

Chapter 3

A fragment of the grammar of Northern Sotho

3.1 Introduction

This chapter will describe a significant fragment of the Northern Sotho grammar, i.e. the definition of Northern Sotho words and phrases in terms of the order in which the POS can appear in them. The rules on how the phrases then combine to form permitted phrases and sentences are also explained.

Distributed Morphology (henceforth DM), as described in Embick and Noyer (2007), offers – at first glance – a similar perspective. Embick and Noyer (2007, p. 290) describe that in DM, a word “is not a privileged derivational object as far as the architecture of the grammar is concerned, since all complex objects, whether words or phrases, are treated as the output of the same generative system (the syntax)”¹. In describing a token-based grammar system for a disjunctively written language, we seem to follow this principle of DM and like in DM, the grammar fragment described in this study utilizes morphemes, not linguistic words in its rules.

However, this study is not in line with DM, as a token of Northern Sotho still might present a complex word formed by morphological processes not described here. Therefore, we assume a system lexicon to be present, while in DM, there is no lexicon. Moreover, we do not describe a Phonological Form (PF) which is indeed described in DM.

¹On Rolf Noyer’s webpages on DM at the University of Pennsylvania (<http://www.ling.upenn.edu/~rnoyer/dm/>), he describes DM inter alia as “Syntactic Hierarchical Structure All the Way Down”.

This section begins with an overview of the constellations described by Lombard (1985). It will attempt to map these onto structures we find in Poulos and Louwrens (1994). This consequently means that we might add to the rules of Lombard whenever it is necessary by using rules defined by Poulos and Louwrens (1994), if such structures appear in the analysed sentences. There are significant differences in their definitions of verbal moods which will be explored later in this chapter. However, as we aim to consistently retain the computational perspective in this study, we cannot side with either of the authors and opt for viewing the described constellations only in terms of their processability.

In order to gain a wider overview of possible constellations, Van Wyk et al. (1992) and Louwrens (1991) will be considered as well. This is not a trivial task because different word class systems and categorisations are used by these authors, of which some are of a contradictory kind, hence the different approaches are all described wherever possible. In any other cases, there will be a reference to the appropriate literature.

Note that some of the phenomena described by several of these authors will not be considered, like the insertion of some rather rare “aspect prefixes” Poulos and Louwrens (1994, p. 289 et seq.) or “prefixal morphemes” (Lombard, 1985, p. 148) into verbal elements. This and other issues might be accounted for at a later stage of the project. No distinction will be made between a morphological and a syntactic rule, hence the term ‘morphosyntactic’ rule is used. Generally, all elements constituting the verb, for example, will equally form one verbal phrase, regardless of whether they are bound morphemes (cf. paragraph 1.1) or e.g. a nominal phrase appearing as the verb’s object. We opted for this unusual method mainly because of the object concord. On the one hand, this concord functions as a pronominal object of the verb whenever it appears whereas on the other hand it remains a bound morpheme and constitutes a morphological part of the verb. In Northern Sotho there are therefore cases of bound morphemes with a syntactic function, including that of the object.

Like the object nominal that can be represented by an object concord, the subject nominal in Northern Sotho clauses can be omitted. In this case, the subject concord, another bound morpheme, will acquire the function of the grammatical subject².

²The object concord usually only appears whenever the object noun is deleted, while the subject concord is present in all predicative verb constellations where it usually is responsible for the agreement with the subject.

As shown in the previous chapter, some definitions of Taljard et al. (2008), on which our tagset is based, may be different from the descriptions found in the literature referenced above. To avoid confusion, only the tagset of Taljard et al. (2008) will be used (for an overview, consider Tables 2.20 and 2.21 (a) and (b) on pages 65, 67, and 68) in the following rule definitions.

The section begins with verbal phrases (VPs) of Northern Sotho, followed by noun phrases (NP) and continues describing adjunctive phrases like the particle phrase (abbreviated PP for their similarity with prepositional phrases of English or German), adjective phrase (AP), and adverb phrase (ADVP). It will end with a brief discussion of Northern Sotho clauses and sentences.

3.2 The Verbal Phrase (VP)

3.2.1 Introduction

3.2.1.1 Basic Verbal Phrase (VBP) versus Verbal Inflectional Element (VIE)

For sake of convenience, we repeat the example (1) on page 9 as (34). It contains the disjunctively written verb *ke tlo apea* within a clause. It demonstrates that a verb in Northern Sotho usually contains (a number of) bound morphemes written separately, but in a certain order (these morphemes precede the verb stem). The word class V (representing only the verb stem (cf. paragraph 2.7)) should therefore not be confused with complete verbs³. Figure 3.1 shows a morphosyntactic analysis of (34).

- (34) *Nna*_{PROEMPERS_1sg} *ke*_{CSPERS_1sg} *tlo*_{MORPH_fut} *apea*_{V_tr} *dijo*_{N10}
 emp-1st-sg subj-1st-sg fut cook food
 ‘I (personally) will cook (the) food’

When examining Northern Sotho verbal phrases, it can be observed that the constellations of morphemes preceding the verb stem determine the mood, the tense, and the actuality⁴

³For a more detailed argument on this definition, cf. Poulos and Louwrens (1994, p. 165 et seq.)

⁴Lombard (1985, p. 139 et seq) introduces the distinction between the sub-categories mood, tense and actuality of the verbs of Northern Sotho.

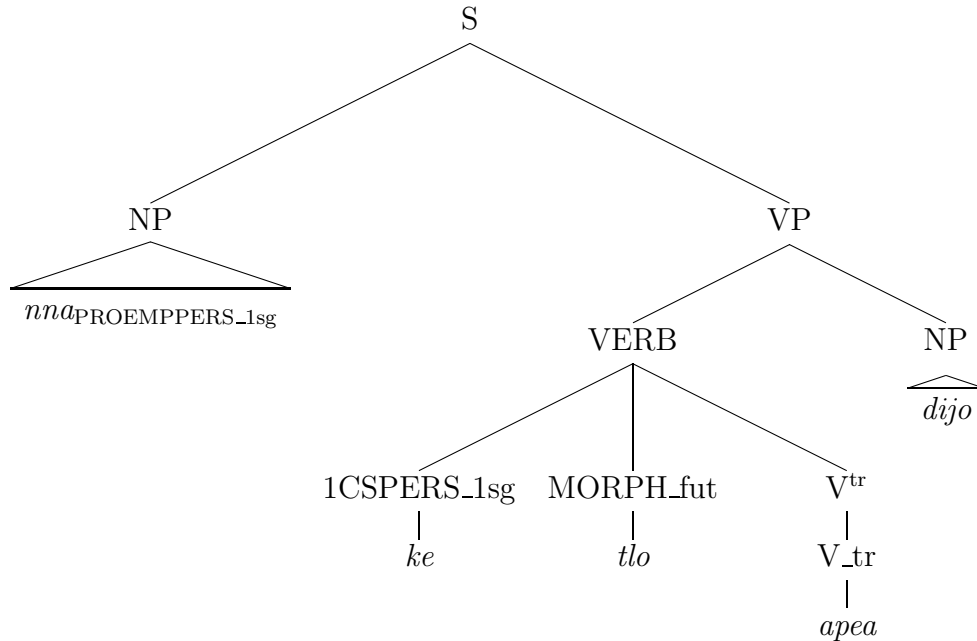


Figure 3.1: First analysis of *nna ke tlo apea dijo* ‘I (personally) will cook (the) food’

(i.e. the positiveness or the negativeness) of the verb as a whole. The category of the subject concord(s) appearing in a predicative verb must be identical with the category of its subject (agreement in class and person). The verb stem’s ending is also determined by the tense and the actuality.

The verb stem’s lexical semantics on the other hand determines the kind and number of its necessary arguments. In other words, the type and number of syntactic functions which should appear in the clause or sentence are determined by the verb stem’s valency only.

The position of these functional arguments is dependent on i.a. emphasis; topicalisation of an object, for example, may occur. However, usually the subject precedes the verb (like *nna* does in example 34) even if represented by a pronoun or by another pronominal (e.g. a demonstrative concord), while the functional object follows the verb stem and precedes possible adverbial extensions. The object can also be represented by an object concord preceding the verb stem (cf. paragraph 3.2.1.8). If there are two objects (required by double transitive verb stems), the indirect object will precede the direct object⁵. Unlike

⁵This ordering of the two objects is described by Ziervogel (1988, p. 82) as a rule solely for the applied verbal extension. However, all other sample sentences that were examined in the scope of this study show

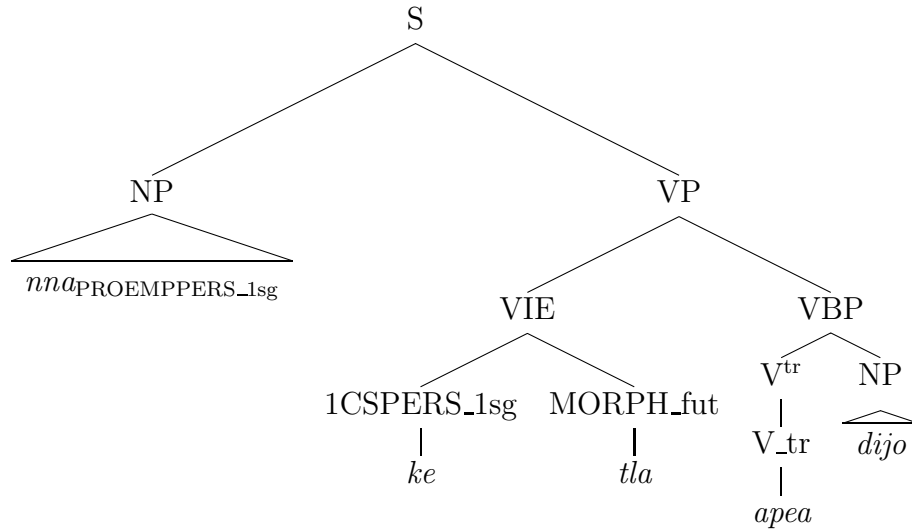


Figure 3.2: Second analysis of *nna ke tlo apea dijo* ‘I (personally) will cook (the) food’

in other Bantu-languages (e.g. Tswana), in Northern Sotho, only one of the two objects of the double transitive verb – namely the indirect object – is usually represented by an object concord.⁶

To appropriately describe these phenomena, an independent structure is defined, the basic verbal phrase (VBP), which contains the verb stem and its object(s) (cf. paragraph 3.2.2). All other elements of the verb will be grouped separately into the verbal inflectional element (VIE). Figure 3.2 reflects this view.

3.2.1.2 Terminology used in this chapter

The terms ‘verbal inflectional element’ and ‘basic verbal phrase’ should not be confused with the term “verbal element” by Louwrens (1991, p. 17) who describes this term as a “main verb or an auxiliary word group” (without adjuncts). Louwrens (1991, *ibid.*) furthermore defines the term ‘predicate’ as including the verbal element and its adjuncts. Some linguists do not agree with this point of view, e.g. Bußmann (2002, p. 527) who explicitly describes

this order, therefore we take it as a general rule.

⁶When examining sample sentences, only one example of a direct object being represented by a object concord was found with a verb subcategorising direct and indirect object: *ke le ngwalela tate*, ‘I write father it (a letter)’. No respective rules were found in the literature. Because *tate* ‘father’ could also be understood as an (adverbial) addressee, it was decided not to consider this case further.

the predicate as only containing the verb itself (proper main verb or copulative) or a verbal word group (e.g. auxiliary word group)⁷. In this study, the following terms are used (note that in the absence of adjuncts a predicate may constitute a VP):

- VBP : The verb stem and its objects;
- VIE : Inflectional elements of the verb;
- Predicate : VIE and VBP;
- VP : Verbal Phrase: VBP, VIE (optional), and adverbial constituents.

3.2.1.3 Introduction to the modal system

Lombard (1985, p. 144) gives an overview of verbal constellations. We present the data of Table 7.5.4 (Lombard (1985, *ibid.*)) in our Tables 3.2 and 3.3. These tables are augmented with information of the respective definitions of Poulos and Louwrens (1994). For each of those subcategories, constellations and examples will be shown in the following paragraphs. Table 3.1 however introduces the terms used in the modal system according to Lombard (1985, p. 139 et seq.).

⁷For a more detailed discussion on this issue, cf. e.g. Glück (2000).



Table 3.1: Lombard’s modal system

General	Dependency	Ind./Mod.	Mood	Comments	
Predicative	Independent			refers to a subject	
		Indicating	Indicative	not dependent on other information, distinguishes tenses	
		Modifying	Situative Relative	in main clauses not in main clauses modifies the verb modifies the noun	
	Dependent			dependent on other information, does not distinguish tenses	
			Consecutive	chronologically dependent	
			Subjunctive	causatively dependent	
			Habitual	habitually dependent	
	Non-predicative			Imperative Infinitive	does not refer to a subject

Table 3.2: Lombard's definition of independent moods compared with the respective constellations described by Poulos and Louwrens

Lombard	Tense	Actuality	Poulos and Louwrens
Non-predicative moods			(no subject concords)
IMPERATIVE		positive	✓
		negative	✓
INFINITIVE		positive	✓
		negative	✓
Predicative moods			Incorporation of subject concords
Independent moods			
INDICATIVE (indicating mood)	Imperfect	positive	✓INDICATIVE PRINCIPAL
		negative	✓
	Perfect	positive	✓
		negative	✓
	Future	positive	✓
		negative	✓
SITUATIVE (modifying mood)	Imperfect	positive	✓PARTICIPIAL (dependent)
		negative	✓
	Perfect	positive	✓
		negative	✓
	Future	positive	✓
		negative	✓
RELATIVE (modifying mood)	Imperfect	positive	not a mood
		negative	
	Perfect	positive	
		negative	
	Future	positive	
		negative	



Table 3.3: Lombard’s definition of dependent moods compared with the respective constellations described by Poulos and Louwrens

Lombard	Actuality	Poulos and Louwrens
Dependent moods		
CONSECUTIVE	positive	✓ CONSECUTIVE
	negative	✓
SUBJUNCTIVE	positive	✓ SUBJUNCTIVE
	negative	✓
HABITUAL	positive	✓ HABITUAL
	negative	✓
described as deficient auxiliary verb form		POTENTIAL

3.2.1.4 The slot system

As described in paragraph 3.2.1.1, the verb stem is usually followed by up to two objects of which one may be replaced by an object concord directly preceding the stem. We define the basic verbal phrase, VBP as containing the verb stem and its subcategorised arguments.

This VBP may appear together with bound morphemes to its left forming the VIE. Some of these morphemes appear in complementary distribution, i.e. the presence of some prevents the presence of others. The future morpheme MORPH_fut, for example, never appears together with the present tense morpheme, MORPH_pres. On the other hand, some morphemes in certain constellations have to occur together, like, for example, $ga_{\text{MORPH_neg}}$ $se_{\text{MORPH_neg}}$, forming a negation cluster. Such distributionary issues will be examined and summarised in chapter 4.

In order to simplify the graphical representation and to give a better overview of the many different VIEs, a slot-system is designed, that is, positions of certain parts of speech or parts of speech clusters as parts of phrases are defined. The slot system is then utilised for building morphosyntactic rules aiming at unambiguous analyses which can later be translated into e.g. phrase grammar rules.

The VBP is defined as ‘slot zero’ representing the core element of the VP. It makes use of one to four fields or positions. These VBP positions are numbered from the leftmost pos-1 to the rightmost pos+2, as Table 3.4 demonstrates. In each of the positions pos-1 to pos-0, only one token of a specific part of speech (an object concord and a verb stem respectively) may appear while the positions pos+1 and pos+2 are defined to contain the object(s) of (double) transitive verbs which can be nouns, nominals, noun phrases or even clauses. The central position contained in the VBP, ‘pos-0’, contains the verb stem. Slot zero forms part of all further descriptions of the verbal moods as it remains unchanged. The VIE slots are then built to the left of the VBP numbered as zero-1 to zero-2 (from right to left). Slot zero-1 may only contain one tense marker, i.e. the present tense or one of the future morphemes, while slot zero-2 contains the constellations of subject concord and/or negation marker(s). Except for slot zero, pos-0 containing the verb stem, all other positions are permitted to be empty, as in *Boeletša!* ‘Repeat!’, an imperative.

Table 3.4: A schematic representation of the slot system

The slot system					
VIE		VBP			
zero-2	zero-1	slot zero			
subject	tense marker	verb stem and its object(s)			
and/or					
negation					
marker					
		pos-1	pos-0	pos+1	pos+2
		object	verb	object 1	object 2
		concord	stem		

3.2.1.5 Labels used on nodes

In this study, up to four labels will be attached to the nodes of trees and elements of morphosyntactic rules. Some of these labels are retrieved from the lexicon, e.g. the data that forms part of the word class label (e.g. V or N01_loc), others are added by means of the rules that are defined in this chapter (e.g. a VIE₀₁ containing a subject concord of class 1, CS01). The appearance of labels is demonstrated in (35): the superscript left to the node is reserved for information on the verbal mood of a node, e.g. ^{IND}VP, to describe an indicative VP. The subscript to the left of the node shows a syntactic function, e.g. OBJNP (an object NP). When being used at lexical items, it can however also mark the perfect tense form of a verb stem, i.e. _{perf}V. The superscript to the right of the node is used whenever it is necessary to know the transitivity of an element, e.g. V^{itr} (i.a. an intransitive verb), and the subscript to the right of the node will show the noun class of the node, e.g. NP₀₁ (NP of noun class 01), if necessary.

(35)

grammatical mood		transitivity
NODE		
syntactic function		noun class

The category of a lexical item, as already shown in a number of examples, is annotated as sub to the right, like in *nwa_V* ‘[to] drink’.

3.2.1.6 Labelling information on the transitivity of verbs

A parser should be aware of the transitivity of a verb to avoid ambiguous and/or incorrect analyses. The problem arises especially in the case of Northern Sotho where punctuation is often used sparsely⁸. As a subject concord might represent an omitted subject nominal, any nominal placed between a verb and a subject concord might therefore function either as the object of the preceding, or as the subject of the following clause (cf. Figures 3.3 to 3.7 below). Therefore, whenever the respective punctuation is not present, it is problematic to identify the correct position of the sentence border. Moreover, nouns may generally be used either as arguments or as adverbials; only for locative or locativised nouns it can be said that they probably appear more often with an adverbial function than as an object of a verb, cf. example (36) of Van Wyk et al. (1992, p. 41).

- (36) *ke*_{1CSPERS_1sg} *yav*_{itr} *sekolong*_{ADV}
 subj-1st-sg go to-school
 ‘I go to (a) school’

Without a lexicon containing information on the kind and number of arguments a verb requires, all these cases will be analysed ambiguously if the noun in question and the subject concord are of the same noun class. Example (37) shows an ambiguous case: two clauses, of which one contains a demonstrative concord. These demonstratives may accompany nouns, however, they might also occur with a pronominal function. Without information on the transitivity of the appearing verbs, *rata* ‘[to] like’ and *tlile* ‘arrived’, a number of wrong analyses will ensue.

- (37) *ke*_{1CSPERS_1sg} *rata*_v *mošeman*_{N01} *yocdem*₀₁ *o*_{1CS01} *tlile*_v
 subj-1st-sg like boy dem-3rd-cl1 subj-3rd-cl1 arrived
*maabane*_{N06}
 yesterday
 (see the analyses below)

Figures 3.3 to 3.7 show the possible analyses of the first clause, of which analysis (a) (assuming an intransitive verb) and (c) (assuming a double transitive verb) are incorrect because the verb *rata* ‘[to] like’ is a transitive verb requiring one object. Note that *maabane*_{yesterday} is labelled ADV to mark its adjunctive status in (a) to (d), the incorrect analysis (e) is based on the wrong assumption that *tlile* ‘arrived’ is a transitive verb, hence *maabane* would be

⁸To the best of the author’s knowledge, official rules on where to use punctuation in Northern Sotho sentences have not yet been formulated.

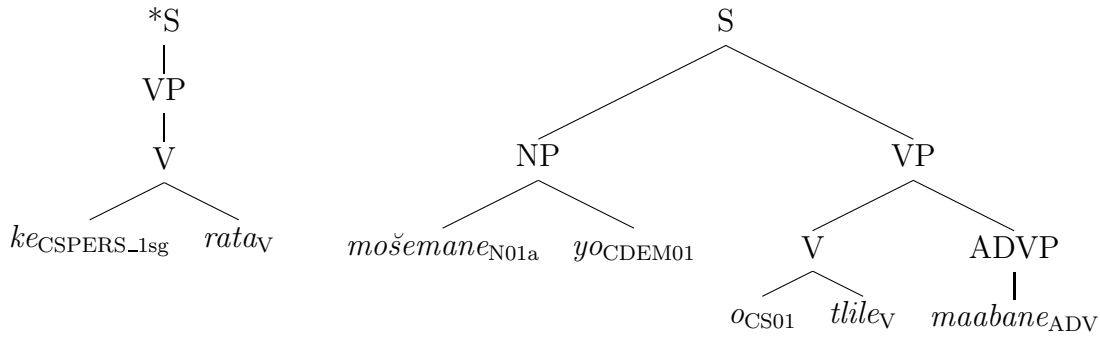


Figure 3.3: Analysis (a): *ke rata mošemane yo o tlile maabane* *‘I like, this boy arrived yesterday’

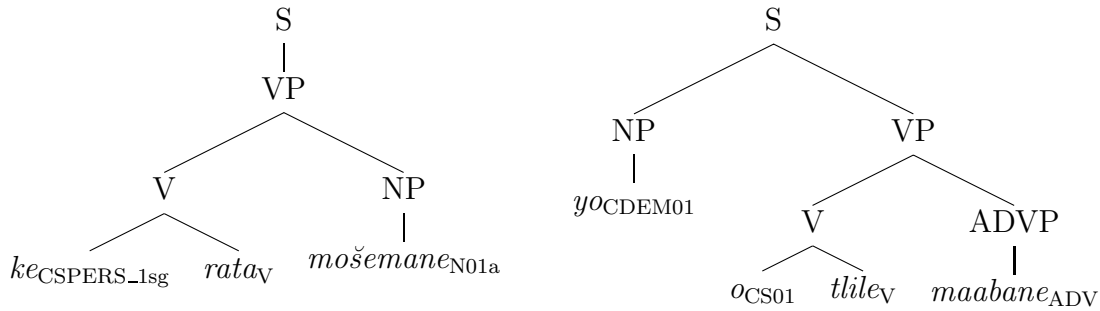


Figure 3.4: Analysis (b): *ke rata mošemane yo o tlile maabane* ‘I like (the) boy, this one arrived yesterday’

analysed as a noun in this case.

In labelling the correct transitivity of a verb together with the introduction of rules that take these labels into account, the incorrect analyses (a), (c) and (e) can be avoided. The transitivity of the verb is therefore annotated on the second level of annotation, i.e. *rata_{V_tr}* ‘[to] like’ to mark that this verb is transitive, *tlile_{V_itr}* ‘arrived’ to mark intransitivity, etc. Paragraph 3.2.3 will describe such rules in detail.

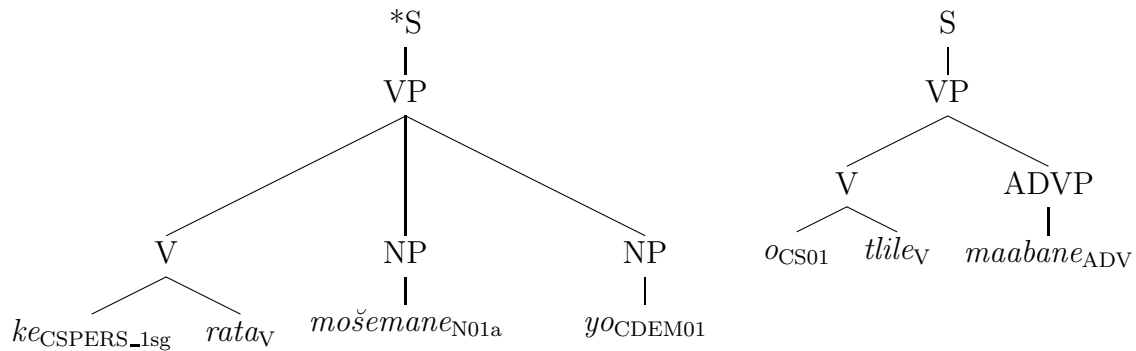


Figure 3.5: Analysis (c): *ke rata mošemane yo o tlile maabane* *‘I like this boy, (some)one arrived yesterday’

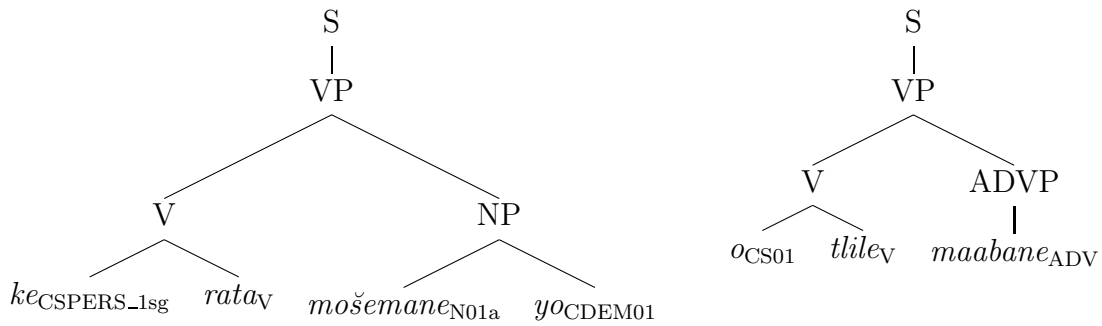


Figure 3.6: Analysis (d): *ke rata mošemane yo o tlile maabane* ‘I like this boy, (some)one arrived yesterday’

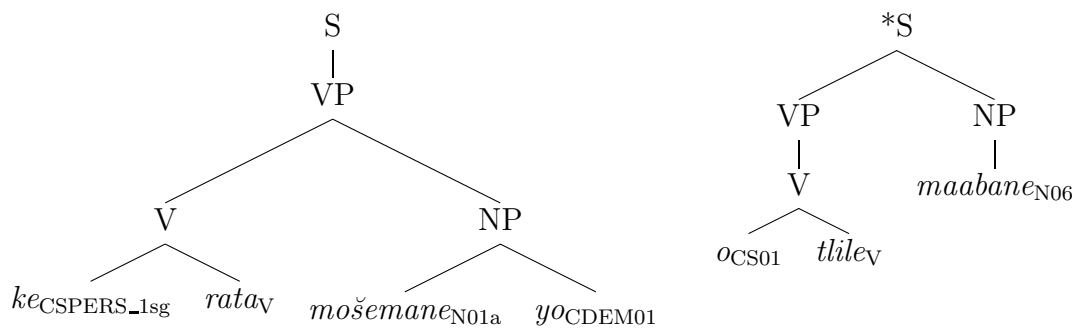


Figure 3.7: Analysis (e): *ke rata mošemane yo o tlile maabane* *‘I like this boy, (some)one arrived yesterday’

3.2.1.7 Saturated verb forms

Another problem arises if an object concord (cf. paragraph 2.4.3) is fused with a transitive or double transitive verb stem, i.e. when both form one single token. This is the case in (38), where the object concord of the first person singular, *N-* ‘obj-1st-sg’ is merged to the verb stems *thuša* ‘[to] help’ and *fa* ‘[to] give’, forming *nthuše* ‘obj-1st-sg-help’ and *mphe* ‘obj-1st-sg-give’⁹.

38 (a) *Nthuše*_{V_tr}!
obj-1st-sg-help!
‘Help me!’

38 (b) *Mphe*_{V_dtr} *puku*!
obj-1st-sg-give book!
‘Give me the book!’

Due to the fact that *thuša* ‘[to] help’ is transitive, a parser would require one overt argument, i.e. an object to be present in the sentences in which it appears. As *fa* ‘[to] give’ is double transitive, two overt arguments would be expected to appear with this verb. As this study is however not concerned with the morphological analysis of fused forms, the fact that these verb forms already contain one functional object (represented by the proclitic object concord) has to be marked in their lexicon entry. A further second level annotation is therefore added to the part of speech label of these verb forms, namely a label indicating this information.

Our solution is based on the observation that the merged object concord figuratively ‘saturates’ the verb’s requirement for an external object, we therefore suggest adding the labels **saturated transitive (sat-tr)** and **half-saturated double transitive (hsat-dtr)** verbs to our set¹⁰ Other saturated forms are e.g. the reflexive forms, where the proclitic *i-* is fused with the stem, like in *ipona* ‘[to] see oneself’ (derived from *bona* ‘[to] see’), these will be annotated accordingly.

Additional labels on words usually add to the number of morphosyntactic rules necessary

⁹Note that these verb stems when containing object concords or the reflexive morpheme end in *-e* or *-eng*.

¹⁰The term ‘saturated’ is chosen for its similarity with its use by Pollard and Sag (1994, p. 38), describing a “saturated phrase”.

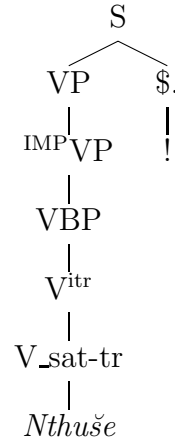


Figure 3.8: *Nthuše!* ‘Help me!’

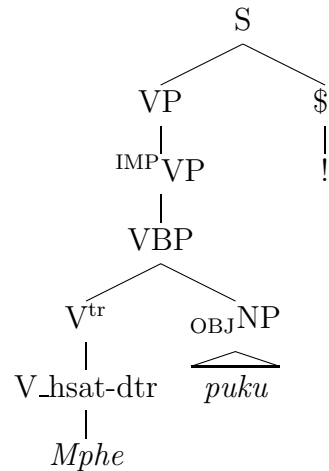


Figure 3.9: *Mphe puku!* ‘Give me the book!’

to describe the verb as they extend the tagset. However, from the perspective of a grammarian, rules containing these labels do not have to be formulated explicitly. A V_{sat-tr} behaves identically to a V_{itr} in requiring no overt object phrase, while a $V_{hsat-dtr}$ behaves identically to a V_{tr} in requiring one overt object to appear. Two simple general rules, syntactically equalising these verb forms ($V_{sat-tr} = V_{itr}$, $V_{hsat-dtr} = V_{tr}$) will allow us to ignore the saturated forms in our morphosyntactic rules, as demonstrated in Figures 3.8 and 3.9.

3.2.1.8 The object concord as part of the verb

We now come back to the phenomenon briefly introduced in paragraph 3.2.1.1, namely that a pronominal object concord representing an object can be inserted directly in front of the verb stem, as in (39)¹¹. It has been indicated that the way that object(s) occur with the verb stem is independent of the inflectional morphemes preceding these constellations. In this paragraph, the linguistic background for our solution is provided, the phenomenon is described in more detail and proof is provided for a reasoning that the separation of the verb into VIE and VBP indeed results in correct morphosyntactic analyses.

- 39 (a) *monna o nwa bjalwa*
 man subj-3rd-cl1 drink beer
 ‘(a) man drinks (a) beer’
- (b) *monna o a bo nwa*
 man subj-3rd-cl1 pres obj-3rd-cl14 drink
 ‘(a) man drinks it’

From a traditional syntactic perspective, object(s) of verbs form phrases (or clauses if their head is a verb) on their own and as such they fulfil a functional role towards the verb. Both verb and (usually) nominal phrase with an object function are then combined as daughter nodes of the verbal phrase (VP). Therefore, a description of the term ‘verb’ usually should not include its object but only the verb itself (For Northern Sotho that is the verb stem with its inflectional morphemes). However, in all respective literature examined (including (Van Wyk et al., 1992, p. 25) or Anderson and Kotzé (2006)), the object concord is described not as a separate grammatical unit but as part of the verb; fused forms of verb stem and object, like *mpona* ‘[to] see him/her’ seem to prove this assumption.

Following traditional grammar rule systems, the insertion of the pronominal object concord OBJ_{CO14} ‘obj-3rd-cl14’ into sentence (39) splits the verb into two discontinuous elements, one containing the subject concord o_{CS01} ‘subj-3rd-cl1’ and the present tense morpheme a_{MORPH_pres} ‘pres’, the other containing the verb stem nwa_{V_tr} ‘drink’, cf. figures 3.10, showing a respective analysis of 39 (b).

¹¹Note that 39 (b) demonstrates an independent imperfect indicative sentence which ends in a verb stem. In such a case the present tense morpheme *a* has to be present (cf. 3.2.5.1).

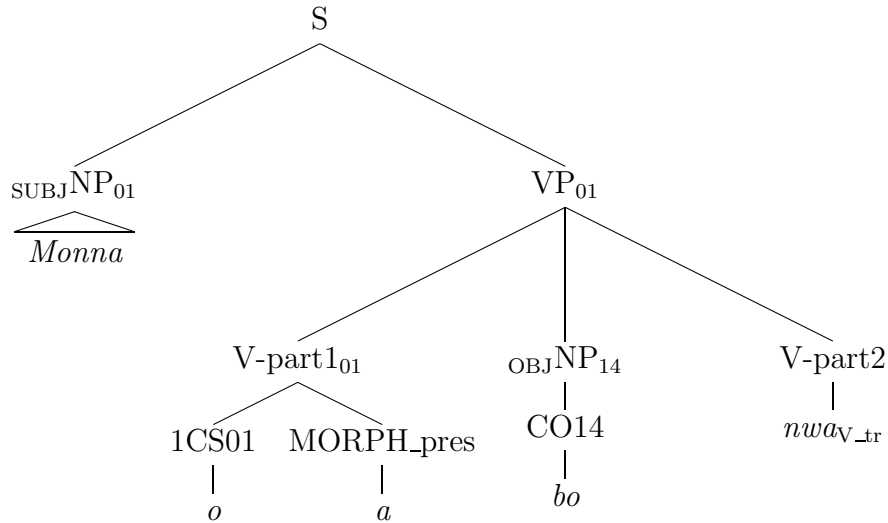


Figure 3.10: A discontinuous verb in *monna o a bo nwa* ‘(a) man drinks it’

Poulos and Louwrens (1994, p. 185 et seq. and p. 196) follow this methodology¹². However, they only explicitly define the placement of the object concord into the verb for the imperative, before stating that such methodology is “used for all verb roots”. At this stage, they ignore the possibility of a double transitive where an indirect object can also be represented by an object concord to be inserted at the same position¹³. If one followed their approach, the number of necessary morphosyntactic rules would multiply, as for every possible constellation of the elements of the verb, two additional rules would have to be defined describing the split forms.

Instead of splitting the verb, i.e. instead of adding morphosyntactic rules in order to describe the cases where object concords occur for all possible verbal constellations, we have opted for a new perspective on the verbal phrase for the use of disjunctively written languages like Northern Sotho, by defining a basic verb phrase (VBP) as an intermediate structure. When intransitive, the verb stem can occur on its own (formulated as a phrase rule: $VBP \rightarrow V$), whenever transitive (or double transitive) it forms a basic verbal phrase together with its object(s). The possible constellations forming a VBP will be described in

¹²We refer only to Poulos and Louwrens (1994) here because Lombard does not explicitly define a set of rules, the issue of object concords however is briefly discussed in (Lombard, 1985, p. 103 et seq.), and it is demonstrated with some examples in the chapter on verbal constellations (Lombard, 1985, p. 139 et seq.).

¹³Note that in Northern Sotho, only one object concord may be used at a time in contrast to, for example, Setswana

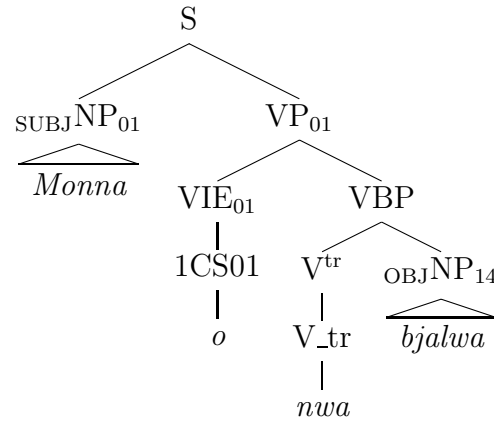


Figure 3.11: *monna o nwa bjalwa* ‘(a) man drinks (a) beer’

more detail in paragraph 3.2.3 (on imperatives), note that all of them may be contained in all VPs containing main verbs. Whenever inflectional morphemes occur, they are grouped in the verbal inflectional element (VIE).

As the VBP can form an independent phrase (the positive imperative), we see this perspective as both a reasonable and convenient approach to describe the verbs of Northern Sotho. Our point of view is further supported when looking at the morphosyntactic rules forming verbal phrases: The number of necessary arguments is determined by the lexical semantics of the verb root and its suffixes or suffix clusters. At the same time, this issue is independent of the other elements of the verb (VIE) which provide morphological and subject-verb agreement information. The constellations forming the VIE are the only data necessary for categorizing the VP as a whole as e.g. belonging to a certain mood and/or tense. The sentences in (39) are therefore analysed as in Figures 3.11 and 3.12.

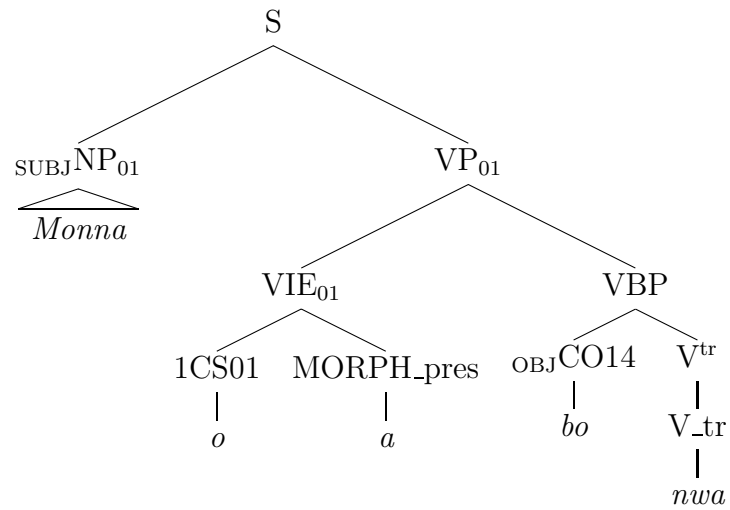


Figure 3.12: *monna o a bo nwa* '(a) man drinks it'

Table 3.5: The intransitive VBP (imperative VP)

slot zero				comments
pos-1	pos-0	pos+1	pos+2	Vstem ends in
	V ^{itr}			-a, -ang
	<i>Bolela</i> _{V^{itr}}			
	speak			
				‘Speak(!)’

3.2.2 The Basic Verbal Phase (VBP)

3.2.3 The non-predicative moods: The imperative

Poulos and Louwrens (1994) distinguish between two kinds of verbs; those incorporating a subject concord and those without (cf. Tables 3.2 and 3.3 on pages 76 and 77). Lombard labels these two categories as predicative and non-predicative moods, the non-predicative moods do not contain a subject (and thereby no subject concord). The positive imperative is the simplest structure of a verb in a non-predicative mood. In the case of a positive intransitive verb, the imperative consists only of a VBP which in turn contains the verb stem, as shown in Table 3.5.

Table 3.5 demonstrates the first of the basic verbal phrases, where only the central slot pos-0 is filled with an intransitive verb. The second row shows an example.

Table 3.6 shows the use of the pre-defined slots of a transitive verb followed by its object, usually a nominal phrase (NP). Table 3.7 extends the definition of the VBP with a double transitive verb. Slot pos+1 is reserved for the use of the indirect object, slot pos+2 for the use of the direct object. Both NPs can contain one noun only, however also all other nominal structures described in section 3.8 (on nominal phrases) are possible. Some verbs subcategorise whole clauses as their object, like, e.g. the verbs of saying. These cases will be discussed at a later stage (cf. section 3.10).

Table 3.8 reflects the object noun being represented by an object concord in the slot pos-1. In the case of double transitivity, only the indirect (oblique) object may be represented by an object concord which is demonstrated in Table 3.9 (see also the discussion in paragraph 3.2.1.1).



Table 3.6: A transitive VBP (imperative VP)

slot zero				comments
pos-1	pos-0	pos+1	pos+2	Vstem ends in
	V^{tr}		OBJNP _{class}	-a, -ang
	<i>bulang</i> _{V_{-tr}}		<i>lemati</i> _{N05}	
	open		door	
‘open the door(!)’				

Table 3.7: A double transitive VBP (imperative VP)

slot zero				comments
pos-1	pos-0	pos+1	pos+2	Vstem ends in
	V^{dtr}	OBJINDNP	OBJNP	-a, -ang
	<i>fa</i> _{V_{-dtr}}	<i>dimpša</i> _{N10}	<i>dijo</i> _{N10}	
	give	dogs	food	
‘give the dogs food(!)’				

Table 3.8: A transitive VBP containing an object concord (imperative VP)

slot zero				comments
pos-1	pos-0	pos+1	pos+2	Vstem ends in
OBJCO _{categ}	V^{tr}			-e, -eng
<i>le</i> _{CO05}	<i>buleng</i> _{V_{-tr}}			
obj-3rd-cl5	open			
‘open it(!)’				

Table 3.9: A double transitive VBP containing an object concord (imperative VP)

slot zero				comments
pos-1	pos-0	pos+1	pos+2	Vstem ends in
OBJIND CO _{categ}	V ^{dtr}		OBJNP	-e, -eng
<i>di</i> _{CO10}	<i>fe</i> _{V_dtr}		<i>dijo</i> _{N10}	
obj-3rd-cl10	give		food	
‘give them food(!)’				

Table 3.10: The non-predicative negative imperative VP

zero-2	zero-1	zero	Vstem ends in
<i>se</i> _{MORPH_neg}		VBP	-e, -eng
examples:			
<i>se</i> _{MORPH_neg}		<i>šome</i> _{V_itr}	
neg		work	
‘do not work(!)’			
<i>se</i> _{MORPH_neg}		<i>reke</i> _{V_tr} <i>puku</i> _{N09}	
neg		buy book	
‘do not buy the book(!)’			

The basic verbal phrases (cf. Tables 3.5 to 3.9) are identical to the positive imperative verbal phrases. Table 3.10 describing the negative imperative is the first table where slots pos-1 to pos+2 (i.e. all contents of the VBP) are fused and shown as slot zero, demonstrating that any of the five basic verbal phrases described can occur in this position. This table shows the negative form of the imperative which is marked by the use of the negative morpheme *se*_{MORPH_neg}, preceding the VBP and filling slot zero-2. Slot zero-1 will be used in other constellations, it is therefore left empty at the moment.

The imperative in its negative form (like the other non-predicative mood, the infinitive, cf. paragraph 3.2.4) can only fill one more slot: zero-2. Table 3.11 shows all forms of the imperative verbal phrase, ^{IMP}VP, the optional imperative VIE, and summarises the VBPs.

Table 3.11: The imperative mood (table contains all VBPs)

descr.	IMP VIE		IMP VP				Vstem ends in
	zero-2	zero-1	VBP slot zero				
imp.pos.	all VBPs as below						<i>-a, -ang</i>
			pos-1	pos-0	pos+1	pos+2	
				V ^{itr}			
				V ^{tr}		OBJ NP	
				V ^{dtr}	OBJIND NP	OBJ NP	
			OBJ CO _{categ}	V ^{tr}			
			OBJIND CO _{categ}	V ^{dtr}		OBJ NP	
imp.neg.	<i>sEMORPH_neg</i>		all VBPs as above				<i>-e, -eng</i>

3.2.4 The non-predicative moods: The infinitive

The infinitive is introduced by the class prefix of the noun class 15 (MORPH_cp15), *go*. In terms of the morphological structure of the infinitive, Northern Sotho does not differ from the syntactic structure of English, where the infinitive also has to be introduced by a marker, the infinitive particle ‘to’, as was pointed out in paragraph 2.2.2.5 on page 28.

As in other languages, like, e.g. German¹⁴, the infinitive can appear as a nominalized VP (here, of class 15). In this case, there will be the syntactic function *SUBJ* assigned by a verb, as shown in Figures 3.13 and 3.14 that demonstrate respective analyses of examples (40) and (41). The respective verb will contain the subject concord of class 15, *go*.

(40) *go sepela go re bontšha mafase*
to walk subj-3rd-cl15 obj-2nd-pl let-see countries
‘traveling lets us see (the) world’

(41) *go sepela go a lapiša*
to walk subj-3rd-cl15 pres make tired
‘walking is exhausting’

¹⁴In German, a nominalised infinitive (*substantivierter Infinitiv*) is described as a noun derived from a (verbal) infinitive. Morphologically, this phenomenon is explained as a result of conversion (a derivation process that does not add or delete affixes), e.g. in *Schwimmen ist gesund*, ‘Swimming is healthy’. Such conversion is known to happen also in other European languages, e.g. Italian. As can be seen in our example, it is the gerund that appears with a grammatical function in English.

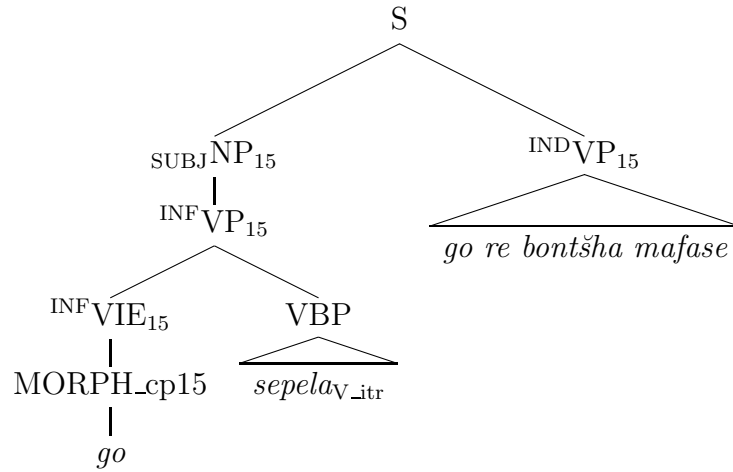


Figure 3.13: *go sepela go re bontšha mafase* ‘travelling lets us see the world’

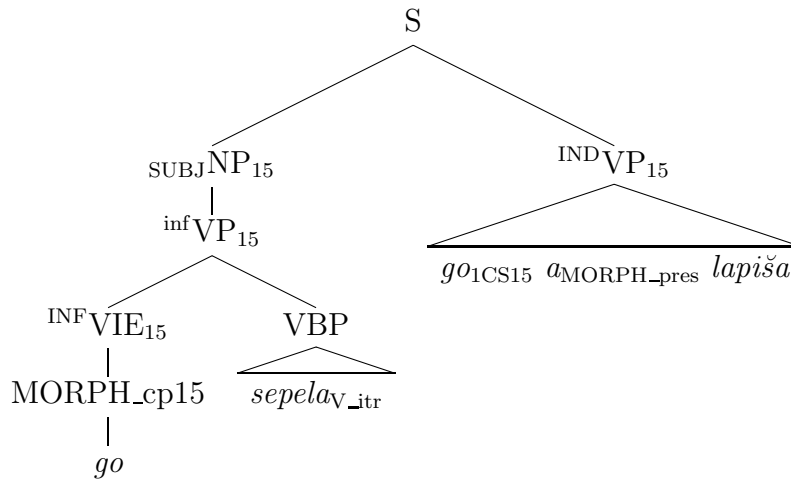


Figure 3.14: *go sepela go a lapiša* ‘walking is exhausting’

Table 3.12: The infinitive

		INF VP	
		INF VIE	VBP
descr.	zero-2	zero-1	zero Vstem ends in
inf.pos.	MORPH_cp15		VBP <i>-a</i>
	example:		
	$g^0_{\text{MORPH_cp15}}$		<i>šoma</i>
	to		work
		‘to work’	
inf.neg.	MORPH_cp15 $se_{\text{MORPH_neg}}$		VBP <i>-e</i>
	example:		
	$g^0_{\text{MORPH_cp15}} se_{\text{MORPH_neg}}$		<i>šome</i>
	to neg		work
		‘not to work’	

The infinitive is negated like the imperative, using the negative morpheme *se*. Lombard (1985, p. 159) states that the negative morpheme *sa* could occur “in some northern dialects” and therefore he allows this negation to be used as well. However, for the fragment of the grammar developed in this study, dialectical issues are not considered. Table 3.12 demonstrates the constellations of the infinitive with examples.

3.2.5 The predicative independent indicating mood: The indicative

The verb constellations contained in this predicative mood are indicative, as Lombard states (cf. table 3.2), i.e. these verbs form – together with their subjects, object and adverbials belonging to them – independent clauses, while the VPs of the modifying and of the dependent moods are part of dependent clauses that cannot appear on their own. In contrast to the non-predicative moods, the predicative moods appear in tenses of which two – the present tense and the future tense – use tense markers. Slot zero-1 will be filled with these.

We now come back to the idea of the three sets of subject concords described in the paragraph on subject concords (2.4.2). Each set of subject concords marks specific constellations in terms of mood, tense and actuality. Therefore the set that the subject concord belongs

to should be labelled in the morphosyntactic rules to avoid concords of inappropriate sets to be used. As a reminder, Table 2.8 of paragraph 2.4.2 is repeated as Table 3.13.

Poulos and Louwrens (1994, p. 206 et seq.) explain that there are two indicatives: the principal and participial. The principal indicatives form independent verbs, while the participial verbs cannot appear alone but refer to independent verbs in a sense that they are ‘subordinate’ verbs. Usually the independent principals use the concords of sets 1 and 2, the dependent participials in general use set 3. Lombard (1985, p. 152 et seq.) describes a dependent mood, the consecutive, to generally use set 3.

However, contrary to the general statement of Poulos and Louwrens (1994, p. 206 et seq.) there are some negated constellations of the principal that also use set 3 subject concords. Some are e.g. illustrated by Lombard (1985, p. 146). Consider for example sentence (42), that demonstrates one of the possible negative forms of the indicative in the perfect tense. Example sentence (43) is taken from Poulos and Louwrens (1994, p. 214) to demonstrate the same issue. Note that the tense of the examples in (42) and (43) is marked by the use of the negation morpheme cluster *ga se* occurring together with the subject concord of set 3, *wa_{3CS03}*, or *ya_{3CS09}* respectively. As the classification of the ‘consecutive subject concord’ is no clear-cut case, we opt for consequently calling these concords ‘set 3’ concords instead.

- (42) *mmutla ga se wa tšhaba*
hare **neg neg subj-3rd-c13** *flee*
‘(the) hare did not flee’

- (43) *mpša ga se ya loma mošemane*
dog **neg neg subj-3rd-c19** bite boy
‘(the) dog has not bitten (the) boy’



Table 3.13: The three sets of subject concords

categ	subject concords			
	set 1	set 2	set 3	fused forms
	1CS _{categ}	2CS _{categ}	3CS _{categ}	
...PERS_1sg	<i>ke</i>	<i>ke</i>	<i>ka</i>	$ke_{\text{CSPERS}} + ka_{\text{MORPH}_{\text{pot}}} \rightarrow nka$
...PERS_2sg	<i>o</i>	<i>o</i>	<i>wa</i>	
...PERS_1pl	<i>re</i>	<i>re</i>	<i>ra</i>	
...PERS_2pl	<i>le</i>	<i>le</i>	<i>la</i>	
...01 (incl.01a)	<i>o</i>	<i>a</i>	<i>a</i>	
...02 (incl.02b)	<i>ba</i>	<i>ba</i>	<i>ba</i>	
...03	<i>o</i>	<i>o</i>	<i>wa</i>	
...04	<i>e</i>	<i>e</i>	<i>ya</i>	
...05	<i>le</i>	<i>le</i>	<i>la</i>	
...06	<i>a</i>	<i>a</i>	<i>a</i>	
...07	<i>se</i>	<i>se</i>	<i>sa</i>	
...08	<i>di</i>	<i>di</i>	<i>tša</i>	
...09	<i>e</i>	<i>e</i>	<i>ya</i>	
...10	<i>di</i>	<i>di</i>	<i>tša</i>	
...14	<i>bo</i>	<i>bo</i>	<i>bja</i>	
...15	<i>go</i>	<i>go</i>	<i>gwa</i>	
...LOC	<i>go</i>	<i>go</i>	<i>gwa</i>	
...NEUT	<i>e</i>	<i>e</i>	<i>ya</i>	
...INDEF	<i>go</i>	<i>go</i>	<i>gwa</i>	

3.2.5.1 The predicative independent indicating mood: The imperfect indicative

The independent moods appear in two tenses, the imperfect (Lombard, 1985, p. 141) or present tense (Poulos and Louwrens, 1994, p. 208), and the perfect tense ((Lombard, 1985, p. 141) and (Poulos and Louwrens, 1994, p. 213)). The future tense is encoded in a more aspectual way in Northern Sotho making use of a ‘future tense morpheme’. The indicative ‘imperfect’ form is described first, i.e. the present tense, which is the only constellation which appears in two positive forms, the ‘long’ and the ‘short’ form, as shown in example (44). The ‘long’ form contains the present tense morpheme $a_{\text{MORPH_pres}}$.

- 44(a) $o_{1\text{CS}01}$ $a_{\text{MORPH_pres}}$ $ipshina_{\text{V_sat-tr}}$
subj-3rd-cl1 pres enjoy oneself
 ‘(s)he is enjoying herself/himself’
- 44(b) $o_{1\text{CS}01}$ $tseba_{\text{V_tr}}$ $dikgomo_{\text{N}10}$
subj-3rd-cl1 know cattle
 ‘(s)he knows cattle’

Poulos and Louwrens (1994, p. 209) mention that ‘the long form is used when the verb is the last word in the sentence’. However, there are a number of examples in the corpus data where this morpheme occurs with a verb stem that is followed by a comma, marking the end of a clause. On the other hand, this morpheme does not appear if the verb stem is not the last element of the clause or sentence.

An implementation of Northern Sotho grammar (cf. paragraph 5.2.4.2) should indeed be expected to be able to determine the occurrences of a as a present tense morpheme. However, for the sake of clarity of definition, the VBP is marked with a label indicating whether the verb stem was the final element. The superscript ‘p’ (meaning that the present tense morpheme may appear) is therefore introduced and the VBP is updated, as in Table 3.14. As far as the slot system is concerned, the $a_{\text{MORPH_pres}}$ is inserted in slot zero-1 which is explicitly reserved for one morpheme; indicating tense. Additionally, we should however take a possible clause border following the VBP (the part of speech \$. indicates the appropriate punctuation), into account as adjuncts might appear which would inhibit the present tense morpheme from appearing. Table 3.15 which describes the long form, contains information about such a clause border occurring after the VBP in slot zero+1, to prevent verbal adjuncts, i.e. adverbs from appearing after the verb.

Table 3.14: Update on names of the constellations forming the VBP

description		VBP			
	pos-1	pos 0	pos+1	pos+2	
VBP		V ^{itr}			
VBP		V ^{tr}			OBJNP
VBP		V ^{dtr}	OBJINDNP		OBJNP
VBP ^P	OBJCO _{categ}	V ^{tr}			
VBP	OBJINDCO _{categ}	V ^{dtr}			OBJNP

Table 3.15: The long form of the predicative imperfect indicative

INDPRESVP					
	INFVIE		VBP		
descr.	zero-2	zero-1	zero	zero+1	Vstem ends in
ind.pres. pos.long.	1CS _{categ}	MORPH _{pres}	VBP ^P	\$. (clause border)	-a
example:					
	<i>o</i> _{1CS01}	<i>a</i> _{MORPH_{pres}}	<i>ipshina</i> _{V_{sat-tr}}		
	subj-3rd-cl1	pres	enjoy oneself		
		‘(s)he is enjoying herself/himself’			

The short form of the indicative present tense and its negation is presented in Table 3.16. The positive short form appears whenever the clause does not end after the verb stem. The positive forms of the indicative present tense make use of the subject concords of the first set, the negative form uses the subject concords of the second, i.e. *a* instead of *o* in class 1.



Table 3.16: The short and the negated form of the predicative imperfect indicative

		INDPRES _{VP}			
		INDPRES _{VIE}			
descr.	zero-2	zero -1	VBP zero	zero +1	Vstem ends in
ind.pres. pos.short	$1CS_{\text{categ}}$		VBP	→\$.	-a
	example:				
	o_1CS_01 subj-3rd-cl1		$tseba_{V_{tr}} dikgomo_{N10}$ knows cattle		
		‘(s)he knows cattle’			
ind.pres. neg.	$ga_{\text{MORPH}_{neg}} 2CS_{\text{categ}}$		VBP		-e
	example:				
	$ga_{\text{MORPH}_{neg}} a_2CS_01$ neg subj-3rd-cl1		$tsebe_{V_{tr}} dikgomo_{N10}$ know cattle		
		‘(s)he does not know cattle’			

3.2.5.2 The predicative independent indicating mood: The perfect indicative

The positive perfect tense is solely identified by certain verbal endings, as demonstrated by the examples in (45), cf. ((Lombard, 1985, p. 146)). This tense can therefore only be determined automatically when the ending of the verb stem is taken into account (cf. paragraph 5.1.2.3 beginning on page 229 for a sample analysis). As described in paragraph 2.7.2, the ending *-ile* will be mentioned in the morphosyntactic rules of this chapter as referring to all its possible allomorphs.

- 45 (a) *mmutla o tšhabile*
 hare subj-3rd-cl3 fled
 ‘(a) hare fled’
- (b) *lesogana le boletše*
 young man subj-3rd-cl15 spoke
 ‘(a) young man spoke’

There are several ways to negate a perfect tense indicative, as Table 3.17 demonstrates. Note that perfect form 4 shown in Table 3.17 is the only described constellation containing the token *a* as MORPH_past (cf. paragraph 2.9.2), classified by Lombard as the ‘perfective/stative *-a-*’. Poulos and Louwrens (1994, p. 214) mention the occurrence of *a* in this constellation, too, however, they do not give it a label.

Table 3.17: The perfect indicative

INDPERF VP				
	INDPERF VIE		VBP	
descr.	zero-2(slot zero-1 not used)		zero	Vstem ends in
ind.perf.pos.	$1CS_{\text{categ}}$		VBP	e.g. <i>-ile</i>
	example: o_{1CS03} subj-3rd-cl3		$t\check{s}habile_{V_itr}$ fled	
		‘it fled’		
indicative perf.neg. 1	$ga_{\text{MORPH_neg}}$ $se_{\text{MORPH_neg}}$ $3CS_{\text{categ}}$		VBP	<i>-a</i>
	example: $ga_{\text{MORPH_neg}}$ $se_{\text{MORPH_neg}}$ wa_{3CS03} neg neg subj-3rd-cl3		$t\check{s}haba_{V_itr}$ flee	
		‘it did not flee’		
indicative perf.neg. 2	$ga_{\text{MORPH_neg}}$ $se_{\text{MORPH_neg}}$ $2CS_{\text{categ}}$		VBP	<i>-e</i>
	example: $ga_{\text{MORPH_neg}}$ $se_{\text{MORPH_neg}}$ o_{2CS03} neg neg subj-3rd-cl3		$t\check{s}habe_{V_itr}$ flee	
		‘it did not flee’		
indicative perf.neg. 3	$ga_{\text{MORPH_neg}}$ $3CS_{\text{categ}}$		VBP	<i>-a</i>
	example: $ga_{\text{MORPH_neg}}$ wa_{3CS03} neg subj-3rd-cl3		$t\check{s}haba_{V_itr}$ flee	
		‘it did not flee’		
indicative perf.neg. 4	$ga_{\text{MORPH_neg}}$ $1CS_{\text{categ}}$ $a_{\text{MORPH_past}}$		VBP	<i>-a</i>
	example: $ga_{\text{MORPH_neg}}$ o_{2CS03} $a_{\text{MORPH_past}}$ neg subj-3rd-cl3 perf		$t\check{s}haba_{V_itr}$ flee	
		‘it did not flee’		

3.2.5.3 The predicative independent indicating mood: The future indicative

The positive form of the future 'tense' is clearly marked in Northern Sotho by the future tense morphemes *tlo*_{MORPH_fut}, or *tla*_{MORPH_fut}, as demonstrated in 46 (a). Either one of these morphemes appears between the subject concord and the verb root (according to Lombard (1985, p. 147) and Poulos and Louwrens (1994, p. 220)).

The negation of the future tense makes use of the potential morpheme *ka*_{MORPH_pot} (as described by Lombard (1985, *ibid.*)); for the potential forms, cf. 3.5.2). It is demonstrated in 46 (b) (for sake of convenience, we repeat example (24) of paragraph 2.9.4 here). Both examples are taken from Lombard (1985, *ibid.*).

- 46 (a) *mmutla o tlo tšhaba*
 hare subj-3rd-cl3 fut flee
 '(a) hare will flee'
- (b) *mmutla o ka se tšhabe*
 hare subj-3rd-cl3 pot neg flee
 '(a) hare will not flee'

Table 3.18 shows how the future tense constellations fill the predefined slots. The future tense morpheme occupies slot zero-1. The negative form uses subject concords of set 2, as described by Lombard (1985, p. 147) and Poulos and Louwrens (1994, p. 212), who also mention auxiliary constructions containing a future aspect, which will be referred to at a later stage. Subject concord and negation cluster fill slot zero-2.



Table 3.18: The future indicative

		INDFUT VP			
		INDFUT VIE		VBP	
descr.	zero-2		zero-1	zero	
					comments
ind.fut. pos.	1CS _{categ}		<i>tlo/tla</i> _{MORPH_fut}	VBP	-a
example:					
	<i>o</i> _{1CS03}		<i>tlo</i> _{MORPH_fut}	<i>tšhaba</i> _{V_itr}	
	subj-3rd-cl3		fut	flee	
‘It will flee’					
ind.fut. neg.	2CS _{categ}	<i>ka</i> _{MORPH_pot}	<i>se</i> _{MORPH_neg}	VBP	-e
example:					
	<i>o</i> _{2CS03}	<i>ka</i> _{MORPH_pot}	<i>se</i> _{MORPH_neg}	<i>tšhabe</i> _{V_itr}	
	subj-3rd-cl3	pot	neg	flee	
‘It will not flee’					

Table 3.19: A summary of the independent indicative forms

INDPRES VP					
VIE		VBP			
descr.	zero-2	zero-1	zero	zero+1	Vstem ends in
pres.pos.long	1CS _{categ}	MORPH _{pres}	VBP ^p	\$.	-a
pres.pos.short	1CS _{categ}		VBP	-\$.	-a
pres.neg.	<i>ga</i> _{MORPH_{neg}} 2CS _{categ}		VBP		-e
perf.pos.	1CS _{categ}		VBP		-ile
perf.neg. 1	<i>ga</i> _{MORPH_{neg}} <i>se</i> _{MORPH_{neg}} 3CS _{categ}		VBP		-a
perf.neg. 2	<i>ga</i> _{MORPH_{neg}} <i>se</i> _{MORPH_{neg}} 2CS _{categ}		VBP		-e
perf.neg. 3	<i>ga</i> _{MORPH_{neg}} 3CS _{categ}		VBP		-a
perf.neg. 4	<i>ga</i> _{MORPH_{neg}} 1CS _{categ} <i>a</i> _{MORPH_{past}}		VBP		-a
fut.pos	1CS _{categ}	<i>tlo/tla</i> MORPH _{fut}	VBP		-a
fut.neg	2CS _{categ} <i>se</i> _{MORPH_{neg}}	<i>ka</i> _{MORPH_{pot}}	VBP		-e

3.2.5.4 The predicative independent indicating mood: A summary

Table 3.19 summarises all inflectional elements of the independent indicative. In some cases, only the verb ending provides information on the tense of the constellation (like e.g. the perfect positive form). In others, it is solely the verbal inflectional element (VIE) which provides information on the tense of the VP (like e.g. the long present tense form or the future tense forms).

3.2.6 The predicative independent modifying moods:

The situative

Lombard (1985, p. 147) classifies the situative mood as “independent”. He states that it “indicates the situation or circumstances under which another action or other actions take place” and lists example (47). Note however that though this mood is classified as ‘independent’, clauses appearing in this mood should not be confused with independent main clauses, as Lombard (1985, p. 140) explicitly states that the modifying moods “do not appear in main clauses” (cf. paragraph 3.2.1 and Table 3.1). Poulos and Louwrens (1994, p. 221) define these constellations as ‘participial’ and as using the subject concords from set 2. These ‘participials’ occur in subordinate (embedded) sentences. As such, Poulos and Louwrens (*ibid.*) describe the participial as being dependent in nature.

The situative clauses are often introduced by the conjunctions *ge*_{CONJ} ‘when’¹⁵ or *le ge* ‘although’.

- (47) *ge ba bona noga ba a e bolaya*
 when subj-3rd-cl2 see snake subj-3rd-cl2 pres obj-3rd-cl19 kill
 ‘when they see (a) snake, they kill it’

In another example, (48), (cf. Poulos and Louwrens (1994, p. 222)) the situative *ba tsena* ‘they entered’ is also introduced by the conjunction *ge*_{CONJ} and preceded by an indicative clause, *ke ba bone* ‘I saw them’. Figure 3.15 shows its possible morphosyntactic analysis. Situative clauses may however also be introductory sentences, as in (47) and (49), a possible analysis of (49) is demonstrated in Figure 3.16.

If the situative occurs without an introductory conjunction, it is no trivial task for a grammar to identify it as such, because it can easily be confused with the indicative. The only obvious difference between e.g. a positive indicative in the present tense and its respective situative is the use of the subject concords of set 1 vs. set 2 as used by the situative, however, these are in most cases identical. Example (50) and Figure 3.17 (from the Bible) show a situative without an introducing conjunction.

In summary, a verb in the situative mood is categorised as an adjunct verbal clause, follow-

¹⁵Poulos and Louwrens (1994, p. 222) in some cases translated *ge*_{CONJ} as ‘if’ or ‘if/when’, in this study, however, it is solely translated as ‘when’ according to the dictionary De Schryver (2007).

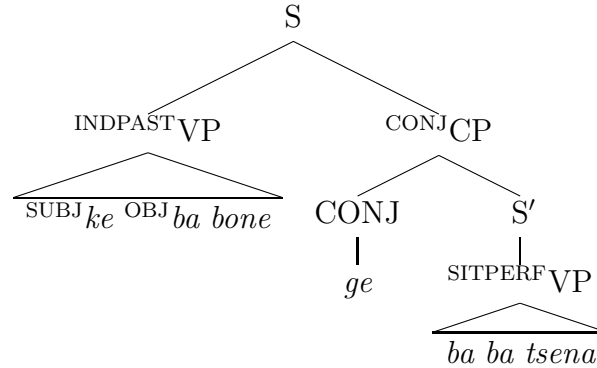


Figure 3.15: *ke ba bone ge ba tsena* ‘I saw them when they entered’

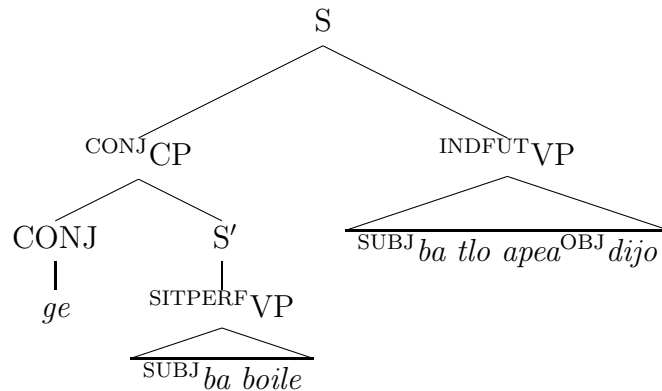


Figure 3.16: *ge ba boile ba tlo apea dijo* ‘when they have returned they will cook the food’

ing or preceding a matrix clause which is in the indicative mood. It usually is embedded in a conjunctive clause (^{CONJ}CP). There might however occur cases where there is no overt conjunction, here, a detection of the sentence as a situative proves difficult, as the surface forms are in most cases identical to the indicative. In terms of its semantics, the situative supplies additional information to the situation/action described by the matrix clause, i.e. it modifies the verb of the matrix clause, like any other adverbial clause.

(48) *ke ba bone ge ba tsena*
 subj-1st-sg obj-3rd-cl2 saw when subj-3rd-cl2 entered
 ‘I saw them (the moment) when they entered’

(49) *ge ba boile ba tlo apea dijo*
 when subj-3rd-cl2 returned subj-3rd-cl2 fut cook food
 ‘when they have returned they will cook (the) food’



- (50) *Jesu* *o*_{1CS01} *tlo* *boa* *ka* *wona* *mokgwa* *wo*
Jesus subj-3rd-cl1 fut return by emp-3rd-cl3 manner dem-3rd-cl3
le *mmonego* *a*_{2CS01} *eya* *legodimong*
subj-2nd-pl who-him-see subj-3rd-cl1 go heaven-loc
'Jesus will return (the) very same way as you saw him when going to heaven'

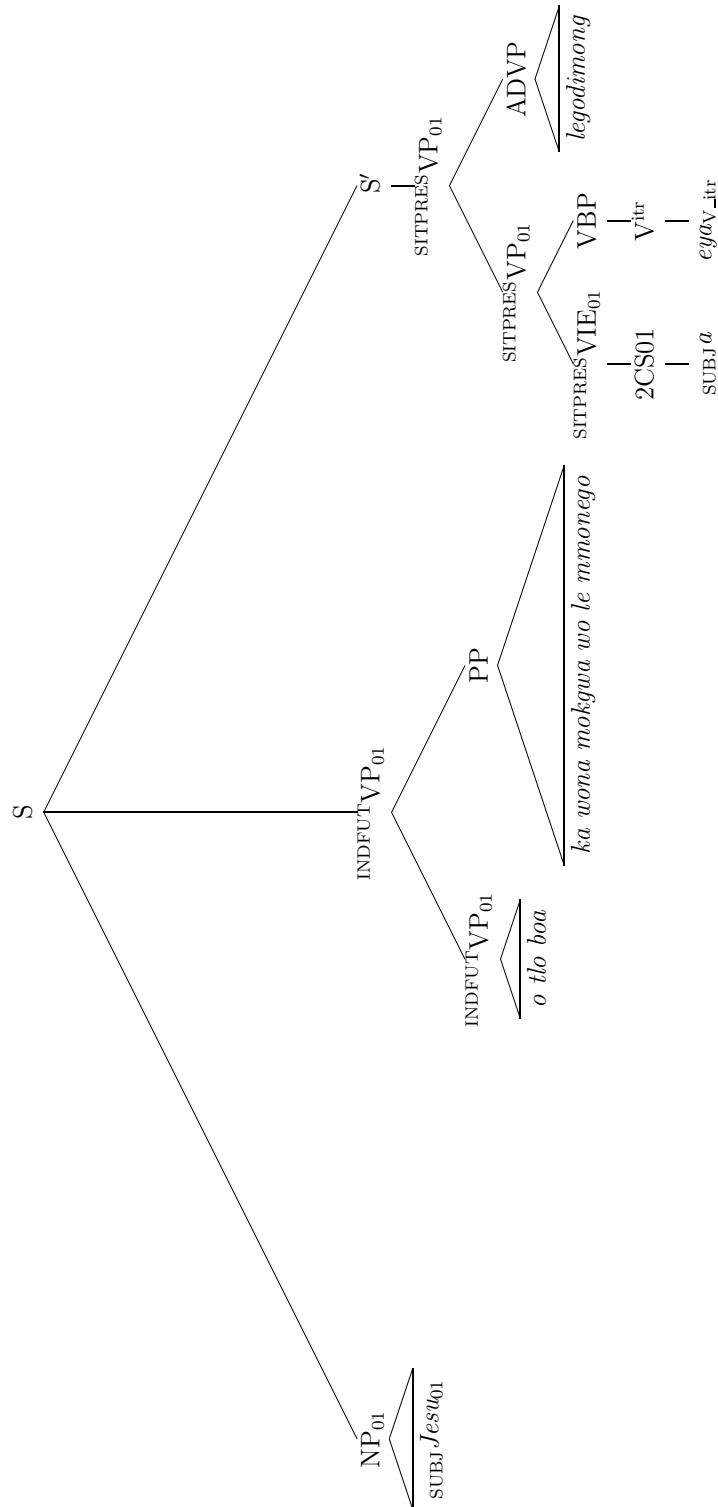


Figure 3.17: *Jesu o tlo boa ka wona mokgwa wo le mmonego a eya legodimong* ‘Jesus will return (the) very same way as you saw him when going to heaven’

3.2.6.1 The predicative independent modifying moods: The imperfect situative

The positive imperfect situative contains a subject concord of the second set and the verb stem ends in *-a* as is also the case with the indicative. Table 3.20 demonstrates the constellations of the imperfect tense and shows that the negation is formed by using the negation morpheme $sa_{\text{MORPH_neg}}$ (the verb stem in this case ends in *-e*). Again, we must stress the fact that all negation morphemes are labelled identically, hence our definition must explicitly state the type(s) used.

Table 3.20: The present tense of the situative

SITPRES VP				
	SITPRES VIE		VBP	
descr.	zero-2	zero-1	zero	Vstem ends in
sit.pres.pos.	$2CS_{\text{categ}}$		VBP	<i>-a</i>
	example:			
	a_{2CS01}		boa_{V_itr}	
	subj-3rd-cl1		return	
		‘(s)he returns’		
sit.pres.neg.	$2CS_{\text{categ}}$ $sa_{\text{MORPH_neg}}$		VBP	<i>-e</i>
	example:			
	a_{2CS01} $sa_{\text{MORPH_neg}}$		boe_{V_itr}	
	subj-3rd-cl1 neg		return	
		‘(s)he does not return’		

3.2.6.2 The predicative independent modifying moods: The perfect situative

The perfect tense of the situative is, according to Lombard (1985, p. 149) “identical to that of the indicative”. However, in our definition, this mood always uses the subject concords of set 2 ($2CS_{\text{categ}}$), hence there is a difference, although it only shows with the subject concords of class 1. Lombard (ibid.) moreover describes three ways to negate the situative of the perfect tense as shown in Table 3.21. The first makes use of the subject concords of set 3 ($3CS_{\text{categ}}$) preceded by the negative morpheme *se*. The second uses subject concords of set 2 ($2CS_{\text{categ}}$), one preceding the negative morpheme, one following it, while the third form of the negated perfect tense also begins with a subject concord of set 2, however, it uses the negation morpheme *sa* and no second subject concord occurs following the negative morpheme. Poulos and Louwrens (1994, p. 220) describe this third form as the only one applicable to participial negated verbs.

Table 3.21: The perfect tense of the situative

SITPERF VP				
SITPERF VIE		VBP		
descr.	zero-2	zero-1	zero	Vstem ends in
sit.perf.pos.	2CS _{categ}		perf VBP	<i>ile</i>
	example: <i>di</i> _{2CS10} subj-3rd-cl10		<i>futšev</i> _{itr} grazed	
	‘they grazed’			
sit.perf.neg.1	2CS _{categ} <i>se</i> _{MORPH_neg} 3CS _{categ}		VBP	<i>-a</i>
	example: <i>di</i> _{2CS10} <i>se</i> _{MORPH_neg} <i>tša</i> _{3CS10} subj-3rd-cl10 neg subj-3rd-cl10		<i>fulav</i> _{itr} graze	
	‘they did not graze’			
sit.perf.neg.2	2CS _{categ} <i>se</i> _{MORPH_neg} 1CS _{categ}		VBP	<i>-a</i>
	example: <i>di</i> _{2CS10} <i>se</i> _{MORPH_neg} <i>di</i> _{1CS10} subj-3rd-cl10 neg subj-3rd-cl10		<i>fulev</i> _{itr} graze	
	‘they did not graze’			
sit.perf.neg.3	2CS _{categ} <i>sa</i> _{MORPH_neg}		VBP	<i>-a</i>
	example: <i>di</i> _{2CS10} <i>sa</i> _{MORPH_neg} subj-3rd-cl10 neg subj-3rd-cl10		<i>fulav</i> _{itr} graze	
	‘they did not graze’			

Table 3.22: The future situative

SITFUT VP				
SITFUT VIE		VBP		
descr.	zero-2	zero-1	zero	Vstem ends in
sit.fut.pos.	2CS _{categ}	<i>tlo/tla</i> _{MORPH_fut}	VBP	-a
	example: <i>di</i> _{2CS10} subj-3rd-cl10	<i>tla</i> _{MORPH_fut} fut	<i>fula</i> _{V_itr} graze	
		‘they will graze’		
ind./sit.fut.neg	2CS _{categ} <i>ka</i> _{MORPH_pot} <i>se</i> _{MORPH_neg}		VBP	-e
	example: <i>di</i> _{2CS01} <i>ka</i> _{MORPH_pot} <i>se</i> _{MORPH_neg} subj-3rd-cl10 pot neg		<i>fule</i> _{V_itr} graze	
		‘they will not graze’		

3.2.6.3 The predicative independent modifying moods: The future situative

The future tense/aspect is described by Lombard (1985, p. 149) as being identical to the indicative, “but the subject concord of class 1 is *a*”. However, note that this is also the case with the negative form of the future indicative. The negative form of the future indicative cannot therefore be distinguished from the negative form of the future situative unless a conjunction is present. Table 3.22 details the possible forms.

3.2.7 The predicative independent modifying moods:

The relative

Like the situative, the relative mood is to be categorised as a dependent clause because it adds information (to a noun) and cannot stand alone. The relative is marked twice, first by an introductory demonstrative concord, called “relative particle” by Lombard (1985, p. 150), secondly by the verb stem itself which ends in one of the verbal endings *-ago/-ang* for the positive and *-ego* or *-eng* for the negative constellations.

Poulos and Louwrens (1994, p. 103) do not consider the relative to be a mood, but rather categorise it as a “qualificative”. They distinguish between a verbal and a nominal relative where a introductory demonstrative is followed by a noun, cf. example (51). Other qualificatives, according to (Poulos and Louwrens, 1994, p. 90 et seq.) are adjectives, possessives, and enumeratives.

- (51) *monna yo maatla*
man dem-3rd-c11 strength
'(a) strong man'

However, the constellation Lombard describes (ibid.) is mirrored in their verbal relative, where the demonstrative concord is called a “basic demonstrative”. In using an introductory element in its relative clauses, Northern Sotho is similar to other languages, cf. example (52) from Poulos and Louwrens (1994, p. 105).

- (52) *monna yo a go bitšago, o tseba*
man dem-3rd-c11 subj-3rd-c11 obj-2nd-sg who-call, subj-3rd-c11 know
tate
father
'(the) man who is calling you, knows (my) father'

A few sentences appear in the text collection of the *University of Pretoria Sepedi Corpus* (PSC), (cf. De Schryver and Prinsloo (2000)) where there is no subject concord as part of the relative verb (cf. (53)). Such sentences are usually considered acceptable by native speakers. However, all authors of the consulted literature see the subject concord as being a mandatory part of all predicative verbs, meaning a closer examination of this phenomenon would be necessary before taking any further steps towards its acceptance. The grammar described in this study will not include such constellations for the moment.

- (53) *motho_{N01} yo_{CDEM01} tsebagov_{itr} therešo_{N09}*
man dem-3rd-c11 knows-rel truth
'(the) man who knows the truth'

The Northern Sotho relative clause constellations are defined similarly to a possible analysis of the English relative clause, as it is demonstrated in example (54) which is illustrated in Figures 3.18 and 3.19 .

- (54) *kgoši ye e bušago*
 chief dem-3rd-cl9 subj-3rd-cl9 reigns-rel
 ‘(a) chief who reigns’

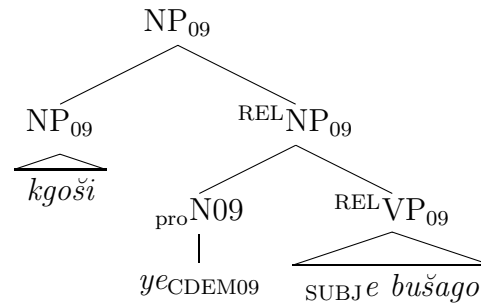


Figure 3.18: *kgoši ye e bušago* ‘(a) chief who reigns’

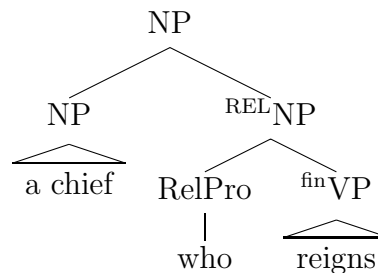


Figure 3.19: Analysis of the English relative: ‘a chief who reigns’

Poulos and Louwrens (1994, p. 104 et seq.) distinguish between a “direct” and an “indirect” relative. In (54), the subject of the relative clause, represented by its subject concord, e_{1CS09} , refers to the same entity as the preceding noun ($kgoši_{N09}$), a certain chief or king. These relative clauses are therefore called direct relatives. In the case of the indirect relative, the relative clause refers to the preceding noun as its object, i.e. its subject concord refers to another entity, as in (55), illustrated in Figure 3.20. The constellation as a whole constitutes an NP.

- (55) *thuthuthu ye monna a e ratago*
 Motorbike dem-3rd-cl9 man subj-3rd-cl11 obj-3rd-cl19 who-like
 ‘(a) motorbike that (a) man likes’

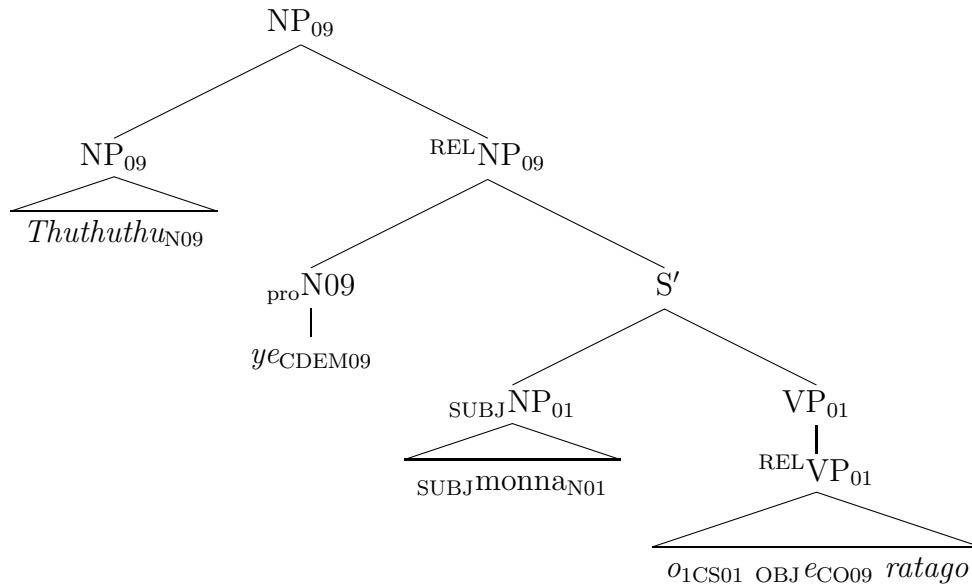


Figure 3.20: *Thuthuthu ye monna o e ratago* ‘(a) motorbike that (a) man likes’

3.2.7.1 The predicative independent modifying moods: The imperfect relative

Table 3.23 shows the possible constellations of the imperfect or present tense relative. As a dependent clause it makes use of the subject concord of set 2. In a similar way to the situative being introduced by a conjunction, the relative is usually introduced by a demonstrative concord. As the demonstrative can also introduce constellations other than the verbal relative (cf. example 51) it is seen as an independent element, separate from the morphosyntactic rules in Table 3.23. The clause as a whole will be defined in paragraph 3.8.4.1.

Table 3.23: The present tense of the relative

	RELPRES _{VP}									
	RELPRES _{VIE}		VBP							
descr.	zero-2	zero-1	zero	Vstem ends in						
rel.pres.pos.	2CS_{categ}		VBP	-a + 'relative'						
	<p>example:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><i>a_{2CS01}</i></td> <td style="width: 50%; border: none;"><i>ikemelago_{V_sat-tr}</i></td> </tr> <tr> <td style="border: none;">subj-3rd-cl1</td> <td style="border: none;">who-defend-oneself</td> </tr> <tr> <td style="border: none;">‘(s)he who defends himself/herself’</td> <td></td> </tr> </table>				<i>a_{2CS01}</i>	<i>ikemelago_{V_sat-tr}</i>	subj-3rd-cl1	who-defend-oneself	‘(s)he who defends himself/herself’	
<i>a_{2CS01}</i>	<i>ikemelago_{V_sat-tr}</i>									
subj-3rd-cl1	who-defend-oneself									
‘(s)he who defends himself/herself’										
rel.pres.neg.	2CS_{categ} sa_{MORPH_neg}		VBP	-e + 'relative'						
	<p>example:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><i>a_{2CS01} sa_{MORPH_neg}</i></td> <td style="width: 50%; border: none;"><i>ikemelego_{V_sat-tr}</i></td> </tr> <tr> <td style="border: none;">subj-3rd-cl1 neg</td> <td style="border: none;">who-defend-oneself</td> </tr> <tr> <td style="border: none;">‘(s)he who does not defend himself/herself’</td> <td></td> </tr> </table>				<i>a_{2CS01} sa_{MORPH_neg}</i>	<i>ikemelego_{V_sat-tr}</i>	subj-3rd-cl1 neg	who-defend-oneself	‘(s)he who does not defend himself/herself’	
<i>a_{2CS01} sa_{MORPH_neg}</i>	<i>ikemelego_{V_sat-tr}</i>									
subj-3rd-cl1 neg	who-defend-oneself									
‘(s)he who does not defend himself/herself’										

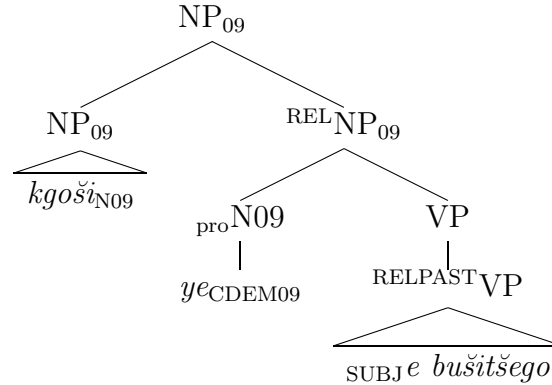


Figure 3.21: *kgoši ye e bušitšego* ‘(a) chief who reigned’

3.2.7.2 The predicative independent modifying moods: The perfect relative

The positive perfect tense can only be distinguished from the imperfect tense by determining a perfect/perfect tense suffix of the relative. Lombard (1985, p. 151) mentions the perfect tense form of (54) in example (56) (Figure 3.21).

- (56) *kgoši ye e bušitšego*
 chief dem-3rd-cl9 subj-3rd-cl9 who-reigned
 ‘(a) chief who reigned’

The negative of the perfect tense appears in two constellations. The first one uses the subject concord of set 2, followed by one of the negation morphemes *sego* or *seng*, followed by another subject concord of the same class contained in set 3. The verb stem concluding this form does not show the relative ending. The second form of the negated relative uses the subject concord of set 2, followed again by one of the negation morphemes *sego* or *seng*, followed by another subject concord of the same class again belonging to set 2, the verb stem here ends in *e*. Both negative forms are therefore clearly distinguishable from the negative forms of the imperfect. Examples 57 (a) and (b) are the negated forms of (56). Table 3.24 on page 118 summarises all perfect tense constellations of the relative.

- 57 (a) *kgoši ye e sego ya buša*
 chief dem-3rd-cl9 subj-3rd-cl9 rel-neg subj-3rd-cl9 reign
 ‘(a) chief who did not reign’
- (b) *kgoši ye e sego e buše*
 chief dem-3rd-cl9 subj-3rd-cl9 rel-neg subj-3rd-cl9 reign
 ‘(a) chief who did not reign’



Table 3.24: The perfect tense of the relative

		RELPERFVP		
		RELPERFVIE	VBP	
descr.	zero-2	zero-1	zero	Vstem ends in
rel.perf.pos.	2CS _{categ}		perfVBP	‘-a + relative’
	example: <i>di</i> _{2CS10} subj-3rd-cl10		<i>fulago</i> _{V_itr} who-grazed	
		‘they who grazed’		
rel.perf.neg. 1	2CS _{categ} <i>sego/seng</i> _{MORPH_neg}	3CS _{categ}	VBP	-a
	example: <i>di</i> _{1CS10} <i>sego</i> _{MORPH_neg} <i>tša</i> _{3CS01} subj-3rd-cl10 rel-neg subj-3rd-cl10		<i>fula</i> _{V_itr} graze	
		‘they who did not graze’		
rel.perf.neg. 2	2CS _{categ} <i>sego/seng</i> _{MORPH_neg}	2CS _{categ}	VBP	-e
	example: <i>di</i> _{1CS10} <i>seng</i> _{MORPH_neg} <i>di</i> _{2CS01} subj-3rd-cl10 rel-neg subj-3rd-cl10		<i>fule</i> _{V_itr} graze	
		‘they who did not graze’		

3.2.7.3 The predicative independent modifying moods: The future relative

There are two options for the future relative constellations, both make use of the relative form *-go*, however, in the first one it appears with the future tense morpheme (as *tlogo*_{MORPH_{fut} or *tlogo*_{MORPH_{fut}), in the second, it appears with the verb like in the other relative constellations previously described. Again, the subject concords of set 2 (2CS_{categ}) are used.}}

The negation of the future tense contains the potential morpheme and the future tense morpheme which ends in one of the relative endings. In other cases, negations of the future tense of the relative clause also appear without the future tense morpheme, comparable to the negated forms of the future tense indicative. Table 3.25 on page 120 shows all forms.

3.2.8 A summary of the independent modifying moods

Table 3.26 summarises all verbal constellations of the modifying moods in order to complement the information given in Table 3.19 summarising the independent moods. With this summary, all basic verbal independent constellations are described according to Lombard (1985). The following paragraphs will focus on the dependent moods of Northern Sotho.

Table 3.25: The future relative

REL ^{FUT} VIE		REL ^{FUT} VP		VBP	
descr.	zero-2	zero-1	zero	Vstem ends in	
rel.fut.pos 1	2CS _{categ}	<i>tlogo/tlogo</i> MORPH _{fut}	VBP	-a	
example:	<i>di</i> _{2CS10} subj-3rd-cl10	<i>tlogo</i> MORPH _{fut} fut	<i>fula</i> _{V_itr} graze		
		‘they who will graze’			
rel.fut.pos 2	2CS _{categ}	<i>tla/tlo</i> MORPH _{fut}	VBP	-a + ‘relative’	
example:	<i>di</i> _{2CS10} subj-3rd-cl10	<i>tlo</i> MORPH _{fut} fut	<i>fulago</i> _{V_itr} who-graze		
		‘they who will graze’			
rel.fut.neg 1	2CS _{categ} <i>ka</i> _{MORPH_pot} <i>se</i> _{MORPH_neg}	<i>tlogo/tlogo</i> MORPH _{fut}	VBP	-a	
example:	<i>di</i> _{2CS01} <i>ka</i> _{MORPH_pot} <i>se</i> _{MORPH_neg} subj-3rd-cl10 pot neg	<i>tlogo</i> MORPH _{fut} fut	<i>fula</i> _{V_itr} graze		
		‘they who will not graze’			
rel.fut.neg 2	2CS _{categ} <i>ka</i> _{MORPH_pot} <i>se</i> _{MORPH_neg}	<i>tla/tlo</i> MORPH _{fut}	VBP	-a + ‘relative’	
example:	<i>di</i> _{2CS01} <i>ka</i> _{MORPH_pot} <i>se</i> _{MORPH_neg} subj-3rd-cl10 pot neg	<i>tlo</i> MORPH _{fut} fut	<i>fulago</i> _{V_itr} who-graze		
		‘they who will not graze’			
rel.fut.neg 3	2CS _{categ} <i>ka</i> _{MORPH_pot} <i>se</i> _{MORPH_neg}		VBP	-a + ‘relative’	
example:	<i>ba</i> _{2CS02} <i>ka</i> _{MORPH_pot} <i>se</i> _{MORPH_neg} subj-3rd-cl10 pot neg		<i>fulago</i> _{V_itr} who-graze		
		‘they who will not graze’			

Table 3.26: A summary of the modifying moods

descr.	MOD ^{VP}		VBP	Vstem ends in
	MOD ^{VIE}			
	zero-2	zero-1	zero	
sit.pres.pos.	2CS _{categ}		VBP	-a
sit.pres.neg.	2CS _{categ} sa _{MORPH_neg}		VBP	-e
sit.perf.pos.	2CS _{categ}		VBP	-ile
sit.perf.neg.1	2CS _{categ} se _{MORPH_neg} 3CS _{categ}		VBP	-a
sit.perf.neg.2	2CS _{categ} se _{MORPH_neg} 1CS _{categ}		VBP	-a
sit.perf.neg.3	2CS _{categ} sa _{MORPH_neg}		VBP	-a
sit.fut.pos.	2CS _{categ}	tlo/tla _{MORPH_fut}	VBP	-a
sit.fut.neg.	2CS _{categ} ka _{MORPH_pot} se _{MORPH_neg}		VBP	-e
rel.pres.pos.	2CS _{categ}		VBP	-a + 'relative'
rel.pres.neg.	2CS _{categ} sa _{MORPH_neg}		VBP	-e + 'relative'
rel.perf.pos.	2CS _{categ}		VBP	-ile + -a + 'relative'
rel.perf.neg.1	2CS _{categ} sego/seng MORPH_neg 3CS _{categ}		VBP	-a
rel.perf.neg.2	2CS _{categ} sego/seng MORPH_neg 2CS _{categ}		VBP	-e
rel.fut.pos.1	2CS _{categ}	tlago/tlogo _{MORPH_fut}	VBP	-a
rel.fut.pos.2	2CS _{categ}	tla/tlo _{MORPH_fut}	VBP	-a + 'rel- ative'
rel.fut.neg.1	2CS _{categ} ka _{MORPH_pot} se _{MORPH_neg}	tlago/tlogo _{MORPH_fut}	VBP	-a
rel.fut.neg.2	2CS _{categ} ka _{MORPH_pot} se _{MORPH_neg}	tla/tlo _{MORPH_fut}	VBP	-a + 'relative'
rel.fut.neg.3	2CS _{categ} ka _{MORPH_pot}	se _{MORPH_neg}	VBP	-a + 'relative'

Table 3.27: The consecutive

		CONSV _P		
		CONSV _{IE}		VBP
descr.	zero-2	zero-1	zero	Vstem ends in
cons.pos.	3CS _{categ}		VBP	-a
	example:			
	<i>ka</i> _{3CSPERS_sg}		<i>reka</i> _{V_tr} <i>maswi</i> _{N06}	
	subj-1st-sg		buy milk	
	‘I buy/bought/will buy milk’			
cons.neg.	3CS _{categ} <i>se</i> _{MORPH_neg}		VBP	-e
	example:			
	<i>ka</i> _{3CSPERS} <i>se</i> _{MORPH_neg}		<i>reke</i> _{V_itr} <i>maswi</i> _{N06}	
	subj-1st-sg neg		buy milk	
	‘I do not / did not / will not / buy milk’			

3.2.9 The predicative dependent moods: The consecutive

The consecutive is described by Lombard (1985, p. 152) as a dependent mood, indicating “an action or process which follows another action/other actions.” Poulos and Louwrens (1994, p. 240 et seq.) describe the consecutive accordingly. Its identifying element is the subject concord of set 3, and its chronological placement is dependent on the matrix sentence it refers to as it does not contain tense marker itself. Example (58) (cf. (Lombard, 1985, p. 152)) demonstrates a consecutive referring to an event in the past. The consecutive itself does not show any tense, the matrix sentence however is an indicative of the perfect tense.

- (58) *ke* *ile* *toropong* *ka* *reka* *maswi*
 subj-1st-sg went town-loc subj-1st-sg buy milk
 ‘I went to town (and then) I bought milk’

Lombard (1985, p. 154) demonstrates one possible negation of the consecutive containing the negative morpheme *se*_{MORPH_neg}. Poulos and Louwrens (1994, p. 241) add a second possibility to negate the consecutive, a compound form containing an auxiliary. However, we do not expect this form to be frequent, as in our corpus no occurrences were found. Therefore this form does not appear in Table 3.27 demonstrating the consecutive forms.

3.2.10 The predicative dependent moods: The subjunctive and the habitual

The subjunctive and the habitual are, like the consecutive, described by both sources as forming dependent clauses. The subjunctive, according to Lombard (1985, p. 154), is ‘conditioned causally’, i.e. the action described in this clause was caused by the action described in the matrix clause, while the habitual, according to Lombard (1985, *ibid.*), ‘indicates an action/process which proceeds as a habit from previous actions/processes’.

Example 59 (a) shows a subjunctive, (b) a habitual. The elements of 59 (a) and (b) are annotated with the relevant labels to demonstrate that the forms in which both these moods appear are orthographically identical¹⁶. However, the subjunctive may be preceded by a conjunction, *gore* ‘that’ (cf. 59 (c)), while the habitual might be part of an auxiliary structure, as shown in 59(d). All examples in (59) are taken from Lombard (1985, p. 154 et seq.) ((b) is simplified for the sake of clarity).

- 59 (a) *ke*_{2CScateg} *mmoditše*_{VBP-V-end-e} **a** *lahle* *selo*
 subj-1st-sg obj-3rd-cl1-told **subj-3rd-cl1** must throw away thing
seo
that
 ‘I told him to throw that thing away (that he should throw that thing away)’
- (b) *re* *tsoga* *re*_{2CScateg} *apare*_{VBP-V-end-e}
 subj-1st-pl get up **subj-1st-pl** get dressed
 ‘we get up (and usually) we get dressed’
- (c) *Ke* *nyaka* *gore* *o*_{2CScateg} *nthušē*_{VBP-V-end-e}
 subj-1st-sg want **that** **subj-2nd-sg** **obj-1st-sg-help**
 ‘I want you to help me (that you should help me)’
- (d) *o*_{1CScateg} *tle*_{V_aux} *a*_{2CScateg} *fhle*_{VBP-V-end-e} *ka* *Mokibelo*
 subj-3rd-cl1 usually **subj-3rd-cl1** arrive by Saturday
 ‘he usually arrives on (a) Saturday’

The negated forms of the subjunctive and the habitual entail both the negation morpheme *se*_{MORPH_neg} and, like the positive, subject concords of the second set. All constellations of the subjunctive/habitual forms are shown in Table 3.28, page 124.

¹⁶Poulos and Louwrens (1994, p. 244) however point out that there is indeed a difference in tone: while the verb stem ends in *-e* in the habitual, it ends in *-ê* in the subjunctive. However, tones are not marked in the official orthography of the language, therefore such information cannot be taken into account.



Table 3.28: The subjunctive/habitual

SUHA VP				
	SUHA VIE		VBP	
descr.	zero-2	zero-1	zero	Vstem ends in
subjunct. / habitual pos.			VBP	-e
	2CS _{categ}			
	example:			
	<i>ke</i> _{2CSPERS_sg}		<i>reke</i> _{V_itr} <i>maswi</i> _{N06}	
	subj-1st-sg		buy milk	
subjunct.	‘(that) I buy / bought / will buy milk’			
habitual	‘I (usually) buy / bought / will buy milk’			
subjunct. / habitual neg.			VBP	-e
	2CS _{categ} <i>se</i> _{MORPH_neg}			
	example:			
	<i>ke</i> _{2CSPERS} <i>se</i> _{MORPH_neg}		<i>reke</i> _{V_itr} <i>maswi</i> _{N06}	
	subj-1st-sg neg		buy milk	
subjunct.	‘(that) I do not / did not / will not / buy milk’			
habitual	‘I (usually) do not / did not / will not / buy milk’			

3.2.11 The dependent moods: A summary

The dependent moods are summarised in Table 3.29. Note that these verbal phrases are not expected to occur without a matrix clause present in the sentence. The following section will be dedicated to the copulatives and demonstrate some auxiliary constellations.

Table 3.29: Summary of the dependent moods

		DEP ^{VP}			
		DEP ^{VIE}		VBP	
descr.	zero-2	zero-1	zero	Vstem ends in	
cons.pos.	3CS _{categ}		VBP	-e	
cons.neg.	3CS _{categ} s _e MORPH _{neg}		VBP	-e	
suha.pos.	2CS _{categ}		VBP	-e	
suha.neg.	2CS _{categ} s _e MORPH _{neg}		VBP	-e	

3.3 The copulative verbal phrase (VP_{cop})

3.3.1 Introduction

In linguistic descriptions of word classes, copulas are usually described as a subset of the sets of verbs. They are often called “linking” verbs. Taljard et al. (2008) categorise the Northern Sotho copulas as “VCOP” (compare the class “V” containing main verb stems). Lyons (1968, p. 322 et seq.) states that this word class can be clearly distinguished from main verbs from a syntactic perspective because copulatives accept – amongst other items – adjectives as their complement. We have therefore opted to categorise copula as linking a subject with a complement which is either an entity itself or describes properties of this subject¹⁷.

Lyons (ibid.) furthermore argues that, as there are have been a number of languages (e.g. Russian, Greek or Latin) which did not use copulas earlier, this linguistic element is therefore “not itself a constituent of deep structure, but semantically empty **dummy verbs**

¹⁷One should however note that there are indeed main verbs in Northern Sotho that semantically contain copula and complement, like, for example, the verb *thaba* ‘be happy’ in *ke*_{1CSPERS_1sg} *ilev*_{aux} *ka*_{3CSPERS_1sg} *thabav*_{itr} *ge*_{CONJ} *wena*_{PROEMPPERS_2sg} *o*_{CSPERS_2sg} *boilev*_{itr} *maabane*_{N06} ‘I **was** happy when you arrived yesterday’.

generated by the grammatical rules” of a language. Lyons (1968, p. 389 et seq.) continues in demonstrating two categories of copulas by listing the examples “apples are sweet” (copula as a characterising element) and “apples are fruit” (copula as a sorting element). While in English, both categories make use of the same copula, ‘are’ (here as the present tense plural form of ‘[to] be’), this kind of distinction is more overt in Northern Sotho, and expressed by two different copulatives, the identifying and the descriptive copulative, which make use of different copula.

While the identifying copulatives do not fit with third person subjects, the descriptives do (cf. Lombard (1985, p. 194 and 196)). Northern Sotho moreover makes use of a third category: the associative copulative, expressing the sense ‘to be with’, which can also mean ‘to have’, like in 60(a). Here, the possession is usually linked to the copula *na* (or the dynamic *ba* ‘become’ in the future tense) by a connective particle, *le* ‘with’. The negation may occur without this particle, cf. 60(b).

- 60(a) o_{1CS01} **na**_{VCOP} *le*_{PART_con} *tšhelete*_{N09} *na*_{PART_que?}
 subj-3rd-cl1 is con money que?
 ‘do you have money (with you)?’
- (b) ga_{MORPH_neg} $ke_{2CSPERS_1sg}$ **na**_{VCOP} *tšhelete*_{N09}
 neg subj-1st-sg is money
 ‘I do not have money’

Like the main verbs of Northern Sotho, copulatives occur in a number of moods¹⁸ and tenses, however, not all copulative categories (identifying, descriptive and associative) occur in all moods and tenses, as the paragraphs of this section will show. As far as the perfect tense is concerned, copulatives – like main verbs – usually utilise auxiliary verbs, they however select them from a closed set: *be*, *bego*, *bile*, *bilego*. Note however that – amongst others – *be* (as the past form of *ba*), *bile* and *bilego* also appear as copulatives themselves, indicating perfect tense.

As the following paragraphs will show, there are various constellations of the Northern Sotho copulatives. These have already been described extensively in the DLitt thesis of Elsabé Taljard (cf. Taljard (1999)), and it would exceed the scope of this study to describe them in as much detail as others have done before me.

¹⁸For an overview of all moods described by Lombard, cf Tables 3.2 and 3.3 on pages 76 and 77.

This section will therefore specifically focus on relevant morphosyntactic distinctions. Lombard (1985, p. 192 et seq.) and Poulos and Louwrens (1994, p. 289 et seq.) also offer an overview of the three categories identifying, descriptive and associative copula.

Poulos and Louwrens (1994, p. 291 et seq.), describe a fourth category; the “locational” copula, like in *bana*_{N02} *ba*_{V COP_02} *sekolong*_{N07_loc} ‘(the) children are at school’. The respective semantics in such a case, however, are expressed by the (locativised) object noun, namely *sekolong* ‘at school’ (cf. paragraph 2.2.2 on page 24). In conclusion, we do not find the copula *ba* contributing to the locational character of the statement as a whole. Therefore, such a category of copula is not considered in our study.

This section mainly relies on Louwrens (1991, p. 71 et seq.), Taljard (1999), and Prinsloo (2002), who all state that one should distinguish between two sub-categories “stative”¹⁹ and “dynamic” for each of the three categories mentioned above. The static copula basically express the sense ‘[to] be’, while the dynamic copula in general mean ‘[to] become’. There are therefore six basic categories of copula in total, of which each appears in certain tenses, moods, and actualities, as Table 3.30 demonstrates.

Prinsloo (2002, p. 28 et seq.)²⁰ summarises by stating that the following issues must be taken into account in the categorisation of copulas:

- copulas express relations between a subject and a complement, namely identification, description or association;
- there are two types of copulas for each of the defined relations: a stative and a dynamic type;
- copulas can contain the copulative particle *ke*_{PART_cop}, or a subject concord referring to a person or class;
- copulas can be multiword expressions like *e le*, *e se*, *o ba*, *o na*, etc., (we should like to add: of which some contain auxiliaries, like *ecsneut be*_{V_AUX} *ecsneut le*_{V COP});

¹⁹Louwrens uses the term “static”

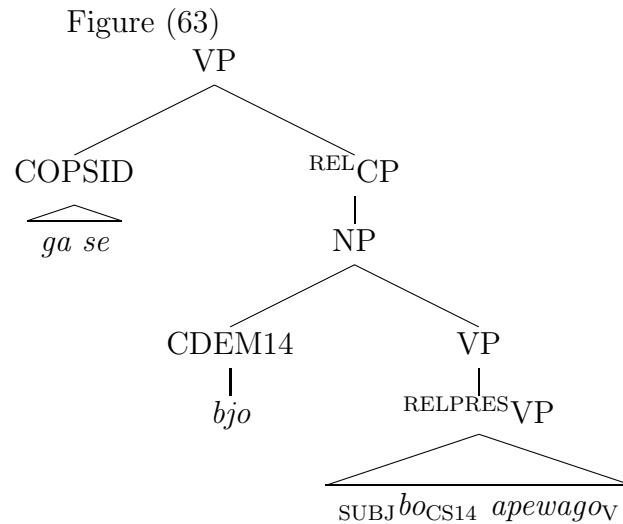
²⁰Note that the progressive copula, as described by e.g. Prinsloo (2002), which makes use of the progressive morpheme *sa*_{MORPH_prog} will not be described in the scope of this study; these constellations might however be added at a later stage.

- copulas occur in moods.

There are variable and invariable copulatives, i.e. some agree with their subject and others appear to be independent of it. The class-independent (invariable) copulatives usually make use of the neutral subject concord (or the copulative particle) and, according to Louwrens (1991, p. 74 et seq.), always belong to the identifying copulatives. Nevertheless, there are variable copulatives which also appear in this category. Figures 3.22 to 3.28, are based on (Louwrens, 1991, p. 72), and list the copulative categories which are described in further detail in the accompanying paragraphs. They also contain some word-for-word translations to illustrate the differences in meaning as well as information on the expected complement for each of the copulative constellations (NOM for nominal, ADJ for adjectival). The following paragraphs will describe each of the categories in more detail. Note that the object of the copulative cannot be represented by an object concord, therefore the definition of an intermediate structure describing a ‘basic copulative phrase’ is deemed unnecessary.

Table 3.30: Overview of copulative constellations

Copulative	Identifying		Descriptive		Associative	
	stative	dynamic	stative	dynamic	stative	dynamic
Tense						
pres	×	×	×	×	×	×
perfect	×	×	×	×	×	×
fut		×		×		×
Mood						
indicative (pos/neg)	×	×	×	×	×	×
situative (pos/neg)	×	×	×	×	×	×
relative (pos/neg)	×	×	×	×	×	×
consecutive (pos/neg)		×		×		×
subjunctive (pos/neg)		×		×		×
habitual (pos/neg)		×		×		×
infinitive (pos/neg)		×		×		×
imperative (pos/neg)		×		×		×



3.3.2 The identifying copulative

Lombard (1985, p. 194) states that this copulative is used when “a person or thing is identified with another one”, like in the example (61). As only nouns express entities like person or things, the identifying copulas should require subject and object to be nominal, cf. example (62), taken from Poulos and Louwrens (1994, p. 307).

(61) *ke*_{VCOP_1sg} *moithuti*_{N01}
I am student
'I am (a) student'

(62) *mošeman*_{N01} *ke*_{PART_cop} *yoc*_{CDEM01} *mošweu*_{ADJ}
boy is dem-3rd-cl1 white
'(a) boy is white'

Example (and figure) (63) of Lombard (1985, p. 194) show that these copulatives also occur with clausal complements.

(63) *ga*_{MORPH_neg} *sev*_{COP_neg} *bjo*_{CDEM14} *bo*_{1CS14} *apewagov*
neg is not dem-3rd-cl14 subj-3rd-cl14 which-is cooked
'it is not that which is cooked'

The copulas that appear in these constellations are either identical to the personal subject concords (as described in paragraph 3.3.1, they will be categorised as copulas in this case)

or the impersonal copulative particle, $ke_{\text{PART_cop}}$ which is used for all subjects belonging to a noun class. The negation makes use of the negative morpheme *ga*.

Just like the main verbs, the future tense ('will be') is formed by adding a preceding *tla* or *tlo* to the present tense. However, there are only dynamic forms of the future tense (e.g. *ba* 'become' will form *tlo ba* 'will become/be'). The negation of this tense, again similar to main verbs, makes use of the word group *ka se*. The stative is described for the indicative, situative (principal and participial by Poulos and Louwrens (1994)), and for the relative mood (e.g. Prinsloo (2002)). Furthermore, the dynamic describes dependent moods like e.g. the consecutive and the non-predicative categories, which contain infinitive and imperative.

To simplify the morphosyntactic rules defined in this chapter, a number of their units are described as elements of certain sets, cf. Table 3.31. Whenever a set name appears in a rule, it stands for one of its elements. If the set name occurs again in the same rule, it represents a repetition of the same element. As in the previous chapter, the abbreviation "categ" stands for an extension, however, the rule will store this information (e.g. '1st-sg' as an extension for persons or '3rd-cl2' as an extension for class 2) if its elements need to agree with an external subject. This issue is demonstrated by example (64), which shows an identifying stative copulative constellation in the perfect tense. The second line of this example shows the rule to be applied. In this example, the rule contains 1CSPCSN (this set contains all 1CSPERS, i.e. all subject concords of the first set referring to the 1st or 2nd person, and the neutral subject concord e_{CSNEUT} , cf. Table 3.31) . As 1CSPCSN appears twice it means that identical subject concords should appear.

- (64) $ke_{1\text{CSPERS_1sg}}$ $be_{\text{V_aux}}$ $ke_{1\text{CSPERS_1sg}}$ le_{VCOP} (*morutiši*)
 1CSPCSN $be_{\text{V_aux}}$ 1CSPCSN le_{VCOP}
 'I was (a teacher)'

An overview of the identifying copulatives is shown in the seven figures 3.22 to 3.28. For each of these figures²¹; a table is provided to demonstrate the rules for the respective constellations, illustrated by examples.

²¹In order to save space, only the relative pronoun 'that' appears in the constellations described by figures 3.22 to 3.28. It stands however for 'that', 'who' or 'which'. The same applies to 'is' representing 'is', 'am', or 'are', and 'was', representing 'was' or 'were'.

Table 3.31: groups of copulas

Set name	Set description	Elements of this set
$CSPCSN_{\text{categ}}$	CSPersonal and CSNeutral	$ke_{1CSPERS_1sg}$, $o_{1CSPERS_2sg}$ re_{CSPERS_1pl} , le_{CSPERS_2pl} , e_{CSNEUT}
$VCPC_{\text{categ}}$	VCOPPersonal and cop. particle	ke_{VCOP_1sg} , o_{VCOP_2sg} re_{VCOP_1pl} , le_{VCOP_2pl} , ke_{PART_cop}
$VCNEG_{\text{categ}}$	VCOPPersonal and negative VCOP	ke_{VCOP_1sg} , o_{VCOP_2sg} re_{VCOP_1pl} , le_{VCOP_2pl} , se_{VCOP_neg}
$1VCOP_{\text{categ}}$	VCOPPersonal and classes	$VCOP_{\text{categ}}$ (o for class 1)
$2VCOP_{\text{categ}}$	VCOPPersonal and classes	$VCOP_{\text{categ}}$ (a for class 1)



3.3.2.1 The stative

Tables 3.32 and 3.33 show an overview of the morphological rules forming the stative constellations (demonstrated in Figures 3.22 and 3.23, and contain examples.

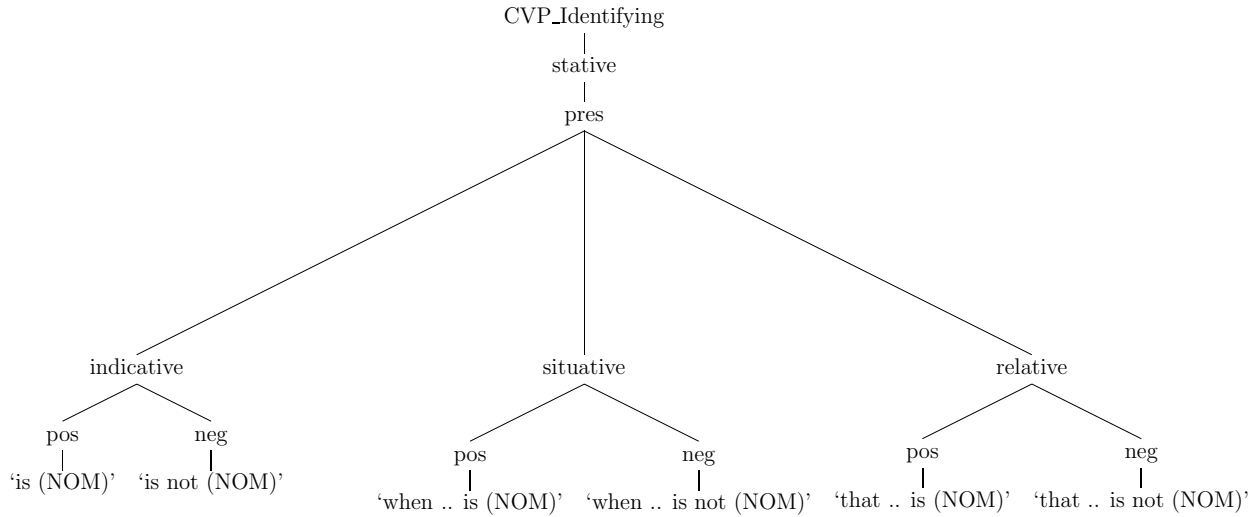


Figure 3.22: Identifying stative present tense (cf. Table 3.32)

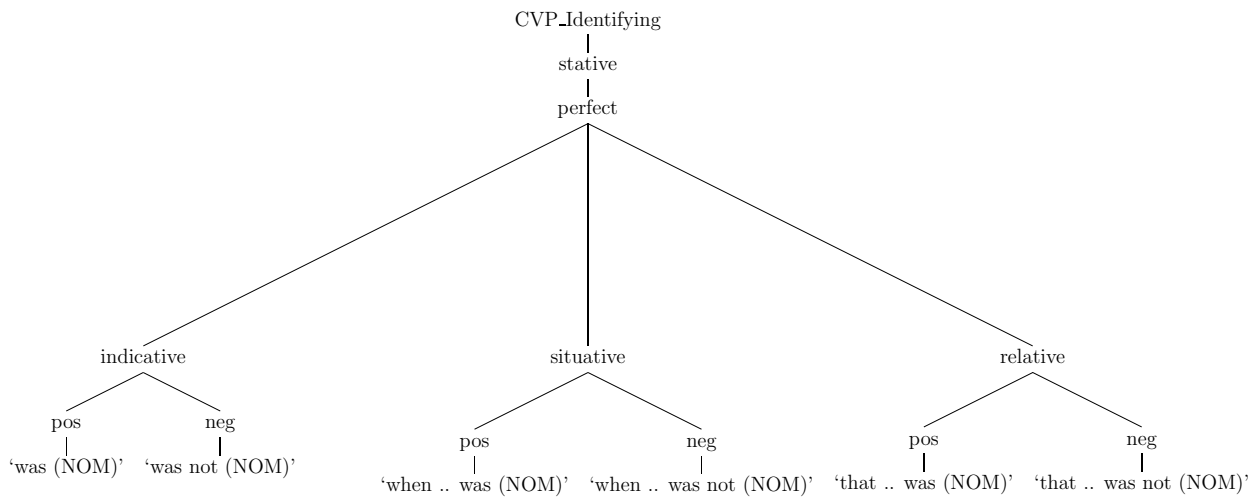


Figure 3.23: Identifying stative perfect tense (cf. Table 3.33)

Table 3.32: The **stative** forms of the **identifying** copulative (COPSID) (**present tense**, figure (3.22))

COPSID _V		
tense	mood and actuality	elements
pres.	ind pos	VCPC _{categ}
	examples:	
	(<i>monna</i>)	<i>ke</i> _{PART_cop} (<i>morutišiši</i> _{N01}) '(the man) is (a teacher)'
		<i>ke</i> _{VCOP_1sg} (<i>morutišiši</i> _{N01}) 'I am (a teacher)'
	ind neg	ga _{MORPH_neg} VCNEG _{categ}
	(<i>monna</i>)	<i>ga</i> _{MORPH_neg} <i>se</i> _{VCOP_neg} (<i>morutišiši</i> _{N01}) '(the man) is not (a teacher)'
		<i>ga</i> _{MORPH_neg} <i>ke</i> _{VCOP_1sg} (<i>morutišiši</i> _{N01}) 'I am not (a teacher)'
	sit pos	CSPCSN _{categ} le _{VCOP}
	(<i>ge monna</i>)	<i>e</i> _{CSNEUT} <i>le</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(as the man) is (a teacher)'
	(<i>ge</i>)	<i>ke</i> _{1CSPERS_1sg} <i>le</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(as) I am (a teacher)'
	sit neg	CSPCSN _{categ} se _{VCOP_neg}
	(<i>ge monna</i>)	<i>e</i> _{CSNEUT} <i>se</i> _{VCOP_neg} (<i>morutišiši</i> _{N01}) '(as the man) is not (a teacher)'
	(<i>ge</i>)	<i>ke</i> _{1CSPERS_1sg} <i>se</i> _{VCOP_neg} (<i>morutišiši</i> _{N01}) '(as) I am not (a teacher)'
	rel pos	CSPCSN _{categ} lego _{VCOP}
	(<i>monna yo</i>)	<i>e</i> _{CSNEUT} <i>lego</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(the man who) is (a teacher)'
	(<i>nna yo</i>)	<i>ke</i> _{1CSPERS_1sg} <i>lego</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(I who) am (a teacher)'
	rel neg	CSPCSN _{categ} sego _{VCOP_neg}
	(<i>monna yo</i>)	<i>e</i> _{CSNEUT} <i>sego</i> _{VCOP_neg} (<i>morutišiši</i> _{N01}) '(the man who) is not (a teacher)'
	(<i>nna yo</i>)	<i>ke</i> _{1CSPERS_1sg} <i>sego</i> _{VCOP_neg} (<i>morutišiši</i> _{N01}) '(I who) am not (a teacher)'

Table 3.33: The **stative** forms of the **identifying** copulative (COPSID) (**perfect tense**, figure (3.23))

COPSID _V			
tense	mood and actuality	tense marker	elements
perfect	ind/sit pos	CSPCSN_{categ} <i>be_V_aux</i>	CSPCSN_{categ} <i>le_{VCOP}</i>
	examples:		
	<i>((ge) monna)</i>	<i>e_{CSNEUT} be_V_aux</i>	<i>e_{CSNEUT} le_{VCOP} (morutiš<i>i</i>_{N01})</i>
		‘((as) the man) was (a teacher)’	
	<i>(ge)</i>	<i>ke_{1CSPERS_1sg} be_V_aux</i>	<i>ke_{1CSPERS_1sg} le_{VCOP} (morutiš<i>i</i>_{N01})</i>
		‘(as) I was (a teacher)’	
	ind/sit neg	CSPCSN_{categ} <i>be_V_aux</i>	CSPCSN_{categ} <i>se_{VCOP}_neg</i>
	<i>((ge) monna)</i>	<i>e_{CSNEUT} be_V_aux</i>	<i>e_{CSNEUT} se_{VCOP}_neg (morutiš<i>i</i>_{N01})</i>
		‘((as) the man) was not (a teacher)’	
	<i>(ge)</i>	<i>ke_{1CSPERS_1sg} be_V_aux</i>	<i>ke_{1CSPERS_1sg} se_{VCOP}_neg (morutiš<i>i</i>_{N01})</i>
		‘(as) I was not (a teacher)’	
	rel pos	CSPCSN_{categ} <i>bego_V_aux</i>	CSPCSN_{categ} <i>le_{VCOP}</i>
	<i>(monna yo)</i>	<i>e_{CSNEUT} bego_V_aux</i>	<i>e_{CSNEUT} le_{VCOP} (morutiš<i>i</i>_{N01})</i>
		‘(the man who) was (a teacher)’	
	<i>(nna yo)</i>	<i>ke_{1CSPERS_1sg} bego_V_aux</i>	<i>ke_{1CSPERS_1sg} le_{VCOP} (morutiš<i>i</i>_{N01})</i>
		‘(I who) was (a teacher)’	
	rel neg	CSPCSN_{categ} <i>bego_V_aux</i>	CSPCSN_{categ} <i>se_{VCOP}_neg</i>
	<i>(monna yo)</i>	<i>e_{CSNEUT} bego_V_aux</i>	<i>e_{CSNEUT} se_{VCOP}_neg (morutiš<i>i</i>_{N01})</i>
		‘(the man who) was not (a teacher)’	
	<i>(nna yo)</i>	<i>ke_{1CSPERS_1sg} bego_V_aux</i>	<i>ke_{1CSPERS_1sg} se_{VCOP}_neg (morutiš<i>i</i>_{N01})</i>
		‘(I who) was not (a teacher)’	

3.3.2.2 The dynamic

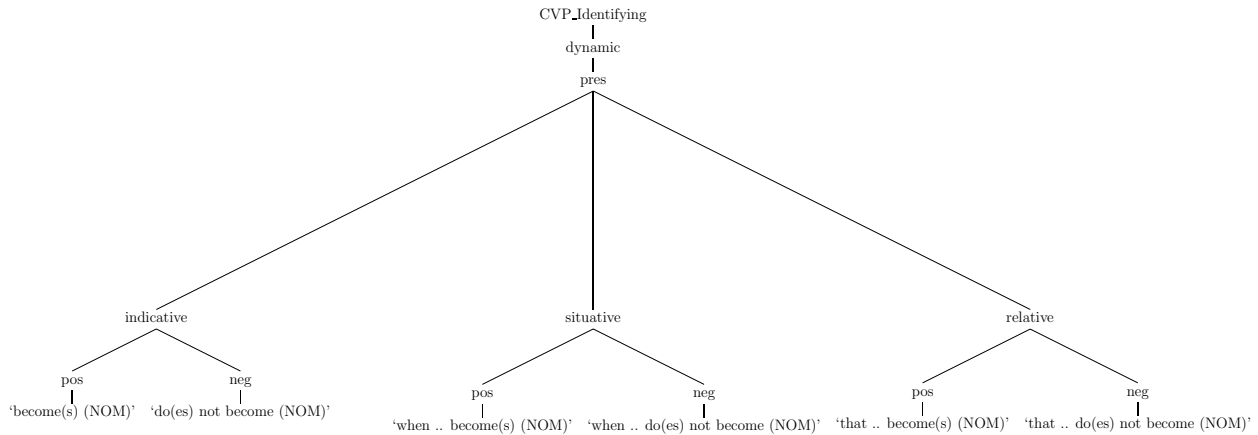


Figure 3.24: Identifying dynamic present tense (cf. Table 3.34)

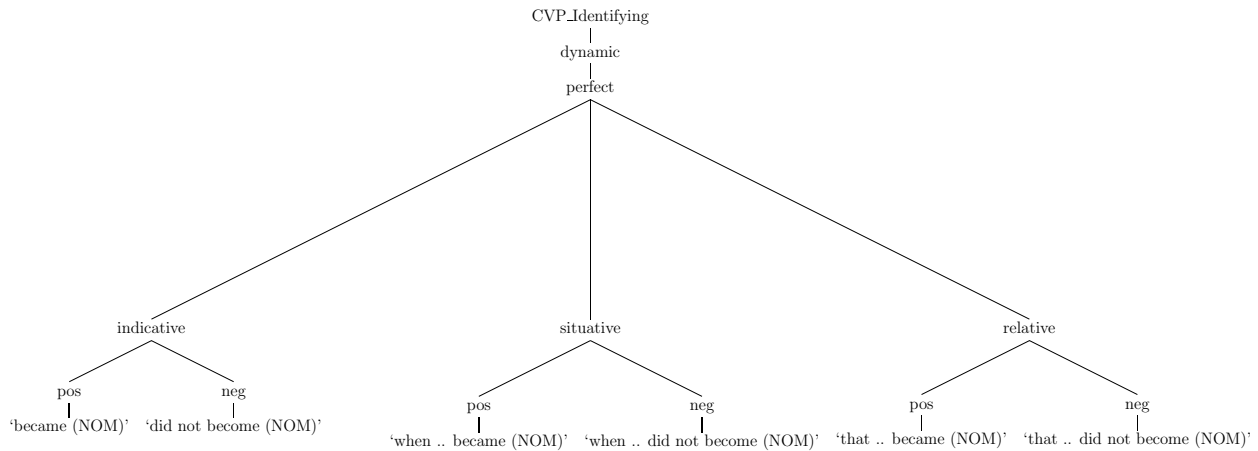


Figure 3.25: Identifying dynamic perfect tense (cf. Table 3.35)

Tables 3.34 to 3.39 contain the morphological rules forming the dynamic constellations (demonstrated in Figures 3.24 to 3.28). Note that in the perfect tense of the identifying dynamic copulative (Table 3.35), the tense itself is overt only in the positive form of the indicative/situative mood (the perfect tense form *bile* of *ba* ‘become’ is used). The negative forms show no tense marker and make use of the present tense copula *ba* and *be* ‘become’. Therefore, the fact that these constellations represent the perfect tense cannot be deduced from a single component, rather from the constellation as a whole.

The dependent forms are translated into present tense English in tables 3.37 and 3.38 though consecutive, subjunctive and habitual could appear as other tenses as well. The tense of these constellations is determined by the tense of the main clause they depend upon.

Table 3.34: The **dynamic** forms of the **identifying** copulative (COPDID) (**present tense**, Figure 3.24)

COPDID _V		
tense	mood and actuality	elements
pres.	ind/sit pos	CSPCSN _{categ} <i>ba</i> _{VCOP}
	examples:	
	<i>((ge) monna)</i>	<i>e</i> _{CSNEUT} <i>ba</i> _{VCOP} (<i>morutišiši</i> _{N01}) '((as) the man) becomes (a teacher)'
	<i>(ge)</i>	<i>ke</i> _{1CSPERS_1sg} <i>ba</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(as) I become (a teacher)'
	ind neg	<i>ga</i> _{MORPH_neg} CSPCSN _{categ} <i>be</i> _{VCOP}
	<i>(monna)</i>	<i>ga</i> _{MORPH_neg} <i>e</i> _{CSNEUT} <i>be</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(the man) does not become (a teacher)'
		<i>ga</i> _{MORPH_neg} <i>ke</i> _{1CSPERS_1sg} <i>be</i> _{VCOP} (<i>morutišiši</i> _{N01}) 'I do not become (a teacher)'
	sit neg	CSPCSN _{categ} <i>sa</i> _{MORPH_neg} <i>be</i> _{VCOP}
	<i>(ge monna)</i>	<i>e</i> _{CSNEUT} <i>sa</i> _{MORPH_neg} <i>be</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(as the man) does not become (a teacher)'
	<i>(ge)</i>	<i>ke</i> _{1CSPERS_1sg} <i>sa</i> _{MORPH_neg} <i>be</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(as) I do not become (a teacher)'
	rel pos	CSPCSN _{categ} <i>bago</i> _{VCOP}
	<i>(monna yo)</i>	<i>e</i> _{CSNEUT} <i>bago</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(the man who) becomes (a teacher)'
	<i>(nna yo)</i>	<i>ke</i> _{1CSPERS_sg} <i>bago</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(I who) become (a teacher)'
	rel neg	CSPCSN _{categ} <i>sa</i> _{MORPH_neg} <i>bego</i> _{VCOP}
	<i>(monna yo)</i>	<i>e</i> _{CSNEUT} <i>sa</i> _{MORPH_neg} <i>bego</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(the man who) does not become (a teacher)'
	<i>(nna yo)</i>	<i>ke</i> _{1CSPERS_1sg} <i>sa</i> _{MORPH_neg} <i>bego</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(I who) do not become (a teacher)'

Table 3.35: The **dynamic** forms of the **identifying** copulative (COPDID) (**perfect tense**, Figure 3.25)

COPDID _V		
tense	mood and actuality	elements
perfect	ind/sit pos	CSPCSN_{categ} bile_{VCOP}
	examples:	
	<i>((ge) monna)</i>	<i>e_{CSNEUT} bile_{VCOP} (morutiš_i_{N01})</i> '((when) the man) became (a teacher)'
	<i>(ge)</i>	<i>ke_{1CSPERS_1sg} bile_{VCOP} (morutiš_i_{N01})</i> '(when) I became (a teacher)'
	ind neg	ga_{MORPH_neg} se_{MORPH_neg} 3CS_{categ} ba_{VCOP}
	<i>(monna)</i>	<i>ga_{MORPH_neg} se_{MORPH_neg} ya_{3CS01} ba_{VCOP} (morutiš_i_{N01})</i> '(the man) did not become (a teacher)'
		<i>ga_{MORPH_neg} se_{MORPH_neg} ka_{3CSPERS_1sg} ba_{VCOP} (morutiš_i_{N01})</i> 'I did not become (a teacher)'
	sit neg	CSPCSN_{categ} sa_{MORPH_neg} ba_{VCOP}
	<i>(ge monna)</i>	<i>e_{CSNEUT} sa_{MORPH_neg} ba_{VCOP} (morutiš_i_{N01})</i> '((when) the man) did not become (a teacher)'
	<i>(ge)</i>	<i>ke_{1CSPERS_1sg} sa_{MORPH_neg} ba_{VCOP} (morutiš_i_{N01})</i> '(when) I did not become (a teacher)'
	rel pos	CSPCSN_{categ} bilego_{VCOP}
	<i>(monna yo)</i>	<i>e_{CSNEUT} bilego_{VCOP} (morutiš_i_{N01})</i> '(the man who) became (a teacher)'
	<i>(nna yo)</i>	<i>ke_{1CSPERS_1sg} bilego_{VCOP} (morutiš_i_{N01})</i> '(when) I became (a teacher)'
	rel neg	CSPCSN_{categ} sa_{MORPH_neg} bago_{VCOP}
	<i>monna yo</i>	<i>e_{CSNEUT} sa_{MORPH_neg} bago_{VCOP} (morutiš_i_{N01})</i> '(the man who) did not become (a teacher)'
	<i>(nna yo)</i>	<i>ke_{1CSPERS_1sg} sa_{MORPH_neg} bago_{VCOP} (morutiš_i_{N01})</i> '(I who) did not become (a teacher)'

Table 3.36: The dynamic forms of the identifying copulative (COPDID) (future tense, Figure 3.26)

COPDID _V		
tense	mood and actuality	tense marker and other elements
fut.	ind/sit pos	CSPCSN_{categ} <i>tlo/tla</i>_{MORPH_fut} <i>ba</i>_{VCOP}
	examples:	
	<i>((ge) monna)</i>	<i>e_{CSNEUT} tlo ba_{VCOP} (morutiš_i_{N01})</i> '((when) the man) will become (a teacher)'
	<i>(ge)</i>	<i>ke_{1CSPERS_1sg} tlo ba_{VCOP} (morutiš_i_{N01})</i> '(when) I will become (a teacher)'
	ind/sit neg	CSPCSN <i>ka</i>_{MORPH_pot} <i>se</i>_{MORPH_neg} <i>be</i>_{VCOP}
	<i>((ge) monna)</i>	<i>e_{CSNEUT} ka_{MORPH_pot} se_{MORPH_neg} be_{VCOP} (morutiš_i_{N01})</i> '((as) the man) will not become (a teacher)'
	<i>(ge)</i>	<i>nka (ke_{1CSPERS_1sg} + ka_{MORPH_pot}) se_{MORPH_neg} be_{VCOP} (morutiš_i_{N01})</i> '(as) I will not become (a teacher)'
	rel pos 1	CSPCSN_{categ} <i>tlo/tla</i>_{MORPH_fut} <i>bago</i>_{VCOP}
	<i>(monna yo)</i>	<i>e_{CSNEUT} tlo bago_{VCOP} (morutiš_i_{N01})</i> <i>e_{CSNEUT} tlogo ba_{VCOP}</i> '(the man who) will become (a teacher)'
	<i>(nna yo)</i>	<i>ke_{1CSPERS_sg} tlo bago_{VCOP} (morutiš_i_{N01})</i> <i>ke_{1CSPERS_sg} tlogo ba_{VCOP}</i> '(I who) become (a teacher)'
	rel neg	CSPCSN_{categ} <i>ka</i>_{MORPH_pot} <i>se</i>_{MORPH_neg} <i>bego</i>_{VCOP}
	<i>(monna yo)</i>	<i>e_{CSNEUT} ka_{MORPH_pot} se_{MORPH_neg} bego_{VCOP} (morutiš_i_{N01})</i> '(the man who) will not become (a teacher)'
	<i>(nna yo)</i>	<i>nka (ke_{1CSPERS_1sg} + ka_{MORPH_pot}) se_{MORPH_neg} bego_{VCOP} (morutiš_i_{N01})</i> '(I who) will not become (a teacher)'

Table 3.37: The **dynamic** forms of the **identifying** copulative (COPDIDD) (**dependent constellations** part 1 of 2, Figure 3.27)

COPDIDD ∇	
mood and actuality	elements
consecutive pos	$3CS_{\text{categ}} ba_{VCOP}$ <hr/> examples: <i>(monna) ya_{3CS01} ba_{VCOP} (morutiš_{iN01})</i> ‘(then the man) becomes (a teacher)’ <i>ka_{3CSPERS_1sg} ba_{VCOP} (morutiš_{iN01})</i> ‘(then I) become (a teacher)’
consecutive neg	$3CS_{\text{categ}} se_{MORPH_neg} be_{VCOP}$ <hr/> <i>(monna) ya_{3CS01} se_{MORPH_neg} be_{VCOP} (morutiš_{iN01})</i> ‘(then the man) does not become (a teacher)’ <i>ka_{3CSPERS_1sg} se_{MORPH_neg} be_{VCOP} (morutiš_{iN01})</i> ‘(then I) do not become (a teacher)’
subjunctive pos	$CSPCSN_{\text{categ}} be_{VCOP}$ <hr/> <i>(gore monna) e_{CSNEUT} be_{VCOP} (morutiš_{iN01})</i> ‘(so that the man) becomes (a teacher)’ <i>(gore) ke_{1CSPERS_1sg} be_{VCOP} (morutiš_{iN01})</i> ‘(so that) I become (a teacher)’
subjunctive neg	$CSPCSN_{\text{categ}} se_{MORPH_neg} be_{VCOP}$ <hr/> <i>(gore monna) e_{CSNEUT} se_{MORPH_neg} be_{VCOP} (morutiš_{iN01})</i> ‘(so that the man) does not become (a teacher)’ <i>(gore) ke_{1CSPERS_1sg} se_{MORPH_neg} be_{VCOP} (morutiš_{iN01})</i> ‘(so that) I do not become (a teacher)’

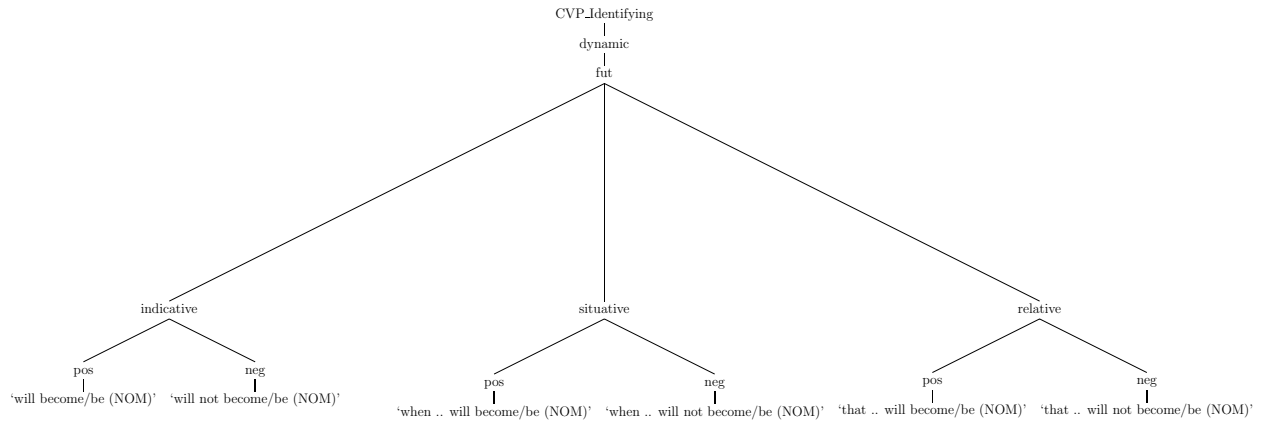


Figure 3.26: Identifying dynamic future tense (cf. Table 3.36)

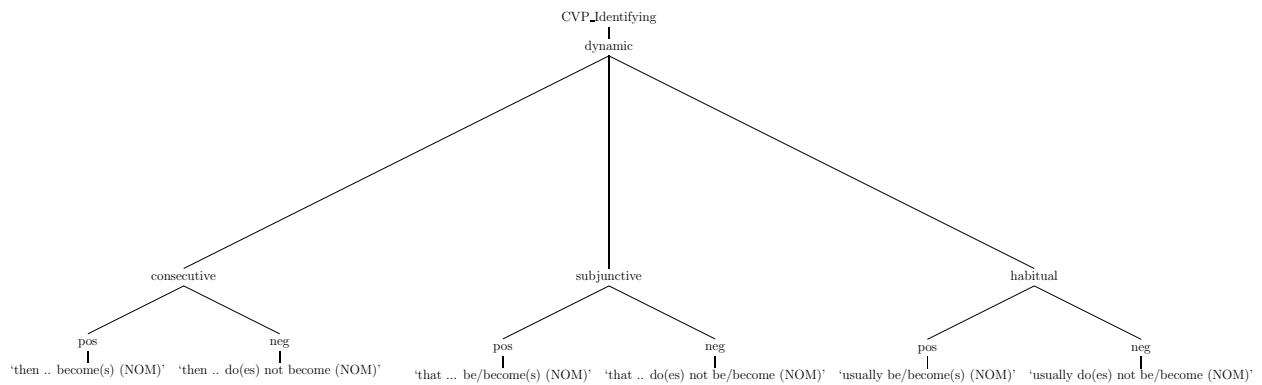


Figure 3.27: Identifying dynamic dependent clauses (cf. Tables 3.37 and 3.38)

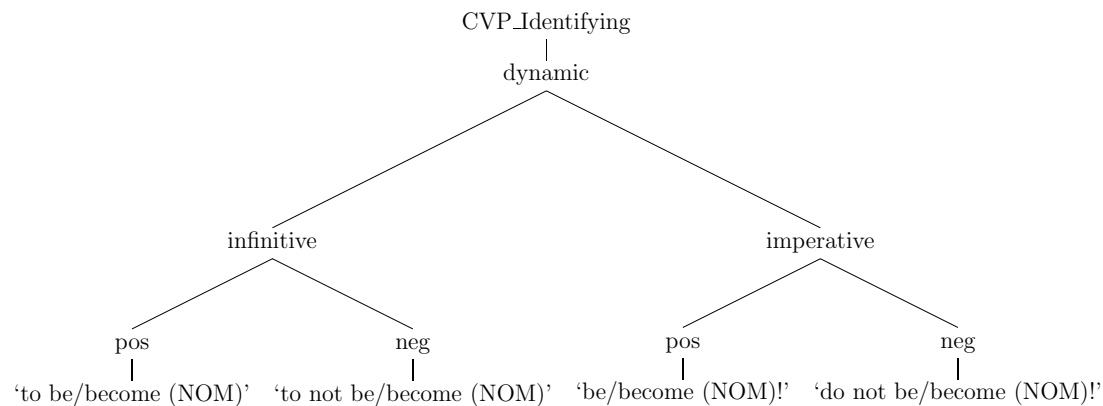


Figure 3.28: Identifying dynamic non-predicative clauses (cf. Table 3.39)

Table 3.38: The **dynamic** forms of the **identifying** copulative (COPDIDD) (**dependent constellations** part 2 of 2, Figure 3.27)

COPDIDD _V	
mood and actuality	elements
habitual pos	CSPCSN _{categ} <i>be</i> _{VCOP}
	examples: (<i>monna</i>) <i>e</i> _{CSNEUT} <i>be</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(a man) (usually) becomes (a teacher)' <i>ke</i> _{1CSPERS_1sg} <i>be</i> _{VCOP} (<i>morutišiši</i> _{N01}) 'I (usually) become (a teacher)'
habitual neg	CSPCSN _{categ} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP}
	(<i>monna</i>) <i>e</i> _{CSNEUT} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP} (<i>morutišiši</i> _{N01}) '(a man) (usually) does not become (a teacher)' <i>ke</i> _{1CSPERS_1sg} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP} (<i>morutišiši</i> _{N01}) 'I (usually) do not become (a teacher)'

Table 3.39: The **dynamic** forms of the **identifying** copulative (COPDI) (**non-predicative constellations**, Figure 3.28)

COPDI _V	
mood and actuality	elements
infinitive pos	<i>go</i> _{MORPH_cp15} <i>ba</i> _{VCOP}
	example: <i>go</i> _{MORPH_cp15} <i>ba</i> _{VCOP} (<i>morutišiši</i> _{N01}) 'to become a teacher'
infinitive neg	<i>go</i> _{MORPH_cp15} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP}
	<i>go</i> _{MORPH_cp15} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP} (<i>morutišiši</i> _{N01}) 'not to / to not become a teacher'
imperative pos	<i>eba</i> _{VCOP}
	<i>eba</i> _{VCOP} (<i>morutišiši</i> _{N01} !) 'become (a teacher!)'
imperative neg	<i>se</i> _{MORPH_neg} <i>be</i> _{VCOP}
	<i>se</i> _{MORPH_neg} <i>be</i> _{VCOP} (<i>morutišiši</i> !) 'do not become (a teacher!)'

3.3.3 The descriptive copulative

The descriptive copulative differs from the identifying semantically in that it is used when describing properties of an entity (its subject). An important morphosyntactic property of these copulatives is that a subject concord appearing as a copula has to agree with its subject's category (in terms of its noun class).

It has not been necessary for the identifying copulative (cf. paragraph 3.3.2) to explicitly define its complement, as both predicative and non-predicative complements are possible. For the descriptive copulative, its complement could be expected to be solely adjectival, like, e.g. in the English clause 'he_{PRO} is_{VCOP} furious_{ADJ}'. However, while Lombard (1985, p. 196) generally states that the complement of the descriptive copulative is “non-verbal” or “non-predicative”, Poulos and Louwrens (1994, p. 307) explicitly define that no adjectival complement appears in this copulative. According to them, adjectives instead appear in the identifying copulative, like in the example (62) from page 129, repeated here as (65) for the sake of convenience.

- (65) *mošemane*_{N01} *ke*_{PART_cop} *yo*_{CDEM01} *mošweu*_{ADJ}
 boy is dem-3rd-cl1 white
 '(a) boy is white'

Consequently, following Poulos and Louwrens would result in a definition of the descriptive copulative as not permitting certain constellations. On the other hand, grammar rules usually are not defined negatively, i.e. by excluding certain types of constituents and allowing all others as these authors suggest. Therefore, in order to be able to define the possible complements of the descriptive copulative, examples mentioned in the referenced literature were examined. Additionally, some cleaned parts of the Northern Sotho text collection, the *University of Pretoria Sepedi Corpus* (PSC), (cf. De Schryver and Prinsloo (2000)) were searched for subject concords appearing as copulas.

These examinations revealed an interesting result: most occurrences of such copulas mentioned in the referenced literature to illustrate this copulative appeared with nouns of class 14 as their complement. It is a general property of Northern Sotho, that some parts of speech may (additionally) express semantic concepts not typically associated with them and this is especially true for nouns of class 14, like, e.g. *bohlale*_{N14} 'skill, intelligence, wis-

dom’ which also means ‘clever’²², *botse*_{N14} ‘beauty’, but also ‘beautiful’, *boima*_{N14} ‘weight’, but also ‘heavy’, etc. The other sources that were examined exposed complements like locative nouns with an adverbial content, e.g. *kgauswi* ‘near’ in *marega*_{N06} *a*_{VCOP_06} *kgauswi*_{NLOC} ‘the winter is near’, while the word class ‘adverb’ (ADV) was not found at all complementing this copula. However, as the research on this issue was not extensive, the morphosyntactic rules for this copulative defined in this study should therefore be taken as preliminary. We define the rules in a way so that they permit all nominals (in a narrower sense of nouns and pronouns) to be present.

The only other detectable morphosyntactic difference to the identifying copulative (which is, at the same time, a similarity with main verbs) is that subject concords used as copulatives have to agree with their subject’s category in all cases, i.e. the invariable copulative particle does not appear. This entails the definition that the copulas referring to 1st and 2nd persons (*ke*_{VCOP_1sg}, *o*_{VCOP_2sg}, *re*_{VCOP_1pl}, and *le*_{VCOP_2pl}) appear in both. Consequently, from an analysis perspective, a parser cannot distinguish between an identifying and descriptive copulative if the subject of the copulative is a 1st or 2nd person and the complement is a nominal.

In summary, these copulatives make use of the sets $1VCOP_{\text{categ}}$ and $2VCOP_{\text{categ}}$ and are – as a preliminary rule – complemented by nominals only. The neutral subject concord may only appear according to its original definition, i.e. if no anaphoric reference to a subject is available (cf. paragraph 2.4.2). Just like the identifying copulatives, the descriptive is illustrated by figures and tables showing all stative (Figures 3.29 and 3.30 and Tables 3.40 and 3.41) and dynamic forms (Figures 3.31 to 3.35 and Tables 3.42 to 3.45).

²²In the dictionary De Schryver (2007), these secondary meanings appear as “nominal relative”, or as adjectival (being preceded by a demonstrative), their appearance as complements of copulas is not mentioned.



3.3.3.1 The stative

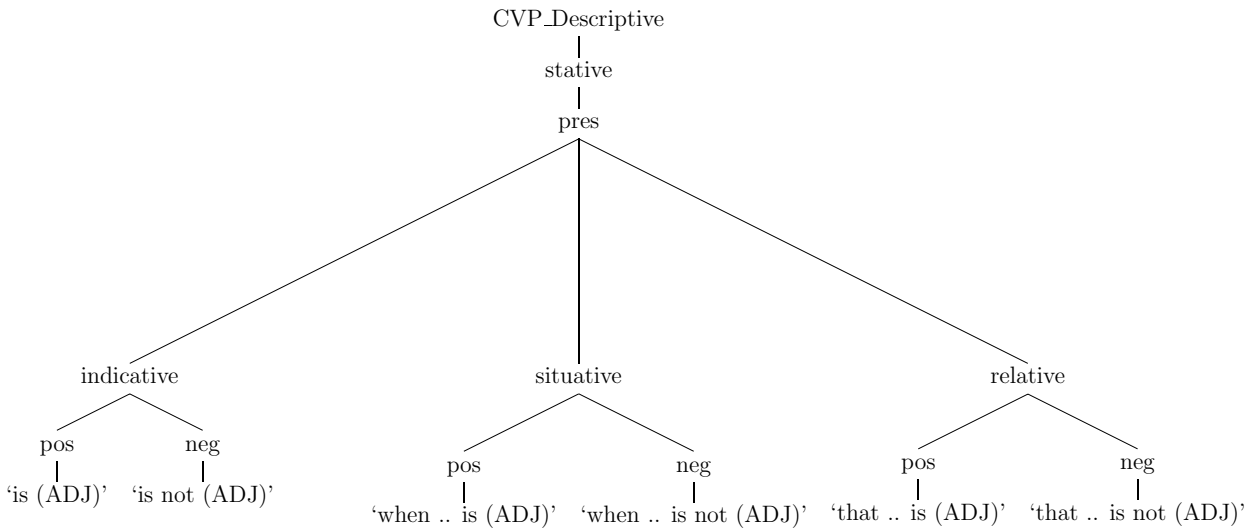


Figure 3.29: Descriptive stative present tense (cf. Table 3.40)

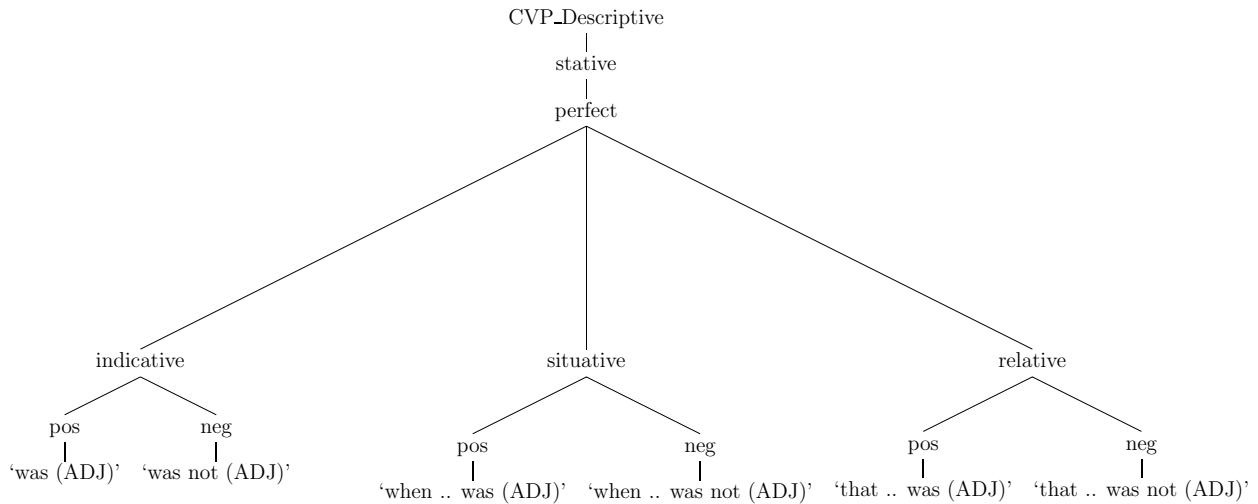


Figure 3.30: Descriptive stative perfect tense (cf. Table 3.41)

Table 3.40: The **stative** forms of the **descriptive** copulative (COPSDC) (**present tense**, Figure 3.29)

COPSDC _V			
tense	mood and actuality	elements	complement
pres.	ind pos	1VCOP _{categ}	nominal
		examples: (<i>monna</i>)	
		<i>oVCOP_01</i> '(the man) is clever'	<i>bohlale</i> _{N14}
		<i>keVCOP_1sg</i> 'I am clever'	<i>bohlale</i> _{N14}
	ind neg	ga _{MORPH_neg} 2VCOP _{categ}	nominal
	(<i>monna</i>)	<i>ga</i> _{MORPH_neg} <i>aVCOP_01</i> '(the man) is not clever'	<i>bohlale</i> _{N14}
		<i>ga</i> _{MORPH_neg} <i>keVCOP_1sg</i> 'I am not clever'	<i>bohlale</i> _{N14}
	sit pos	2CS _{categ} le _{VCOP}	nominal
	(<i>ge monna</i>)	<i>a2CS01 leVCOP</i> '(as the man) is clever'	<i>bohlale</i> _{N14}
	(<i>ge</i>)	<i>ke2CSPERS_1sg leVCOP</i> '(as) I am clever'	<i>bohlale</i> _{N14}
	sit neg	CSPCSN _{categ} se _{VCOP_neg}	nominal
	(<i>ge monna</i>)	<i>a2CS01 seVCOP_neg</i> '(as the man) is not clever'	<i>bohlale</i> _{N14}
	(<i>ge</i>)	<i>ke2CSPERS_1sg seVCOP_neg</i> '(as) I am not clever'	<i>bohlale</i> _{N14}
	rel pos	2CS _{categ} lego _{VCOP}	nominal
	(<i>monna yo</i>)	<i>a2CS01 legoVCOP</i> '(the man who) is clever'	<i>bohlale</i> _{N14}
	(<i>nna yo</i>)	<i>ke2CSPERS_1sg legoVCOP</i> '(I who) am clever'	<i>bohlale</i> _{N14}
	rel neg	2CS _{categ} sego _{VCOP_neg}	nominal
	(<i>monna yo</i>)	<i>a2CS01 segoVCOP_neg</i> '(the man who) is not clever'	<i>bohlale</i> _{N14}
	(<i>nna yo</i>)	<i>ke2CSPERS_1sg segoVCOP_neg</i> '(I who) am not clever'	<i>bohlale</i> _{N14}

Table 3.41: The **stative** forms of the **descriptive** copulative (COPSDC) (**perfect tense**, Figure 3.30)

COPSDC _V			
tense	mood and actuality	elements	complement
perfect	ind pos	1CS _{categ} <i>be</i> _{V_auX} 2CS _{categ} <i>le</i> _{VCOP}	nominal
		examples: (<i>monna</i>) <i>o</i> _{1CS01} <i>be</i> _{V_auX} <i>a</i> _{2CS01} <i>le</i> _{VCOP} <i>bohlale</i> _{N14} '(the man) was clever' <i>ke</i> _{1CSPERS_1sg} <i>be</i> _{V_auX} <i>ke</i> _{2CSPERS_1sg} <i>le</i> _{VCOP} <i>bohlale</i> _{N14} 'I was clever'	
	ind neg	1CS _{categ} <i>be</i> _{V_auX} 2CS _{categ} <i>se</i> _{VCOP_neg}	nominal
		(<i>monna</i>) <i>o</i> _{1CS01} <i>be</i> _{V_auX} <i>a</i> _{2CS01} <i>se</i> _{VCOP_neg} <i>bohlale</i> _{N14} '(the man) was not clever' <i>ke</i> _{1CSPERS_1sg} <i>be</i> _{V_auX} <i>ke</i> _{2CSPERS_1sg} <i>se</i> _{VCOP} <i>bohlale</i> _{N14} 'I was not clever'	
	sit pos	2CS _{categ} <i>be</i> _{V_auX} 2CS _{categ} <i>le</i> _{VCOP}	nominal
		(<i>ge monna</i>) <i>a</i> _{2CS01} <i>be</i> _{V_auX} <i>a</i> _{2CS01} <i>le</i> _{VCOP} <i>bohlale</i> _{N14} '(when the man) was clever' (<i>ge</i>) <i>ke</i> _{2CSPERS_1sg} <i>be</i> _{V_auX} <i>ke</i> _{2CSPERS_1sg} <i>le</i> _{VCOP} <i>bohlale</i> _{N14} '(when) I was clever'	
	sit neg	2CS _{categ} <i>be</i> _{V_auX} 2CS _{categ} <i>se</i> _{VCOP_neg}	nominal
		(<i>ge monna</i>) <i>a</i> _{2CS01} <i>be</i> _{V_auX} <i>a</i> _{2CS01} <i>se</i> _{VCOP_neg} <i>bohlale</i> _{N14} '(when) (the man) was not clever' (<i>ge</i>) <i>ke</i> _{2CSPERS_1sg} <i>be</i> _{V_auX} <i>ke</i> _{2CSPERS_1sg} <i>se</i> _{VCOP} <i>bohlale</i> _{N14} '(when) I was not clever'	
	rel pos	2CS _{categ} <i>bego</i> _{V_auX} 2CS _{categ} <i>le</i> _{VCOP}	nominal
		(<i>monna yo</i>) <i>a</i> _{2CS01} <i>bego</i> _{V_auX} <i>a</i> _{2CS01} <i>le</i> _{VCOP} <i>bohlale</i> _{N14} '(the man who) was clever' (<i>nna yo</i>) <i>ke</i> _{2CSPERS_1sg} <i>bego</i> _{V_auX} <i>ke</i> _{2CSPERS_1sg} <i>le</i> _{VCOP} <i>bohlale</i> _{N14} '(I who) was clever'	
	rel neg	2CS _{categ} <i>bego</i> _{V_auX} 2CS _{categ} <i>se</i> _{VCOP_neg}	nominal
		(<i>monna yo</i>) <i>a</i> _{2CS01} <i>bego</i> _{V_auX} <i>a</i> _{2CS01} <i>se</i> _{VCOP_neg} <i>bohlale</i> _{N14} '(the man who) was not clever' (<i>nna yo</i>) <i>ke</i> _{2CSPERS_1sg} <i>bego</i> _{V_auX} <i>ke</i> _{2CSPERS_1sg} <i>se</i> _{VCOP_neg} <i>bohlale</i> _{N14} '(I who) was not clever'	



3.3.3.2 The dynamic

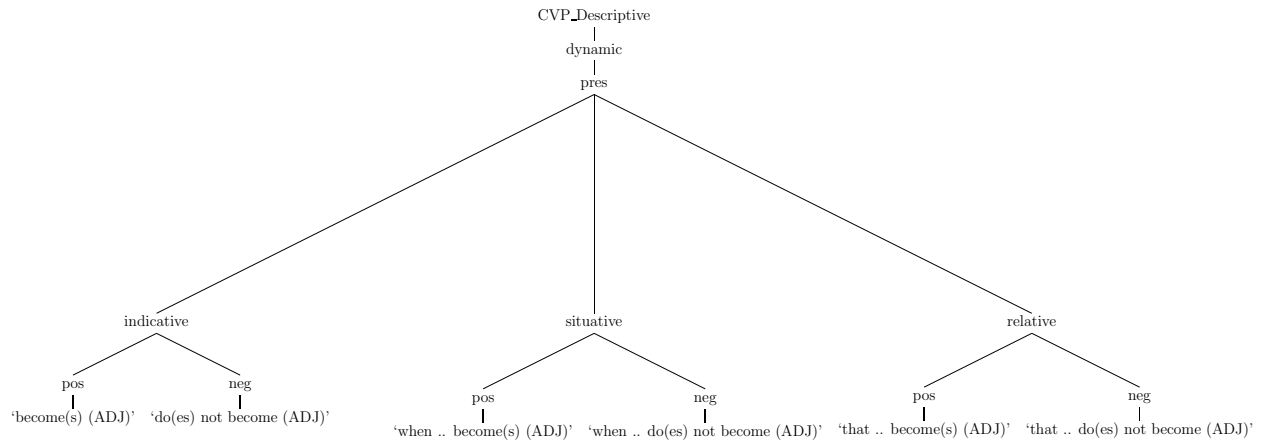


Figure 3.31: Descriptive dynamic present tense (cf. Table 3.42)

Note that the dynamic non-predicative copulatives of the descriptive are identical to the identifying forms, in spite of their complement being a nominal in all cases. As a result, Figure 3.35 is basically mirrored in Table 3.39 on page 141.

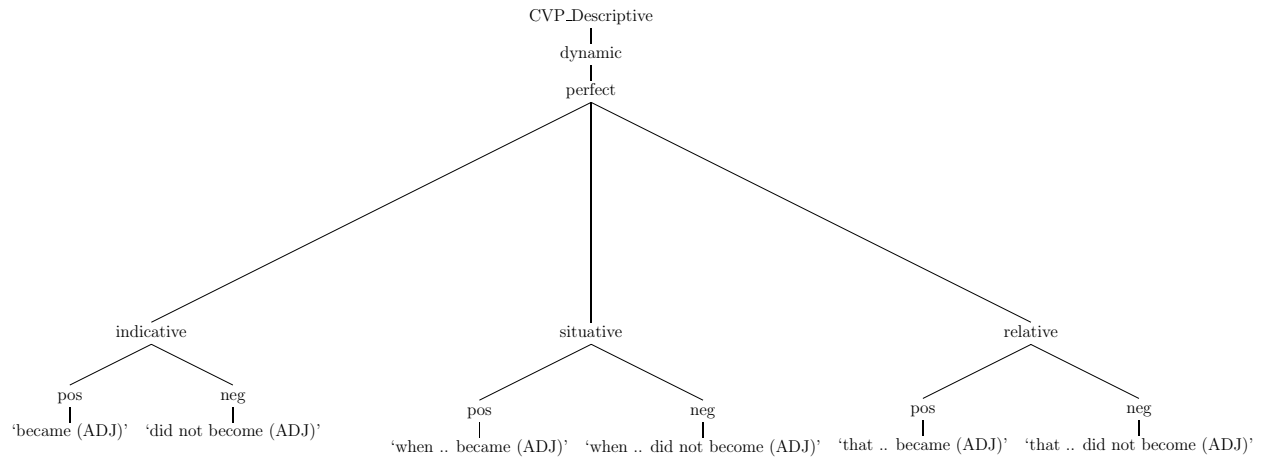


Figure 3.32: Descriptive dynamic perfect tense (cf. Table 3.43)

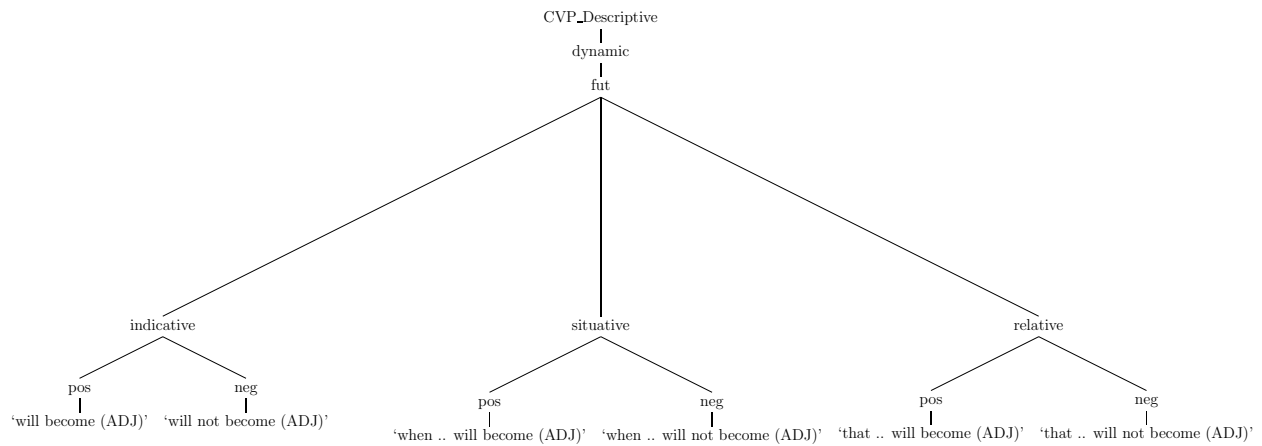


Figure 3.33: Descriptive dynamic future tense (cf. Table 3.44)

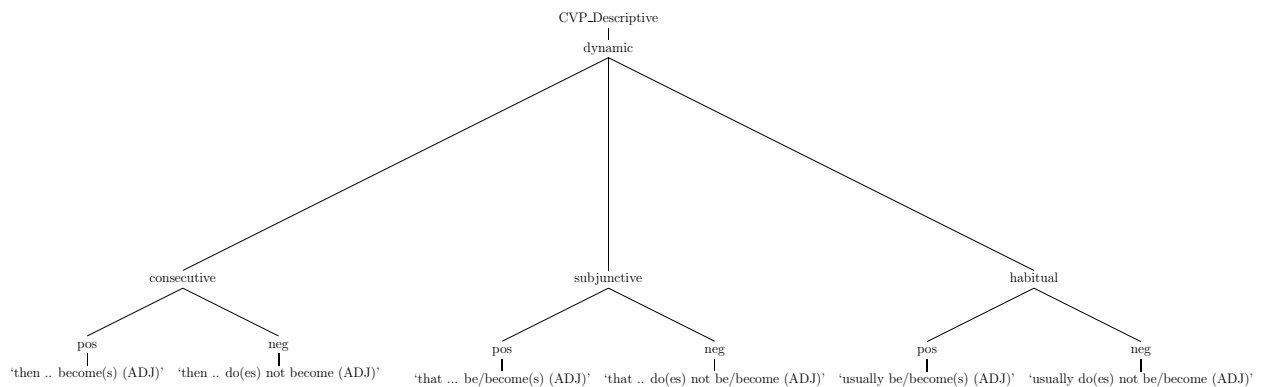


Figure 3.34: Identifying dynamic dependent clauses (cf. Tables 3.45)

Table 3.42: The **dynamic** forms of the **descriptive** copulative (COPDDC) (**present tense**, Figure 3.31)

COPDDC _V			
tense	mood and actuality	elements	complement
pres.	ind pos	1CS_{categ} ba_{VCOP}	nominal
		examples: <i>(monna)</i> <i>a_{1CS01} ba_{VCOP}</i> 'the man becomes kind <i>ke_{1CSPERS_1sg} ba_{VCOP}</i> 'I become kind	<i>boleta_{N14}</i> <i>boleta_{N14}</i>
	ind neg	ga_{MORPH_neg} 2CS_{categ} be_{VCOP}	nominal
		<i>(monna)</i> <i>ga_{MORPH_neg} a_{2CS01} be_{VCOP}</i> 'the man does not become kind <i>ga_{MORPH_neg} ke_{2CSPERS_1sg} be_{VCOP}</i> 'I do not become kind	<i>boleta_{N14}</i> <i>boleta_{N14}</i>
	sit pos	2CS_{categ} ba_{VCOP}	nominal
		<i>(ge monna)</i> <i>a_{2CS01} ba_{VCOP}</i> '(as) the man becomes kind <i>(ge)</i> <i>ke_{2CSPERS_1sg} ba_{VCOP}</i> '(as) I become kind	<i>boleta_{N14}</i> <i>boleta_{N14}</i>
	sit neg	2CS_{categ} sa_{MORPH_neg} be_{VCOP}	nominal
		<i>(ge monna)</i> <i>a_{2CS01} sa_{MORPH_neg} be_{VCOP}</i> '(as the man) does not become kind <i>(ge)</i> <i>ke_{2CSPERS_1sg} sa_{MORPH_neg} be_{VCOP}</i> '(as) I do not become kind	<i>boleta_{N14}</i> <i>boleta_{N14}</i>
	rel pos	2CS_{categ} bago_{VCOP}	nominal
		<i>(monna yo)</i> <i>a_{2CS01} bago_{VCOP}</i> '(the man who) becomes kind <i>(nna yo)</i> <i>ke_{2CSPERS_sg} bago_{VCOP}</i> '(I who) become kind	<i>boleta_{N14}</i> <i>boleta_{N14}</i>
	rel neg	2CS_{categ} sa_{MORPH_neg} bego_{VCOP}	nominal
		<i>(monna yo)</i> <i>a_{2CS01} sa_{MORPH_neg} bego_{VCOP}</i> '(the man who) does not become kind <i>(nna yo)</i> <i>ke_{2CSPERS_1sg} sa_{MORPH_neg} bego_{VCOP}</i> '(I who) do not become kind	<i>boleta_{N14}</i> <i>boleta_{N14}</i>

Table 3.43: The **dynamic** forms of the **descriptive** copulative (COPDDC) (**perfect** tense, Figure 3.32)

COPDDC _V			
tense	mood and actuality	elements	complement
perfect	ind pos	1CS_{categ} <i>bile</i> _{VCOP}	nominal
	examples:		
	(monna)	<i>a</i> _{1CS01} <i>bile</i> _{VCOP} '(the man) became kind'	<i>boleta</i> _{N14}
		<i>ke</i> _{1CSPERS_1sg} <i>bile</i> _{VCOP} 'I became kind'	<i>boleta</i> _{N14}
	ind neg	<i>ga</i> _{MORPH_neg} <i>se</i> _{MORPH_neg} 3CS_{categ} <i>ba</i> _{VCOP}	nominal
	(monna)	<i>ga</i> _{MORPH_neg} <i>se</i> _{MORPH_neg} <i>a</i> _{3CS01} <i>ba</i> _{VCOP} '(the man) did not become kind'	<i>boleta</i> _{N14}
		<i>ga</i> _{MORPH_neg} <i>se</i> _{MORPH_neg} <i>ka</i> _{3CSPERS_1sg} <i>ba</i> _{VCOP} 'I did not become kind'	<i>boleta</i> _{N14}
	sit pos	2CS_{categ} <i>bile</i> _{VCOP}	nominal
	(ge monna)	<i>a</i> _{2CS01} <i>bile</i> _{VCOP} '(when the man) became kind'	<i>boleta</i> _{N14}
	(ge)	<i>ke</i> _{2CSPERS_1sg} <i>bile</i> _{VCOP} '(when) I became kind'	<i>boleta</i> _{N14}
	sit neg	2CS_{categ} <i>sa</i> _{MORPH_neg} <i>ba</i> _{VCOP}	
	(ge monna)	<i>a</i> _{2CS01} <i>sa</i> _{MORPH_neg} <i>ba</i> _{VCOP} '(when the man) did not become kind'	<i>boleta</i> _{N14}
	(ge)	<i>ke</i> _{2CSPERS_1sg} <i>sa</i> _{MORPH_neg} <i>ba</i> _{VCOP} '(as) I did not become kind'	<i>boleta</i> _{N14}
	rel pos	2CS_{categ} <i>bilego</i> _{VCOP}	nominal
	(monna yo)	<i>a</i> _{2CS01} <i>bilego</i> _{VCOP} '(the man who) became kind'	<i>boleta</i> _{N14}
	(nna yo)	<i>ke</i> _{2CSPERS_1sg} <i>bilego</i> _{VCOP} '(I who) became kind'	<i>boleta</i> _{N14}
	rel neg	2CS_{categ} <i>sa</i> _{MORPH_neg} <i>bago</i> _{VCOP}	
	(monna yo)	<i>a</i> _{2CS01} <i>sa</i> _{MORPH_neg} <i>bago</i> _{VCOP} '(the man who) did not become kind'	<i>boleta</i> _{N14}
	(nna yo)	<i>ke</i> _{2CSPERS_1sg} <i>sa</i> _{MORPH_neg} <i>bago</i> _{VCOP} '(I who) did not become kind'	<i>boleta</i> _{N14}

Table 3.44: The **dynamic** forms of the **descriptive** copulative (COPDID) (**future tense**, Figure 3.33)

COPDDCV			
tense	mood and actuality	tense marker and other elements	complement
fut.	ind pos	1CS_{categ} tlo/tla_{MORPH_fut} ba_{VCOP}	nominal
	examples:		
	(monna)	<i>o_{1CS01} tlo ba_{VCOP}</i> '(the man) will become (kind)'	<i>boleta_{N14}</i>
	(ge)	<i>ke_{1CSPERS_1sg} tlo ba_{VCOP}</i> 'I will become (kind)'	<i>boleta_{N14}</i>
	sit pos	2CS_{categ} tlo/tla_{MORPH_fut} ba_{VCOP}	nominal
	(ge monna)	<i>a_{2CS01} tlo ba_{VCOP}</i> '(when the man) will become (kind)'	<i>boleta_{N14}</i>
	(ge)	<i>ke_{2CSPERS_1sg} tlo ba_{VCOP}</i> '(when) I will become (kind)'	<i>boleta_{N14}</i>
	ind/sit neg	2CS_{categ} ka_{MORPH_pot} se_{MORPH_neg} be_{VCOP}	nominal
	((ge) monna)	<i>a_{2CS01} ka_{MORPH_pot} se_{MORPH_neg} be_{VCOP}</i> '((as) the man) will not become (kind)'	<i>boleta_{N14}</i>
	(ge)	<i>nka (ke_{2CSPERS_1sg} + ka_{MORPH_pot}) se_{MORPH_neg} be_{VCOP}</i> '(as) I will not become (kind)'	<i>boleta_{N14}</i>
	rel pos 1	2CS_{categ} tlo/tla_{MORPH_fut} bago_{VCOP}	nominal
	rel pos 2	2CS_{categ} tlogo/tlago_{MORPH_fut} ba_{VCOP}	nominal
	(monna yo)	<i>a_{2CS01} tlo bago_{VCOP}</i> <i>a_{2CS01} tlogo ba_{VCOP}</i> '(the man who) will become (kind)'	<i>boleta_{N14}</i>
	(nna yo)	<i>ke_{2CSPERS_sg} tla bago_{VCOP}</i> <i>ke_{2CSPERS_sg} tlogo ba_{VCOP}</i> '(I who) become (kind)'	<i>boleta_{N14}</i>
	rel neg	2CS_{categ} ka_{MORPH_pot} se_{MORPH_neg} bego_{VCOP}	nominal
	(monna yo)	<i>a_{2CS01} ka_{MORPH_pot} se_{MORPH_neg} bego_{VCOP}</i> '(the man who) will not become (kind)'	<i>boleta_{N14}</i>
	(nna yo)	<i>nka (ke_{1CSPERS_1sg} + ka_{MORPH_pot}) se_{MORPH_neg} bego_{VCOP}</i> '(I who) will not become (kind)'	<i>boleta_{N14}</i>

Table 3.45: The **dynamic** forms of the **descriptive** copulative (COPDDCD) (**dependent constellations**, Figure 3.34)

COPDDCD _V		
mood and actuality	elements	complement
consecutive pos	3CS_{categ} <i>ba</i> _{VCOP}	nominal
	examples: (<i>monna</i>) <i>a</i> _{3CS01} <i>ba</i> _{VCOP} (<i>bohlale</i>) _{N14} ‘(then the man) becomes (clever)’ <i>ka</i> _{3CSPERS_1sg} <i>ba</i> _{VCOP} (<i>bohlale</i>) _{N14} ‘(then I) become (clever)’	
consecutive neg	3CS_{categ} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP}	nominal
	(<i>monna</i>) <i>a</i> _{3CS01} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP} (<i>bohlale</i>) _{N14} ‘(then the man) does not become (clever)’ <i>ka</i> _{3CSPERS_1sg} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP} (<i>bohlale</i>) _{N14} ‘(then I) do not become (clever)’	
subjunctive pos habitual pos	2CS_{categ} <i>be</i> _{VCOP}	nominal
	((<i>gore</i>) <i>monna</i>) <i>a</i> _{2CS01} <i>be</i> _{VCOP} (<i>bohlale</i>) _{N14} ‘(so that the man) becomes (clever)’ ‘(the man) usually becomes (clever)’ (<i>gore</i>) <i>ke</i> _{2CSPERS_1sg} <i>be</i> _{VCOP} (<i>bohlale</i>) _{N14} ‘(so that) I become (clever)’ ‘I usually become (clever)’	
subjunctive neg habitual neg	2CS_{categ} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP}	nominal
	((<i>gore</i>) <i>monna</i>) <i>a</i> _{2CS01} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP} (<i>bohlale</i>) _{N14} ‘(so that the man) does not become (clever)’ ‘(the man) usually does not become (clever)’ (<i>gore</i>) <i>ke</i> _{2CSPERS_1sg} <i>se</i> _{MORPH_neg} <i>be</i> _{VCOP} (<i>bohlale</i>) _{N14} ‘(so that) I do not become (clever)’ ‘I usually do not become (clever)’	

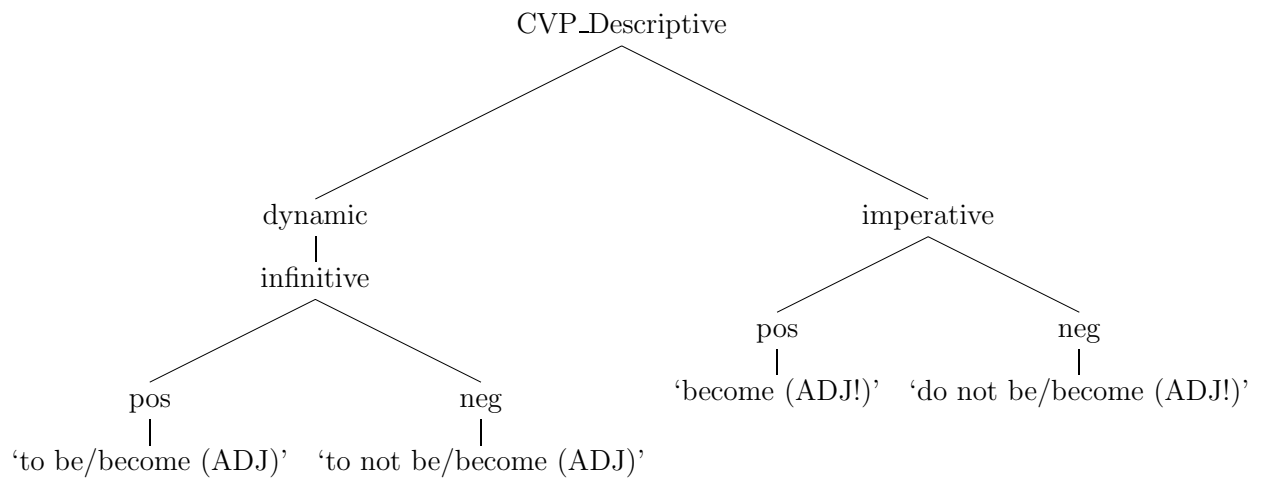


Figure 3.35: Identifying dynamic non-predicative clauses (cf. Table 3.39)

3.3.4 The associative copulative

Literally, this copulative is translated as ‘be with’, however, its usual meaning is ‘to have’. Lombard (1985, p. 196) lists a few examples, of which some appear in 66 (a) to (d).

- 66(a) *mon*_{NLOC} *seswantšong*_{N07_loc} *Mna.*_{ABBR} *Ramokgopa*_{N01a} *o*_{1CS01} *na*_{VCOP}
 on photograph Mr. Ramokgopa **subj-3rd-cl1** is
*le*_{PART_con} *mosadi*_{N01} *wa*_{CPOSS01} *gagwe*_{PROPOSS01}
 con wife of his/hers
 ‘on (the) photograph, Mr. Ramokgopa is with his wife’
- (b) *bona*_{PROEMP02} *ba*_{1CS02} *na*_{VCOP} *le*_{PART_con} *polase*_{N09}
 emp-3rd-cl02 **subj-3rd-cl12** is con farm
 ‘these ones own (a) farm’
- (c) *monna*_{N01} *yo*_{CDEM01} *a*_{2CS01} *se*_{MORPH_neg} *nago*_{VCOP} *thuthuthu*_{N09}
 man **dem-3rd-cl1** **subj-3rd-cl1** neg that-is/have (a) motorbike
 ‘(a) man who does not have a motorbike’
- (d) *ga*_{MORPH_neg} *ke*_{1CSPERS_1sg} *na*_{VCOP} *thuthuthu*_{N09}
 neg **subj-1** is motorbike
 ‘I don’t have (a) motorbike’
- (e) *monna*_{N01} *ga*_{MORPH_neg} *a*_{2CS01} *be*_{VCOP} *le*_{PART_con} *tšhelete*_{N09}
 man neg **subj-3rd-cl1** become con money
 ‘(a) man does not become rich’

Examples 66 (a) and (b) illustrate the two meanings of the positive associative and may lead to the assumption, that the copula *na* itself does not indicate possession, as this aspect seems to be added by the connective particle *le* ‘with’. However, this assumption is wrong as proved by examples (c) and (d) showing two regular negation constellations, where no connective particle appears. The connective particle however may appear in the negated dynamic forms, where it does not indicate possession, as in 66 (e).

These features constitute an interesting aspect of the associative copulative: as standalone items, the meaning of neither the copula *a* nor the connective particle *le* can be established; their context, i.e. their complements, must be taken into account. In the example 66 (a), *na le* is to be understood as ‘to be with’, while in 66 (b) they refer to ownership. In 66 (d), *na* alone has the same complement and can be understood the same way as *na le* in 66 (b), even though it is preceded here by a negation cluster.

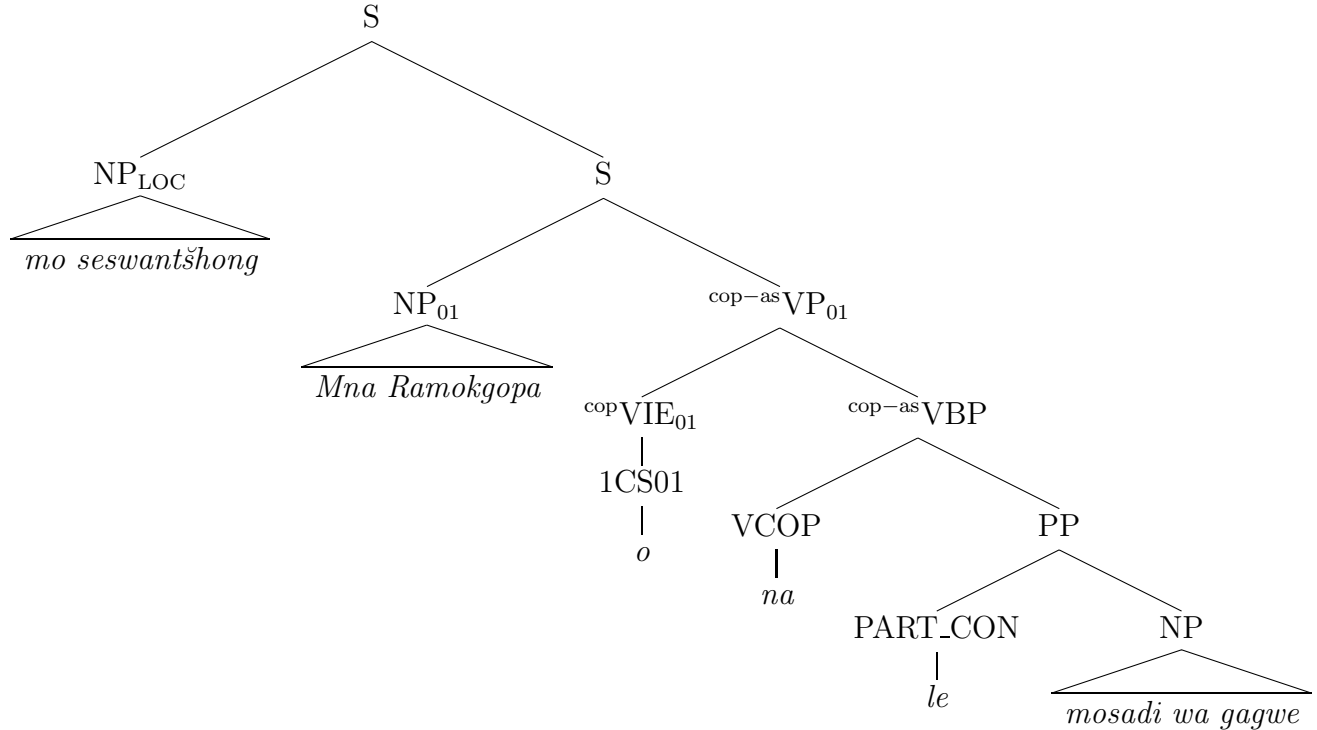


Figure 3.36: *mo seswantšhong Mna Ramokgopa o na le mosadi wa gagwe* ‘on (the) photograph, Mr. Ramokgopa is with his wife’

It seems that copula and complement can be analysed similarly to a main verb and complemented while all other preceding elements may be seen as inflectional and thus constituting a separate element. In order to reflect the close relation between the copula and its complement, we have therefore opted for a morphosyntactic analysis similar to the successful strategy for main verbs in splitting the copulative into an ^{cop}VIE and a ^{cop-as}VBP. Moreover, although the meanings of the copulas described in the previous paragraphs are not dependent on their complements, for the sake of consistency, we should like to suggest a similar strategy for their morphosyntactic analyses. Consequently, all verbal phrases of Northern Sotho will be analysed similarly. Figures 3.36 to 3.38 demonstrate such morphosyntactic analyses of examples 66 (a) to (c).

For each constellation, the associative copulative VBP, named ^{cop-as}VBP is to be defined to include either a particle phrase headed by a connective particle (^{con}PP), or a nominal phrase (NP). The ^{cop}VIE is clearly marked as such, as it should not be confused with the other VIEs defined before (cf. paragraphs 3.2.1.1 and e.g. 3.2.5).

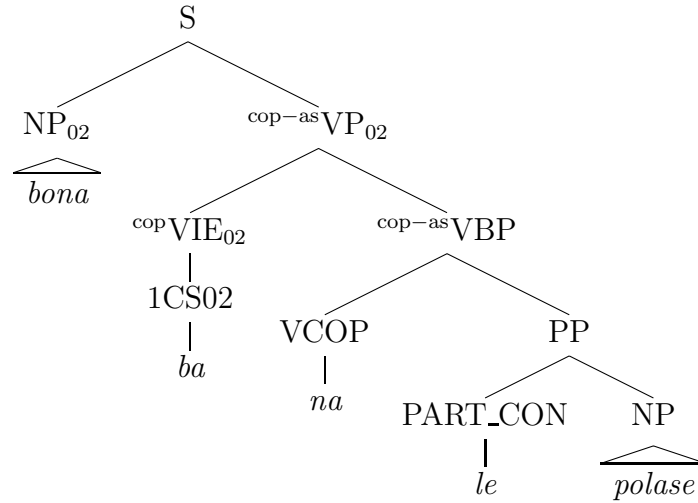


Figure 3.37: *bona ba na le polase* ‘these ones own (a) farm’

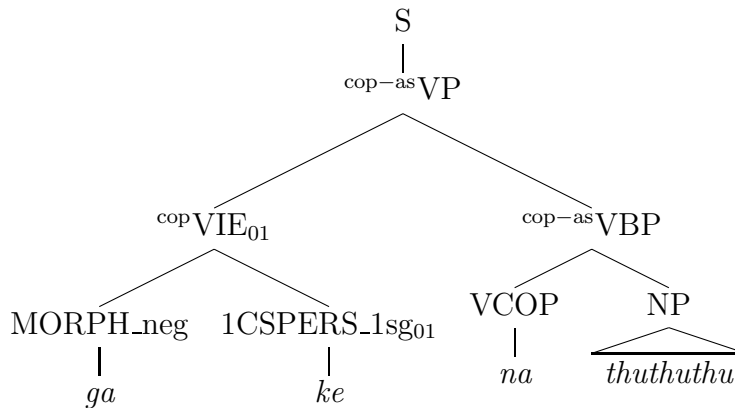


Figure 3.38: *ga ke na thuthuthu* ‘I don’t have (a) motorbike’

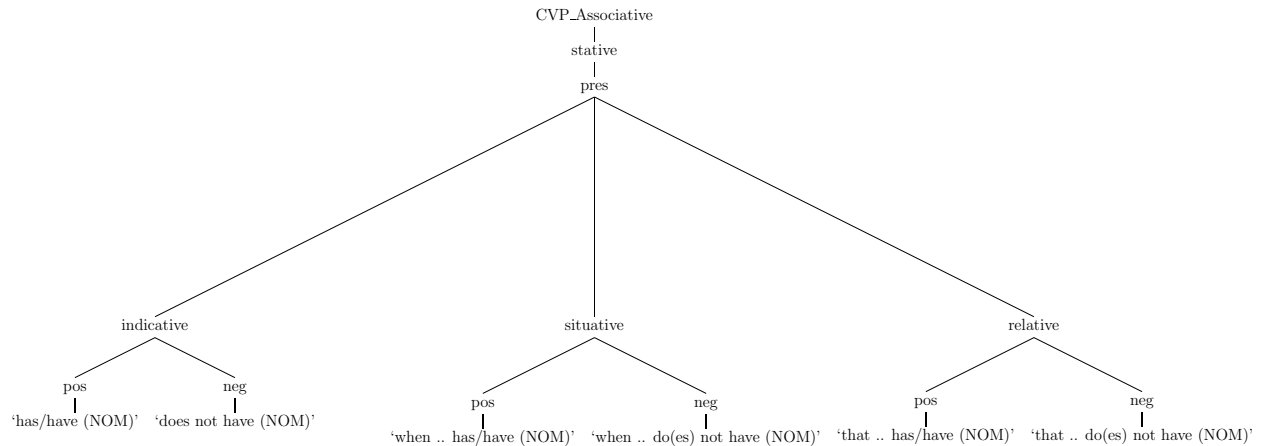


Figure 3.39: Associative stative present tense (cf. Table 3.46)

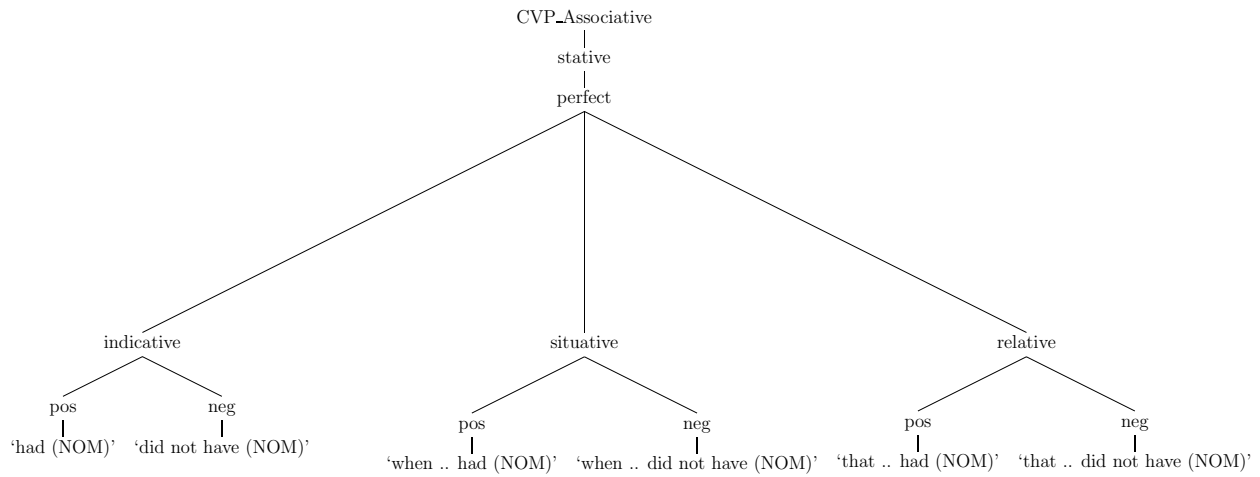


Figure 3.40: Associative stative perfect tense (cf. Table 3.47)

The following paragraphs illustrate the stative and the dynamic constellations of the associative copulative and the morphosyntactic rules to form them.

3.3.4.1 The stative

As Figures 3.39 and 3.40 show, this copulative usually indicates possession, though in some cases its meaning may be ‘to be with’. Note that the copula *ena* may in some constellations replace *na*; this will be indicated by the appearance of *e(na)* in the appropriate rules.

Table 3.46: The **stative** forms of the **associative** copulative (COPSAS) (**present tense**, Figure 3.39)

COPSAS _V					
tense	mood and actuality	^{cop} VIE	elements	VCOP	complement
pres	ind pos	1CS_{categ}		na_{VCOP}	^{con} PP
	examples:				
	(<i>monna</i>)	<i>a</i> _{1CS01}		<i>na</i> _{VCOP}	<i>le tšhelete</i>
			‘(the man) has money’		
		<i>ke</i> _{1CSPERS_1sg}		<i>na</i> _{VCOP}	<i>le tšhelete</i>
			‘I have money’		
	ind neg	ga_{MORPH_neg} 2CS_{categ}		na_{VCOP}	NP
	(<i>monna</i>)	<i>ga</i> _{MORPH_neg} <i>a</i> _{2CS01}		<i>na</i> _{VCOP}	<i>tšhelete</i>
			‘(the man) does not have money’		
		<i>ga</i> _{MORPH_neg} <i>ke</i> _{2CSPERS_1sg}		<i>na</i> _{VCOP}	<i>tšhelete</i>
			‘I do not have money’		
	sit pos	2CS_{categ}		(e)na_{VCOP}	^{con} PP
	(<i>ge monna</i>)	<i>a</i> _{2CS01}		<i>(e)na</i> _{VCOP}	<i>le tšhelete</i>
			‘(when the man) has money’		
	(<i>ge</i>)	<i>ke</i> _{2CSPERS_1sg}		<i>(e)na</i> _{VCOP}	<i>le tšhelete</i>
			‘(when) I have money’		
	sit neg	2CS_{categ} se_{MORPH_neg}		na_{VCOP}	NP
	(<i>ge monna</i>)	<i>a</i> _{2CS01} <i>se</i> _{MORPH_neg}		<i>na</i> _{VCOP}	<i>tšhelete</i>
			‘(when the man) does not have money’		
	(<i>ge</i>)	<i>ke</i> _{2CSPERS_1sg} <i>se</i> _{MORPH_neg}		<i>na</i> _{VCOP}	<i>tšhelete</i>
			‘(when) I do not have money’		
	rel pos	2CS_{categ}		nago_{VCOP}	^{con} PP
	(<i>monna yo</i>)	<i>a</i> _{2CS01}		<i>nago</i> _{VCOP}	<i>le tšhelete</i>
			‘(the man who) has money’		
		<i>ke</i> _{2CSPERS_1sg}		<i>nago</i> _{VCOP}	<i>le tšhelete</i>
			‘(I who) have money’		
	rel neg	2CS_{categ} se_{MORPH_neg}		nago_{VCOP}	^{con} PP
	(<i>monna yo</i>)	<i>a</i> _{2CS01} <i>se</i> _{MORPH_neg}		<i>nago</i> _{VCOP}	<i>le tšhelete</i>
			‘(the man who) does not have money’		
	(<i>nna yo</i>)	<i>ke</i> _{2CSPERS_1sg} <i>se</i> _{MORPH_neg}		<i>nago</i> _{VCOP}	<i>le tšhelete</i>
			‘(I who) do not have money’		

Table 3.47: The **stative** forms of the **associative** copulative (COPSAS) (**perfect tense**, Figure 3.40)

COPSAS _V						
tense	mood / actuality	elements		VCOP	complement	
perfect	ind pos	1CS_{categ}	be_{V_auX}	2CS_{categ}	(e)na_{VCOP} ^{con} PP	
	examples:					
	(<i>monna</i>)	<i>o_{1CS01}</i>	<i>be_{V_auX}</i>	<i>a_{2CS01}</i>	<i>(e)na_{VCOP}</i> <i>le tšhelete</i>	
				‘(the man) had money’		
		<i>ke_{1CSPERS_1sg}</i>	<i>be_{V_auX}</i>	<i>ke_{2CSPERS_1sg}</i>	<i>(e)na_{VCOP}</i> <i>le tšhelete</i>	
				‘(I) had money’		
	ind neg	1CS_{categ}	be_{V_auX}	2CS_{categ}	se_{MORPH_neg}	(e)na_{VCOP} NP
	(<i>monna</i>)	<i>o_{1CS01}</i>	<i>be_{V_auX}</i>	<i>a_{2CS01}</i>	<i>se_{MORPH_neg}</i>	<i>(e)na_{VCOP}</i> <i>tšhelete</i>
				‘(the man) did not have money’		
		<i>ke_{1CSPERS_1sg}</i>	<i>be_{V_auX}</i>	<i>ke_{2CSPERS_1sg}</i>	<i>se_{MORPH_neg}</i>	<i>(e)na_{VCOP}</i> <i>tšhelete</i>
				‘(I) did not have money’		
	sit pos	2CS_{categ}	be_{V_auX}	2CS_{categ}	(e)na_{VCOP} ^{con} PP	
	(<i>ge monna</i>)	<i>a_{2CS01}</i>	<i>be_{V_auX}</i>	<i>a_{2CS01}</i>	<i>(e)na_{VCOP}</i> <i>le tšhelete</i>	
				‘(when the man) had money’		
	(<i>ge</i>)	<i>ke_{2CSPERS_1sg}</i>	<i>be_{V_auX}</i>	<i>ke_{2CSPERS_1sg}</i>	<i>(e)na_{VCOP}</i> <i>le tšhelete</i>	
				‘(when) I had money’		
	sit neg	2CS_{categ}	be_{V_auX}	2CS_{categ}	se_{MORPH_neg}	(e)na_{VCOP} NP
	(<i>ge monna</i>)	<i>a_{2CS01}</i>	<i>be_{V_auX}</i>	<i>a_{2CS01}</i>	<i>se_{MORPH_neg}</i> <i>(e)na_{VCOP}</i>	<i>tšhelete</i>
				‘(when the man) did not have money’		
	(<i>ge</i>)	<i>ke_{2CSPERS_1sg}</i>	<i>be_{V_auX}</i>	<i>ke_{2CSPERS_1sg}</i>	<i>se_{MORPH_neg}</i>	<i>(e)na_{VCOP}</i> <i>tšhelete</i>
				‘(when) I did not have money’		
	rel pos	2CS_{categ}	bego_{V_auX}	2CS_{categ}	na_{VCOP} ^{con} PP	
	(<i>monna yo</i>)	<i>a_{2CS01}</i>	<i>bego_{V_auX}</i>	<i>a_{2CS01}</i>	<i>na_{VCOP}</i> <i>le tšhelete</i>	
				‘(the man who) had money’		
	(<i>nna yo</i>)	<i>ke_{2CSPERS_1sg}</i>	<i>bego_{V_auX}</i>	<i>ke_{2CSPERS_1sg}</i>	<i>na_{VCOP}</i> <i>le tšhelete</i>	
				‘(I who) had money’		
	rel neg	2CS_{categ}	bego_{V_auX}	2CS_{categ}	se_{MORPH_neg}	na_{VCOP} ^{con} PP
	(<i>monna yo</i>)	<i>a_{2CS01}</i>	<i>bego_{V_auX}</i>	<i>a_{2CS01}</i>	<i>se_{MORPH_neg}</i>	<i>na_{VCOP}</i> <i>le tšhelete</i>
				‘(the man who) did not have money’		
	(<i>nna yo</i>)	<i>ke_{2CSPERS_1sg}</i>	<i>bego_{V_auX}</i>	<i>ke_{2CSPERS_1sg}</i>	<i>se_{MORPH_neg}</i>	<i>na_{VCOP}</i> <i>le tšhelete</i>
				‘(I who) did not have money’		

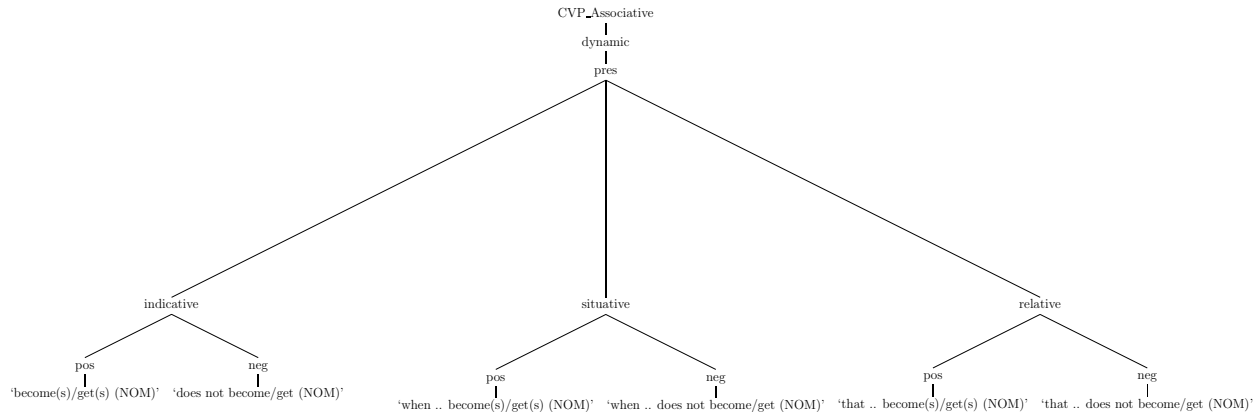


Figure 3.41: Associative dynamic present tense (cf. Table 3.48)

3.3.4.2 The dynamic

The dynamic associative shown in Figures 3.41 to 3.46 – like the dynamic forms of the identifying and descriptive copulative – contains an inchoative aspect. It makes use of *ba* ‘become’ and its variants *eba*, *be* used in negations, *bile* ‘became’, and ultimately its relative forms, *bago*, *bego*, *bilego* ‘who becomes/became’. The use of the copula *be* is illustrated in the (negated) example 66 (e) of page 154 repeated here as 67 (a). This copulative can however also be translated as ‘get’ or ‘acquire’, like in 67 (b). All dynamic constellations of the associative have to be complemented by a connective particle phrase which reflects in the rules defined in Tables 3.48 to 3.52.

- 67 (a) *monna*_{N01} *ga*_{MORPH_neg} *a*_{2CS01} *be*_{VCOP} *le*_{PART_con} *tšhelete*_{N09}
 (the) man neg subj-3rd-cl1 become con money
 ‘(a) man does not become rich’
- (b) *monna*_{N01} *o*_{2CS01} *ba*_{VCOP} *le*_{PART_con} *mpša*_{N09}
 (the) man neg subj-3rd-cl1 become con dog
 ‘(a) man gets a dog’

Table 3.51 (page 166) shows that the dependent clauses of the associative copulative only differ from those of the descriptive copulative (illustrated in Table 3.45 on page 152) in their complement, while it was nominal in the descriptive constellations, it must consist of a connective particle phrase in the associative, this underlies the necessity to analyse copula and complement on one level of description in order to determine the correct category.

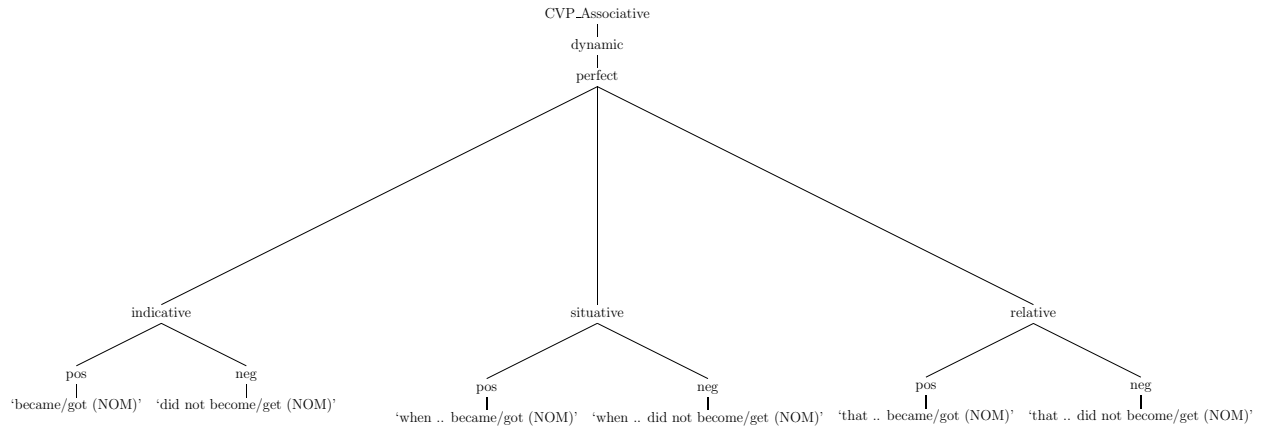


Figure 3.42: Associative dynamic perfect tense (cf. Table 3.49)

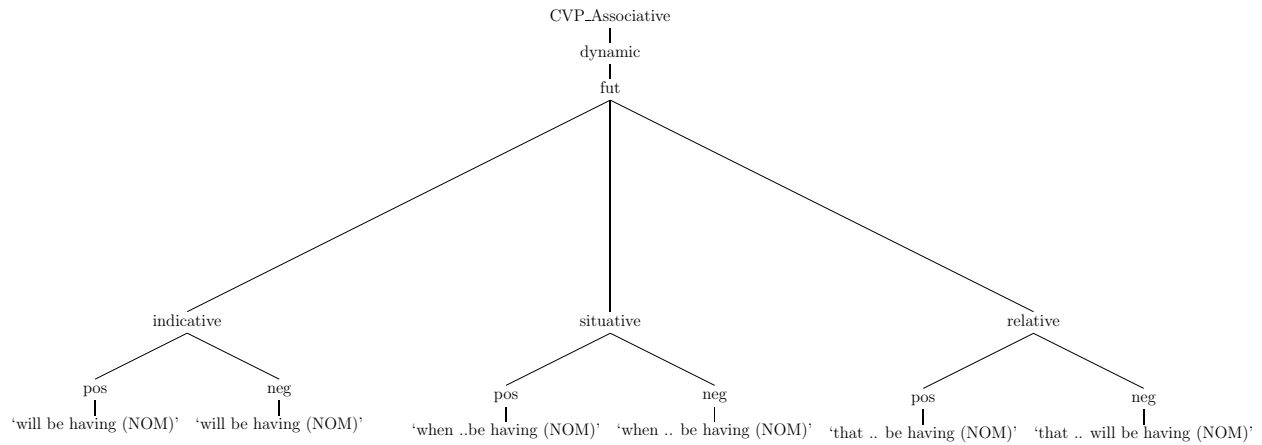


Figure 3.43: Associative dynamic future tense (cf. Table 3.50)

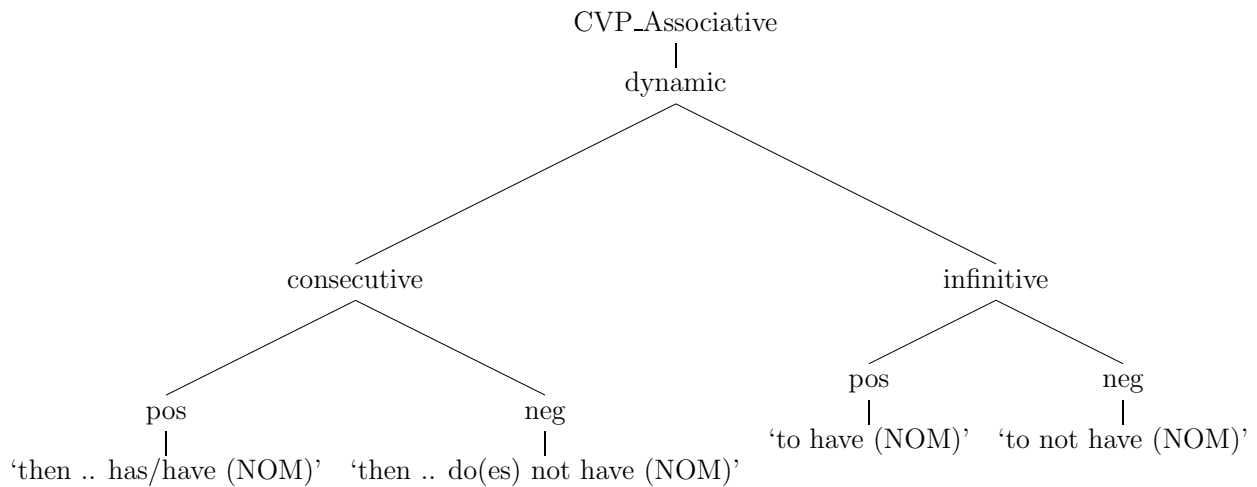


Figure 3.44: Associative dynamic dependent clauses 1 of 2 (cf. Table 3.51)

Table 3.48: The **dynamic** forms of the **associative** copulative (COPDAS) (**present tense**, Figure 3.41)

COPDAS _V					
tense	mood and actuality	^{cop} VIE	elements	VCOP	complement
pres	ind pos	1CS _{categ}		<i>ba</i> _{VCOP}	^{con} PP
	examples:				
	(<i>monna</i>)	<i>o</i> _{1CS01}		<i>ba</i> _{VCOP}	<i>le tšhelete</i>
			‘(the man) becomes rich’		
		<i>ke</i> _{1CSPERS_1sg}		<i>ba</i> _{VCOP}	<i>le tšhelete</i>
			‘(I) become rich’		
	ind neg	<i>ga</i> _{MORPH_neg} 2CS _{categ}		<i>be</i> _{VCOP}	^{con} PP
	(<i>monna</i>)	<i>ga</i> _{MORPH_neg} <i>a</i> _{2CS01}		<i>be</i> _{VCOP}	<i>le tšhelete</i>
			‘(the man) does not becomes rich’		
		<i>ga</i> _{MORPH_neg} <i>ke</i> _{2CSPERS_1sg}		<i>be</i> _{VCOP}	<i>le tšhelete</i>
			‘(I) do not become rich’		
	sit pos	2CS _{categ}		<i>eba</i> _{VCOP}	^{con} PP
	(<i>ge monna</i>)	<i>a</i> _{2CS01}		<i>eba</i> _{VCOP}	<i>le tšhelete</i>
			‘(when the man) becomes rich’		
	(<i>ge</i>)	<i>ke</i> _{2CSPERS_1sg}		<i>eba</i> _{VCOP}	<i>le tšhelete</i>
			‘(when) I become rich’		
	sit neg	2CS _{categ} <i>sa</i> _{MORPH_neg}		<i>be</i> _{VCOP}	^{con} PP
	(<i>ge monna</i>)	<i>a</i> _{2CS01} <i>sa</i> _{MORPH_neg}		<i>be</i> _{VCOP}	<i>le tšhelete</i>
			‘(when the man) does not become rich’		
	(<i>ge</i>)	<i>ke</i> _{2CSPERS_1sg} <i>sa</i> _{MORPH_neg}		<i>be</i> _{VCOP}	<i>le tšhelete</i>
			‘(when) I do not become rich’		
	rel pos	2CS _{categ}		<i>bago</i> _{VCOP}	^{con} PP
	(<i>monna yo</i>)	<i>a</i> _{2CS01}		<i>bago</i> _{VCOP}	<i>le tšhelete</i>
			‘(the man who) becomes rich’		
	(<i>nna yo</i>)	<i>ke</i> _{2CSPERS_1sg}		<i>bago</i> _{VCOP}	<i>le tšhelete</i>
			‘(I who) become rich’		
	rel neg	2CS _{categ} <i>sa</i> _{MORPH_neg}		<i>bego</i> _{VCOP}	^{con} PP
	(<i>monna yo</i>)	<i>a</i> _{2CS01} <i>sa</i> _{MORPH_neg}		<i>bego</i> _{VCOP}	<i>le tšhelete</i>
			‘(the man who) does not become rich’		
	(<i>nna yo</i>)	<i>ke</i> _{2CSPERS_1sg} <i>sa</i> _{MORPH_neg}		<i>bego</i> _{VCOP}	<i>le tšhelete</i>
			‘(I who) do not become rich’		

Table 3.49: The **dynamic** forms of the **associative** copulative (COPDAS) (**perfect tense**, Figure 3.42)

COPDAS _V					
tense	mood and actuality	^{cop} VIE	elements		
				VCOP	complement
perfect	ind pos	1CS_{categ}		<i>bile</i> _{VCOP}	^{con} PP
	examples:				
	(<i>monna</i>)	<i>a</i> _{1CS01}	‘(the man) became rich’	<i>bile</i> _{VCOP}	<i>le tšhelete</i>
		<i>ke</i> _{1CSPERS_1sg}	‘(I) became rich’	<i>bile</i> _{VCOP}	<i>le tšhelete</i>
	ind neg	<i>ga</i> _{MORPH_neg} <i>se</i> _{MORPH_neg} 3CS_{categ}		<i>ba</i> _{VCOP}	^{con} PP
	(<i>monna</i>)	<i>ga</i> _{MORPH_neg} <i>se</i> _{MORPH_neg} <i>a</i> _{3CS01}	‘(the man) did not become rich’	<i>ba</i> _{VCOP}	<i>le tšhelete</i>
		<i>ga</i> _{MORPH_neg} <i>se</i> _{MORPH_neg} <i>ka</i> _{3CSPERS_1sg}	‘(I) did not became rich’	<i>ba</i> _{VCOP}	<i>le tšhelete</i>
	sit pos	2CS_{categ}		<i>bile</i> _{VCOP}	^{con} PP
	(<i>ge monna</i>)	<i>a</i> _{2CS01}	‘(when the man) became rich’	<i>bile</i> _{VCOP}	<i>le tšhelete</i>
	(<i>ge</i>)	<i>ke</i> _{2CSPERS_1sg}	‘(when) I became rich’	<i>bile</i> _{VCOP}	<i>le tšhelete</i>
	sit neg	2CS_{categ} <i>sa</i> _{MORPH_neg}		<i>ba</i> _{VCOP}	^{con} PP
	(<i>ge monna</i>)	<i>a</i> _{2CS01} <i>sa</i> _{MORPH_neg}	‘(when the man) did not become rich’	<i>ba</i> _{VCOP}	<i>le tšhelete</i>
	(<i>ge</i>)	<i>ke</i> _{2CSPERS_1sg} <i>sa</i> _{MORPH_neg}	‘(when) I did not become rich’	<i>ba</i> _{VCOP}	<i>le tšhelete</i>
	rel pos	2CS_{categ}		<i>bilego</i> _{VCOP}	^{con} PP
	(<i>monna yo</i>)	<i>a</i> _{2CS01}	‘(the man who) became rich’	<i>bilego</i> _{VCOP}	<i>le tšhelete</i>
	(<i>nna yo</i>)	<i>ke</i> _{2CSPERS_1sg}	‘(I who) became rich’	<i>bilego</i> _{VCOP}	<i>le tšhelete</i>
	rel neg	2CS_{categ} <i>sa</i> _{MORPH_neg}		<i>bago</i> _{VCOP}	^{con} PP
	(<i>monna yo</i>)	<i>a</i> _{2CS01} <i>sa</i> _{MORPH_neg}	‘(the man who) did not become rich’	<i>bago</i> _{VCOP}	<i>le tšhelete</i>
	(<i>nna yo</i>)	<i>ke</i> _{2CSPERS_1sg} <i>sa</i> _{MORPH_neg}	‘(I who) did not become rich’	<i>bago</i> _{VCOP}	<i>le tšhelete</i>

Table 3.50: The **dynamic** forms of the **associative** copulative (COPDAS) (**future tense**, Figure 3.43)

COPDAS _V					
tense	mood and actuality	^{cop} VIE	elements	VCOP	complement
fut	ind pos	1CS_{categ} <i>tlo/tla</i>		ba_{VCOP}	^{con} PP
	examples:				
	(<i>monna</i>)	<i>a_{1CS01} tlo/tla</i>	‘(the man) will get a dog’	<i>ba_{VCOP}</i>	<i>le mpša</i>
		<i>ke_{1CSPERS_1sg} tlo/tla</i>	‘I will get a dog’	<i>ba_{VCOP}</i>	<i>le mpša</i>
	sit pos	2CS_{categ} <i>tlo/tla</i>		ba_{VCOP}	^{con} PP
	(<i>ge monna</i>)	<i>a_{2CS01} tlo/tla</i>	‘(when the man) will get a dog’	<i>ba_{VCOP}</i>	<i>le mpša</i>
	(<i>ge</i>)	<i>ke_{2CSPERS_1sg} tlo/tla</i>	‘(when) I will get a dog’	<i>ba_{VCOP}</i>	<i>le mpša</i>
	ind/sit neg	2CS_{categ} ka_{MORPH_pot} se_{MORPH_neg}		be_{VCOP}	^{con} PP
	((<i>ge monna</i>))	<i>a_{2CS01} ka_{MORPH_pot} se_{MORPH_neg}</i>	‘((when) the man) will not get a dog’	<i>be_{VCOP}</i>	<i>le mpša</i>
	(<i>ge</i>)	<i>nka (=ke_{2CSPERS_1sg} ka_{MORPH_pot}) se_{MORPH_neg}</i>	‘(when) I will not get a dog’	<i>be_{VCOP}</i>	<i>le mpša</i>
	rel pos	2CS_{categ} <i>tlo/tla</i>		bago_{VCOP}	^{con} PP
	(<i>monna yo</i>)	<i>a_{2CS01} tlo/tla</i>	‘(the man who) will get a dog’	<i>bago_{VCOP}</i>	<i>le mpša</i>
	(<i>nna yo</i>)	<i>ke_{2CSPERS_1sg} tlo/tla</i>	‘(I who) will get a dog’	<i>bago_{VCOP}</i>	<i>le mpša</i>
	rel neg	2CS_{categ} ka_{MORPH_pot} se_{MORPH_neg}		bego_{VCOP}	^{con} PP
	(<i>monna yo</i>)	<i>a_{2CS01} ka_{MORPH_pot} se_{MORPH_neg}</i>	‘(the man who) will not get a dog’	<i>bego_{VCOP}</i>	<i>le mpša</i>
	(<i>nna yo</i>)	<i>nka (=ke_{2CSPERS_1sg} ka_{MORPH_pot}) se_{MORPH_neg}</i>	‘(I who) will not get a dog’	<i>bego_{VCOP}</i>	<i>le mpša</i>

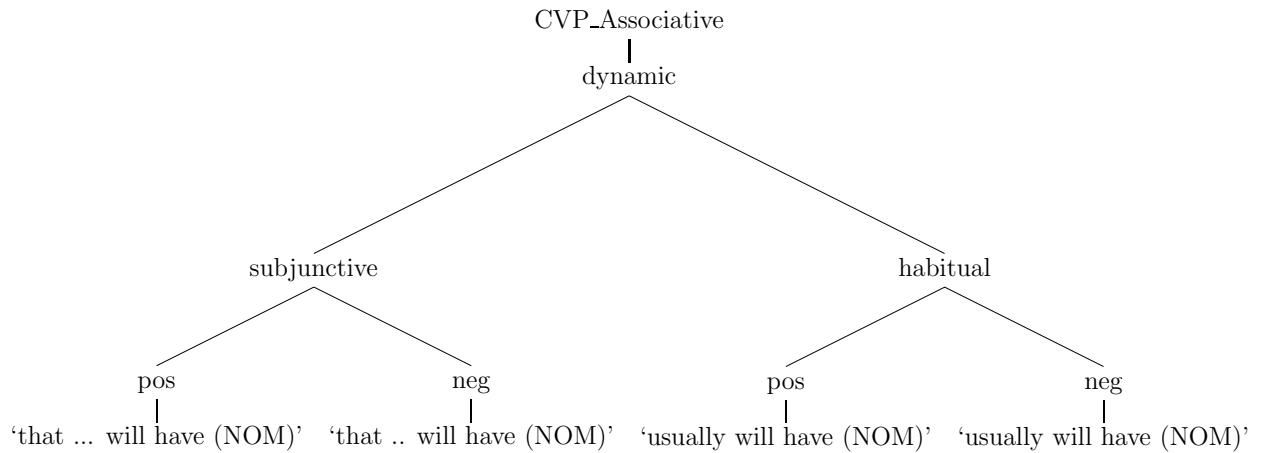


Figure 3.45: Associative dynamic dependent clauses 2 of 2 (cf. Tables 3.51)

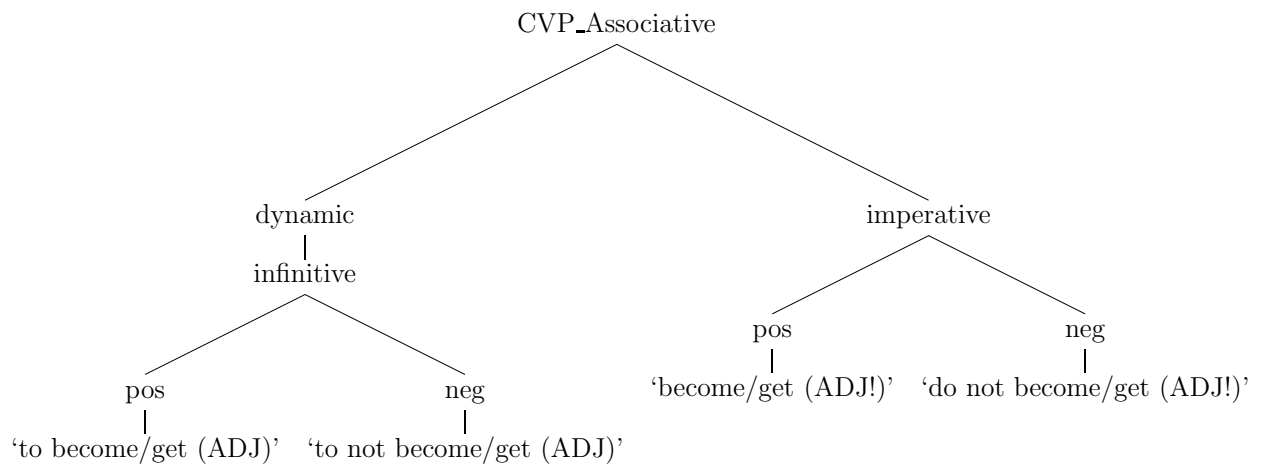


Figure 3.46: Associative dynamic non-predicative clauses (cf. Table 3.52)

Table 3.51: The **dynamic** forms of the **associative** copulative (COPDACD) (**dependent constellations**, Figures 3.44/3.45)

COPDACD _V			
mood and actuality	copVIE	VCOP	complement
consecutive pos	3CS_{categ}	ba_{VCOP}	conPP
	examples:		
(<i>monna</i>)	<i>a_{3CS01}</i>	<i>ba_{VCOP}</i>	<i>le mpša</i>
		‘(then the man) gets a dog’	
	<i>ka_{3CSPERS_1sg}</i>	<i>ba_{VCOP}</i>	<i>le mpša</i>
		‘(then) I get a dog’	
consecutive neg	3CS_{categ} se_{MORPH_neg}	be_{VCOP}	conPP
	examples:		
(<i>monna</i>)	<i>a_{3CS01} se_{MORPH_neg}</i>	<i>be_{VCOP}</i>	<i>le mpša</i>
		‘(then the man) does not get a dog’	
	<i>ka_{3CSPERS_1sg} se_{MORPH_neg}</i>	<i>be_{VCOP}</i>	<i>le mpša</i>
		‘(then) I do not get a dog’	
subjunctive pos habitual pos	2CS_{categ}	be_{VCOP}	conPP
	examples:		
((<i>gore</i>) <i>monna</i>)	<i>a_{2CS01} be_{VCOP}</i>	<i>le mpša</i>	
		‘(so that the man) gets a dog’	
		‘(the man) usually gets a dog’	
(<i>gore</i>)	<i>ke_{2CSPERS_1sg} be_{VCOP}</i>	<i>le mpša</i>	
		‘(so that) I get a dog’	
		‘I usually get (a dog)’	
subjunctive neg habitual neg	2CS_{categ} se_{MORPH_neg}	be_{VCOP}	conPP
	examples:		
((<i>gore</i>) <i>monna</i>)	<i>a_{2CS01} se_{MORPH_neg}</i>	<i>be_{VCOP}</i>	<i>le mpša</i>
		‘(so that the man) does not get a dog’	
		‘(the man) usually does not get a dog’	
(<i>gore</i>)	<i>ke_{2CSPERS_1sg} se_{MORPH_neg}</i>	<i>be_{VCOP}</i>	<i>le mpša</i>
		‘(so that) I do not get a dog’	
		‘I usually do not get a dog’	

Table 3.52: The **dynamic** forms of the **associative** copulative (COPDA) (**non-predicative** constellations, Figure 3.46)

COPDA _V			
mood and actuality	^{cop} VIE	elements	VCOP complement
infinitive pos	go _{MORPH_cp15}	ba _{VCOP}	^{con} PP
	example: <i>go</i> _{MORPH_cp15}	<i>ba</i> _{VCOP}	<i>le mpša</i>
		‘to acquire a dog’	
infinitive neg	go _{MORPH_cp15} se _{MORPH_neg}	be _{VCOP}	^{con} PP
	<i>go</i> _{MORPH_cp15} <i>se</i> _{MORPH_neg}	<i>be</i> _{VCOP}	<i>le mpša</i>
		‘not to / to not acquire a dog’	
imperative pos		eba _{VCOP}	^{con} PP
		<i>eba</i> _{VCOP}	<i>le mpša!</i>
		‘get a dog!’	
imperative neg	se _{MORPH_neg}	be _{VCOP}	^{con} PP
	<i>se</i> _{MORPH_neg}	<i>be</i> _{VCOP}	<i>le mpša!</i>
		‘do not get a dog!’	

Concerning the non-predicative cases, i.e. the imperative and the infinitive, again only the complementary connective particle phrase (cf. 3.52) identifies the associative copulative as its constellations are identical to the ones shown in Table 3.39 for the identifying/descriptive cases.

3.3.5 The copulative constellations: A summary

As was shown in the previous paragraphs, the three groups, identifying, descriptive, and associative copulatives, may in turn each be divided into two categories, stative and dynamic/inchoative. Copulatives occur in moods, and as such there are a number of different forms, comparable to the constellations described for main verbs. The many forms often differ only slightly, for instance, containing subject concords of set 1 versus subject concords of set 2. Whenever the subject refers to the first or second person, the differences between identifying and descriptive copulative can often not be recognised at all. Moreover, the two subject concord sets used by the majority of cases only differ in the concords of class 1 (*o* in set 1 versus *a* in set 2). It might however be possible to distinguish the cases by taking their complements into account. As the semantic content of the complements are not included in the scope of this study, an attempt was made to at least narrow the cases by defining word classes that in the majority of cases appear as such complements, i.e. nouns for the descriptive copulative and nominal phrases or connective particle phrases for the associative. Lastly, just as for main verbs, phrase-introducing conjunctions may help to distinguish the indicative from the situative mood.

3.4 Auxiliary verbs

From a grammatical perspective, auxiliaries (cf. paragraph 2.7.3 on page 51) subcategorise verbal phrases as they require a full verb as their complement. According to the grammatical descriptions (e.g. (Lombard, 1985, p. 186 et seq.)) the subcategorised verb has to follow the auxiliary and begins with a subject concord of set 2 or set 3. However, like the subcategory verb, the auxiliary itself needs a subject concord (of set 1) to link it to the subject. This subject concord precedes the auxiliary, like in (68).

- (68) *wena*_{PROEMPERS_2sg} *o*_{1CPERS_2sg} *be*_{V_aux} *o*_{2CPERS_2sg} *šomile*_{V_itr}
 emp-2nd-sg subj-2nd-sg past subj-2nd-sg work
 ‘you have worked’

A simple phrase grammar rule to describe the auxiliary would thus be $VP \rightarrow^{AUX} VP_{complementary}$. However, the auxiliary additionally requires the complementary VP to have the same category, i.e. both have to agree in their noun class (and with the subject noun they both refer to). Auxiliary constellations appear in the perfect, imperfect (as described in paragraph 2.7.3, these tenses are lexicalised) and future tense. The data shown in Table 3.53 is based on Poulos and Louwrens (1994, p. 247 et seq. and p. 256), though not all constellations described there will be found in this study, as no further proof of their existence in our corpora was found. The examples contained in this table are also taken from Louwrens (1991, p. 52).



Table 3.53: The auxiliary verbal phrase ^{AUX}VP

^{AUX} VP					
tense	elements	V_aux	complement		
pres/perf.	1CS_{categ}	V_aux	VP_{categ}		
	example: <i>ba</i> _{1CS02} subj- c102 'they already (work in Pretoria.)'	<i>setšev</i> _{V_aux} already	(<i>ba</i> _{1CS02} subj- c102	<i>šoma</i> work	Tshwane Pretoria
	example: <i>o</i> _{1CS01} subj- c101 '(s)he did (not know)'	<i>be</i> _{V_aux} perfect	(<i>a</i> subj- c101	<i>sa</i> neg	<i>tsebe</i> know
future	1CS_{categ} tlo/tla_{MORPH_fut}	V_aux	VP_{categ}		
	example: <i>o</i> _{1CS01} <i>tlo</i> _{MORPH_fut} subj- fut c101 '(s)he will continually (drink beer)'	<i>tsama</i> _{V_aux} continually	(<i>a</i> subj- c101	<i>nwa</i> drink	<i>bjalwa</i> beer)
neg	ga_{MORPH_neg} 1CS_{categ}	V_aux	VP_{categ}		
	example: <i>ga</i> _{MORPH_neg} <i>ke</i> _{CSPERS_1sg} neg subj- 1-sg 'I have not yet bought the books'	<i>ešo</i> yet	<i>ka</i> subj- 1-sg	<i>reka</i> buy	<i>dipuku</i> books

3.5 Other verbal structures

3.5.1 The hortative constellation

Hortatives are described by Lombard (1985, pp. 155 to 156 and p. 171) as to express ‘wishes and requests’. The hortative word class only consists of few forms, ‘*a*, *ake*, *anke* and *ga*, as described in paragraph 2.10.4. This particle can precede any subjunctive VP and is found in slot zero-3, as Table 3.54 demonstrates.

Table 3.54: The hortative constellation

description	zero-3	zero-2 to zero
	PART_{hort}	subjunctive VP
Example	<i>a</i> _{PART_{hort}}	<i>re</i> _{CSPERS_{2sg} <i>reke</i>_{V_{tr} <i>dipuku</i>_{N₁₀ ‘let us buy books’}}}

3.5.2 Potential forms

The potential expresses modal aspects of a following predicate in terms of its possibility. Poulos and Louwrens (1994) devote two sections of their book (paragraph 5.13, pp. 229 to 234, and paragraph 5.18.2.3 pp. 255 to 260) to the potential, describing a number of potential forms. Lombard (1985, p. 190) on the other hand describes only one constellation in one sentence: “The potential deficient verb form is *ka*_{MORPH_{pot}.” He illustrates by example that this morpheme is inserted between the subject concord and the verb as in example (69), repeating example (23) for sake of convenience (cf. paragraph 2.9.4 on page 58).}

- (69) *di*<sub>CS₁₀ *ka*<sub>MORPH_{pot} *fula*<sub>V_{itr}
 subj-3rd-cl10 **may** graze
 ‘they may graze’</sub></sub></sub>

For the purpose of this study, we will briefly introduce the potential constellations according to Poulos and Louwrens (1994, pp. 229 to 234). However, their ‘principal’ is transliterated into Lombard’s indicative and their participial into Lombard’s situative. The potential is illustrated in the same way as we have described the previous main verbal constellations, dividing the verb into a preceding VIE and a VBP. Note that a specific positive future tense of the potential does not exist while the negated future tenses of the independent moods on the other hand, all make use of the negated potential morpheme, *ka se* ‘will/shall/may not’

(cf. paragraphs 3.2.5.3, 3.2.6.3 and 3.2.7.3). Table 3.55 on page 173 shows a brief overview of some of the potential constellations. Other possible constellations, like, e.g. the forms described by Poulos and Louwrens (1994, pp. 255 to 260) might be added at a later stage.

3.6 Adverbial phrases (ADVP)

Adverbs may be added to a verbal phrase, as shown in the examples in (70). All such adverbs are adjuncts, i.e. grammatically not required. Instead they supply additional information about the predicate or modifying its meaning. Adverbs follow the basic verbal phrase. Note that nouns used as adverbs, like locative nouns or particle phrases may also extend all of the defined verbal phrases above.

- 70(a) *re*_{1CSPERS_1sg} *phela*_{V_itr} *gabotse*_{ADV}
 subj-1st-pl live well
 ‘we live well’
- (b) *ba*_{1CS02} *bofagane*_{V_itr} *molaong*_{N03_loc}
 subj-3rd-cl2 married lawful
 ‘they are lawfully married’
- (c) *ba*_{1CS02} *e*_{CO04/09} *swere*_{V_itr} *ruri*_{N03_loc}
 subj-3rd-cl2 obj-3rd-cl14/9 holding(perfect) surely/certainly
 ‘they were holding it firmly’

To describe adverbial phrases hence only few rules are necessary, e.g. $ADVP \rightarrow N_{\text{categ}}$ to allow nouns to appear as adverbs or $VP \rightarrow VP ADVP$ to extend the previously defined verbal phrases.

	pot VP			
	pot VIE		VBP	
descr.	zero-2	zero-1	zero	Vstem ends in
pot.pres.ind/sit.pos.	2CS_{categ} ka/subsMORPH_pot		VBP	-a
	example: (ge) a _{2CS01} ka _{MORPH_pot} (when) subj-3rd-cl1 pot		bolela _{V_itr} speak	
		‘(when) (s)he may speak’		
pot.fut.pos	nonexistent			
pot.neg. 1 (ind.fut.neg) (sit.fut.neg)	2CS_{categ} ka/subsMORPH_pot se_{MORPH_neg}		VBP	-e
	example: a _{2CS01} ka _{MORPH_pot} se _{MORPH_neg} subj-3rd-cl1 pot neg		bolele _{V_itr} speak	
		‘(s)he might not speak’		
pot.neg. 2	2CS_{categ} ka/subsMORPH_pot se_{MORPH_neg} ke_{V_aux} 3CS_{categ}		VBP	-a
	example: a _{2CS01} ka _{MORPH_pot} se _{MORPH_neg} ke _{V_aux} a _{3CS01} subj-3rd-cl1 pot neg neg subj-3rd-cl1		bolela _{V_itr} speak	
		‘(s)he might not speak’		

Table 3.55: The potential forms

3.7 Summary of the verbal phrases

In this chapter, an overview of forms of the VP of Northern Sotho was given from a computational perspective. A number of VPs representing moods according to Lombard (1985) have been described in terms of possible appearances and order of their elements, bound and free morphemes, based on the descriptions of several authors describing Northern Sotho grammar. Five types of verbal phrases have been defined according to their contents:

- Independent VPs consisting of a VBP, a basic verbal phrase, i.e. a verb stem, possibly complemented by one or more objects, these VPs have no noun class assigned because they appear without a subject;
- independent or dependent VPs with a noun class assigned, consisting of a VBP preceded by a verbal element, VIE, i.e. bound morphemes;
- copulative VPs consisting of multiword, fixed expressions, if their subject refers to the 3rd person, i.e. the noun classes, they have no noun class assigned;
- copulative VPs that always agree with their subject;
- auxiliary VPs, consisting of an auxiliary, with a noun class assigned, followed by a main verb or copulative VP with the same class assigned;
- hortative constellations requiring a subjunctive VP as their supplement;
- potential constellations that appear to share forms with the independent moods.

All these VPs can be followed by adjuncts which can either be adverbs or nominals that appear as adverbs²³.

VPs use nominal phrases as their arguments, i.e. as subject, objects, etc. The following chapter will give a brief overview of these phrases of Northern Sotho.

²³Note that we will extend this definition in section 3.9 on particle phrases.

3.8 Constellations of the Noun Phrase (NP)

3.8.1 Introduction

The noun phrase of Northern Sotho shows a wide range of constellations, especially concerning its part of speech order, this section therefore only constitutes a basic attempt to describe all the possible forms a noun phrase might appear in. Our aim is rather to illustrate the most frequent constellations. Other cases will have to be added at a later stage.

The set of Northern Sotho word classes does not contain determiners. In the translations of examples in this study, determiners are therefore usually placed in brackets to demonstrate that for a correct translation from Northern Sotho to English, such determiners have to be inserted: *monna*_{N01}, ‘(a) man’ or, if assumed that the entity *monna* has been introduced already in the discourse, ‘(the) man’. On the other hand, this non-existence of determiners implies that a noun phrase (NP) in Northern Sotho can consist solely of a noun (cf. example 71²⁴ (a)), while in other languages at least one qualifying element (determiner/quantifier or e.g. adjective) has to be present in most cases.

71(a) *nama*_{N09}
meat
‘meat’

The pronouns of Northern Sotho (cf. paragraph 2.3), and the deictic demonstrative concords that have both a concordial and a pronominal character (cf. paragraph 2.4.5 and section 3.8.4.2), both co-occur with nouns and in this case show the character of (often deictic) determiners, as illustrated in 71 (b).

71(b) *nama*_{N09} *ye*_{CDEM09}
meat dem-3rd-cl9
‘this meat’

Some of these elements can occur either in front of the noun or follow it. As both pronoun and demonstrative concord have a pronominal character, they could also constitute a nominal phrase, as in 71 (c).

²⁴Most examples in (71) are excerpts of examples taken from Ziervogel (1988, p. 124).

- 71(c) *ye*_{CDEM09}
dem-3rd-c19
 ‘this one’

The demonstrative concord can, together with an ADJ, form an adjective phrase (AP) (cf. paragraph 3.8.4.2) and such an AP modifies the noun semantically (cf. 71 (d)). The nominal character of the ADJ element of the adjective (cf. paragraph 2.5) allows to set an AP syntactically equal to an NP, as such it can also stand in place of an omitted noun to which it refers anaphorically as in 71 (e). However, the Northern Sotho word class ADJ only contains a few elements, the language therefore makes extensive use of possessives, cf. 71(f). Like the possessive of e.g. English, possessive noun phrases can be recursive, as in 71 (g).

- 71(d) *kgomo*_{N09} *e*_{CDEM09} *botse*_{ADJ09}
 cow dem-3rd-c19 beautiful
 ‘the beautiful cow’
- (e) *e*_{CDEM09} *botse*_{ADJ09}
 dem-3rd-c19 beautiful
 ‘the beautiful one’
- (f) *meetse*_{N06} *a*_{CPOSS06} *borutho*_{N14}
 water of warmth
 ‘warm water’
- (g) *dikgomo*_{N10} *tša*_{CPOSS10} *mosadi*_{N01} *wa*_{CPOSS01} *kgošī*_{N09}
 cattle of wife of king
 ‘(the) king’s wife’s cattle’

To cater for the many possible ways of building a nominal phrase, we set up a slot system as in the definition of verbal phrases above. As different elements may be present, we describe the NP on three levels of which the first level contains the head of the phrase (slot zero, pos 0) and reserves two more positions for demonstratives which may occur in a preceding or a following position (slot zero, pos-1 and pos+1). The second level adds two more slots containing adjectival modifiers.

In terms of filling the fields, slot pos-0 is reserved solely for the word class ‘noun’ (cf. section 2.2 beginning on page 22), while other positions of slot zero can contain pronouns (section 2.3) and demonstrative concords (paragraph 2.4.5), but not nouns. In the case that slot zero, pos-0 is empty, i.e. when the noun is omitted, the rightmost pronoun/demonstrative

acquires the pronominal status (while the others remain in their status as determiners). Such a decision is however arbitrary and might have to be reconsidered on further examination of text collections.

Adjectives and possessives may be then added on the second level. These usually follow the noun (and its pronouns) and are therefore placed in slots zero+1 and zero+2. However, if the first and the second level are both empty, one of these will acquire its role, cf. the slot definition in Table 3.56 and the illustrating trees in Figures 72 (a) to (f) where the head of the phrase assumed is written in bold face. If both of the righthandside slots, zero+1 and zero+2 are filled, i.e. if an adjectival phrase and a successive possessive nominal phrase appear while slot zero is empty, we consider the adjectival phrase as the head of the phrase (72). Again, this is a rather arbitrary decision, however based on the claim of some Northern Sotho linguists (inter alia (Van Wyk et al., 1992, p. 73), see also paragraph 2.5 on page 45) that a word class ‘adjective’ does not exist in Northern Sotho: what is called adjective here, is rather an “adjectival noun”.

In summary, we assume that nominal phrases of Northern Sotho on the first level are basically left-headed, except in the semantically contrastive cases, where a demonstrative concord precedes the noun. This consequently means that if an NP consists of an adjectival phrase followed by a possessive phrase, it would be headed by the adjectival (or adjectival noun) phrase. Note again, this decision is arbitrary and it might be necessary to revisit it in future. In summary we currently define the following hierarchy of heads of a noun phrase: noun } leftmost element of slot zero } slot zero+1 } slot zero+2.

Table 3.56: Slots describing the noun phrase

slot zero				
pos-1	pos-0	pos+1	zero+1	zero+2
proNP	noun	proNP	AP	posNP

3.8.2 An overview of some nominal phrases

In the following tables we will fill the pre-defined slots of Table 3.56 with appropriate elements, beginning with the simplest noun phrase containing a noun only to its modified forms, containing pronouns, concords, and other phrases (which will be described in detail in paragraphs 3.8.3, 3.8.5 and 3.8.4.2). Table 3.57 shows the possible constellations filling

slot zero, i.e. the basic noun phrase. Table 3.58 then describes how this basic noun phrase may be extended with other elements, e.g. APs or ^{pos}NPs.

Table 3.57: The basic noun phrase

description	slot zero		
	pos-1 proNP	pos-0 noun	pos+1 proNP
NP _{categ}	N _{categ}		
example: NP ₁₀	<i>dimpšaN₁₀</i> 'dogs'		
NP _{categ}	proNP _{categ}	N _{categ}	
example: NP ₁₀	<i>tše_{CDEM10}</i> 'these'	<i>dimpšaN₁₀</i> 'dogs'	
	'these (specific) dogs'		
NP _{categ}	N _{categ}		proNP _{categ}
example: NP ₁₀		<i>dimpšaN₁₀</i> 'dogs'	<i>tše_{CDEM10}</i> 'these'
	'these dogs'		

Figure 72 (a)

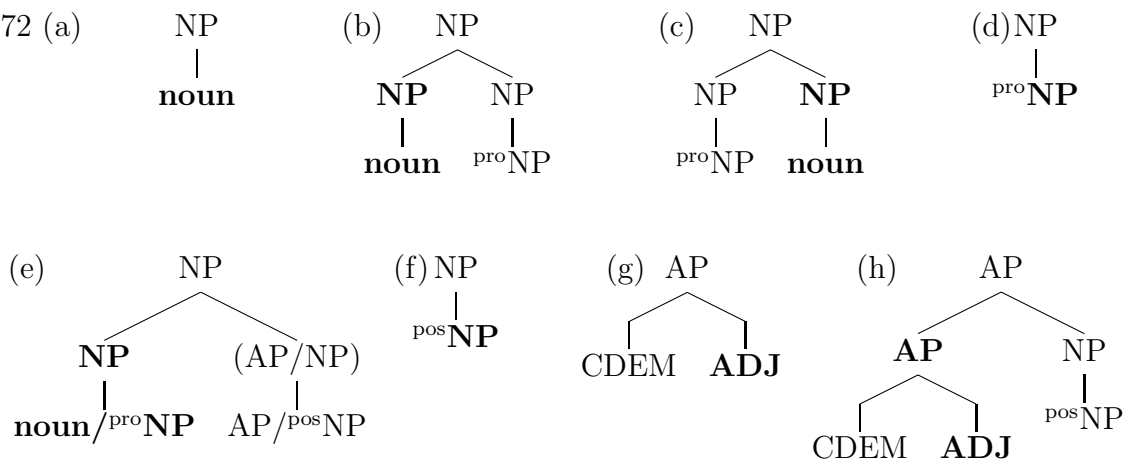




Table 3.58: The extended noun phrase

description	slot zero	zero+1	zero+2
NP_{categ}	NP_{categ}	AP_{categ}	
example:			
NP_{10}	<i>dimpša</i> _{N10} 'dogs'	<i>tše</i> _{CDEM10} <i>mpe</i> _{ADJ10} 'bad'	'bad dogs'
NP_{categ}	NP_{categ}		^{pos} NP_{categ}
example:			
NP_{10}	<i>dimpša</i> _{N10} 'dogs'		<i>tša</i> _{CPOSS10} <i>gagwe</i> _{PROPOSS01} 'of him' 'his dogs'
NP_{categ}	NP_{categ}	AP_{categ}	^{pos} NP_{categ}
example:			
NP_{10}	<i>dimpša</i> _{N10} 'dogs'	<i>tše</i> _{CDEM10} <i>mpe</i> _{ADJ10} 'bad'	<i>tša</i> _{CPOSS10} <i>gagwe</i> _{PROPOSS01} 'of him' 'his bad dogs'

3.8.3 The Pronominal Noun Phrase (^{PRO}NP)

The ^{PRO}NP can generally be described as containing emphatic (cf. paragraph 2.3.1) and/or quantitative (cf. paragraph 2.3.3) pronouns. If it appears together with the basic noun phrase, it is usually interpreted in the sense of an emphasis. Specifically the absolute/emphatic pronoun usually appears on the right side of the noun (slot +1), there it emphasises a contrast (cf. 73 (a) and (b)), while, when appearing on the left side (slot -1) it rather shows a specification, as in (73 (c)), compare Poulos and Louwrens (1994, p. 75 et seq.).

- 73(a) *mošemane*_{N01} **yena**_{PROEMP01} *o*_{1CS01} *rata*_{V_tr} *diapola*_{N10}
 boy emp-3rd-cl1 subj-3rd-cl1 like apples
 ‘as for (the) boy, he likes apples’
- basetsana*_{N02} **bona**_{PROEMP02} *ba*_{1CS02} *rata*_{V_tr} *dinamune*_{N10}
 girls emp-3rd-cl2 **subj-3rd-cl2** like oranges
 ‘(but) as for (the) girls, they like oranges’
- (b) *dikgomo*_{N10} *di*_{1CS10} *šetšē*_{V_aux} *di*_{2CS10} *gorogile*_{V_itr},
 cattle subj-3rd-cl10 already subj-3rd-cl10 arrived,
 ‘(the) cattle have already arrived,’
- fela*_{CONJ} *po*_{0N09} **yona**_{PROEMP09} *ga*_{MORPH_neg} *se*_{MORPH_neg} *ya*_{3CS09}
 but bull emp-3rd-cl9 neg subj-3rd-cl109
*boa*_{V_itr}
 return
 ‘but the bull, on the contrary, has not returned’
- (c) *lefasetere*_{N05} *le*_{CDEM05} *le*_{CS05} *thubilwe*_{V_tr}
 window dem-3rd-cl105 subj-3rd-cl110 broken
 ‘this window was broken’
- ke*_{PART_agen} **yena**_{PROEMP01} *Phetla*_{N01a}
 by emp-3rd-cl1 Phetla
 ‘by Phetla and no one else’

Table 3.59 extends the definitions of Table 3.57 by adding the ^{PRO}NP as another independent basic noun phrase.

Table 3.59: The basic noun phrase including ^{pro}NPs

description	slot zero		
	pos-1 ^{pro} NP	pos-0 noun	pos+1 ^{pro} NP
NP _{categ}		N _{categ}	
example: NP ₁₀		<i>dimpša</i> _{N10} 'dogs'	
NP _{categ}	^{pro} NP _{categ}	N _{categ}	
example: NP ₁₀	<i>tše</i> _{CDEM10} dem-3rd-cl10	<i>dimpša</i> _{N10} dogs	
		'these (specific) dogs'	
NP _{categ}		N _{categ}	^{pro} NP _{categ}
example: NP ₁₀		<i>dimpša</i> _{N10} dogs	<i>tše</i> _{CDEM10} dem-3rd-cl10
		'these dogs'	
NP _{categ}			^{pro} NP _{categ}
examples: NP ₁₀			<i>tše</i> _{CDEM10} dem-3rd-cl10
			'these'
NP ₀₁			<i>yena</i> _{PROEMP01} emp-3rd-cl1
			'the one'
NP ₀₂			<i>bohle</i> _{PROQUANT02} quant-3rd-cl2
			'all (of them)'

3.8.4 Nominal phrases headed by demonstrative concords

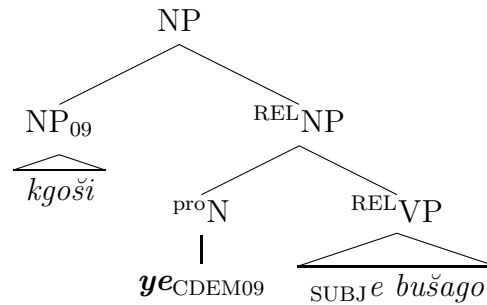
3.8.4.1 The relative Noun Phrase (^{rel}NP)

A demonstrative concord may appear in several pronominal functions. It may not only appear as the pronominal head of a noun phrase, as described in paragraph 3.8.3 (page 180), but also heading relative clauses (paragraph 3.2.7). For the sake of demonstration,



example 54 (a) is repeated as 71 (g) .

Figure 71(g)



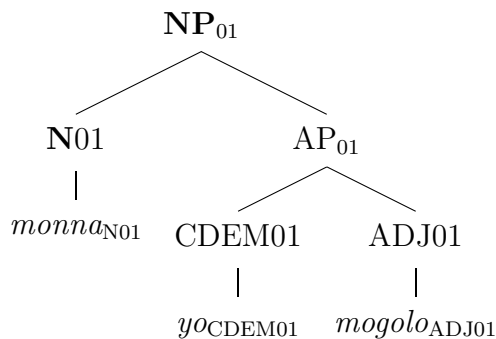
3.8.4.2 The Adjectival Phrase (AP)

As mentioned earlier (e.g. in paragraph 2.5), the Northern Sotho adjective is formed by a demonstrative concord (in its concordial function) preceding an ADJ, which has adjectival, but also nominal characteristics. Such properties of this constituent allow it to replace an NP altogether, cf. examples and Figures 74 (a) and (b). Consequently, all previously described NPs might also be represented by an AP, despite the descriptive copulative, which we explicitly defined as containing only nouns (and their respective pronouns) as complements (cf. paragraph 3.3.3).

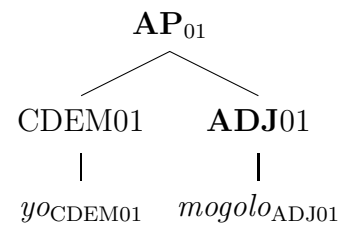
74(a) *monna*_{N01} *yo*_{CDEM01} *mogolo*_{ADJ}
 man dem-3rd-cl1 big
 '(a) big man'

(b) *yo*_{CDEM01} *mogolo*_{ADJ01}
 dem-3rd-cl1 big
 '(a) big one'

74(a)



(b)



3.8.5 The Possessive Noun Phrase (^{pos}NP)

One general property of a phrase is that it may be recursive, as shown for the possessive NP in 71 (h) (demonstrating the recursion) with the sentence *dikgomo tša wa kgoši*, ‘cattle of (the) chief’. As described in paragraph 2.3.2, such a constellation is preceded by a noun indicating possession (which may be omitted in certain discourses). The following possessive noun phrase ^{pos}NP then contains a possessive concord and another noun, the possessor. According to Van Wyk et al. (1992, p. 64), this possessor might be replaced by a possessive pronoun (PROPOSS_{categ}, cf. paragraph 2.3.2). Table 3.60 describes the possible constellations, the last element of each of the constellations can either be a noun, a possessive pronoun or another proNP.

Figure 71 (h)

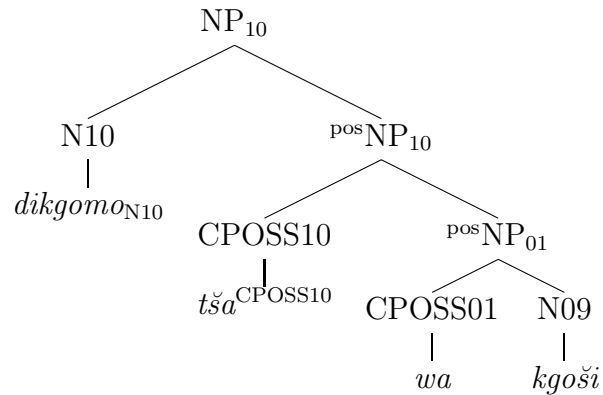




Table 3.60: The possessive noun phrase ^{pos}NP

description	^{pro} NP		
^{pro} NP _{categ}	CPOSS _{categ}	N / PROPOSS / ^{pro} NP	
examples:			
^{pro} NP ₁₀	(<i>dikgomo</i> _{N10}) (the cattle)	<i>tša</i> _{CPOSS10}	<i>mosadi</i> _{N01} of (the) woman
	(<i>dikgomo</i> _{N10}) (the cattle)	<i>tša</i> _{CPOSS10}	<i>gagwe</i> _{PROPOSS01} of him/her
	(<i>dikgomo</i> _{N10}) (the cattle)	<i>tša</i> _{CPOSS10}	<i>mosadi</i> _{N01} <i>wa</i> _{CPOSS01} <i>kgoši</i> _{N09} of (the) wife of the king
		<i>tša</i> _{CPOSS10}	<i>mosadi</i> _{N01} the ones of (the) woman
		<i>tša</i> _{CPOSS10}	<i>gagwe</i> _{PROPOSS01} the ones of him/her
		<i>tša</i> _{CPOSS10}	<i>mosadi</i> _{N01} <i>wa</i> _{CPOSS01} <i>kgoši</i> _{N09} the ones of (the) wife of the king

3.9 The Particle Phrase (PP)

Particle phrases are constellations consisting of a particle followed by its argument, usually a noun. These phrases appear as adjuncts to verbs, following the VP as illustrated in example (75) from (De Schryver, 2007, p. 81), and Figure 3.47, demonstrating its possible analysis.

- (75) *monna*_{N01} *o*_{1CS01} *rema*_{V_tr} *mohlare*_{N03} *ka*_{PART_ins} *selepe*_{N07}
 man subj-3rd-cl1 chop tree with axe
 ‘(a) man is chopping the tree with (an) axe’

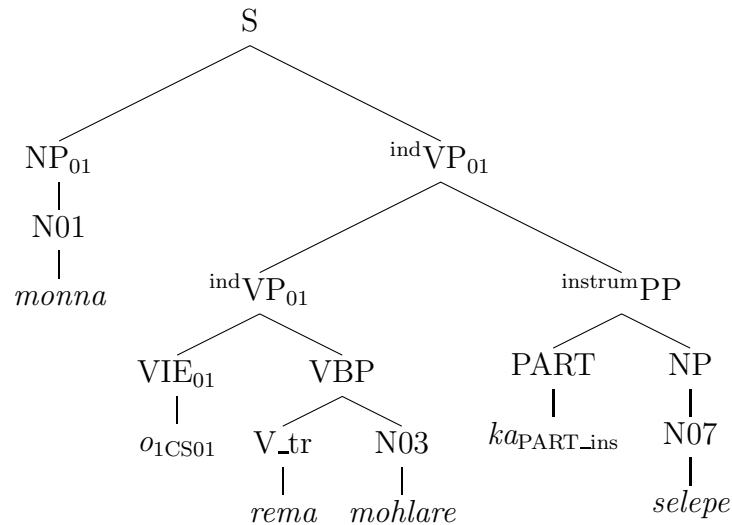


Figure 3.47: Example of a particle phrase (PP)

3.10 A sentence of Northern Sotho

3.10.1 The basic proposition

In section 3.2, we defined a sentence of Northern Sotho as possibly consisting of the verbal phrase alone, because the subject noun / nominal may be omitted in a known discourse, like in 76 (a). In other words, the VP of Northern Sotho alone in many cases already constitutes a sentence, hence this paragraph only adds to the previously described constellations.

Unless the subject noun / nominal is omitted, it usually appears in an initial position, cf. 76 (b), which constitutes the basic Northern Sotho propositional sentence.

- 76(a) O_{1CS01} $lapile_{V_itr}$
 subj-3rd-cl1 (is tired)
 ‘(s)he is tired’
- (b) $Monna_{N01}$ o_{1CS01} a_{MORPH_pres} boa_{V_itr}
 man subj-3rd-cl1 pres return
 ‘(the) man returns’

Sentences may also be connected with conjunctions, like $gomme_{CONJ}$, as illustrated by 76(c). A possible analysis of such a constellation is shown in Figure 3.48.

- 76(c) $monna_{N01}$ o_{1CS01} boa_{V_itr} $gomme_{CONJ}$ o_{1CS01} $lapile_{V_itr}$
 man subj-3rd-cl1 return and subj-3rd-cl1 is tired
 ‘(the) man returns and he is tired’

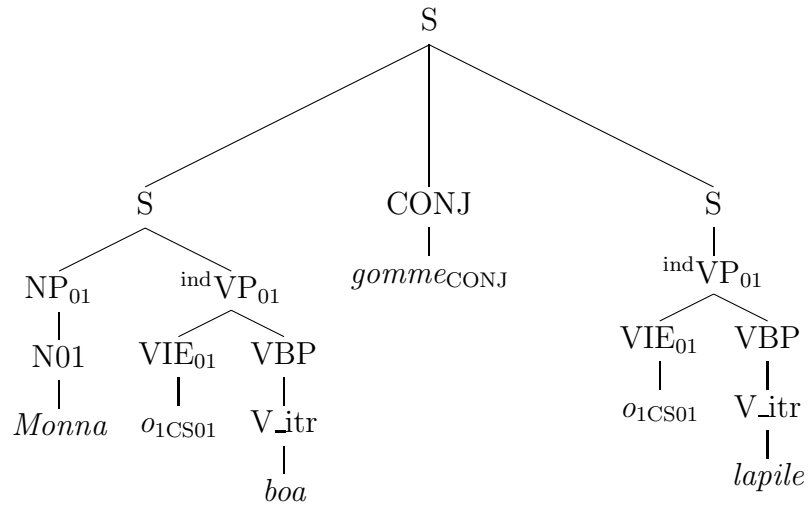


Figure 3.48: An example analysis of two sentences connected with a conjunction

3.10.2 The question

A sentence of Northern Sotho can easily be formulated as a question (interrogative or ^{int}S) by adding one of the question particles, as described in paragraph 2.10.7, cf. example 76 (d), and Figure 3.49. The question mark is not mandatory, but usually appears.

76(d) *na*_{PART_que} *monna*_{N01} *o*_{1CS01} *boile*_{V_itr?}
 que man subj-3rd-cl1 return-past?
 ‘did (the) man return?’

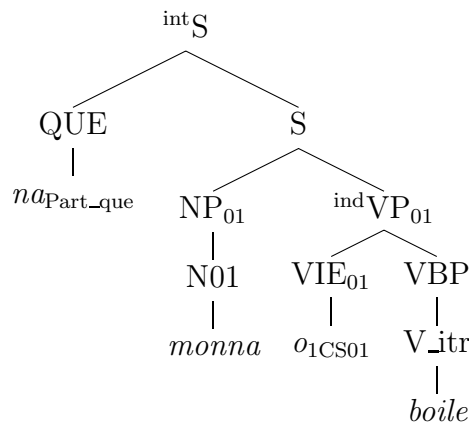


Figure 3.49: An example analysis of a sentence containing a question

Another way to formulate a question is to replace a noun with a question word (in English, usually the “wh question words” are used), as described in paragraph 2.10.9. Lombard (1985) does not describe such sentences explicitly (he classifies question words as adverbs), whereas Poulos and Louwrens (1994, p. 376) list a number of examples containing the question word *eng* ‘what’, cf. example (76), and Figure 3.50 respectively.

76(e) *o*_{1CS01} *bona*_{V_tr} *eng*_{QUE_N09?}
 subj-2nd-sg see what?
 ‘what do you see?’

3.11 A brief summary of our grammar fragment

We had defined our aim as describing a significant fragment of the grammar of Northern Sotho in this chapter. As the majority of possible constellations consist of or contain a verbal phrase VP, this phrase dominated our descriptions. We described main and copulative

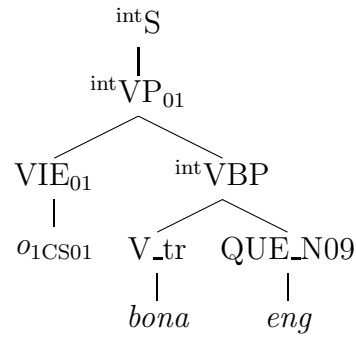


Figure 3.50: A Northern Sotho question making use of the “wh question word” *eng*

verbs in independent and dependent clauses by mainly following the definitions of Lombard (1985). As nouns and or other nominals forming noun phrases may appear as overt subjects and objects, but also as adjuncts of verbs, a substantial part of this chapter was dedicated to describing at least some of the possible constellations forming a NP. Other descriptions, such as section 3.9 concerning particle phrases, were kept brief as they resemble e.g. English prepositional phrases which are well-defined in literature.

Having defined a number of rules forming phrases and how they combine to form sentences, we will in the next chapters describe the possibilities and challenges of their implementation.