can enter into a probe-goal relation, the following operations take place. On the one hand, the T acquires a positive value for its categorial feature ([+V]) from the  $v/V$ ; the  $v/V$ 's tense feature is in turn valued as [pres-tense] by the T. On the other hand, since the  $nP$  *die man* is the only active nominal goal with an unvalued case feature, the T values this feature as nominative; simultaneously, the T acquires the  $\phi$ -values carried by this  $nP$ . The T's  $\phi$ -features are furthermore assumed to be associated with a movement trigger  $\wedge$  which causes the  $nP$  *die man* to raise to [Spec, T] position. As stated above, a further assumption of this analysis is that this raising involves pied-piping of both the  $nP$  headed by the identity

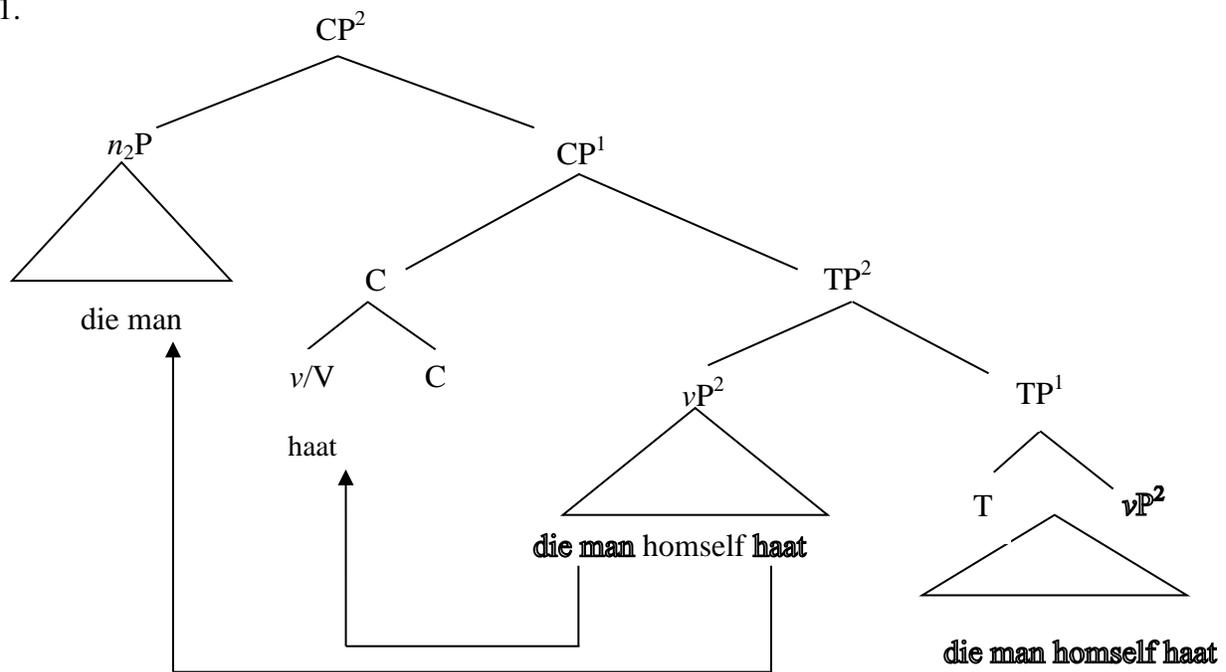
focus  $n$  and the  $vP$  dominating this  $nP$ .<sup>72</sup> The merger of  $T$  and  $vP$  and the various operations described above are illustrated in (20).



<sup>72</sup> It is however possible that there are two movement operations involved here, with the subject and the verb being raised independently. According to Oosthuizen (2013:52) this could account for variant word orders manifested in colloquial and non-standard Afrikaans such as Kaaps.

Finally, the TP<sup>2</sup> merges with a C-head. Though no firm conclusions have been reached on how the operations at this stage of the derivation are effected, the C is assumed to have D-related and V-related features. Both these features are responsible for the raising of the subject and the verb to [Spec, CP<sup>2</sup>] and C respectively (Oosthuizen 2013:55). The outcome of these operations is illustrated in the simplified structure in (21).

21.



To summarise, the derivation of obligatory reflexive constructions in Afrikaans involves a specific syntactic configuration, the nominal shell in (15). In this configuration, the REFL is analysed as the complement of an identity focus light noun and the antecedent as the specifier of this light noun. This configuration enables the antecedent to value the  $\phi$ -features of the REFL PRON, thereby establishing the obligatory coreferential relationship between them. The identity focus nominal complex is then selected by a lexical V that subcategorises for nominal expressions with an identity focus feature. Subsequent merge operations trigger further feature valuation and movement operations that account for the final word order realised in reflexive constructions such as one in (7a) *Die man haat homself*. Next, we explore how an analysis along these lines can be extended to account for the corresponding phenomenon of obligatory reflexivity in a Southern Bantu language, isiXhosa.

### 4.3.3 Extending the NSA to Bantu languages

In Bantu, reflexivity is expressed by means of a verbal affix that occurs in the object marker (OM) slot of the verbal complex as illustrated by the isiXhosa example in (22). In this example the RFM affix *-zi-* obligatorily takes its reference from the subject *abazali* (“parents”) (Oosthuizen 2013:144).

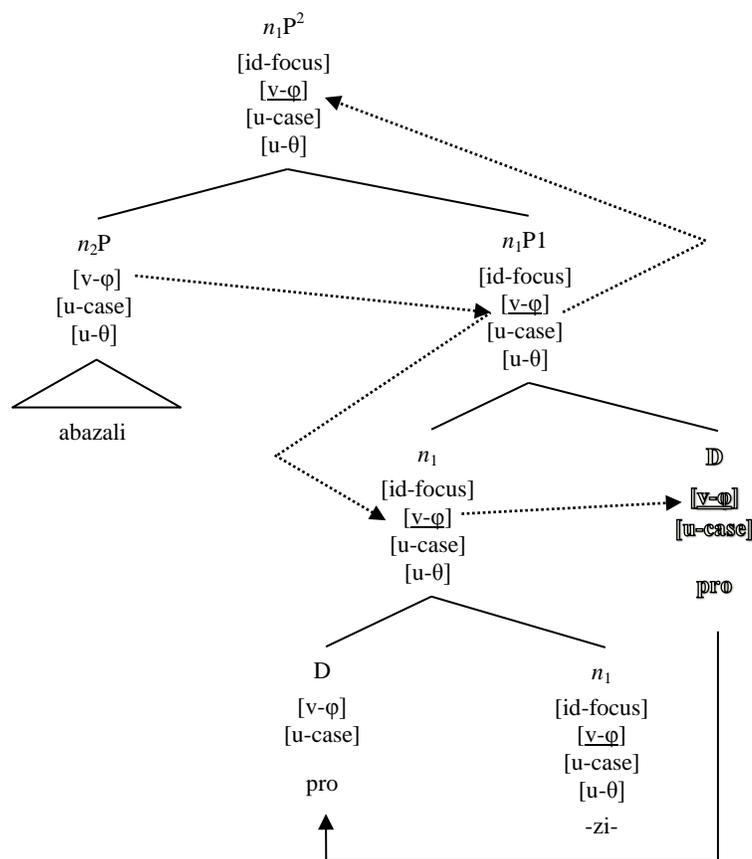
22.      *abazali*            *bayazihlamba.*  
           *aba-zali*            *ba-ya-zi-hlamb-a*  
           2.parents         2.SM-ASP-RFM-wash-FV  
           “The parents are washing themselves”

Similar to the analysis proposed for Afrikaans, Oosthuizen (2013:146) posits that the elements entering into a coreferential relationship in an obligatory reflexive construction in isiXhosa – i.e. the subject and the *-zi-* affix – are initially merged together “in a nominal shell headed by an identity focus light noun.” It is claimed, however, that isiXhosa differs from Afrikaans as regards the type of complement that is selected by the identity focus *n* (Oosthuizen 2013:146). This is because in isiXhosa the reflexive is not spelled out as an independent pronoun as it is in Afrikaans. Despite this difference, however, the isiXhosa and Afrikaans reflexives share certain grammatical properties. For instance, just like the morpheme *-self* in Afrikaans, the reflexive morpheme in isiXhosa is invariant and does not show any case or  $\phi$ -inflection, nor any noun class variation. For this reason, it is assumed that *-zi-* (like *-self*) is located under the *n*. However, in Afrikaans the identity focus *n* selects a pronominal element that realises as a pronoun whereas in isiXhosa this pronominal element is covert, that is, not phonetically realised. Oosthuizen (2013:147) takes this pronominal element to be a *pro*.<sup>73</sup> Against this background, the isiXhosa nominal shell structure containing the subject *abazali* and the reflexive *-zi-* in (22) would be as illustrated in (23). This structure, together with the movement and feature valuation operations as indicated, is essentially the same as that proposed for Afrikaans (cf. the discussion of (15) above).

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<sup>73</sup> Cf. also Visser (1986) and Riedel (2009) for discussion of null objects in Bantu.

23.



The  $n_1P^2$  in (23) carries the identity focus feature that makes it eligible for selection by a lexical V that is subcategorised for such a complement. The next step is to merge the  $n_1P^2$  with the verb complex containing the stem *-hlamb-*. Oosthuizen (2013:148) makes two assumptions regarding this stage of the derivation; the first relating to the features carried by the verb stem. This verb stem is assumed to enter the derivation with a [theme- $\theta$ ] feature which values the corresponding feature of the  $n_1P^2$ . Secondly, as regards the structure of the verbal complex, it is assumed that the various affix-slots associated with the verb stem *-hlamb-* are not filled at the point where the latter is merged with the  $n_1P^2$ , as represented in the schema in (24).

24. [noun class\_.SM\_ -AP.\_ - RFM \_ -hlamb-FV\_ ]

The VP next merges with an agentive light verb which carries the N-related features [agent- $\theta$ ], [u- $\phi^{\wedge}$ ], and [acc-case].<sup>74</sup> This triggers a number of concurrent operations: (i) the verbal complex

<sup>74</sup> Although not discussed by Oosthuizen (2013), it is assumed for the purposes of the present discussion that the  $\phi$ -features of the light  $v$  and the T carry a movement diacritic; in the case of the  $v$  this diacritic would then trigger raising of the VP containing the  $n_1P^2$  into the specifier position of the light verb. Cf. section 4.3.2 for the effect of this movement diacritic in Afrikaans.

(VC) [-hlamb-] is raised to the  $v$ ; (ii) the  $v$  values the  $\theta$ -feature of the subject  $n_2P$  *abazali* in the specifier position of the identity focus  $n_1P^2$ ; (iii) the  $v$ 's  $\phi$ -features are valued by the identity focus  $n_1P$  and in turn the  $nP$ 's case feature is valued by the  $v$ . Oosthuizen (2013:148) further proposes that the  $\phi$ -feature agreement relation between the  $v$  and the identity focus  $n_1P$  triggers incorporation of the (derived) identity focus  $n$  containing the affix -zi- into the RFM- slot in the  $v/VC$ .<sup>75</sup> The structure resulting from these operations is given in (25).

25.  $[_{vP^1} [_v [_{VC} \text{-zi-hlamb-}]] [_{VP} [_{VC} \text{hlamb}]] [_{n_1P^2} [_{n_2P} \text{abazali}]] [_{n_1P^1} \text{-zi-}]]]]$

The  $vP^2$  in (25) is subsequently merged with a T. The T enters the derivation with the N-related features [nom-case] and [u- $\phi^{\wedge}$ ] and the V-related features [u-V], [pres-tense] and [v-aspect]. In this configuration, two sets of agreement relationships are established. The first is between the T and the  $v/VC$  element, where T values the tense and aspect features of the  $v/VC$ , and the  $v/VC$  provides the T with a positive value for its categorial feature. The second relationship is between the T and the  $n_2P$  with the T valuing the case feature of the  $n_2P$  *abazali* and this  $nP$  in turn valuing the  $\phi$ -features of the T. The movement diacritic associated with the T's  $\phi$ -features furthermore triggers raising of the subject  $n_2P$  into the specifier position of the TP (Oosthuizen 2013:149).

Although NSA proposed for Afrikaans appears to be applicable to the analysis of obligatory reflexive constructions in isiXhosa as well, Oosthuizen's (2013) analysis of the isiXhosa facts is only a sketchy outline of how such constructions can be described in the various Bantu languages. The merit of the NSA as a framework for the analysis of obligatory reflexivity in Chichewa will be addressed in the following chapter.

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<sup>75</sup> Oosthuizen (2013) does not specify whether this incorporation operation can also be ascribed to a movement diacritic, e.g. to one that is appended to the  $v$ 's  $\phi$ -features.

## Chapter 5

### An NSA account of obligatory reflexivity in Chichewa

#### 5.1 Introduction

The main aim of this chapter is to provide a NSA account of reflexive constructions in Chichewa. In more specific terms, the chapter examines whether the proposals for extending Oosthuizen's (2013) Nominal Shell Analysis (NSA) of obligatory reflexivity to Bantu languages such as isiXhosa would be compatible with the Chichewa data. The chapter is organised as follows. Section 5.2 provides a general outline of a minimalist grammar of Chichewa; more specifically, the focus is on how to incorporate analyses of the subject DP/SM and the object DP/OM in the general minimalist approach assumed in this study. In the course of the discussion attention is also given to the question of how the SM, the OM and the T/A affixes come to fill their relevant slots in the verbal complex. The next section, section 5.3, forms the core of this chapter. In this section we present an analysis of obligatory reflexivity in Chichewa grammar within the NSA framework described in chapter 4. The discussion is organised into three subsections, each dealing with a specific type of reflexive construction: section 5.3.1 focuses on verbal object constructions, section 5.3.2 on infinitival verbal reflexive constructions, and section 5.3.3 on infinitival nominal reflexive constructions. A brief summary of chapter 5 is given in section 5.4.

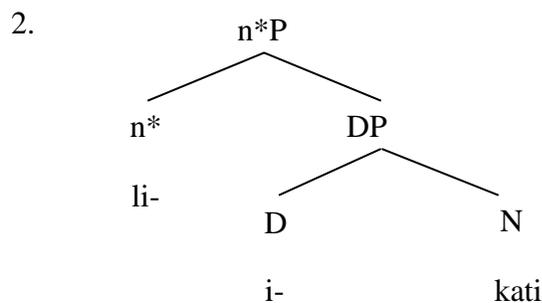
#### 5.2 Some general aspects of a minimalist grammar of Chichewa

Consider again the Chichewa sentence in (5a) in section 2.2, repeated here as (1).

1.       Mwana               a - na - dy - a  
           1.child             1SM-T/A-eat-FV  
           "The child ate"

The SM *a-* stands in a coreferential relationship with the subject DP *mwana* in (1). The obvious question is how this relationship can be accounted for within the broad minimalist framework, and more specifically within the framework of proposals associated with Oosthuizen's (2013) NSA. Zeller (2008:221-222), referring to several languages within the Bantu family, proposes that the subject DP and the SM enter the derivation as components of the same constituent, a so-

called “big DP”.<sup>76</sup> He claims that the subject DP starts as a complement of the SM, where the SM represents a functional head with nominal properties, indicated with the notation  $n^*$ . The “big DP” thus takes the form of an  $n^*P$ . Zeller further claims that the  $n^*$ -head moves out of the subject  $n^*P$  and gets incorporated into the functional head that hosts the verb. The nominal configuration in which the structural relationship between the subject and the SM is established is illustrated in (2) with reference to an isiZulu example (Zeller 2008:222). In this structure, the subject DP *ikati* (“cat”) is the complement of the class 5 SM *li-*.<sup>77</sup>



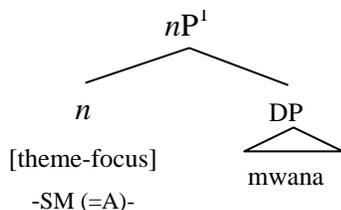
Although the structure in (20) can account for the **structural** relationship between the subject DP and the SM, it does not address the issue of the (obligatory) **coreferential** relationship obtaining between these two elements. The question, then, is how this phenomenon can be accounted for within an analysis that incorporates the basic idea expressed in (2), namely that the subject and the SM initially form part of the same nominal structure. Adopting this idea of Zeller (2008), it is assumed that the subject DP and the SM are indeed initially merged in the same “big DP” structure, that is, as part of a nominal expression that is headed by a light noun  $n$  which takes the subject as its complement and that serves as the locus of the SM. However, two further claims are made here. Firstly, based on the suggestions made by Bresnan & Mchombo (1987:745, 751-755) and Bresnan & Kanerva (1989), it is claimed that the structure in question is a theme focus

<sup>76</sup> The idea of a “big DP”, i.e. an extended nominal expression, was put forward by, amongst others, Uriagereka (1995) and Cecchetto (2000); cf. also Chomsky (2006); Kramer (2011); Nevins (2010); Roberts (2010).

<sup>77</sup> On Zeller’s (2008:239) analysis, the light noun in a structure like (2) carries a so-called “anti-focus” feature. The idea that there is some sort of focus feature associated with the light noun also forms part of the analysis set out below of the coreferential relationship between the SM/OM and the DP with which it is associated. This idea is also central to the analysis of obligatory reflexivity in Chichewa presented in section 5.3. There is one further point in connection with the DP in structures like (2) that should be mentioned here. This concerns the noun class prefix that is found with nominal expressions. Zeller (2008) analyses this prefix as a D that takes the noun as its complement, as shown in (2). This proposal will also be adopted in the present study. However, in the relevant diagrams, we will abstract away from the internal structure of the DP.

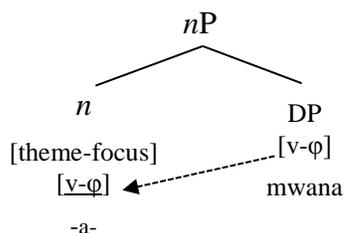
nominal shell that is headed by a light noun with the feature [theme -focus].<sup>78</sup> Secondly, adopting a core claim of Oosthuizen's (2013) NSA (cf. 4.3), the coreferential relationship between the light noun and its complement – in effect then, between the SM and the subject DP – is taken to be the consequence of the SM receiving its  $\varphi$ -values from the DP. On this analysis, the subject DP *mwana* and the SM *a-* in the Chichewa example in (1) would enter the derivation in the configuration in (3). (The SM in (3) is given in capitals to indicate that it has not yet been valued for  $\varphi$  and case features, and is accordingly without a phonetic form at this stage.)

3.



In (3) the light noun housing the SM enters the derivation with unvalued  $\varphi$ -features, whereas the  $\varphi$ -features of the subject DP have the values 3<sup>rd</sup> person, singular, noun class 1 [3pers-sing-NC1]. In the probe-goal configuration in (3), the DP can accordingly value the  $\varphi$ -features of the *n*. As pointed out above, the coreferential relationship between the subject and the SM located in the *n* is therefore established by means of  $\varphi$ -feature valuation, with the SM in essence functioning as an anaphor.<sup>79</sup> The effects of these operations are illustrated in the simplified structure in (4). (For ease of presentation, this structure abstracts away from other grammatical features, e.g. case and  $\theta$ -features.)

4.



<sup>78</sup> The term “theme” is used here in connection with an entity that is known from the discourse, that is, information that is not presented for the first time or for contrastive purposes. Clearly, “theme” is closely related (perhaps even identical to) the notion ‘topic’. However, since topic is conventionally contrasted with focus, the use of a feature such as [topic-focus] might create confusion. It must be emphasised, though, that the term “theme” is used here simply for the sake of convenience. Moreover, this use of theme should not be confused with the conventional theme  $\theta$ -role. For the notion ‘topic’, cf. e.g. Givon (1976), Reinhart (1982), Lambrecht (1994), Green & Tabe (2013), Gómez-González (2001), Morimoto (2008). For notion theme cf. e.g. Croft (1991), Halliday (1994).

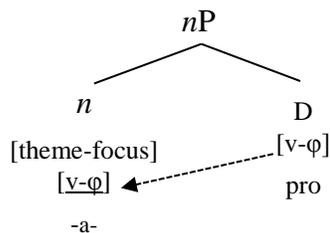
<sup>79</sup> Cf. also Bresnan & Mchombo (1987) for the idea that the SM functions as an anaphoric element.

The example in (1) contains both a subject and a SM. However, as was pointed out in section 2.2, (cf. example (11b)), the subject need not be phonetically realised in Chichewa, as shown in (5).

5.       A - na - thyol - a               mpando  
           1SM-T/A-break-FV        3.chair  
           “She/he/they broke the chair”

It was assumed in section 4.3.3 with reference to isiXhosa that the surface subject position in a “null-subject” sentence is occupied by a pro argument. Adopting this idea for Chichewa as well, the surface subject position in a sentence such as (5) would therefore be occupied by a pro DP. In terms of the analysis set out above, the pro subject and the SM in (5) would accordingly be merged in exactly the same structure as in (4), the only difference being that the complement position will be filled by a pro. The DP structure in (4) is thus adapted as follows.

6.

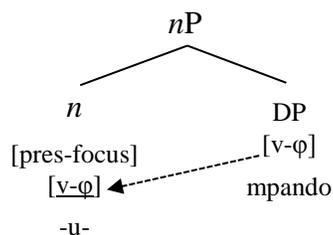


Let us now examine structures containing a direct object and/or an OM. Consider again the examples in (12) in section 2.2, repeated here as (7).

7.       (a) Mwana               a - na - u - thyol - a  
           1.child               1SM-T/A-OM-break-FV  
           “The child broke it”
- (b) Mwana               a - na - thyol - a               mpando  
           1.child               1SM-T/A-break-FV               chair  
           “The child broke a chair.”
- (c) Mwana a - na - u - thyol - a               mpando  
           1.child 1SM-T/A-OM-broke-FV chair  
           “The child broke the chair”

The OM *-u-* in (7a) can be analysed in exactly the same manner as the SM in (6), that is, as a realisation of a theme-focus light noun which takes a *pro* (in this case, the object DP) as its complement. In contrast, (7b) contains an overt direct object DP in the form of *mpando*, but the OM is not phonetically realised. It is claimed here that, as in the case of (7a), the object DP in (7b) also forms the complement of a theme-focus light noun. This raises the question why the OM is phonetically realised in (7a) but not in (7b). A plausible answer would be that in (7a) the object cannot be realised since it is a *pro*, whereas in (7b) the object is realisable (not *pro*), therefore the OM need not be realised. However, as shown in (7c), both the object and the OM can in fact be realised in Chichewa. Compared to (7b), however, the presence of the OM in (7c) gives rise to a subtle difference in meaning: in (7c) the OM serves to draw attention to a new argument in the structure, namely *mpando* (“chair”).<sup>80</sup> Hence it can be claimed that the functional head housing the OM in (7c) is not a theme-focus light noun (as in (7a,b)), but rather a pres(entational) focus *n*, as shown in (8).<sup>81</sup>

8.



An obvious question at this point is how the SM and the OM get incorporated into the verbal complex.<sup>82</sup> As expressed in the structures above, the SM and the OM both represent pronominal affixes.<sup>83</sup> On this analysis, the two cases of incorporation are taken to both represent instances of raising. In other words, as bound morphemes, the SM and the OM are raised from their respective *n*-head positions to the distinct affix slots in the verbal complex. It is furthermore assumed that SM raising and OM raising are both triggered by a movement diacritic, specifically

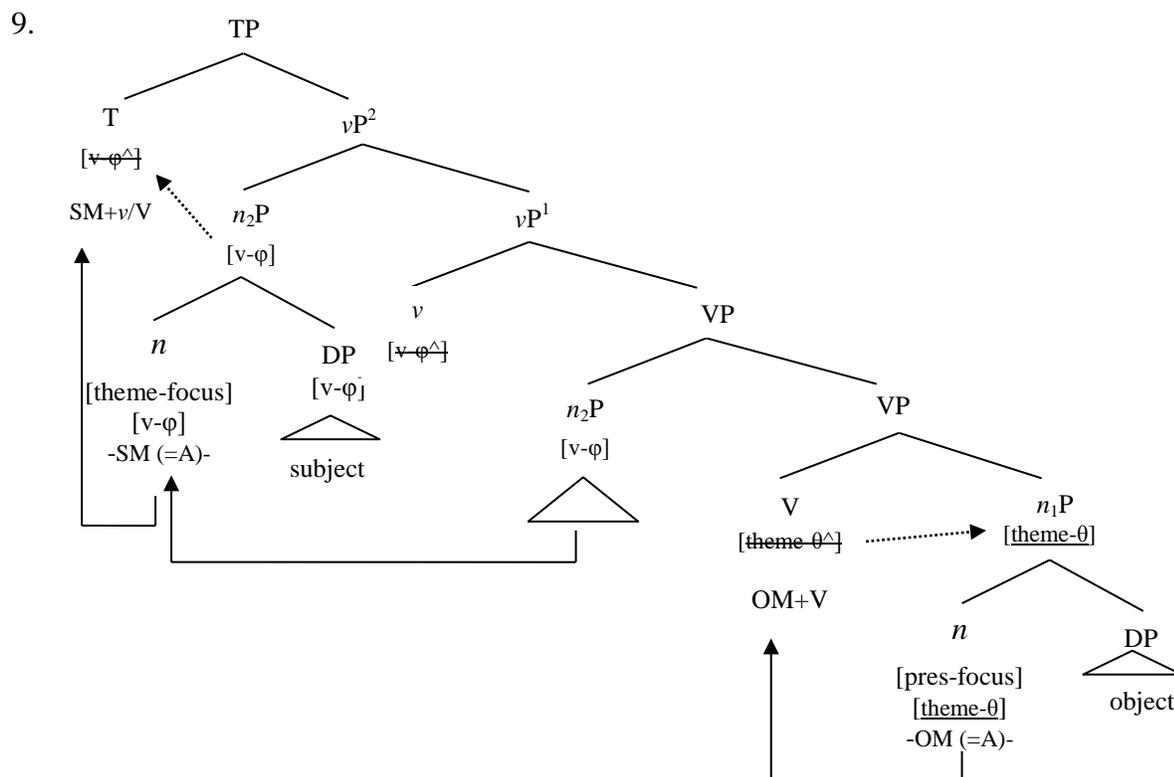
<sup>80</sup> Cf. also Bresnan & Mchombo (1987) and Mchombo (2004:21) in this regard.

<sup>81</sup> For presentational focus, cf. e.g. Bresnan & Kanerva (1989); Erteschik-Shir (2007); Hyman and Polinsky (2007).

<sup>82</sup> A related question was also considered in section 2.3, fn. 19. The SM is generally taken to be a pronominal affix within the verbal complex (cf. Bresnan & Mchombo 1987; Bresnan & Karneva 1989). As regards the OM, however, some authors argue that it does not represent a pronominal affix but rather an agreement marker on the verb; cf. section 2.3, fn. 19 references.

<sup>83</sup> This is in line with Kramer's (2011:14) classification of SMs and OMs.

one carried by the  $\phi$ -feature of the T constituent and the  $\theta$ -feature of the lexical verb, respectively. Raising of the SM/OM would then take place at the point where it enters into a  $\phi$ -valuation relationship with the T and  $v/V$ . The feature valuation and raising operations are illustrated in the simplified structure in (9).



To end this section, let us briefly consider how other affixes, such as the T/A and the FV, get incorporated into the verb complex. As regards the T/A affixes, tense values are conventionally taken to be supplied by the functional projection T. As a working hypothesis, it is assumed for the purposes of this study that valuation of the  $v/V$ 's tense feature<sup>84</sup> by the T results in the particular tense being spelled out as a T/A affix in the relevant slot of the verb complex.

There is much uncertainty in the literature about the grammar and function of the FV (cf. e.g. Muriungi 2008:117-8; Ferrari-Bridgers 2009). One approach suggested by Muriungi (2008:125, 130-131) is to assume that the verb root “appears in a syntactic configuration with a final vowel projection but this projection, instead of getting spelled out by the FV is spelled out by the root

<sup>84</sup> And perhaps its aspect feature as well, if tense and aspect are taken to be distinct features; this issue will not be examined further here.

itself.” It moreover appears that the variation in form taken by the FV is related to some or other grammatical effect. For example, in Kiitharaka FV changes are associated with subjunctive force, the applicative and the perfective (Muriungi 2008:125, 130-131). In Chichewa, FV changes are also commonly observed with the subjunctive and other tense related phenomena.<sup>85</sup> On the basis of these observations, it could perhaps be argued that the FV in Chichewa heads its own functional projection, e.g. subjunctive. However, since FVs do not enter into the analysis of reflexive constructions presented in the next section, their grammatical and functional properties will not be pursued here and are left as topics for further research. For present purposes, structures containing a verbal complex will simply be presented with the FV already incorporated into the complex, with no discussion of how such incorporation is effected.

The specific claims made in this section form the grammatical background for the proposed analysis of obligatory reflexivity in Chichewa, to which we now turn.

### **5.3 An analysis of obligatory reflexivity in Chichewa**

#### **5.3.1 Introduction**

The purpose of section 5.3 is to present an analysis of obligatory reflexivity in Chichewa. The analysis is developed within the broad theoretical framework of Minimalist Syntax (MS), and more specifically the framework of the Nominal Shell Analysis (of obligatory reflexivity) (NSA) proposed by Oosthuizen (2013) for Afrikaans and Southern Bantu languages such as isiXhosa. The aim is to determine whether an approach based on the NSA can provide an adequate account for the Chichewa facts described in Chapter 2. The discussion is organised into three subsections: section 5.3.1 focuses on verbal object constructions, 5.3.2 on infinitival verbal reflexive constructions and finally 5.3.3 presents a brief account of infinitival nominal reflexive constructions.

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<sup>85</sup> Mtenje (2002:7, 2007:35) analyses the FV in the Malawian languages Cindali, Cinyika and Ciyao as a subjunctive mood marker.

### 5.3.2 Verbal object constructions

Consider the Chichewa sentence in (24d) in section 2.3.1, repeated as (10) below. This sentence contains a transitive verb, but lacks an overt direct object DP. Based on the discussion in section 5.2, the direct object is taken to be a pro DP. The reflexive marker (RFM) *-dzi-* occupies the position in which an OM can occur,<sup>86</sup> and furthermore enters into an obligatory coreferential relationship with the subject *mtsikana* (as indicated by means of the subscript *i*).

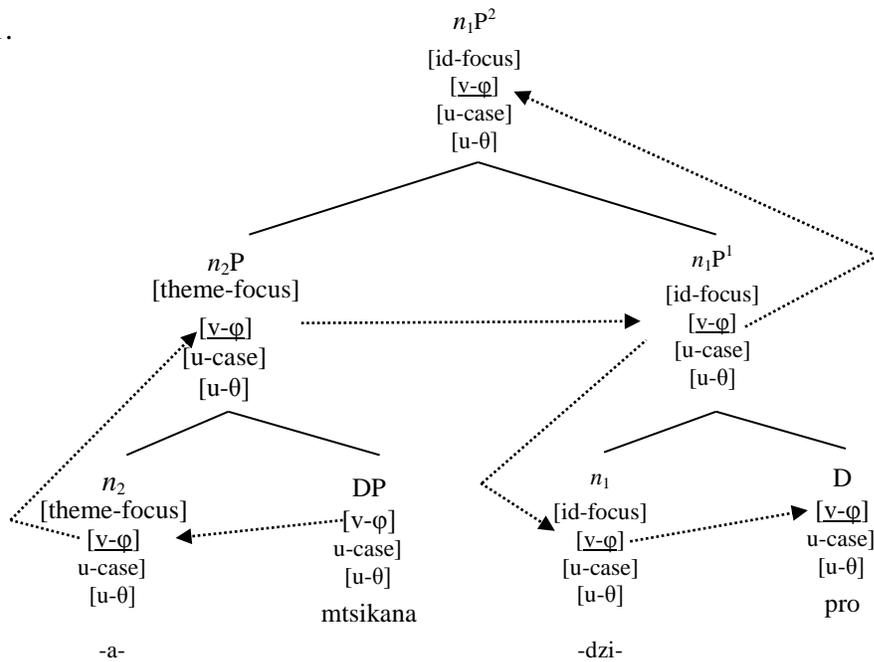
10.           Mtsikana<sub>i</sub>           a - na - dzi<sub>i</sub> - bay - a  
               1.girl               1SM-T/A-RFM-stab-FV  
               “The girl stabbed herself”

In terms of the NSA framework, the subject *mtsikana* and the RFM *-dzi-* start together within an identity focus nominal shell, as shown in (11) below. In this configuration, the  $n_1$  represents an identity focus light noun and the  $n_2$  a topic-focus light noun; these two light nouns represent the locus for RFM *-dzi-* and the SM *a-*. The light noun  $n_1$  takes the direct object pro DP as its complement, whereas the subject DP *mtsikana* forms the complement of the  $n_2$ . The  $n_2$ P containing the subject DP is moreover merged into the specifier position of the identity focus light noun. Note that the subject DP is the only constituent carrying valued  $\phi$ -features; these serve to value the  $\phi$ -features of both the  $n_2$  and the  $n_1$  and, via percolation, their respective projections, as shown by the dotted arrows. In terms of the NSA (cf. specifically 4.3.2), the various instances of  $\phi$ -feature valuation in (11) results in the object DP pro, the RFM *-dzi-*, and the SM *a-* all entering into a coreferential relationship with the subject DP *mtsikana*.

---

<sup>86</sup> As was made clear in section 2.3, the RFM and the OM cannot co-occur in the verbal complex.

11.



In short, the identity focus nominal shell in (11) represents the structure in which the obligatory reflexive interpretation expressed by the sentence in (10) is established. The remaining stages in the derivation of the sentence proceed as summarised in (12).

12. (a) The identity focus nominal shell  $n_1P^2$  in (10) is merged with the verb stem *-baya* forming a VP. The verb carries the features [u-T/A], [theme-θ] and various unfilled verbal slots such as SM, RFM, T/A, etc.
- (b) The θ-feature on the verbal complex values the corresponding feature of the  $n_1P^2$  as [theme-θ]. This feature value percolates through the spine of the identity nominal shell, to the exclusion of the subject  $n_2P$  in the specifier position.<sup>87</sup> In the process, the RFM *-dzi-* is raised to the RFM slot in the verbal complex.<sup>88</sup>

<sup>87</sup> For a discussion of θ-value percolation within an identity focus nominal shell, cf. Oosthuizen (2013:38, 44).

<sup>88</sup> It is not clear exactly why and how raising of the RFM into the verbal complex is brought about. One possibility could be that it is the result of a general morphological requirement according to which a bound morpheme must be affixed to a particular host. Another possibility could be that the raising operation is triggered by some sort of movement diacritic associated with the verb or one of its features. See also Sikuku (2012:12) who suggests two operations involving the RFM/OM in Lubukusu. The first is a D-raising movement where the RFM/OM move to [Spec vP] via their relevant functional heads. The second involves what Sikutu (2013:12) refers to as “M-merger” of the D head into the *v* resulting in a verbal complex. These and other possibilities will not be explored further here.

- (c) The VP is next merged with a functional light verb  $v$  yielding a  $vP$  structure. The light verb carries two sets of features, namely the V-related features [+V], [c-select] and [u-tense], and the N-related features [agent- $\theta$ ], [u- $\phi$ ^] and [acc-case]. The resulting configuration provides the conditions for a number of concurrent operations. Firstly, the light verb acquires its categorial feature from the lexical verb and the lexical verb raises to  $v$ .<sup>89</sup> Secondly, the [acc-case] feature on the  $v$  values the corresponding feature on  $n_1P^2$  and in turn the  $n_1P^2$  values the  $\phi$ -features of the  $v$ .<sup>90</sup> Thirdly, the light verb values the  $\theta$ -feature of the subject  $n_2P$  as agent. Fourthly, the movement diacritic ^ carried by the  $v$ 's  $\phi$ -features triggers raising of the entire  $n_1P^2$  to the specifier position of the  $v$ . At this stage, the  $n_1P^2$  headed by the identity focus  $n$  has become inactive for any further probe-goal operations since it does not contain any unvalued features; however the  $n_2P$  in the specifier position of  $n_1P^2$  is still an active goal since its case feature is still unvalued.

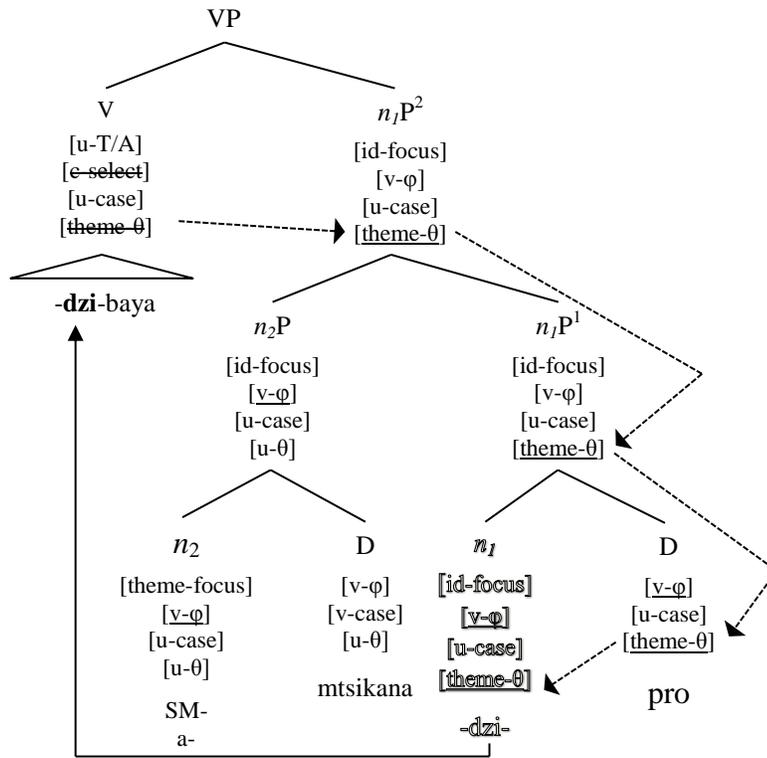
The various operations involved in this derivation are captured in the tree diagrams in (13), where (13a) shows merger between the V and  $n_1P^2$  and (13b) shows merger and operations involving the  $v$  and the VP.

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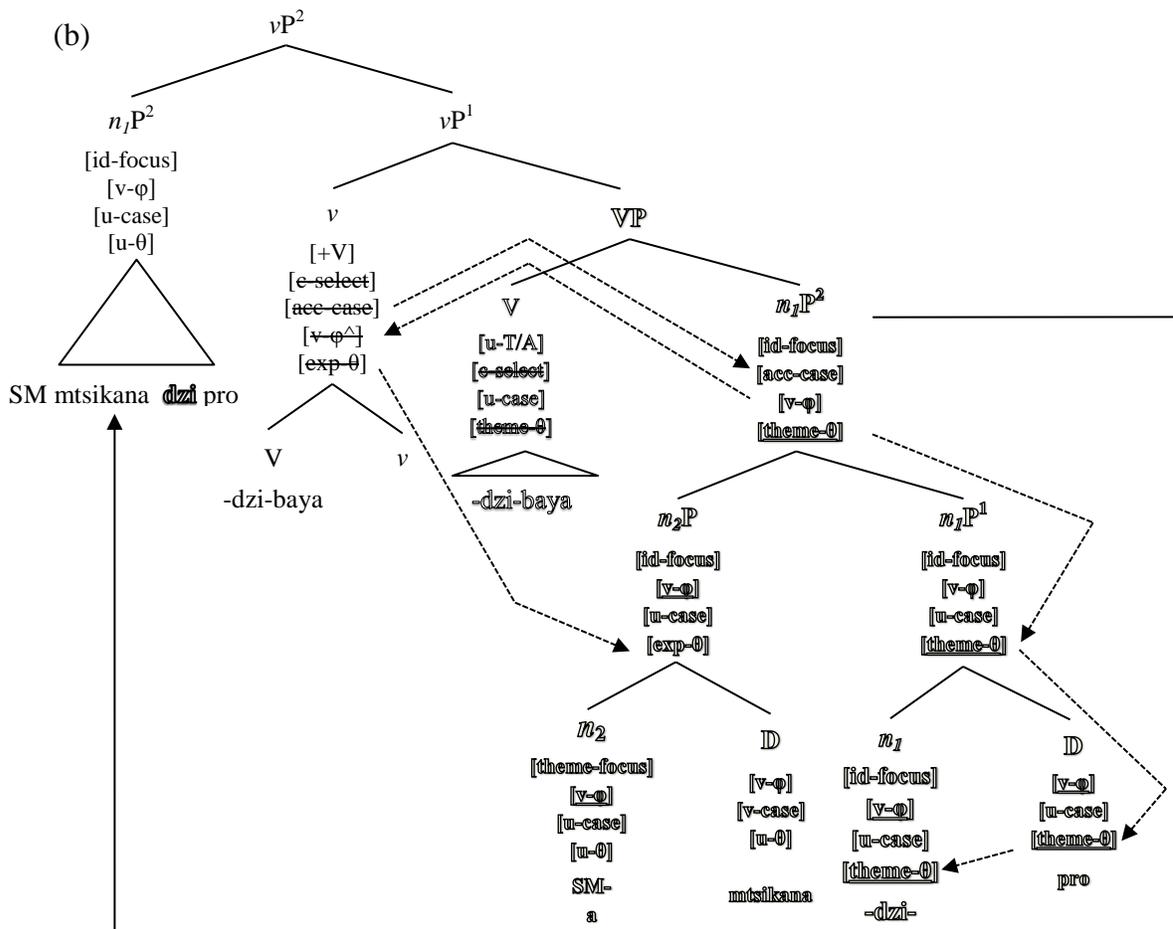
<sup>89</sup> Cf. section 4.2.3 (fn 60) in connection with V-to- $v$  raising.

<sup>90</sup> For a similar conception of these valuation operations, cf. Kramer (2011:26) and Bax & Diercks (2012:197).

13. (a)



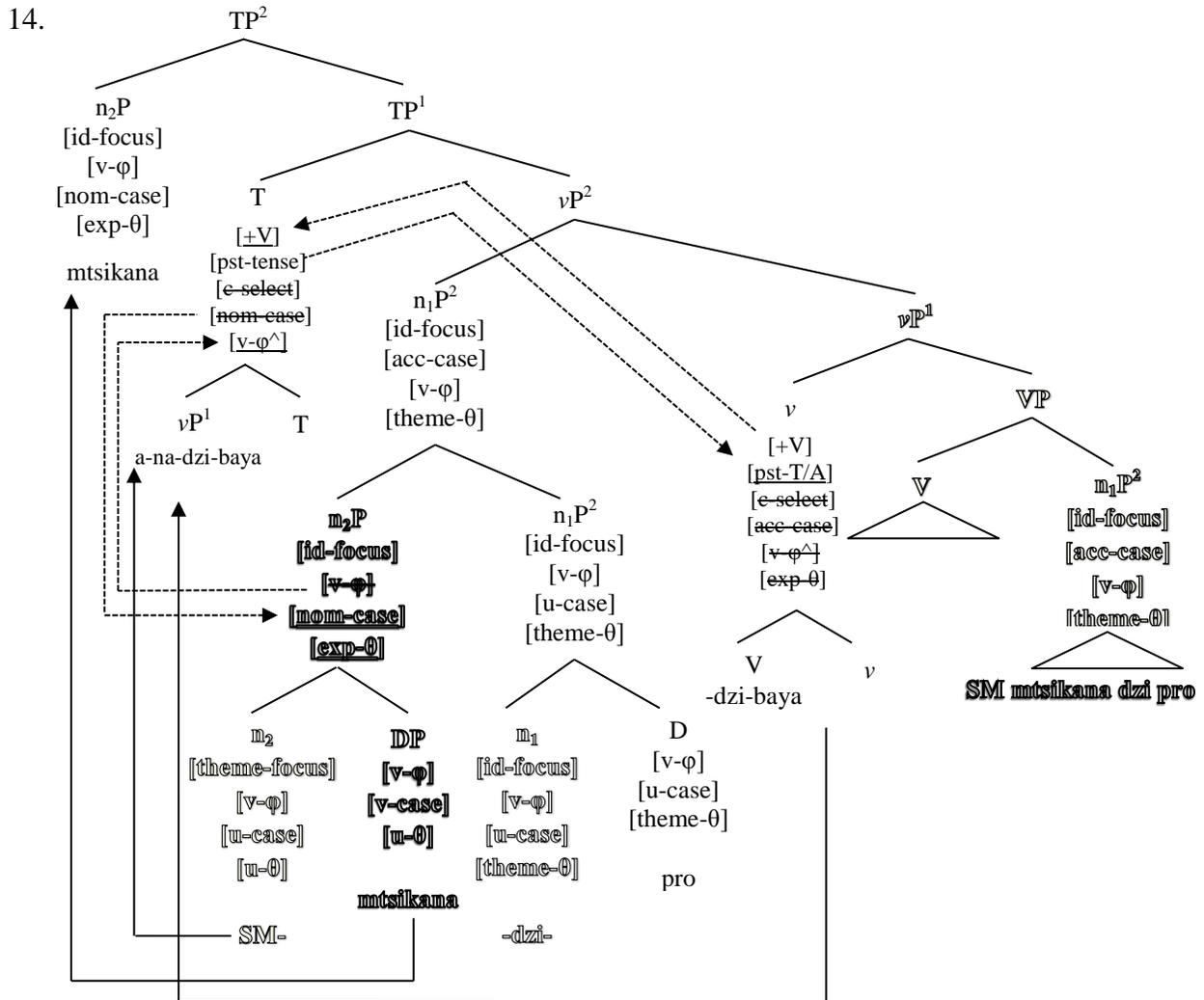
(b)



The next step in the derivation involves merger of the  $\nu$ P in (13), with a T-head containing the V-related features [c-select], [u-V] and [v-tense], and the D-related features [u- $\phi$ ] and [nom-case]. The two sets of features participate in the following valuation operations. Firstly, as regards the V-related features, the T's categorial feature is valued as [+V] by the V/ $\nu$  and in turn the V/ $\nu$ 's tense feature is valued as [pst-tense] -*na*-. Two raising operations are assumed to occur at this point: (i) following Zeller (2010:2, 2008:222,), the V/ $\nu$  is taken to raise to the T and (ii) the SM forming part of the  $n_2$ P is taken to raise to the relevant slot in the verbal complex.<sup>91</sup> Secondly, as regards the T's N-related features, its case feature values the corresponding feature of the subject  $n_2$ P *mtsikana*, the only active nominal goal within the T's c-command domain, as nominative; at the same time, the T acquires  $\phi$ -values from the  $n_2$ P. The movement diacritic carried by the T's  $\phi$ -features subsequently triggers raising of the  $n_2$ P from the [spec, V/ $\nu$ ] position to the specifier position of the T. The resulting structure is represented in (14).

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<sup>91</sup> As regards the assumption (ii), the alternative would be that the SM is lowered to the relevant slot in the verbal complex before the V/ $\nu$  is raised to T. However, the conventional view in the generative literature is that the grammar does not provide for any lowering operations (cf. e.g. Richards 2004; Chomsky 1995, 2000, 2001). What needs to be determined, though, is which mechanism serves as trigger for the two raising operations at hand; this issue is left as a topic for further investigation.

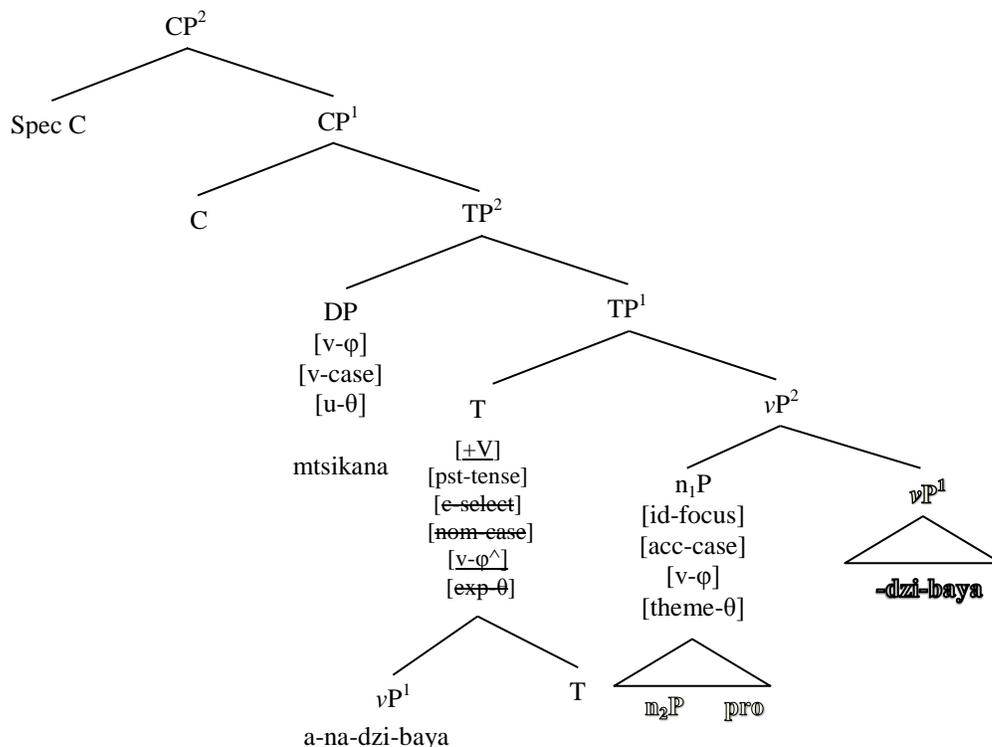


The final stage in the derivation involves merger of the TP<sup>2</sup> in (14) with a C-head, which marks the sentence in (10) *Mtsikana anadzibaya* as expressing declarative force.<sup>92</sup> The resulting structure would have roughly the following form:

<sup>92</sup> For the purpose of this study, we leave open the possibility that there may be further operations involving an extended projection of the C. For instance, it seems plausible that focalisation of the verbal complex in (5), as in (i) below, is brought about by moving the VP to sentence-initial position, that is, raising it into [spec, C].

- (i) a - na - dzi - bay - a            mtsikana  
      SM-T/A-RFM-stab-FV        girl  
      “She stabbed herself, that girl.”

15.



### 5.3.3 Infinitival verbal reflexive constructions

Apart from occurring in finite verbal object constructions, the reflexive *-dzi-* can also occur in infinitival verbal constructions as described in section 2.3.2 with reference to sentences such as the one in (28). In such constructions, the reflexive morpheme occurs in the embedded infinitival clause where it functions as the direct object argument of that clause. In contrast to the analysis in the previous section, the clause containing the RFM in infinitival verbal object constructions does not have an overt subject DP and apparently also lacks an SM. The RFM is furthermore interpreted as being coreferential with the overt subject and the SM in the matrix clause, as illustrated in (16).

16. Ana<sub>i</sub>                    a<sub>i</sub> - ma - fun - a                    [ku - dzi<sub>i</sub> - bay - a]  
 2.children            2SM-T/A-want-FV                    INF-RFM- stab - FV  
 “The children wanted to stab themselves.”

In terms of the NSA, the RFM in (16) would be analysed as originating in an identity focus nominal shell which also contains the surface subject DP *ana* and the SM *a-*. The manner in

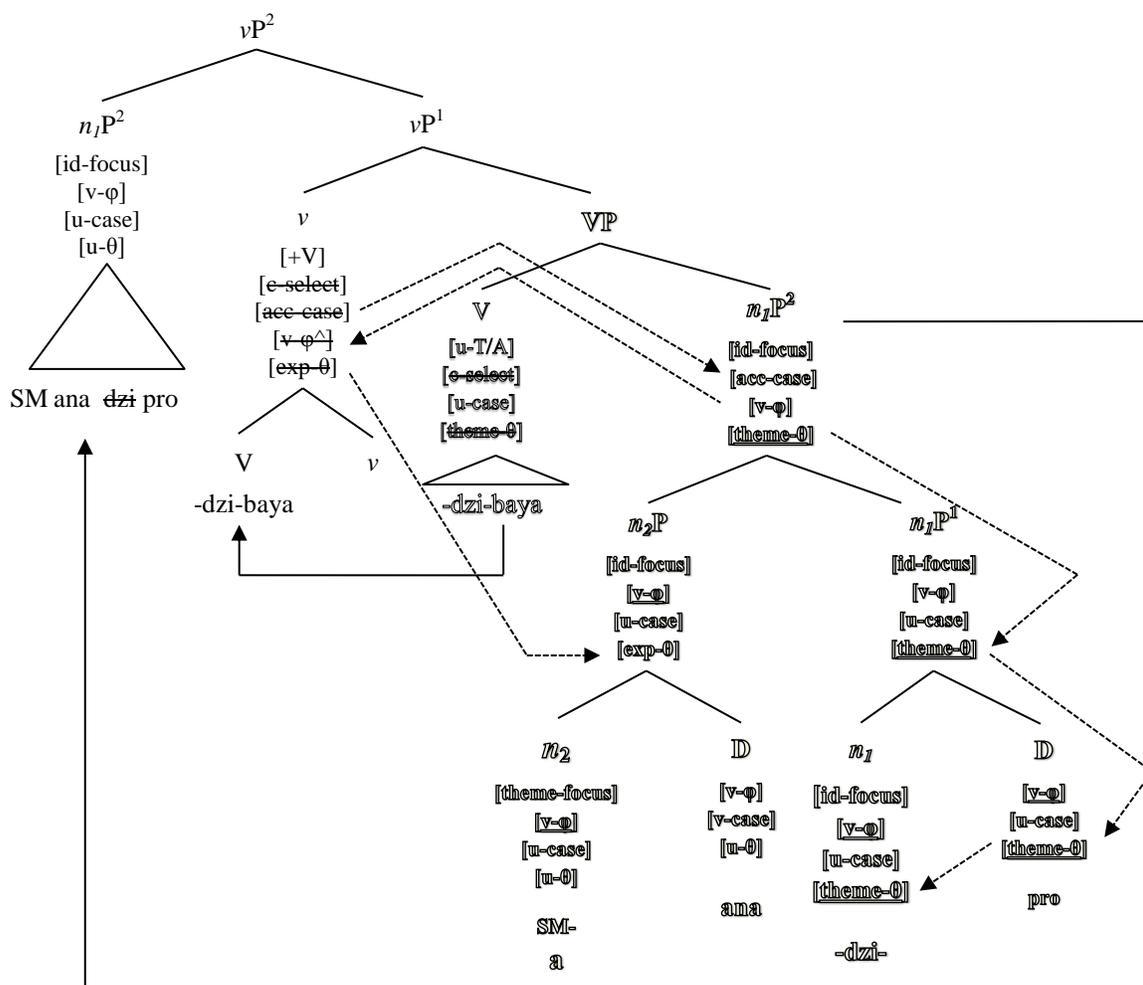
which the identity focus nominal shell is derived is essentially the same as was illustrated for finite verbal object constructions in section 5.3.1. More specifically, the identity focus nominal shell for the sentence in (16) would have the form in (17), similar to the structure (11) proposed for the sentence in (18) above.

$$17. \quad [{}_{n_1P}^2 [{}_{n_2P} [{}_{n_2} \text{SM}_{DP} \text{ ana}]] [{}_{n_1P}^1 [{}_{n_1} \text{-dzi-}_D \text{ pro}]]].$$

Three issues need to be clarified as regards the derivation of the sentence in (16). These relate to (i) the absence of an overt subject DP and (ii) the apparent absence of an SM in the embedded clause, and (iii) the coreferential relationship between the RFM in the embedded clause and the subject DP and the SM in the matrix clause. These issues will be addressed in the description of the various derivational stages as presented in (18).

18. (a) The verb stem *-baya* externally merges with the identity focus nominal shell  $n_1P^2$  represented in (16), forming a VP projection. This stem enters the derivation with [u-T/A] and [theme- $\theta$ ] features, with the latter valuing the unvalued  $\theta$ -feature of the  $n_1P^2$ . As was claimed in connection with verbal object constructions in the preceding section, the RFM raises to the relevant slot of the verb stem.
- (b) The next step involves merger of the VP with an experiencer light verb  $v$  yielding a  $vP$  projection. Four operations take place at this point. Firstly, the  $v$ 's categorial feature is valued by the lexical verb and the V raises to adjoin to the  $v$ . Secondly, the light verb  $\theta$ -values the  $n_2P$  as agent. Thirdly, the  $v$ 's [acc-case] feature values the case feature of the  $n_1P^2$  and in turn the  $n_1P^2$  supplies the  $v$  with  $\phi$ -feature values. Finally, the movement diacritic associated with the  $v$ 's  $\phi$ -features causes raising of the  $n_1P^2$  to [spec,  $v$ ]. The  $vP$  resulting from this merger and related operations is represented in (19).

19.



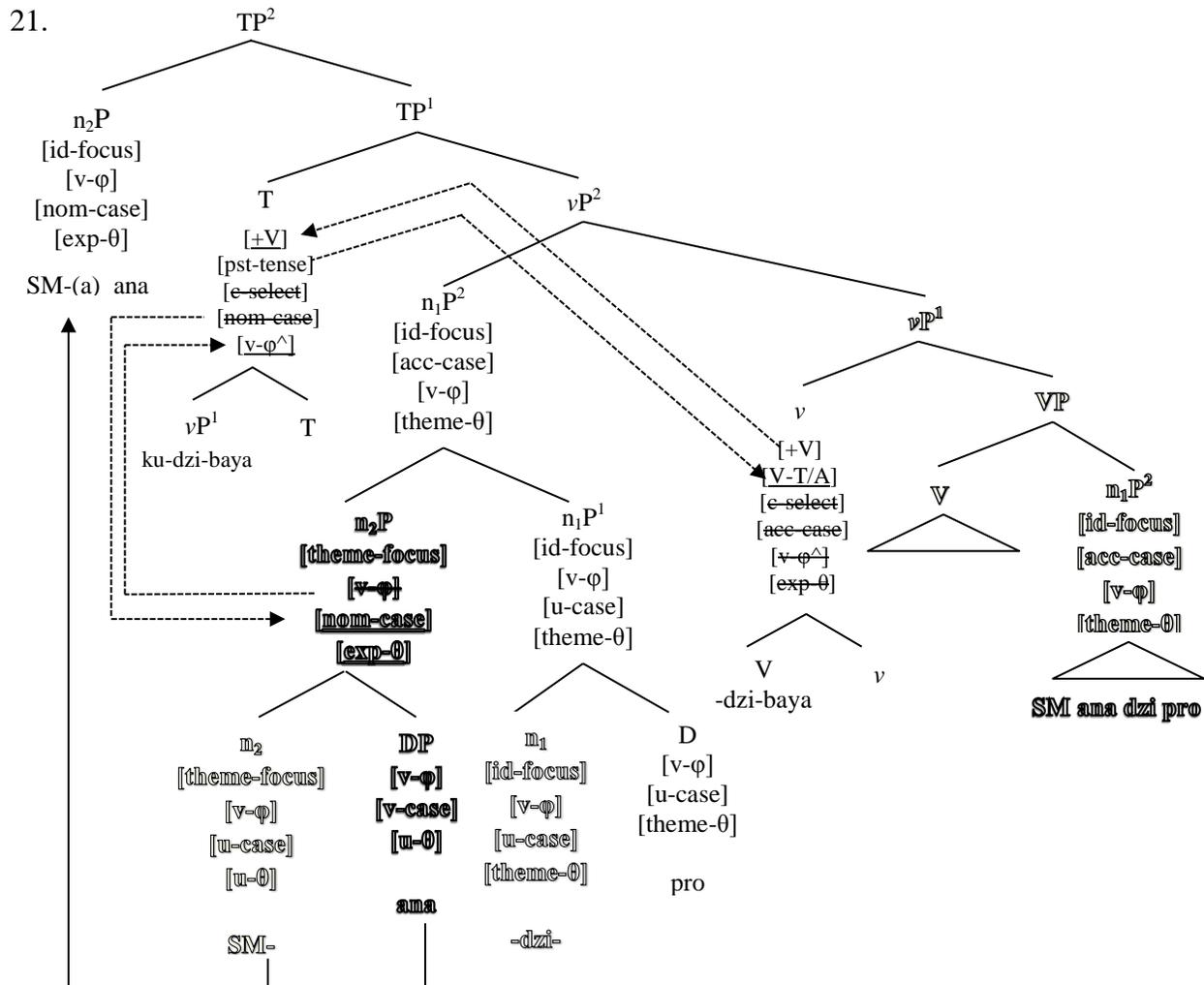
The derivation continues as summarised in (20).

20. (a) The  $vP$  merges with a non-finite  $T$  that contains the  $V$ -related features [inf-tense], [c-select], [v-T/A] and [u-V]. The  $T$ 's tense feature values the corresponding feature of the  $v/V$  and the  $v/V$  provides the  $T$  with a categorial value [+V]. As a consequence, the  $V/v$  is raised to the  $T$ . As regards its  $N$ -related features, the non-finite  $T$  is taken to be  $\phi$ -defective in the sense that it only includes a [u-number<sup>^</sup>] feature (cf. e.g. Oosthuizen 2013:95 and Richards 2011).<sup>93</sup> The movement diacritic on this feature induces raising of the subject  $n_2P$  to [spec  $T$ ].

<sup>93</sup> This idea of the  $T$  containing only an unvalued number feature represents no more than a working hypothesis. Alternatively, it could be claimed that the  $T$  contains only an unvalued person feature or, perhaps, both an [u-number] and an [u-person] feature. Some support for the second possibility just mentioned comes from infinitival nominal constructions, where the default interpretation of *-dzi-* is “oneself”, that is, [3pers, sing-num] (cf. section

(b) Since the non-finite T lacks the  $\phi$ -features of person and noun class, it does not fully agree with the subject DP in this respect. It is claimed here that this lack of  $\phi$  agreement has two consequences: Firstly, there is no raising of the SM into the verbal complex. Secondly, to mark the lack of  $\phi$  agreement between the T and the DP, a default infinitival marker in the form of *ku-* is inserted/phonetically realised in the SM slot of the verb complex.<sup>94</sup>

The structure resulting from these operations can be depicted as in (21).

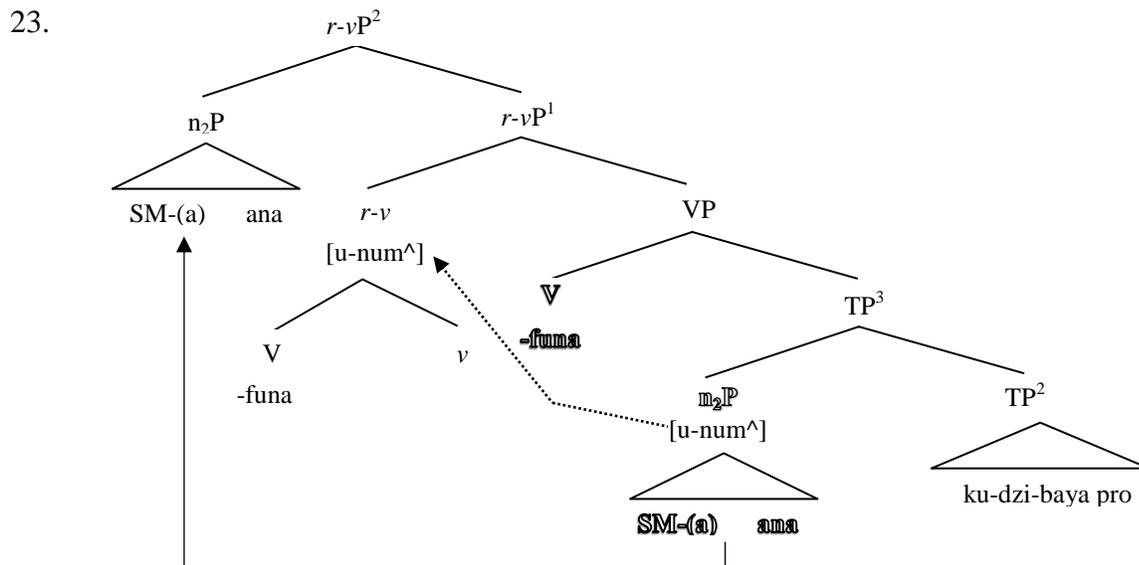


2.3.2.2). It is furthermore assumed here that the T also lacks a case feature. This is in line with the claim made by e.g. Chomsky (2001) and Citko (2008) that only elements carrying a complete set of  $\phi$ -features can value case.

<sup>94</sup> As noted in section 2.3.2 (cf. fn 26), *ku-* has at least two functions, namely as a noun class 15 marker and as an infinitival marker. It is perhaps possible that this affix serves to express both these functions in sentence (16) above. It is not at all clear which device/category brings about the appearance of *ku-* in the verbal complex. This issue is left as a topic for further research.

Adopting the conventional view that raising verbs select an infinitival TP as their complement, the derivation continues with the raising verb stem *-funa* merging with the TP in (21) (Hornstein et al. 2005:348; Radford 2009:41; Oosthuizen 2013:97). The various operations involved at this stage are summarised in (22).

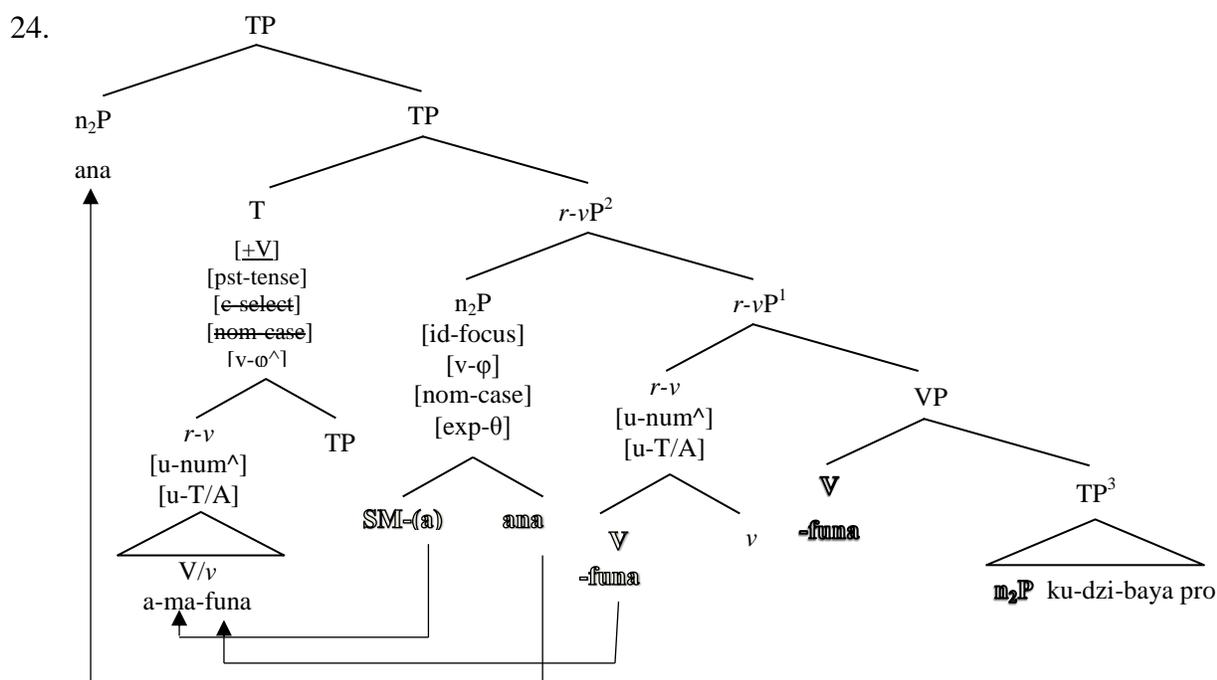
22. (a) The V enters the derivation with an [u-T/A] feature. The V does not assign any  $\theta$ -value to the T, hence there is no feature valuation relationship between them. The resulting VP further merges with a light verb. Oosthuizen (2013:96-97) claims that the light verb associated with raising verbs (*r-v*) is featurally defective in three ways: it lacks a  $\theta$ -feature<sup>95</sup> and also a case feature since it does not select an internal nominal argument that has to be case-valued; furthermore, just like the *v* of the infinitival clause, the *r-v* does not carry a full set of  $\phi$ -features, but only a [u-num<sup>^</sup>] feature.
- (b) In light of the foregoing description, the following operations now take place. Firstly, the V raises to *v*. Secondly, the [u-num<sup>^</sup>] feature of the *r-v* values the corresponding feature of the *n*<sub>2</sub>P which is within the *r-v*'s c-command domain. Thirdly, the nominal expression *n*<sub>2</sub>P raises to [spec, *r-v*]. The resulting structure will be along the lines in (23).



<sup>95</sup> Recall that the surface subject of the matrix clause has already been assigned its  $\theta$ -value by the light verb of the embedded infinitival clause (cf. (18b) above).

The  $\nu$ P structure in (23) next merges with a T carrying the V-related features  $[u-V]$ ,  $[c-select]$ ,  $[pres-tense]$ , and the N-related features  $[u-\phi^{\wedge}]$  and  $[nom-case]$ . The T values the tense feature of the  $r-\nu/V$  *-funa* as past with the  $r-\nu/V$  supplying the T with a positive value for its categorial feature. The T also values the case feature on  $n_2P$  *ana* as nominative and in turn the  $n_2P$  values the T's  $\phi$ -features. In the process, the SM is raised into the verb's SM slot. The movement diacritic carried by the T's  $\phi$ -features furthermore triggers raising of the  $n_2P$  containing the subject DP into  $[spec-TP]$ , thus extending the T's projection to  $TP^2$ . The final stage of the derivation involves the merger of  $TP^2$  with C, which gives the sentence a declarative force.

The structure resulting from these operations can be represented in the tree diagram in (24).



### 5.3.4 Infinitival nominal reflexive constructions

As stated in section 2.3.2.2, the interpretation of infinitival nominal reflexive constructions, such as those in (25), differs from that of their verbal counterparts. As shown in these examples, infinitival nominal constituents occur in typical DP positions, for instance as the object of the preposition *za* (“about/of”) and in the surface subject position as in (25a) and (25b), respectively.

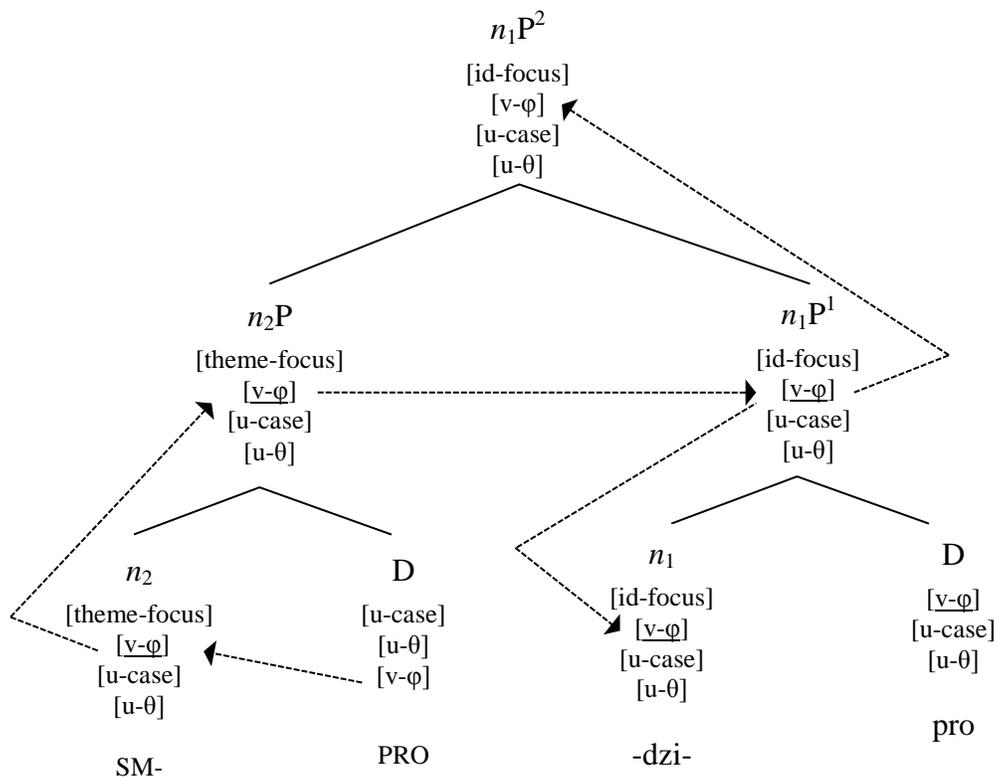
25. (a) Ana                    a - na - imb - a                    za                    [ku - dzi - lum - a]  
           2.children            2SM-T/A-sing-FV                    about            INF-RFM-bite-FV  
           “The children sung about biting oneself.”
- (b) [Ku-dzi-luma]    ku - ma - waw - its - a                    mutu.  
           biting                    INF-T/A-pain-CAUS-FV                    3.head  
           “Biting oneself causes headache.”

Nominal infinitives show typical characteristics of gerunds found in languages such as English. According to a rich body of literature on this phenomenon, gerunds are analysed as a type of nominalisation in the sense that their internal syntax is clausal while the external structure is that of a nominal expression (c.f. e.g. Jespersen 1940; Lees 1966; Ross 1973; Heyvaert 2003; De Smet 2010).

As shown in the glossing of (25), the reflexive occurring in nominal infinitives in Chichewa do not show a coreferential relationship with the antecedent in the matrix clause; rather, it receives the default interpretation “oneself”. This phenomenon can likely be attributed to specific grammatical properties of the infinitival construction. It was claimed in section 2.3.2.2 that the antecedent for the reflexive in a nominal infinitive clause represents a PRO. Such an analysis is in line with analyses of gerunds in languages such as English (cf. e.g. Reuland 1983; Pires 2001; 2006). Against this background, let us now consider the derivation of nominal infinitival reflexive constructions within an analysis incorporating an identity focus nominal shell.

Consider again the example in (25a). In terms of the NSA, the reflexive originates in the nominal shell described in (26) below. Apart from two differences, this structure is the same as the one that was proposed in the case of finite verbal object and infinitival verbal reflexive constructions (cf. sections 5.3.1 and 5.3.2). The two differences concern the c-selection of PRO as the complement of the [theme-focus] light  $n_2$ , and the phonetically empty nature of the SM.

26.

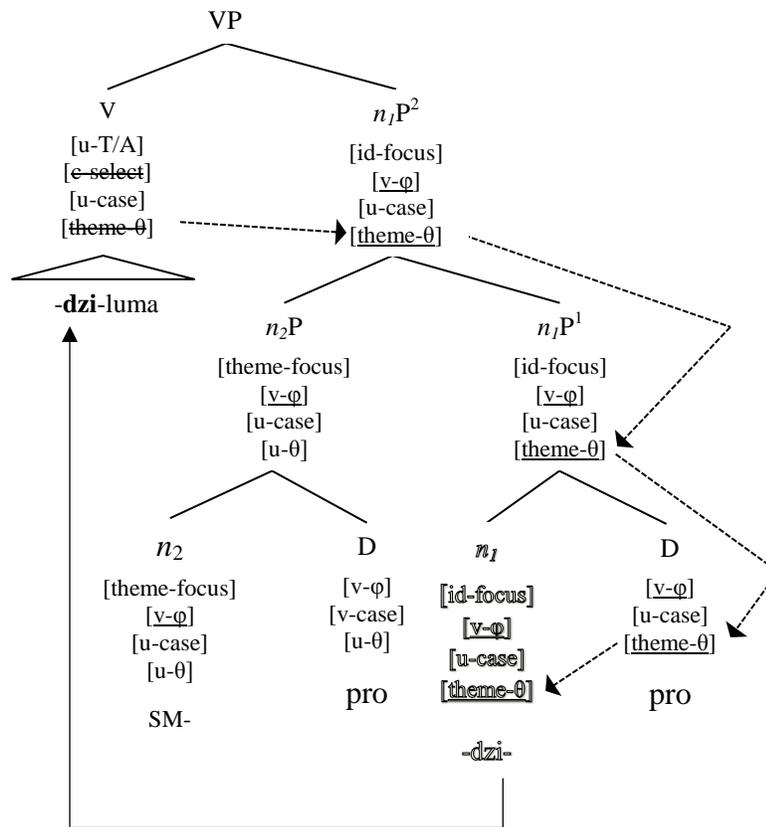


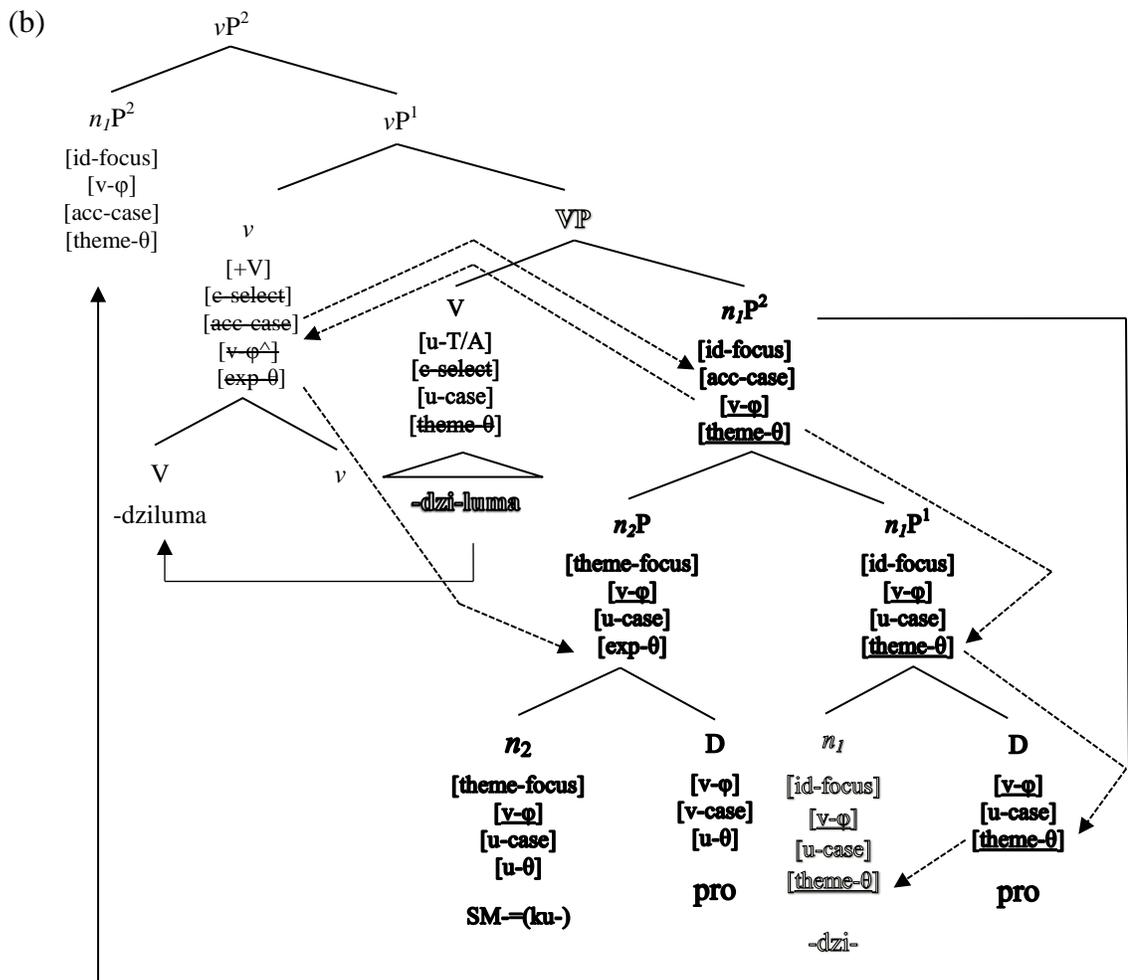
As shown by the dotted arrows in (26), the  $n_2$  and the  $n_1$  – and accordingly their respective projections as well – get their  $\phi$ -values from the D PRO. Based on the interpretation of (25a), these values are taken to be third person, singular number, and noun class 15. Thus the arbitrary interpretation “someone” of *-dzi-* is a consequence of the  $\phi$ -agreement relationship that is established in the  $n_1P^2$  configuration between the RFM and the PRO. The rest of the derivation continues as summarised in (27).

27. (a) The identity focus nominal shell  $n_1P^2$  in (26) merges with the verb stem *-luma*. This results in the verb’s  $\theta$ -feature valuing the corresponding feature of the  $n_1P^2$  as theme. The RFM *-dzi-* subsequently raises to the verbal complex’s RFM slot.
- (b) The VP merges with an experiencer light verb *v*, giving rise to a number of operations. Firstly, the *v*’s categorial feature is valued as [+V] by the V, and the V raises to adjoin to the *v*. Secondly, the *v*’s  $\phi$ -features are valued by the  $n_1P^2$  and in turn the *v* values the  $n_1P^2$ ’s case as accusative. Lastly, the movement diacritic on the *v*’s  $\phi$ -features triggers raising of the  $n_1P^2$  into the light verb’s [spec, *v*] position. The structure resulting from these operations can be

represented as in (28), where (28a) shows merger between the V and  $n_1P^2$  and (28b) shows merger and operations involving the  $v$  and the VP.

28. (a)



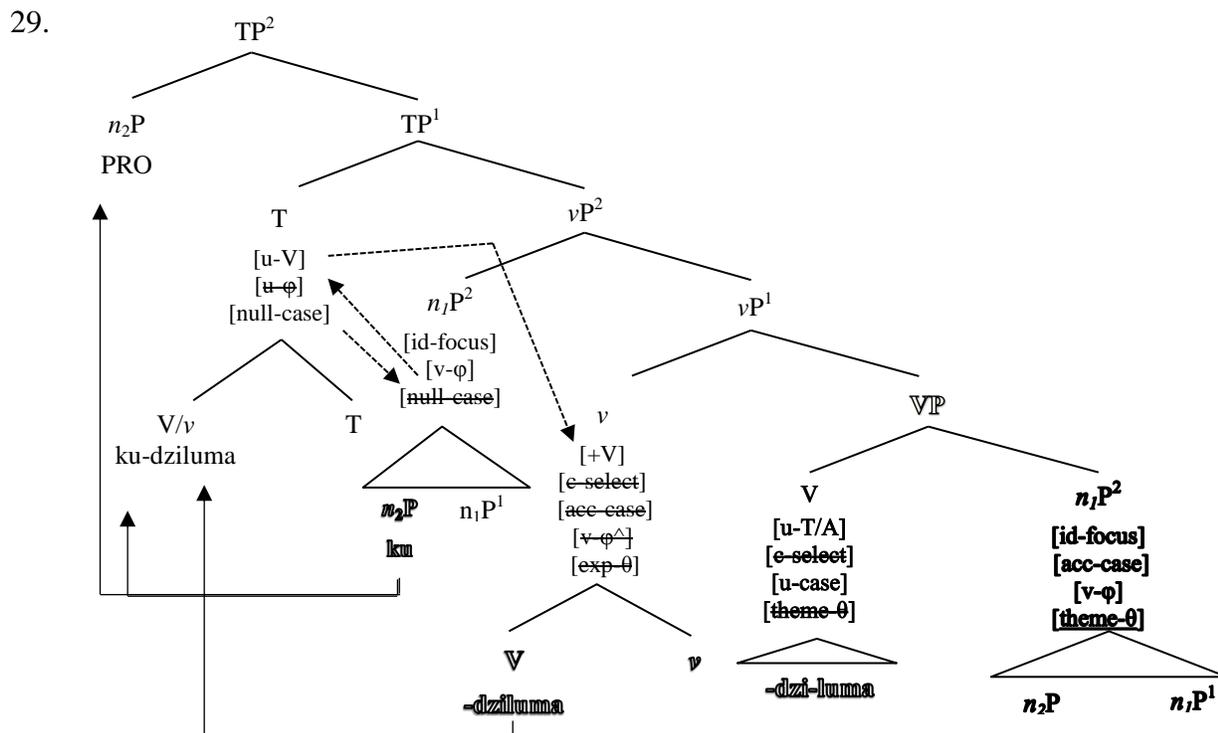


The  $vP$  in (28) next merges with a T.<sup>96</sup> As was stated in section 5.3.2, this T carries the V-related features [v-T/A], [uV]. As regards its N-related features, it is assumed here that the T carries (i) a case feature with a null value, i.e. [null-case],<sup>97</sup> and (ii) a set of  $\phi$ -features that is incomplete in the sense that it comprises [u-pers, u-num] but lacks a noun class feature. The various features of the T enter into the following valuation operations. Firstly, the T values the unvalued T/A feature on the V/ $v$  and in turn the T's categorial feature is valued as [+V]; the V moreover raises to the T. Secondly, the T assigns null case to the  $n_2P$  containing the PRO. Thirdly, the T's  $\phi$ -features are

<sup>96</sup> Following analyses suggested for English and several other languages, we will consider the nominal infinitive as gerunds of the PRO-*ing* category (cf. Reuland 1983:115; Felser 1999:58-59; Pires 2001:1-2, 2006). Gerundive structures have been analysed in different ways in the literature; for instance, some claim that gerunds project a defective TP, others analyse it as projecting only up to the  $vP$ , whereas in other studies the TP is taken to be dominated by a DP. As regards the Chichewa data, there is strong support that there is a T involved since Chichewa infinitives can inflect for tense/aspect.

<sup>97</sup> For the idea that PRO is assigned null case, cf. e.g. Chomsky & Lasnik (1993); Watanabe (1993); Martin (2001); Hornstein et al. (2005).

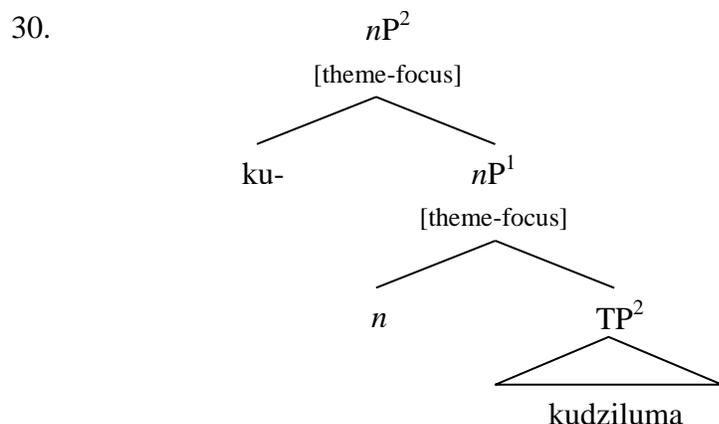
valued by the  $\phi$ -features of  $n_2P$ ; the movement diacritic associated with the T's  $\phi$ -features causes the  $n_2P$  to raise to [spec T]. Finally, it is assumed that the class 15 SM raises to the relevant slot in the verbal complex.<sup>98</sup> The TP resulting from the operations just outlined, may be represented in simplified form as in (29).



Unlike in the verbal infinitives discussed in section 5.3.2, nominal infinitives such as the one represented in (29) have clear nominal properties. For one thing, such infinitives are interpreted as nominal expressions; for another, they occur in positions that are associated with nominal expressions, e.g. the subject, verbal object and prepositional object position. This nominal nature of the infinitive in sentences like (25a) is, however, not accounted for in (29), where it is simply represented as an infinitival TP with a T that is valued [+V]. In short, then, the question is how to account for the nominal nature of the TP in (29). Although a proper investigation of this question falls outside the scope of the present study, a possible approach may be briefly outlined here. On

<sup>98</sup> As mentioned in section 2.3.2 (cf. fn. 26), the item *ku-* can serve (i) as a noun class 15 SM and also (ii) as an infinitival marker. In terms of the analysis just outlined, the infinitival verbal complex in (25a) contains both an infinitival marker *-ku-* and an SM *ku-*. As a working hypothesis, it is assumed here that these two adjacent items are spelled out as a single item *ku* in the phonological component; in other words, the *ku-* occurring in (25a) serves as both an SM and an infinitival marker.

this approach, the TP in (28) would get its nominal character by virtue of being the complement of a nominal head, more specifically, a light noun, as shown in (30).<sup>99</sup>



The obvious question that arises concerns the specific type of light noun that is involved in the selection of a nominal infinitive. A possibility that could perhaps be considered is that it represents a theme focus light noun, such as the one heading the  $n_2P$  in (29). At this point, however, no firm claims can be made in this regard. The details and merit of the analysis just outlined are accordingly left here as topics for further research.

## 5.4 Summary

This chapter addressed two main topics. The first dealt with structural issues involving the subject/SM and the object/OM, and also the manner in which the SM, OM and T/A get incorporated into the verbal complex. It was argued that the subject DP and the object DP are initially merged as the complement of their respective markers, that is, the SM and the OM, where these markers each head a light noun phrase. As regards the incorporation of the T/A morphemes into the verbal complex, it was claimed that this takes place at the relevant stages where the verbal complex is merged with the relevant categories containing these affixes. The second main topic involved the development of a minimalist analysis of obligatory reflexivity in

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<sup>99</sup> This approach is similar to the one put forward by, e.g. Abney (1987). In these analyses, the infinitival expression is selected as the complement of a D, which means that the infinitival expression as a whole functions as a DP. For related analyses, cf. e.g. Reuland (1983), Miller (2002), Pires (2006).

Chichewa within the NSA framework set out in Chapter 4. Focusing on verbal object reflexive constructions (section 5.3.2), infinitival verbal reflexives (section 5.3.3), infinitival nominal reflexives (section 5.3.4), it was argued that such an analysis can account for the facts of Chichewa without requiring any additional devices to those already provided for within the minimalist model.

## Chapter 6

### Summary and Conclusion

#### 6.1 Summary and main findings

This study focused on obligatory reflexivity in Chichewa, a phenomenon that has received relatively little systematic attention in the literature on Chichewa and related languages of the Bantu family. The study had two main objectives. The first was to provide a detailed description of the facts of Chichewa reflexive elements and the constructions in which they occur. The second objective was to provide an account of these facts within the broad framework of Minimalist Syntax. More specifically, an attempt was made to determine whether the minimalist Nominal Shell Analysis of obligatory reflexivity (NSA) proposed by Oosthuizen (2013) can provide an adequate theoretical basis for explaining the manner in which the coreferential relationship between the reflexive affix (RFM) *-dzi-* and its antecedent is established.

Chapter 2 provided a non-formalistic description of the following four types of constructions in which obligatory reflexivity can be expressed in Chichewa:

- (i) Verbal object constructions, where the verbal complex containing a transitive verb includes the RFM *-dzi-* in its object marker (OM) slot. The RFM takes its reference from the subject marker (SM) and/or the subject DP.
- (ii) Infinitival verbal reflexive constructions, where the RFM in the verbal complex enters into a coreferential relationship with the SM and the subject DP in the matrix clause.
- (iii) Infinitival nominal reflexive constructions and (iv) expletive sentences, where the RFM in both cases receives the non-specific interpretation “oneself”.

Chapter 3 presented a brief survey of four previous studies on reflexives in Chichewa and other Bantu languages, namely those of Mchombo (1993, 2004, 2007), Storoshenko (2009), Sikuku (2012) and Amidu (2004, 2011). The studies deal, in varying degrees, with two main issues: (i) the grammatical status of the RFM and (ii) the establishment of the coreferential relationship between the RFM and an antecedent. As regards the first issue, the four analyses share the view that the RFM represents a type of incorporated argument that functions as the complement of a transitive verb. However, they offer different accounts of how the coreferential relationship is established. Mchombo (1993, 2007), working in the framework of Lexical Functional Grammar,

states that the coreferential relationship between the subject and the RFM is established when the functional attributes SBJ and OBJ of these expressions are linked within in a c-command domain. In contrast, Storoshenko's (2009) account adopts a logical relationship approach involving a quantifier (i.e. the subject/SM) and a bound variable (i.e. the RFM). On this account, the subject/SM and the RFM are not in antecedent-pronoun relationship, and the pronoun is taken to be a mere placeholder. Sikuku (2012) does not address the issue of the relationship between the subject and the RFM, focusing instead on how the RFM is derived within the broad minimalist framework. He states that the RFM and the OM both originate in the verb complement position from where they undergo movement to [spec,  $\nu$ P].

The final study reviewed in chapter 3 was that of Amidu (2004, 2011) who departs from conventional, largely descriptive approaches to Bantu reflexives. Firstly, Amidu claims to have identified two reflexive expressions in Kiswahili that have escaped attention in previous studies, namely the nominal anaphors *nafsi* and *roho* ("self, life, spirit"). He argues that these nominal anaphors do not require any antecedents but should be analysed in the same manner as any other object DP. Based on the properties of these two expressions, Amidu (2004, 2011) states that the RFM in Kiswahili likewise does not enter into any coreferential relationship with another expression in the sentence.

Chapter 4 provided the theoretical background for the analysis of reflexivity in Chichewa that was presented in chapter 5. To this end, a brief description was given of the core assumptions and devices of minimalist syntax, followed by an explication of the central hypotheses of the NSA as applied to Afikaans and languages of the Southern Bantu family, specifically isiXhosa.

In chapter 5 an attempt was made to develop an NSA analysis of (obligatory) reflexivity in Chichewa. The analysis focused on the three types of reflexive constructions outlined in (i)-(iii) above.<sup>100</sup> It was argued that the derivation of these reflexive constructions, and specifically the establishment of the coreferential relationship between the RFM and its antecedent, can be accounted for straightforwardly within the framework of Oosthuizen's (2013) NSA, making use of devices that either provided by or compatible with those found in MS. In the course of the discussion, it was also proposed that the SM and OM originate in a similar nominal shell

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<sup>100</sup> Because of the limited scope of this study, expletive reflexive constructions (cf. section 2.3.3) were not examined in chapter 5. As was noted in section 5.3.4, it is likely that this type of construction can be analysed in the same manner as infinitival nominal reflexive constructions, especially in view of the fact that the RFM receives the non-specific interpretation "oneself" in both these construction types.

structure as the RFM, with the SM representing a theme-focus light noun and the OM a presentational-focus light noun. Like the RFM, the SM and the OM are subsequently raised into their respective slots in the verbal complex.

## 6.2 Final remarks

The investigation in this study was limited to the syntax of Chichewa reflexive constructions involving the affix *-dzi-*. As was made clear throughout the discussion, there are several related issues in Chichewa that require further investigation. One such issue concerns the use of the reflexive emphasiser which consists of a noun class marker plus the invariant suffix *-kha*. Consider for instance the example in (1). In this case the reflexive emphasiser *chokha* (“itself”) is in a coreferential relationship with three elements, namely the subject *chilombo* (“the beast”), the SM *chi-*, and the RFM *-dzi-*.

1.        *chilombo*<sub>k</sub>            [*chi*<sub>k</sub> - *na* - *dzi*<sub>k</sub> - *pweteka*]    *cho*<sub>k</sub> - *kha*.  
           7.beast                7SM-T/A-RFM-hurt                7SM-self  
           “The beast hurt itself.”

It is not clear exactly how the various instances of coreferentiality illustrated in (1) can be accounted for within the analysis set out in chapter 5. One possible way would be to posit that the three elements involved in these coreferential relationships initially all form part of the same nominal shell headed by the RFM, with this *nP* in turn containing two further *nPs*, one headed by the SM *chi-* and one by the emphasiser *-kha*. In the resulting configuration the  $\phi$ -features of the subject would then value those of the three *n*-heads. In terms of the NSA, such  $\phi$ -valuation would result in the observed coreferential relationships. The merit of such an analysis is left here as a topic for further research.

A second issue that requires further investigation concerns the reflexive use of possessive pronouns (cf. section 2.1). In this respect, it might be profitable to explore Oosthuizen’s (2013: section 3.2.6) proposal that such possessive reflexive constructions involve two *nPs*, one headed by an identity-focus light noun and one by a possessor-focus light noun. Related to this

phenomenon is Amidu's (2004, 2011) analysis of the phenomenon of nominal reflexive anaphors in Kiswahili (cf. section 3.4), which are also accompanied by possessive pronouns. From a comparative perspective, an investigation of the Kiswahili and the Chichewa data might provide insight into the syntax of both nominal anaphors and possessive reflexive constructions.

One final issue concerns the various noun class markers that are typical of the Bantu languages. In this study, no attention was given to the categorial status and structural properties of such elements. It could perhaps be argued that the element that is usually phonetically realised as a noun class prefix actually represents a functional category, most likely a light noun. This *n*-head would then be merged with a nominal complement, which may conceivably be analysed as a nominal stem. The merit of such an approach represents yet a further topic for investigation.

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