A Nominal Shell Analysis of Restrictive Relative Clause Constructions in Afrikaans

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Declaration

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Abstract

This study focuses on restrictive relative clauses in Afrikaans, an area that is largely underresearched in the literature on Afrikaans grammar. The primary aim of the study is to examine whether the general assumptions and devices of Oosthuizen's (2013) Nominal Shell Analysis of reflexive constructions in Afrikaans, which was developed within the broad theoretical framework of Minimalist Syntax, can be extended to provide an account of restrictive relative clause constructions. The main consideration for taking the ideas underlying Oosthuizen's analysis as point of departure concerns the fact that an obligatory reflexive construction and a restrictive relative clause construction both contain a pronominal element that is referentially dependent on some other expression in the sentence. That is, both a reflexive pronoun and a relative pronoun have to enter into a coreferential relationship with an antecedent expression. In light of this common characteristic, the question arises whether the general ideas and devices of the Nominal Shell account of this relationship in reflexive constructions can also be used to account for the coreferential relationship between a relative pronoun and its antecedent in restrictive relative clause constructions. In terms of the proposed analysis, the relative pronoun and its antecedent are initially merged into a nominal shell structure headed by a contrastive-focus light noun n, a functional category belonging to a natural class of identificational elements that also includes an identity-focus n, a possessor-focus n, a quantity-focus n, and a presentational-focus n (Oosthuizen 2013:126-144). More specifically: the contrastive-focus n selects a relative pronoun as its complement, with the latter carrying a set of unvalued φ-features (person, number, gender). The antecedent expression, in turn, is merged into the specifier position of the light noun. These operations result in a probe-goal configuration in which the antecedent can value the φ-features of the relative pronoun, with the n serving as mediator. In this configuration, the φ-valued relative pronoun is semantically interpreted as an anaphor and the nominal expression in the specifier position of the nP as its antecedent; that is, the pronoun is interpreted as obligatorily coreferential with this nominal expression. The main finding of the study is that the approach just outlined can provide an adequate account of the relevant facts of restrictive relative clause constructions in Afrikaans, without requiring any theoretical assumptions and devices that are either completely new or incompatible with those provided within the broad minimalist framework.

Opsomming

Hierdie studie fokus op restriktiewe relatiefsin-konstruksies in Afrikaans, 'n area waaroor daar nog weinig navorsing gedoen is in die literatuur oor Afrikaanse grammatika. Die hoofoogmerk van die studie is om te bepaal of die algemene aannames en meganismes van Oosthuizen (2013) se Nominale Skulp-analise van refleksief-konstruksies in Afrikaans, wat ontwikkel is binne die breë raamwerk van Minimalistiese Sintaksis, uitgebrei kan word om 'n verklaring te bied van restriktiewe relatiefsin-konstruksies. Die hoofoorweging op grond waarvan die idees onderliggend aan Oosthuizen se analise as vertrekpunt geneem word, betref die feit dat 'n verplig-refleksiewe konstruksie en 'n restriktiewe relatiefsin-konstruksie beide 'n pronominale element bevat wat referensieel afhanklik is van 'n ander uitdrukking in die sin. Met ander woorde, beide 'n refleksiewe voornaamwoord en 'n relatiewe voornaamwoord moet in 'n koreferensiële verhouding tree met 'n uitdrukking wat dien as antesedent. In die lig van hierdie gemeenskaplike eienskap, ontstaan die vraag of die algemene idees en meganismes onderliggend aan die Nominale Skulp-verklaring van hierdie verhouding in refleksief-konstruksies ook gebruik kan word om 'n verklaring te bied van die koreferensiële verhouding tussen 'n relatiewe voornaamwoord en sy antesedent in restriktiewe relatiefsin-konstruksies. In terme van die voorgestelde analise, word die relatiewe voornaamwoord en sy antesedent aanvanklik saamgevoeg in 'n nominale skulpstruktuur met 'n kontrasfokus-ligte naamwoord n as hoof, 'n funksionele kategorie wat behoort tot 'n natuurlike klas wat ook 'n identiteitsfokus-n, 'n besittersfokus-n, 'n kwantiteitsfokus-n, en 'n presentasiefokus-n insluit (Oosthuizen 2013:126-144). Meer spesifiek: die kontrasfokus-n selekteer 'n relatiewe voornaamwoord as sy komplement, met laasgenoemde wat oor 'n stel ongewaardeerde φ-kenmerke (persoon, getal, geslag) beskik. Daarteenoor word die antesedent saamgevoeg in die ligte naamwoord se spesifiseerderposisie. Hierdie bewerkings bring 'n soeker-teiken-konfigurasie tot stand waarin die antesedent die φ-kenmerke van die relatiewe voornaamwoord van waardes kan voorsien, met die ligte naamwoord wat optree as tussenganger. In hierdie konfigurasie word die φ-gewaardeerde relatiewe voornaamwoord geïnterpreteer as 'n anafoor en die nominale uitdrukking in die nP se spesifiseerderposisie as sy antesedent; met ander woorde, die voornaamwoord word geïnterpreteer as verplig koreferensieel met hierdie nominale uitdrukking. Die hoofbevinding van die studie is dat die benadering soos pas geskets 'n toereikende verklaring kan bied van die betrokke feite van restriktiewe relatiefsin-konstruksies in Afrikaans, sonder die noodsaak van enige teoretiese aannames en meganismes wat óf volledig nuut óf onversoenbaar is met dié wat beskikbaar is binne die breë minimalistiese raamwerk.

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Chapter 1

INTRODUCTION

1.1   Background

A general goal within the field of Generative Grammar is to develop an explanatory and predictive model of a speaker's unconscious, tacit knowledge of language – what they know when they know a language, or what Chomsky terms their linguistic competence, which "involves the implicit ability to understand indefinitely many sentences" (Chomsky 1965:15). Since Chomsky (1955), the pioneering work in Generative Grammar, this cognitive approach to the investigation of language and the language capacity has developed through several phases and has given rise to various theoretical models of grammar. The most recent model, broadly known as Minimalist Syntax, was put forward in Chomsky (1995) and has itself developed through various phases over the past two decades. This model largely replaced the Government and Binding Theory, the dominant generative model during the 1980s and early 1990s (Chomsky 1981, 1986 and many subsequent works).

The specific aims of the various models developed within Generative Grammar[1] have ranged from accounting for the idea that different sentence types are related via an array of transformational rules that change the deep structures generated by phrase structure rules into surface structures, to identifying the general constraints on grammatical operations in the derivation of sentences. The particulary influential Principles and Parameters approach, closely associated with Government and Binding Theory and also adopted in Minimalist Syntax, moreover provided a framework to account for the similarities and differences between languages in terms of a limited set of universal, innate grammatical principles and a

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[1] Since Chomsky (1955), Generative Grammar progressed through the Standard Theory (Chomsky 1965), the Extended Standard Theory (Chomsky 1973, Schachter 1973), the Revised Extended Standard Theory (Chomsky 1977), the Government and Binding Theory (Chomsky 1981, 1986) and Minimalist Syntax (Chomsky 1995). The shift from Government and Binding Theory towards Minimalist Syntax is discussed in detail in Hornstein, Nunes and Grohmann (2005).

system of language-particular parameters. Furthermore, it is a central objective of Minimalist Syntax to move towards a simpler, more elegant account of linguistic phenomena – away from previous overly complex explanations, where explanatory mechanisms of grammatical derivations were nearly as complex as what was being explained (Chomsky 1995:233).

A key defining characteristic of Minimalist Syntax is its aim to reconceptualize syntactic structuring and to re-evaluate syntactic representations and the knowledge and insight into the human language capacity we can draw from them, while eliminating superfluous elements and steps (Chomsky 1995:27-28). Such simplification is in line with the Minimalist Programme's principles of economy with regard to representation; it provide a less complex means to express the constraints which determine the derivation of grammatical sentences.

1.2   Research focus

Afrikaans, unlike other West Germanic languages such as English, German and Dutch, has received relatively little attention within the framework of Minimalist Syntax, despite its unique characteristics and the fact that it is used as a lingua franca in many regions of Southern Africa (König and Van der Auwera 2004). Some exceptions in this regard can however be found in the work of linguists such as Biberauer (2002; 2010), Botha & Oosthuizen (2009), De Vos (2005), Oosthuizen (1996, 2000, 2013, 2014) and Oosthuizen & Waher (1996).

The relatively small amount of research done on Afrikaans within the framework of Minimalist Syntax allows for a broad scope from which an area of study can be selected. Clearly, such research would expand upon and contribute to the body of knowledge of Afrikaans grammar, filling empirical gaps and providing knowledge that could lead to greater insight into the theory of grammar.

The recent work of Oosthuizen (2013, 2014), resulting in the Nominal Shell Analysis of obligatory reflexive constructions, provides a potentially useful platform for the advancement of our knowledge of Afrikaans grammar. The extension of Oosthuizen's (2013) analysis to other grammatical constructions therefore constitutes a plausible undertaking. Such an extension forms the primary focus of this study. More specifically, an attempt will be made to develop a Nominal Shell Analysis of a largely unexamined phenomenon in Afrikaans, namely restrictive relative clauses. Such an attempt has at least two potential benefits. It serves the dual purpose of (i) broadening the scope and assessing the merit of Oosthuizen's (2013) Nominal Shell Analysis, and (ii) providing a new theoretical framework for describing and explaining an aspect of Afrikaans grammar within the broad minimalist approach.

1.3   Overall research aim and main objectives

The overall aim of this study is to examine whether the general assumptions and devices of Oosthuizen's (2013) Nominal Shell Analysis of reflexive constructions can be extended to provide an adequate account of restrictive relative clause constructions in Afrikaans. Relative clause constructions are semantically linked to an expression in a preceding clause by means of a relative pronoun – a word which stands in a coreferential relationship to that expression, its antecedent. Restrictive relative clauses serve to contrast an entity referred to by the antecedent expression with other entities; in other words, such clauses restrict selection from a set of possible referent entities to a particular one (Crystal 1997:411). To illustrate, within the restrictive relative clause in the sentence in (1) below, the Afrikaans relative pronoun *wat* ("which") is semantically associated with the expression *die huis* ("the house") in the main clause. (Here and in similar examples the relative clause is enclosed in square brackets.)

(1)   Die huis$_i$ [wat$_i$ Jan bou] lyk snaaks.

the house which Jan builds looks funny

"The house which Jan is building looks funny"

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The matching subscript indices to the right of *wat* and *die huis* in the above example indicate that these two phrases are coreferential; they refer to the same entity.

The study has three main objectives. Firstly, in order to identify the "fundamental building blocks of syntactic representations" (Den Dikken (2013:974), the relevant core concepts and devices of Minimalist Syntax, and also those of the Nominal Shell Analysis as a model presented within the broad minimalist framework, will be set out. Secondly, an overview will be given of previous analyses of relative clause constructions within the minimalist framework and its precursor, Government and Binding Theory, as well as within some other competing generative theories such as Head-driven Phrase Structure Grammar (e.g. Sag 1997). The third objective is to develop a Nominal Shell Analysis of restrictive relative clauses in Afrikaans within the general framework of assumptions and devices proposed by Oosthuizen (2013), and to determine whether such an analysis can provide an adequate account of the relevant facts.

1.4   Organisation of the study

The study is organised into five chapters. The current chapter provides brief background information about the development of Minimalist Syntax, the most recent theoretical framework within the generative approach to language investigation. This chapter also states the overall focus, primary aim, rationale and main objectives of the study.

In Chapter 2, the relevant core concepts and devices of Minimalist Syntax are described, followed by an explication of the main underlying ideas and mechanisms of Oosthuizen's (2013) Nominal Shell Analysis of obligatory reflexivity in Afrikaans. These ideas and mechanisms form the basic framework for the analysis of Afrikaans restrictive relative constructions attempted in this study.

Chapter 3 provides a brief review of recent generative analyses of relative clause constructions. Chapter 4 focuses on a Nominal Shell Analysis of restrictive relative clause constructions in Afrikaans. The chapter starts with a non-formalistic description of some of the facts of the Afrikaans relative clause construction, followed by a brief overview of the conventional Wh-movement approach to the analysis of such constructions, specifically as described in Radford (2009). Against this background, an attempt is then made to develop an analysis of restrictive relative clauses in Afrikaans taking as point of departure the general assumptions and devices of Oosthuizen's (2013) Nominal Shell Analysis of reflexive constructions. One of the specific aims of developing such an analysis is to determine whether it can provide an adequate account of the relationship of obligatory coreferentiality between a relative pronoun and its antecedent. Chapter 5, the concluding chapter, provides a brief summary of the main findings of the study, and also outlines some topics for further research.

Chapter 2

THEORETICAL FRAMEWORK

2.1   Introduction

As noted in the preceding chapter, the aim of Generative Syntax is to arrive at a representative and predictive model of our knowledge of grammar. This chapter gives an account of the framework of Minimalist Syntax in this regard – it lays out the core assumptions and devices available to Minimalist Syntax, followed by an examination of the technical aspects involved in sentence derivation. Attention is then given to the Nominal Shell Analysis, to likewise examine and lay out its core assumptions and devices. Any explanations of concepts and devices within this chapter should be interpreted within the scope of Minimalist Syntax and subsequently the Nominal Shell Analysis unless otherwise indicated.

2.2   Core concepts and driving forces of Minimalist Syntax

2.2.1   Fundamental architecture

Within the framework of Minimalist Syntax, the language faculty has two main components: the Lexicon and the Computational System. The Lexicon contains information about the distinctive properties of individual words, as well as their pronunciation, meaning and structure-building properties (Kroeger 2005:66). Each word's combination of individual properties is stored as a lexical item within the Lexicon, and the Lexicon supplies lexical items to the Computational System (Chomsky 1995:6), which combines these to build syntactic structures.

The Computational System sends a syntactic structure (containing a combination of lexical items) to its two distinct interfaces. One interface deals with sound-related aspects of linguistic expressions and is known as the Phonetic Form (PF) interface. The other interface,

known as the Logical Form (LF) interface, deals with the meaning-related aspects of linguistic expressions. Each lexical item has a particular combination of sound-related (PF) and meaning-related (LF) features which distinguishes it from other lexical items. The PF and LF interfaces independently read these features when the Computational System delivers the syntactic structure (containing lexical items) to each of them.

Each interface can read only those features which pertain to it: the PF interface reads phonetic data and the LF interface reads meaning data. An expression which passes through the PF interface receives a phonological representation, which is processed to generate auditory output, while an expression which passes through the LF interface receives a semantic representation for thought-construction related output. The PF interface connects to the Articulatory-Perceptual performance system, whereas the LF interface connects to the Conceptual-Intentional performance system, with each interface correspondingly providing instructions for its connected cognitive system to process (Chomsky 1995:168-169).

Spell-out refers to the point in sentence generation where the parts of constructed phrases pertaining to the PF component (phonological features) are separated from the phrase structure (Uriagereka 1998:235). As noted, this results in the phonetic interpretation, while meaning is assigned as the residual structure is transferred to the LF interface. According to Piggott and Travis (2013:155), this is a cyclical process; it proceeds in phase-by-phase interpretation, determining phonological and semantic features and passing them on to the next cycle, where the process is repeated.

2.2.2   Interface conditions

In order for the two cognitive systems to interpret representations produced by the PF and LF interfaces, the representations must contain legitimate PF or LF objects. Legitimate objects are objects which are licensed on the grounds that they consist solely of instructions suitable for interpretation by the relevant cognitive system. Each object must receive a complete

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interpretation to be licensed and no uninterpretable objects or instructions can remain at the interfaces after interpretation. If a given representation meets these criteria, it is said to converge at that interface and will, in so doing, satisfy the condition of Full Interpretation (Chomsky 1995:194, 1986:98; Uriagereka 1998:98).

2.2.3 Syntactic categories

Syntactic categories allow lexical items to be grouped according to their shared grammatical properties. For instance, the syntactic categories of noun and verb are known as lexical categories. They carry meaning and are open-class categories; the class can grow, meaning that new words can be added to the category. Functional categories, which include among other items determiners, pronouns and quantifiers, do not carry substantive meaning and infrequently allow additions to their syntactic category. They serve a functional role by expressing the relations existing between lexical categories.

The syntactic category of noun, for example, is used to potentially refer to an entity or abstract idea: *John*, *cat*, and *grin* all fall into this category. Consider the following sentence:

(2)   This cat sat with a grin while being stroked.

Verbs refer to the action pertaining to nouns: *sit* and *stroke* are examples of words in the verb category that can explain an action relating to *cat*, a noun in the sentence above. A determiner might indicate which *cat - this cat*, or how many *cats.* The distribution criteria of a syntactic category indicate where members of that category may appear: for example, determiners appear before nouns in English, verbs appear between a subject and an object in active English sentences.

Groupings of syntactic categories functioning as a unit are known as constituents. A phrase is a constituent that contains at least a head word; the head word determines the category of the phrase when it combines with another constituent. A sentence is defined (minimally) as the

combination of a noun phrase and a verb phrase along with the resultant tense and complementiser elements which indicate properties such as tense, mood and aspect.

2.2.4   Lexical features and their categories

Features allow for the distinction between different grammatical categories, as well as for subcategorisation within the same category; they determine the facts surrounding words (Uriagereka 1998:135). Sets of features combine to make up syntactic categories. The state of a certain feature is indicated in a binary fashion, using + or - to signify the presence or absence of the feature respectively.

The features contained in lexical items fall under three classifications: head features, specifier features and complement features. The head features are further divided into two classifications: interpretable and uninterpretable features. Interpretable features are those which provide the meaning-related information necessary for interpretation of the head structure. Uninterpretable features, on the other hand, are related to structural constraints that need to be satisfied during the course of a derivation. φ-Features, for instance, are a set of grammatical features which indicate the person or number properties of a given head.

2.2.5   Merge, move and phrase category formation

The operation whereby two constituents combine and project to form a larger constituent is known as Merge. The projected constituent phrase represents a combination of the constituent features via the uniform application of the Merge operation (Uriagereka 1998:176), and the features of one of the constituents, known as the phrase head, determine the properties of the resultant phrase.

In order to initially merge, a head must first select an appropriate complement constituent. It merges with this constituent and projects to form a larger constituent. The new constituent is

said to dominate the head and its complement; it is syntactically one level higher in the bottom-up hierarchical structure created by the Merge operation.

The underlying mechanism which triggers Merge and its resultant projections is that of feature valuation. A constituent contains certain features which trigger another constituent to select it as a target and subsequently merge with it. The targeted constituent is able to value some of its own features in this process; its features match and receive values from those of the targeting constituent.

The same operation takes place with constituents that are already merged into a derivation, but have not had all of their features valued. They need to seek out other constituents which can supply the relevant values to their features. If their complement cannot supply these features, the constituent will search for another constituent with which to merge. The searching constituent is known as a probe, and it searches for a suitable goal.

Once a probe finds a suitable goal, it triggers the copying of the smallest dominating phrase of that goal to merge with the copy. The entire phrase is copied because it contains the same features as its head, and the head cannot be extracted out of the phrase given that it projects it. The Merge operation is, as a result, directly dependent on feature checking to implement projections.

A head determines the category of a projection – all projections of a given head will be of the same category. A maximal projection is the highest projection of a head; it can only be dominated by the projection of another head and it does not project any further (Adger 2003:83). A head can also be a maximal projection in itself if it does not project further or dominate any constituent. It is the highest projection of its own phrasal category.

A phrase, then, is a maximal projection of a head (verb phrases are projections of verb heads, noun phrases of noun heads, and so on), and the maximal projection must immediately

dominate a constituent of the same category along with the complement constituent of the head.

Returning to the first merge operation explained above (where the target and targeting constituents are merged and projected), if there are any features which remain unvalued after the merge, then this triggers a further projection to find a feature-satisfying element. The projection creates a position (given the binary nature of binding) which must be filled by an appropriate element to value all features and satisfy the Full Interpretation requirement. In the case where the appropriate element is found within the existing structure, it will be copied and merged into the left edge of the existing structure. The previous copy is deleted, which results in the combined copy-merge-delete operations appearing as movement. The constituent which binds to the head is dominated by the projected phrasal category of the head it complements; when the head of a phrase projects, the projected phrasal category will match that of the head. In earlier studies it was argued that a head cannot move out of the phrase which it projects; its complements must move with it. This kind of movement is known as pied-piping, first introduced by Ross (1967). Some examples of movements that are triggered by feature valuation include head movement, noun phrase movement and Wh-movement. Agreement is what determines an item's morphological form via merge, although Kramer (2009:247-278) notes that sets of features within syntactic structures do not receive morphological realisation upon being incorporated in the syntactic structure. This occurs once the completed derivation is sent to the PF component.

2.2.6 The c-command configuration

The hierarchical relationships established through dominance are useful for predicting or prescribing various relationships between elements in a syntactic structure. The term constituent-command, or c-command, first introduced by Reinhard (1976) and widely adopted by inter alia Chomsky (1982, 1995), defines the commanding relationship a constituent has

over another as follows: One constituent (A) c-commands another constituent (B) along with all the constituents which B dominates, provided that A does not dominate B, while their projected node directly dominates both A and B.

The c-command operation and the structural relationship which it establishes plays a key role in Binding Theory (Chomsky 1986). In order for a binding element and a bound element to enter into a relationship, the binding element has to (in some cases) c-command the bound element; the two elements will be co-indexed. Reflexive and non-reflexive expressions, which are examined in Chapters 3 and 4 of this thesis, offer an example of this requirement. The notion of c-command is established within a specific syntactic configuration, relative to which the differing reflexives can situate themselves according to their distributional requirements. In other words, Binding Theory restricts the configurations where reflexive elements can appear in relation to a binding domain. An anaphor, such as *himself*, must receive its meaning from an element within its local domain (the smallest clause which contains it). The antecedent expression which supplies a reference to the anaphor must c-command the anaphor within this local domain. Pronouns, contrastingly, must specifically receive their meaning from a c-commanding antecedent outside of their local domains.

Quantifier scope also relies on the c-command operation. Hornstein (2001:27) indicates that quantifiers are attracted to the specifier position (spec-) of an inflectional phrase (i.e. a TP in this case) and to spec-vP to have nominative or accusative case assigned in these positions, respectively. Interpretation of the quantifier phrase is determined by the scope one quantifier has over the other; the c-commanding quantifier is said to have scope over the quantifier it c-commands.

2.2.7 Verbs as predicates with arguments

Verbs can be categorised into various types depending on whether they require object complements or not. Verbs that require complements are termed transitive, whereas those

that do not are intransitive. Some verbs require a subject and two objects – one direct and one indirect object. These kinds of verbs are known as ditransitive verbs. The entities which participate in an action or event described by a verb are known as the verb's arguments, while the verb is their predicate. Intransitive verbs require only one argument – the subject, or performer of the action denoted by the verb. These verbs are thus considered one-place predicates, while transitive verbs, which require both a subject and an object, are known as two-place predicates. Ditransitive verbs, in contrast, are three-place predicates. Like one and two-place predicates, they have a subject and object, but they require an indirect object relating to the source, instrument, location, etc. of the direct object. Some transitive verbs have restrictions as to the kinds of syntactic objects they may take. *Like*, for example, can only take a CP or DP as its complement.

2.2.8   Themes, θ-roles and the θ-Criterion

Verbs also have semantic restrictions on the nature of arguments that they may select; certain verbs require their subject to be a volitional participant, illustrated by the semantically unacceptable example in (3).

(3)   *The table enjoys the party.

The restrictions on the type of argument a verb may select is determined by the argument's thematic relation with the verb, i.e. what role it performs in the activity denoted by the verb. In the above example, *enjoy* requires an agent or experiencer. There are various thematic relations that an argument can enter into with a verb. This kind of classification indicates the semantic relationships, known as thematic roles or theta- (θ-) roles, which exist between the verb and its arguments. The thematic roles are reflected within syntactic representations via θ-roles that the verbs assign. These are the collections of thematic relations encoded in a verb's lexical entry (Adger 2003:60-62).

The θ-Criterion specifies that verbs must assign exactly one θ-role to each of the argument positions it has; i.e. one θ-role for each participant in the action (den Dikken 2013:272). It thus enables semantic roles to be situated within syntactic positions. Violation of the θ-Criterion can result from too few or too many arguments compared to how many the verb requires, or from having arguments of the wrong type (either of the wrong syntactic or semantic category). θ-Grids provide a representation of the θ-roles a verb will assign. In the following example, the θ-roles of source, theme, and goal are assigned to three arguments as indicated in the θ-grid representing the arguments of *put* (note that it could alternatively be argued that the DP *the bag* is actually assigned the goal θ-role by the P *in*). The arguments are differentiated by the use of indices *i*, *j*, and *k*.

(4)   [She]$_i$ put [the cat]$_j$ [in the bag]$_k$

PUT		
Agent **DP**	**Theme** **DP**	**Goal** **PP**
i	j	k

The agent θ-role is assigned to the subject; it is the external θ-role, while the objects are assigned the internal θ-roles of theme and goal. Some verbs do not assign any θ-roles. These verbs take the expletive *it* as subject, but in this case, *it* is not the experiencer, goal, or any kind of participant in the action denoted by the verb which it specifies and will consequently not receive a θ-role. The absence of *it* results in ungrammaticality, while its presence results in convergence (and thus grammaticality), with all necessary θ-roles (i.e. none) having been assigned in accordance with the θ-Criterion. This can be seen in the following example sentence set:

(5)   (a)   It is raining.

(b)   *Is raining.

(c)   *The weather is raining.

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This contrast indicates that there is another constraining principle at work. The Extended Projection Principle (EPP) (Chomsky 1986) specifies that all clauses must have a subject. In syntactic terms, this means that the specifier position of the tense phrase, for instance, must be filled (by *it* in the above example). Even though *it* is not assigned any θ-role by *rains*, it is required as a syntactic subject. An expletive *there* fills the subject position when no other suitable argument is available; a subject is required regardless of whether there is a θ-role to be assigned to it or not.

A syntactic structure cannot predict what θ-role(s) will be assigned within it, but simply that there will be θ-roles assigned, due to its structure and constituents (Adger 2003:66). Lexical items have categorial selectional features (c-selectional features). These features specify what type of element the lexical item can merge with. A verb, for example, merges with a nominal element, rather than an adjectival or verbal element:

(6)   He kicked the ball. / * He kicked wooden. / *He kicked laughed.

If a verb merges with a nominal complement and there are unvalued selectional features after this merge operation, it will trigger a further merge operation (again, as before, to fulfil the condition of Full Interpretation). During both of these merge operations, θ-roles are assigned to the nominal elements selected for the respective merge operations. The specifier position is formed when an unvalued θ-role feature of the verb triggers an intermediate projection which has to merge with another nominal element in order to check the θ-role feature. The verb typically assigns a θ-role of theme to its complement in the first merge operation, and a θ-role of agent to its specifier in the second merge operation. The verb enters into head-complement and specifier-head relations with the two nominal elements, respectively.

2.2.9   Case feature valuation

In various languages, nominal elements may have several case forms. English personal pronouns provide a good example of this. As a subject, the personal pronoun for talking

about oneself takes the form *I*, whereas it takes the form *me* as an object in English. The same applies to the 3rd person personal pronouns *he/she* as subjects, which take the forms *him/her* as objects, respectively. This difference in form is ascribed to the assigning of case via the mechanism of feature valuation at the different syntactic positions they occupy. Although all DPs need to be assigned a case, it does not necessarily follow that they will change their morphological form as in the case of personal pronouns.

The specifier features of a Tense Phrase (TP), require an element with an unvalued nominative feature [*u*-nom] as specifier (the T-head supplies the feature valuation to the specifier position). When an appropriate element enters the specifier position, this feature is valued by the [*v*-nom] feature of spec-T and is thereby interpretable at LF.

In the same way that subjects require specific feature valuation from a tensed head, the head of a phrase can also require a specific type of complement. As the head of a TP, for example, the auxiliary *will* requires an infinitive verb as complement, while the auxiliary *had* takes a past participle verb as complement. The complement of the verb is assigned accusative case. A verb's specifier feature is passed up to the next head (T) if it is not valued during its first merge operation; the specifier position of the T is then able to value this feature in its local domain.

2.2.10 The VP Internal Subject Hypothesis and VP shells

Given that θ-roles are assigned within the projection of a verb, it stands to reason that this is also where case is assigned. A nominal element such as a DP enters a derivation with its case features unvalued. Before it can satisfy the specifier features of the TP (as noted above by virtue of having a nominative feature), it must first have acquired its nominative feature at an earlier stage in the derivation i.e. in the specifier position of the light verb.

Evidence for the subject originating in this position is found within the construction of floating quantifier phrases. A quantifier phrase such as *all the animals* can either be attracted

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to the specifier position of TP in its entirety: *All the animals will eat*, or the DP within it can be extracted: *The animals will all eat*. In both cases *the animals* comes from below the tensed element, *will*, and the only available position is that of spec-*v*P, a light verb phrase affiliated with the VP, hence the VP-Internal Subject Hypothesis (Koopman and Sportiche 1991).

With transitive and intransitive verbs, there are at most two positions to fill: the specifier and complement positions in the case of transitive verbs and only the specifier position in the case of intransitive verbs. A θ-role is assigned in each filled position. Ditransitive verbs (three-place predicates), however, need another position for θ-role assignment. The verb can assign a θ-role to the direct object in its specifier position (in the case of two-place predicates) and another θ-role to its complement. The difficulty, notes Larson (1988), is that the subject of the verb must get its θ-role in a specifier position. He thus suggests merging the VP with a light verb which projects, and via an EPP feature, opens up a subject position, where the light verb assigns a θ-role of agent.

Baker (1998) puts forward the Uniform Theta Assignment Hypothesis (UTAH). All θ-roles are assigned in uniform structural positions. A θ-role of theme will always be assigned in the specifier position of their related verb. The idea is that agent θ-roles are assigned in the spec-*v* position for three-place predicates; if one is to adhere to the UTAH, all predicates must have *v*Ps where they assign the θ-role of agent (θ-roles are assigned locally, i.e. to the specifier complement of the verb).

Agreement involves the valuation of certain features between constituents, for example person or number features, or case features. Verbal shells facilitate various kinds of agreement. The specifier-head configuration enables the assignment of case, given that verbal shells are comprised of light verbs which merge with a verb phrase and project a specifier position, which stands in a c-command relation to the VP. The notion of a verbal shell furthermore opens up the possibility of having numerous specifier positions, each of which

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aids in specifying a type of relationship with, or agreement property of, the verb. Verbal shells house features such as person, number, etc. and any type of constituent is able to merge with it, provided it contains the necessary features to value those of the verbal shell; "they encode agreement" between verbs and subjects (Uriagereka 1998:335). A noun phrase which lands in the specifier position of a light verb must contain suitable case and agreement features, which will be valued when it enters into this specifier-head configuration (Uriagereka 1998:305).

## 2.3	Core concepts and driving forces of the Nominal Shell Analysis

### 2.3.1	Introduction - the aims of the Nominal Shell Analysis

In Oosthuizen's (2013) work, he puts forward and explores a theory of obligatory reflexivity which he terms the Nominal Shell Analysis. This analysis accounts for the fact that referential expressions must get their references from other expressions (called referents) within a sentence, and are thus dependent on these expressions for their interpretation. Oosthuizen's analysis is an attempt to account for reflexives in a framework that addresses and avoids the shortcomings of Chomsky's Binding theory (Oosthuizen (2013:6-8). According to the analysis, the expressions are distributed within a nominal shell structure, i.e. the projection of a light noun, which indicates the relationships between the two expressions and thereby also their obligatory reflexivity.

The aim of the Nominal Shell Hypothesis is to provide a syntactic account of the devices and conditions necessary for these referential relationships to be established. A key guiding mechanism within this endeavour is that one must remain within the scope of Minimalist Syntax and make use of strictly those devices and features available to it.

Two main objectives were identified to provide a satisfactory account of the Nominal Shell Analysis. Firstly, the assumptions and devices available under its hypotheses need to be set out, and secondly, it needs to be established whether the Nominal Shell Analysis is

empirically and conceptually adequate (Oosthuizen 2013:1). Does it (i) account for the relevant facts and (ii) employ theoretical devices of Minimalist Syntax or those which are compatible with its core assumptions? To explore these considerations in relation to the Nominal Shell Analysis, Oosthuizen (2013) examines a number of reflexive pronoun constructions and where their reflexive pronouns could be situated within a sentence to arrive at a syntactic theory of obligatory reflexivity.

2.3.2   The five generalisations

Oosthuizen (2013:2-3) highlights five generalisations to describe the relations between referential expressions (expressions that refer to something) and their referents. An example to illustrate this can be seen in the following sentence:

(7) $Jack_i$ giggled to $himself_i$.

Both *Jack* and *himself* refer to the same person; an entity in the real world – in this sense the two items are coreferential as they refer to the same external entity.

The first generalisation Oosthuizen (2013:3) makes is that some referential expressions have intrinsic meanings which they use to select referents by themselves; they are "referentially independent" referring expressions, or "r-expressions" (Oosthuizen 2013:3). In sentence (7) above, *Jack* is such an expression. It does not depend on any other expression to indicate what entity it refers to in the real world.

In contrast to r-expressions, anaphors depend on other expressions for their interpretation. Having no intrinsic meaning, they receive their meaning via the antecedent (a preceding expression which assigns its meaning to the anaphor). This is the second generalisation Oosthuizen (2013:3) presents. *Himself* in sentence (7) is an example of an anaphor; it points to an entity in the real world, but does this through the antecedent expression *Jack*. Without

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an appropriate antecedent expression, there would not be an indication as to which real world entity it refers.

As a third generalisation, some expressions function as both r-expressions and anaphors. These expressions are known as pronominals. They can select their reference through an intrinsic meaning, or dependently via an antecedent (Oosthuizen 2013:3). Consider the following sentence:

(8)   Ben$_i$ wanted the ball thrown to him$_{i/j}$.

In this sentence, *him* could either receive its meaning from *Ben* and thus be classified as an anaphor, or it might refer to another person (not *Ben*), and would thus be classified as an r-expression, given that in this case it selects its referent directly and not through another expression.

The fourth generalisation is that several grammatical conditions apply when a coreferential relationship is formed between a referentially dependent expression and its antecedent, (Oosthuizen 2013:3). They must, for example, carry the same φ features (that is, agree in person, number and gender), which accounts for the ungrammaticality of the second, third and fourth alternatives in the sentence in (9) below:

(9)   The boy giggled to himself / *herself / *yourself / *themselves.

Furthermore, the referentially dependent expression and its antecedent must be within a local domain, i.e. under the same structure projected by the head of a phrase. This requirement can be illustrated by looking at the following sentence:

(10)   *Mary$_i$ cried that the boy giggled to herself$_i$.

Here, *herself* cannot refer to *Mary*. It is too far away in the sense that *herself* is within the verb phrase headed by *giggled* in the subordinate clause, whereas *cried* heads the verb phrase containing *Mary* in the main clause.

This brings us to the last generalisation. In drawing a distinction between the references of anaphors and those of pronominals, Oosthuizen (2013:4) notes that an anaphor's reference comes from an in-domain antecedent, whereas a pronominal's reference cannot. Where anaphors take their references from their local domain, pronominals can only take theirs from outside of the local domain. Consider the following sentences:

(11) She_i sings to $herself_i$.

(12) She_i sings to her_j.

The anaphor *herself* in (11) can only take its reference from *she*, an antecedent in the local domain, whereas *her* cannot take its reference from *she* in (12); it must get its reference from another antecedent.

To account for these five generalisations, Oosthuizen (2013:4) proposes two requisites. Firstly, one must be able to distinguish the three kinds of expressions (r-expressions, anaphors and pronominals) by formal means, i.e. in terms of grammatical features (Radford 2009:458). Secondly, one must be able to account for the coreferential relationship between a reflexive pronoun and its antecedent. Oosthuizen (2013) articulates this relationship through nine hypotheses which serve as an analysis of the structural configuration and the various elements that come into play within reflexive pronoun antecedent coreferential relationships. In this regard, reflexive pronouns are analysed by examining verbal object and double object constructions (Oosthuizen 2013:32, 83), prepositional object constructions (Oosthuizen 2013:61), raising and control constructions (Oosthuizen 2013:92, 98), small clause constructions (Oosthuizen 2013:110) and possessive constructions (Oosthuizen 2013:114), all

containing reflexive pronouns. Possible antecedents of the reflexive pronoun include subject expressions, direct or indirect object constructions and prepositional objects.

2.3.3   Forming the nominal shell

At the foundation of the Nominal Shell Analysis is the idea that two expressions which enter into an obligatory coreferential relationship are initially merged within the same constituent (Oosthuizen 2013:8). An identity-focus light noun projects to form a nominal shell structure of which it is the head. It has unvalued case, θ- and φ- features and "is the locus of the affix *-self*" (Oosthuizen 2013:41), a suffix which indicates a coreferential relationship between a reflexive pronoun and an antecedent in Afrikaans (Oosthuizen 2013:10).

Within the nominal shell structure, the identity-focus light noun takes a reflexive pronoun as its complement and contains an identity-focus feature along with unvalued case and φ features (Oosthuizen 2013:41). This complementing pronoun is formed by merging a category-neutral lexical root √PRON with a D-constituent containing unvalued case and φ features. After the lexical root √PRON and D-constituent are merged, the reflexive pronoun is raised to the identity-focus light noun and spelled out (Oosthuizen 2013:42). The antecedent expression is merged as the specifier of the compound light noun, where it is able to value the φ features of the reflexive pronoun (Oosthuizen 2013:41, 44). In this process, the φ valued pronoun gets semantically interpreted as an anaphor and the nominal expression found in the specifier position of the phrase is interpreted as the antecedent. The pronoun is obligatorily coreferential with the nominal expression and their coreferential relationship is explained purely by means of syntax (i.e. via syntactic devices) rather than through special lexical features[2] (Oosthuizen 2013:34).

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[2] In Chomsky's (Cook and Newson 2007:76-78) view on x-bar principles, lexical items dictate the structure of projections (and thereby the properties of phrases) on the grounds of the "categorial information" they provide. Differentiating between anaphors, pronominals and r-expressions would, for example, in this view entail introducing special lexical features of "[a(naphor)] and [p(ronominal)] (Oosthuizen 2013:5), which is less economical and elegant than a purely syntactic account.

2.3.4　Reflexive pronouns in Afrikaans

Reflexive pronouns can have one of two forms in Afrikaans. The first is a morphologically simplex form which has the same form as accusative personal pronouns in Afrikaans (e.g. the second word in these subject-object pairs: *hy-hom, sy-haar, jy-jou*) (Oosthuizen 2013:10). The second is a morphologically complex form which takes a −*self* suffix (e.g. *homself, haarself, jouself*) and functions as a focus marker. It puts the focus on the "relationship of referential identity between the subject and the syntactic object of the verb" (Oosthuizen 2013:41). The simplex form of a reflexive pronoun can be used as a reflexive or non-reflexive in the same domain. The same holds true for possessive pronouns, which can also have reflexive or non-reflexive interpretations, but do not (standardly) take the -*self* suffix (Oosthuizen 2013:17, 27).

Inherently reflexive verbs or prepositions are verbs or prepositions which take reflexive pronouns as their complements. They do not take arguments as their complements (Oosthuizen 2013:12), and can pair up with either simplex or complex pronoun forms. Where constructions contain an inherently reflexive verb or preposition, either morphologically simplex or complex forms of reflexive pronouns are acceptable.

The variation in allowed forms can be accounted for by classifying pronouns as either strong or weak. Complex −*self* forms of pronouns are always strong; they merge with the identity-focus light noun head in a nominal shell. If an inherently reflexive verb or preposition is used in a sentence expressing reflexivity and it takes the complex form of the reflexive pronoun as complement, this pronoun will receive stress instead of the verb receiving primary stress (Oosthuizen 2013:152-153). Weak pronouns, on the other hand, do not receive primary stress. Thus, when an expression contains an inherently reflexive verb or preposition, there are two forms which can be used to express an obligatory reflexive relationship: a weak pronoun without a −*self* suffix, or a strong pronoun with −*self* (Oosthuizen 2013:60-61).

The complex form of the reflexive pronoun is possible with verbs or prepositions that are not inherently reflexive, as is commonly found in colloquial speech (Oosthuizen 2013:30). In this case, the –*self* suffix necessarily indicates obligatory reflexivity. On the other hand, the verbs and pronouns of certain semantic classes can also take the simplex form of the reflexive pronoun and receive a reflexive interpretation.[3] The semantic classes in question include verbs denoting self-directed actions (Oosthuizen 2013:13-14), resultative and mental appraisal verbs (Oosthuizen 2013:25), and prepositions which assign θ-roles of agent, possessor, or theme to their complement noun phrases (Oosthuizen 2013:20).

The Afrikaans verb *beskerm* (*protect*) is an example of a self-directed action verb which is not inherently reflexive. It can take a complex -*self* containing reflexive pronoun such as *homself* (himself) as complement, or the simplex form (*hom*, him) in which case it can be interpreted either as self-directed or other-directed. Mental appraisal verbs follow the same pattern*: Hy beskou hom 'n ware Suid Afrikaner* (He considers him/himself a true South African). Here *beskou* is only obligatorily reflexive when *himself* is used. When using *hom*, it may refer back to *Hy*, or to someone else. Prepositions which assign θ-roles of agent, possessor, or theme can likewise be interpreted reflexively or non-reflexively. In the phrase *sy antwoord* (*his answer*), *antwoord* assigns a possessor θ-role to *sy*, which can be interpreted as either referring back to the self or to another entity. What is important to note in each of these cases, however, is that there is ambiguity as to whether the reflexive pronouns are obligatorily reflexive or not.

Some constructions containing the simplex form of the reflexive pronoun (or a possessive pronoun which has the same form as the simplex reflexive pronoun) allow for either a reflexive or non-reflexive interpretation of an antecedent within the same domain, but this

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[3] Oosthuizen (2013:124) noted a change in the syntactically versus pragmatically reflexive constructions in West Germanic languages: -*self* forms replaced personal pronouns, where personal pronouns previously could be either reflexive or non-reflexive. The analysis of obligatory reflexivity within the framework of Minimalist Syntax also draws from other frameworks dealing with word order and linearisation in Germanic languages.

cannot be established on purely grammatical grounds (Oosthuizen 2013:59); there is neither a –*self* suffix to indicate reflexivity, nor an inherently reflexive meaning provided by the verb. The reflexive or non-reflexive interpretation is determined by non-linguistic information and it is for this reason that a distinction can be drawn between grammatically reflexive sentences and pragmatically reflexive sentences. Grammatically reflexive sentences contain a nominal shell headed by a light noun. The nominal shell is created as a result of the identity-focus light noun merging with an inherently reflexive verb or preposition; pragmatically reflexive sentences do not contain nominal shells.

There are two possessive constructions which call for obligatory reflexive interpretations of their pronouns. The first is a pronoun which indicates possession involving a whole-part relationship between a person and their body parts or internal actions, i.e. a "whole-part genitive construction" (Oosthuizen 2013:28):

(13) Hy_i kon sy_i oë nie glo nie.

       he could his eyes not believe

       "He couldn't believe his eyes"

(14) $Marie_i$ kon $haar_i$ trane nie terug hou nie.

       Marie could her tears not back hold

       "Marie couldn't hold back her tears"

In sentences (13) and (14), the possessive pronouns can only refer to the respective person denoted by the agent in each of the sentences.

The second possessive construction requiring an obligatory reflexive interpretation is one which refers to "actions or mental states of an agent directed at a non-agent entity" (Oosthuizen 2013:28):

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(15)   Jan het vir Kobus$_i$ teen sy$_i$ oor geklap.

Jan has for Kobus against his ear slapped

"Jan slapped Kobus on his ear"

In contrast to the previous possessive constructions of (13) and (14), in sentence (15) the pronoun reflexively points to the non-agent entity, and not to the agent.

Having completed the central analysis and layout of the Nominal Shell Analysis, Oosthuizen (2013) extends it to four further construction types: contrastive-focus light nouns and possessor-focus light nouns (2013:114-123), quantity-focus light nouns (2013:130-138) and presentational-focus light nouns (2013:138-144). These constructions likewise employ a nominal shell structure and are headed by possessor, quantity and contrastive-focus light nouns, respectively. Chapter 4 of this thesis provides a further investigation of the Nominal Shell Analysis by applying it to the restrictive relative clause construction in Afrikaans.

Chapter 3

LITERATURE REVIEW

3.1   Overview

This chapter will explore various prominent analyses of the relative clause construction to date. The exploration will include analyses which fall within the scope of Minimalist Syntax, along with those of other generative theories which have had a significant influence building up to the currently accepted theories.

The review of literature within this chapter focuses on the second research objective set out in section 1.3 of the introductory chapter: to assess previous analyses of the relative clause within the framework of Minimalist Syntax and with regard to the value they carry as a precursor to the Nominal Shell Analysis. The first objective was met in the preceding chapter, providing the necessary background information and introducing key concepts and mechanisms of Minimalist Syntax and the Nominal Shell Analysis.

In providing an overview and critical evaluation of the contrasting relative clause construction analyses, this literature review provides the context for the third and fourth objectives (recall that the third objective is to critically evaluate the Nominal Shell Analysis and its application to sentences containing relative clause constructions, while the fourth objective is to consider and suggest further areas of study beyond the scope of this research). These two objectives are covered in the two chapters subsequent to the literature review.

By critically examining previous analyses of the relative clause and weighing up their merits and drawbacks alongside those of the Nominal Shell Hypothesis, a significant contribution can be made to the body of research surrounding the relative clause construction. The inspection of the aforementioned literature will essentially provide benefit in the form of a

focused discussion and analysis of the literature. This will, in the first place, strengthen and foster the critical understanding of the relative clause construction and, secondly, provide justification for the need for further research.

As a starting point, alternative interpretations of the relative pronoun and relativization are evaluated. With this as a background, a widely accepted analysis of the relative pronoun, its related mechanisms and interplaying constituents is briefly set out.

3.2   Introduction

The analysis of relative clauses within the framework of Minimalist Syntax is an academic debate that has become very lively in recent years. Although Radford's (2009) work represents the most commonly accepted view of relative clauses, there are various other opinions and analyses that serve as contemporary and alternative analyses.

This literature review firstly enters into a discussion of the different approaches to deriving relative clauses implemented by adherents to the Minimalist Syntax framework. Following this, it describes and uses Radford's approach to demonstrate that despite the variations in argument among the other authors mentioned, Radford's analysis of relative clauses remains at the forefront.

3.3   Theoretical framework

Linguists have been interested in how relative clauses are formed for many years. The academic debate surrounding the issue has largely been rooted in Chomsky's theory of Universal Grammar (Chomsky 2006, 2014). The literature on relativization proceeds almost entirely from this theoretical framework, and this means that most analyses of relative pronouns are in some way influenced by the propositions of Universal Grammar.

Cook and Newson (2007:1) emphasise the pervasive effect of Universal Grammar within the domain of linguistics. They observe that even though linguists might not subscribe to the

framework offered by the theory of Universal Grammar, their analyses often originate as reactions to it, both in terms of language and language acquisition theories, as well as the methods employed in describing language use. For the proponents of Universal Grammar, then, the debate over relativization is essentially one that seeks to affirm the validity of the claims made within the Universal Grammar framework.

With respect to relativization, Chomsky argues that the Accessibility Hierarchy is essential for understanding the concept that all languages follow the same relative left-to-right structure (Cook and Newson 2007:22).

Much of the debate regarding Universal Grammar can be traced to Chomsky's Minimalist Programme, as instantiated by Minimalist Syntax. Although Chomsky frames the Minimalist Programme not as a theory, but instead as a programme or project, this school of thought has come to be dominant within the academic discourse on relativization. This is partly because of the prevalence of subscribing to Universal Grammar among linguists, and partly because substantial critiques of Minimalist Syntax, as the theoretical application of the Minimalist Programme, did not arise until the late 1990s. Many studies and academic analyses of relativization have therefore been situated within this framework, which is very dominant within the field of linguistics today.

The importance of the Minimalist Programme, and Minimalist Syntax by extension, cannot be overstated. It strives for elegance and simplicity within the mechanisms it employs to explain the acquisition of (a) language within the constraints of a finite set of rules, or parameters. With this as a goal, the endeavour of the Minimalist Programme perceives language as "a 'perfect' or 'optimal' system, reducible to a few very general principles such as Merge and Economy" (Culicover and Jackendoff 2005:13). It therefore represents an approach that defines a methodology and viewpoint of what language is, and creates not just a context for

Universal Grammar, but a methodology and global taxonomy to aid in our understanding of languages.

3.4   Contrasting analyses of relativization

The debate over relativization has intensified in recent years, as it both reflects and contests notions of the most commonly held or commonly accepted views of language generation. If relativization is a phenomenon that can be explained outside of Universal Grammar, then this might cast doubt upon the validity of Chomsky's theory. Conversely, if it can be situated within a more generalist or minimalist understanding of grammar, then Chomsky's theory gains strength.

3.4.1   Borsley (1992)

The debate over how to analyse relative clauses within Government-and-Binding theory, as the precursor to Minimalist Syntax, sought to situate the phenomenon of relativization within a theory that largely asserts that restrictive relative clauses in English function as modifiers (or predicates as Borsley (1992:139) notes), whereas this is not the case for non-restrictive relative clauses.

This is a theory which was first proposed by Fabb in the late 1980s / early 1990s (Fabb 1990). Borsley, however, critiques this approach and believes that he provides sufficient evidence to render many of Fabb's claims to be inaccurate, claiming that since it is based on Williams' (1980) refuted hypothesis that a predicate must take a nominal subject, it is likewise unsound (Borsley 1992:148). Ultimately, Borsley argues that although Fabb predicates his argument on the role of Spec-Head agreement, this argument is problematic upon further review. He criticizes that the system of index-configuration which Fabb employs in his account neither encompasses the full set of possible examples, nor does it exclude examples which result in ungrammaticality due to the LF-movements Fabb appeals to. Borsley thus sets up an academic debate by explicitly stating that Fabb's conclusions are unsustainable. He holds the

view that Fabb's theory paves the way for constructions that either do not exist or that are ungrammatical.

3.4.2   Sag (1997)

In a 1997 paper, Sag outlines a taxonomy of relative clauses, distinguishing them by the type of construction they represent and the type of constraint they require (Sag 1997:431). Sag conceptualizes relative clauses within the framework of Head-Driven Phrase Structure Grammar (HPSG), yet also as containing an independent dimension that serves clause related functions (Sag 1997:477). In Sag's view, this dimension allows precision when dealing with various constructions; rather than dictating adherence to construction-specific rules, it fosters a principle-based account via multi-layered constraint inheritance within the constructions. Sag thus contributes to the debate on relative clauses partly because of the way he synthesizes HPSG along with the new dimension, and partly because of the hypothesis he posits at the end of his paper, which situates him in a different theoretical camp than many of the big names in linguistics: "If it is indeed possible that even phenomena as grammatically complex as English relative clauses can be analysed in terms of a type system like the one presented here, then perhaps less of language has to be thought of as 'hard-wired'" (Sag 1997:478). The implications of Sag's claims move him away from the minimalist school somewhat in his rejection of the biological basis for human language. Since Minimalist Syntax is rooted in Chomsky's notion of Universal Grammar (Chomsky 1995), Sag's findings and thesis strike at the core of the theory that unites these different analyses.

3.4.3   Wiltschko (1998)

Wiltschko (1998) focuses on the difference between personal pronouns and d-pronouns (or, in Radford's (2009) terminology, pronominal d-constituents) that function as relative pronouns in German (Wiltschko 1998:143). She comes to the conclusion that d-pronouns head determiner phrases and merge with empty NPs, while personal pronoun constructions do not

house an NP and are rather taken as a representation of their φ-feature spell-out (Wiltschko 1998:143). That is, in German there is a relatively uncommon feature which enables the so-called d-pronouns to be used in relative clauses. Wiltschko examines the rules whereby d-pronouns, but not personal pronouns, are used in relative clauses, even though they can often be used interchangeably. She argues that d-pronouns and personal pronouns are two distinct lexical items and concludes that despite what many linguists believe, these two pronoun constructions do in fact differ in their constitution. Wiltschko furthermore emphasizes that operator-variable-chains in relative clauses are bound by restrictions in range (Wiltschko 1998:179). She notes that this phenomenon is not isolated to German since there are cross-linguistic correlations that follow the same structure, yet it is not allowed in modern English. The implications of Wiltschko's analysis are that relative pronouns possess a more unique, prescribed structure than what the other linguists within this review acknowledge, and this sets her view apart from the others within the debate.

3.4.4 Authier and Reed (2005)

In 2005, Authier and Reed summarized the debate over relativization during the 1990s and mid-2000s. They attributed the growing inclination toward head-raising analyses of restrictive relative clauses in English to the fact that in employing these analyses, the focus does not lie on predication or identification conditions when dealing with null operators (Authier and Reed 2005:635). They evaluate Aoun and Li's (2003) claims regarding the diversity of Wh-constructions (Aoun and Li 2003), in contrast to Authier and Reed's (2005) view. Authier and Reed, however, propose that there is a Wh-feature which draws nominal phrases and elements to the specifier position of a complementiser phrase. The 'visible' Wh-element, then, is the morphological spell-out of this feature, with a spell-out of *who* more common than one of *which*. They consequently claim that this suggests an agreement relationship between the Wh-element in the specifier position and an NP head with a [human] feature (Authier and Reed 2005:645). In light of this, they conclude that this use of Wh-

features means that the features are not undergoing move and merge operations by themselves; their entire containing phrase cyclically moves through the specifier position of the complementiser phrase to the specifier position of the Focus Phrase (FP) (Authier and Reed 2005:645). They note, however that when non-quantificational DPs bind with arguments, there will not be weak crossover effects as they bind in place of the Wh-element. Meanwhile, if the cleft phrase is a quantifier phrase, the authors predict that there will be weak crossover results – a finding shared by Postal (1993), as noted by Authier and Reed (2005). Authier and Reed (2005) analyse relativization as a discrete phenomenon, as opposed to a sub-process of pronoun usage.

3.4.5   De Vries (2006)

De Vries (2006) focuses on appositive relative clauses. In his view, appositive relatives take up the specifier position of their visible antecedents. Their head positions are initially empty, as is the case with the restrictive clauses in this view; appositives and restrictive clauses are analysed within the same structure though they differ in the processes involved in their coordination and the resultant behaviour (de Vries 2006:229).

In his review of the literature on appositive relatives, de Vries (2006:267) differentiates between true free relatives and semi-free relatives, but notes that the structure he proposes is compatible with both of these types of relativization. Using the promotion theory, he creates a logic for relativization based on data from Germanic and Romance languages that emphasizes how different appositive relatives are from relative clauses.

3.4.6   Adger and Ramchand (2005)

Adger and Ramchand (2005), meanwhile, have investigated Wh-dependencies and how they arise. They speculate that Wh-dependencies are either created in the course of movement, or base-generated within an agreement relationship, facilitated by an agreement feature (Adger and Ramchand 2005:161). Using Scottish Gaelic and Irish, the authors focus on Celtic to

argue that there is a link between these two ways of arising; the syntactic features in each case correspond to their interpretations on a semantic level.

3.5   Implications of the various analyses

Overall, the vast majority of contemporary academic studies and analyses of syntax have been in alignment with, or stem from the Minimalist Programme, as instantiated by Minimalist Syntax, with only a few cases where researchers have disagreed with its fundamental assertions. With regard to the analysis of relativization, however, there remains a divide. Some view relativization as a generalizable phenomenon that has many correlates within linguistics more generally, while others believe that it is a discrete grammatical operation.

The implications of this academic divide are more meaningful than they might initially appear. Within the framework of a Universal Grammar and the Minimalist Programme (Chomsky 1993), the process of relativization has especial weight. If it is simply a subset of pronoun usage, then it will provide more evidence in favour of the Minimalist Programme and Minimalist Syntax. On the other hand, if the theory holds whereby the process of relativization is fundamentally and substantively different from more general pronoun usage, then the project of minimalism has run into an issue. This additional process of syntax would not fit as elegantly within the constraints of Universal Grammar. Furthermore, with respect to Universal Grammar, the issues surrounding relativization are again brought to light, since relativization entails different meanings and structures in different languages.

The preceding review of these studies has highlighted the areas of consensus in this debate, as well as some ways in which Chomsky's theories have come to dominate the field of linguistics. Even though linguists are divided on specific meanings and entailments of relativization, a historical representation of the debate reflects the far reach of Chomsky on generative syntax and of Universal Grammar within the study of linguistics. Looking forward, views on these theories may change. At this point, however, the adherence to these

theories of relative clauses within Minimalist Syntax highlights the scale and scope of the debate.

It is important to zoom in on Radford within this academic study, to explore the significance of his stance with respect to relativization within Minimalist Syntax, given that it represents a view shared by such a large number of linguists. Radford's view is explored in detail in the next section, which seeks to explain not just his findings, but why the view he holds has come to represent a widely accepted one within the field.

3.6   Radford (2009)

Radford's (2009) work is in line with Chomskyan theories. Like many of the linguists discussed in the preceding sections, Radford promotes the so-called Minimalist approach to syntax, which was originally pioneered by Chomsky (1995). Radford (2009:14) reiterates Chomsky's basis for the goals within the Minimalist Programme – to streamline theoretical and descriptive devices in the development of an elegant, consolidated linguistic theory which aims to arrive at an optimally designed language system (Radford 2009:14). Within this system, grammar-generated structures are able to interface with other systems involved in the process of language production, namely those involved in speech and thought.

Like many of his contemporaries, Radford treats the phenomenon of language as irrefutable evidence of an evolutionary process that paved the way for brain structures uniquely shaped for the acquisition and use of language. Radford clearly spells out his adherence to these theoretical schools of thought and describes the major aspects of the literature to date.

As briefly touched upon in Chapter 1 of this thesis, Chomsky's theories (according to Radford) see language as an optimal system for linking sound with meaning (Radford 2009:14). The implications of such an approach are certainly noteworthy: a Minimalist approach to syntax involves removing obfuscations and drives towards perfection and efficiency. For this reason, Radford's (2009) proposed theoretical framework is not

substantively different from many of the other researchers described in this chapter. He approaches the topic informed by approximately the same literature, the same knowledge of academic debates, and employs a very similar way of thinking. What, then, has caused the view which Radford holds to be so widely accepted versus other analyses?

The specific locus of Radford's investigation with respect to relative clauses lies in Wh-movement operations, whereby certain expressions appear to move toward the edge of a sentence and end up in the specifier position of a complementiser phrase (Radford 2009:183). Wh-movement in relative clauses in English involves Wh-words, including *which*, *who*, *where*, and so on. In Wh-movement within relative clauses of English, the Wh-word starts off as the complement of a verb and moves to the edge of its immediately containing clause. It can also involve pied-piping, though in colloquial English this phenomenon is often optional.

Radford, in his examination of syntactic processes within preposed interrogatives, exclamatives and relative Wh-expressions (Radford 2009:229), points out that since the specifier position of a complementiser phrase is an A-bar position, and given that Wh-expressions land in this position, it follows that Wh-movement is a type of A-bar movement. He thus asserts that Wh-movement within relative clauses is not a discrete phenomenon, but instead exists as a series of specific instances of a type of operation: relative clause constructions are theorized to be a series of a simple movement operations, rather than a distinct type of clause structure.

Radford draws this conclusion based on a methodology which includes many different aspects. On the one hand, he bases his conclusion in an extensive bibliographic background that, as mentioned above, is closely aligned with Chomsky's notions of Universal Grammar. On the other hand, he uses numerous examples in English to work through Wh-questions: the notion that Wh-movement may simply involve (i) instances of copying and deletion, (ii) the factors that drive Wh-movement, (iii) pied-piping with respect to Wh-words, (iv) pied-piping

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of superordinate prepositions, (v) the phenomenon of so-called long-distance Wh-movement (where Wh-elements go through a series of shorter movements which appear as a long-distance movement), (vi) multiple Wh-questions, (vii) Wh-subject questions, (viii) exclamatives and (ix) regular clauses. All of these aspects of Wh-movement found within his exhaustive discussion add to his conclusions regarding Wh-movement as simple instances of general A-bar movement operations.

Radford provides a taxonomy of Wh-movement in English and focuses on the different ways that the movement is brought about. The constraints he outlines create a generalizable understanding of Wh-movement, and strongly support his overall conclusions as to the prevalence of Wh-movement in English, which in turn have implications for relativization in other languages. The theorization of the conditions that lead to Wh-movement seems to reinforce the plausibility of Minimalist Syntax (movement as feature checking or valuation, for instance), as well as Universal Grammar, hypothesising that all languages share the same underlying building blocks and construction mechanisms. For this reason, it can be concluded that relativization constitutes a sub-feature of A-bar movement and is not a linguistic phenomenon in and of itself. The conditions that constrain Wh-movement operations include the Complementiser Condition, the Interrogative Condition, the Chain Uniformity Condition, the Attract Smallest Condition, the Economy Condition, Left Branch Condition, the Impenetrability Condition, the Relativised Minimality Condition, the Freezing Constraint, the Attract Closest Condition, and the Wh-attraction Condition (Radford 2009:229–230).

3.7   Conclusion

The analysis outlined by Radford (2009) seems to be the one that is broadly assumed in the literature; however, this may have more to do with the theoretical framework used than specific methodology. The notion that Wh-movement is really an instance of another

grammatical phenomenon may ultimately contribute more to the dominance of Chomsky's arguments than it does for the specific methods outlined by authors such as Radford. The prevalence of Chomsky's work is seen in this entire academic debate. The notion of Universal Grammar was, for instance, disputed by only one of the authors under review in this chapter – Sag (1997), which allows one to draw the conclusion that the theoretical framework it provides is generally accepted.

Furthermore, the analyses provided by the majority of the writers show that Wh-movement and the part it plays in relativization can meaningfully and empirically be situated within a linguistic framework that is compatible with the Minimalist paradigm. The implication of this general consensus is that relativization and the grammatical structures and processes it entails may serve as a useful tool to advance an understanding of the development of language. The move towards the Minimalist paradigm and arguments which support a Minimalist Syntax framework, i.e. one in which complex linguistic structures are essentially a succession of simpler ones, may serve as evidence to this end. An argument which proposes that relativization is a grammatical process in isolation from other processes goes against some of the fundamental aims and precepts which drive the Minimalist Programme, and it could be argued that it stands in opposition to the theory of Universal Grammar.

The simplicity of Radford's explanation in addition to the exhaustive taxonomy of Wh-movement possibilities serves to strengthen the idea that the attributes and procedures applied within relativization are instantiations of basic, yet widespread attributes and procedures which drive the grammar.

Chapter 4

A NOMINAL SHELL ANALYSIS OF RELATIVE CLAUSE CONSTRUCTIONS IN AFRIKAANS

4.1   Introduction

Having provided a brief introduction to Minimalist Syntax in Chapter 1, followed by an outline of its core mechanisms, along with those employed in Oosthuizen's (2013) Nominal Shell Analysis (of obligatory reflexivity) in Chapter 2, the study proceeded with a review of recent literature presenting a number of contrasting analyses of relativization in Chapter 3.

The examination of the literature revealed a widely adopted analysis, the one set out in Radford (2009), which will form the starting point of the syntactic analysis proposed in the current chapter. Recall that the primary objective of this study is to determine whether the general assumptions and mechanisms associated with the Nominal Shell Analysis can also provide an adequate framework for describing the facts of the relative clause construction in Afrikaans. More specifically, the question will be addressed as to whether the Nominal Shell Analysis approach can account for the coreferential relationship between a relative pronoun and the nominal expression with which it is associated semantically, that is, its antecedent. To this end, the discussion in this chapter will be organised around the following main issues:

1. A brief, non-formalistic description of the Afrikaans relative pronoun construction, including its various configurations and the distribution of relative pronouns: the properties of the construction as such, and the relationship between the (various types of) relative pronouns and their antecedents (section 4.2).

2. A brief overview of the conventional Wh-movement approach to the analysis of reflexive constructions (as described by Radford (2009)) as the general explanatory

framework, paying specific attention to the steps involved in the derivation of such constructions (section 4.3).

3. An investigation of whether the general assumptions and mechanisms of Oosthuizen's (2013) Nominal Shell Analysis can provide an adequate framework to account for the relationship of obligatory coreferentiality between a relative pronoun and its antecedent (section 4.4).

4.2   A non-formalistic description of the relative clause construction in Afrikaans

Relative clauses can be divided into two broad categories. Alexiadou , Law, Meinunger and Wilder (2000:5) point out that relative clauses may only occur as complements of NPs or DPs, following Chomsky's (1986) claim that maximal projections can only adjoin to other maximal projections. On the one hand, a restrictive relative clause is interpreted within a determiner's scope and it modifies a particular entity or set of entities that is involved in the proposition expressed in the matrix clause. That is, it narrows down the elements that the relative pronoun can refer to in order for the appropriate reference to be established. On the other hand, non-restrictive relative clauses provide additional information about the head noun, where its reference is established independently of an appropriate antecedent in the sentence. In light of this, Demirdache (1991:108-109) analyses non-restrictive relatives as adjuncts of DPs. Sentences (16) and (17) below illustrate the difference between restrictive and non-restrictive relative clauses respectively:

(16)   My friend [**who** lives in Margate] is a rugby player.

(17)   He has an old rugby ball, [**which** is made of leather].

The relative clause in sentence (16) restricts the set of possible referents of *my friend* (he lives in *Margate*, as opposed to somewhere else), whereas the relative clause in (17) specifies a property of his *rugby ball*; it does not serve an identificatory role as in the case of restrictive relative clauses (Morshed 1982:94).

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In Afrikaans, restrictive relative clauses can be introduced by several different types of Wh-pronominal elements. Some examples of these elements include *wat* ("what", "which"), *wie* "who"), *waar* ("where") and *wanneer* ("when") to express references to things, people, places and times, respectively, as illustrated in sentences (18) - (21):

(18)   Ek ken die liedjie [**wat** sy sing].

I know the song which she sings

"I know the song which she is singing"

(19)   Hy roep die meise [met **wie** jy gepraat het].

he calls the girl with who you spoke has

"He is calling the girl with whom you spoke"

(20)   Ek ken die hotel [**waar** hy bly].

I know the hotel where he stays

"I know the hotel where he stays"

(21)   Hy bevestig die tyd [**wanneer** hy sal kom].

he confirms the time when he will come.

"He is confirming the time when he will come"

Hoe ("how") and *hoekom* and *waarom* ("why") express reference to the manner of and reason for doing something, as in the following examples:

(22)   Ek hou van die manier [**hoe** sy geantwoord het].

I like of the way how she answered has

"I like the way she has answered"

(23)   Ek verstaan nie die rede [**hoekom**/**waarom** jy wil bedank]. nie.

I understand not the reason why/wherefore you want-to resign not

"I don't understand the reason why you want to resign"

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Possession is expressed by *wie se* on relative pronouns taking an animate antecedent and *waarvan* is used with inanimate antecedents:

(24)   Ek ken die man [**wie** se huis jy gekoop het].

I know the man who-POSS house you bought have

"I know the man whose house you have bought"

(25)   Ek het 'n fiets [**waarvan** die wiele pap is].

I have a bicycle which-of the wheels flat are

"I have a bicycle of which the wheels are flat"

The main focus in this chapter is on the restrictive relative clause construction. For ease of exposition, the illustrative examples will be limited to relative clauses (i) that are introduced by the personal relative pronoun *wat* ("what", "which") and (ii) that are associated with a nominal expression functioning as the direct object argument of the matrix verb, as in (18) above.

In Afrikaans, *wat* is the most commonly used personal relative pronoun that enters into a coreferential relationship with the antecedent of a restrictive relative clause. It has the same form, regardless of the person, number or gender expressed by the antecedent, and irrespective of whether it refers to a personal or non-personal entity (Donaldson 1994).

As clause-introducing elements, relative pronouns cannot be omitted in Afrikaans, unlike for instance the complementiser *dat* ("that") that introduces a finite declarative subordinate clause; this is shown by the examples in (26) and (27):

(26)   Ek weet (dat) hy glimlag.

I know that he smiles

"I know (that) he is smiling"

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(27)   Ek ken die man [*(**wat**) glimlag].

I know the man who smiles

"I know the man who is smiling"

A few remarks on Afrikaans linear word order are in order here. In main clauses the finite verb surfaces in the second position, irrespective of whether it is the main verb or an auxiliary verb; if the main clause contains one or more auxiliary verbs, the main verb occurs in the final position.[4] These facts are illustrated in (28)a and (28)b. However, if the main verb takes the form of a past or passive participle, and the clause contains more than one auxiliary verb, the aspectual or passive auxiliary occurs to the right of the main verb, as shown in (28)c and (28)d. These word order patterns also hold for subordinate clause that are not introduced by an overt complementiser such as *dat* ("that") or *of* ("if"). For instance, the word order in (28)c remains unchanged if this sentence is used as a subordinate clause, as in (28)e.

(28)   a.   Die man verf die huis.

the man paints the house

"The man is painting the house"

b.   Die man sal die huis verf.

the man will the house paint

"The man will paint the house"

c.   Die man wou die huis geverf het.

the man wanted-to the house painted has

"The man wanted to paint the house"

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[4] It should however be noted that the main verb can also be followed by, for instance, a PP in some registers; hence both orders illustrated in (i) occur, although the one in (i)a is more common. For discussion of this phenomenon, cf. Oosthuizen (2013:section 3.2.2).

(i)   a. Die man wil met die meisie gesels.
the man wants-to with the girl talk
"The man wants to talk to the girl"
b. Die man wil gesels met die meisie.

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      d.   Die huis moet geverf word.

                the house must painted get

                "The house must get painted"

      e.   Ek weet die man moes die huis geverf het.

                I know the man should-have the house painted had

                "I know the man should have painted the house"

In contrast, Afrikaans subordinate clauses that are introduced by an overt complementiser standardly show a verb-final order, that is, the main verb occurs in final position, after any complements and auxiliaries, as illustrated in (29)a; as in main clauses, though, main verbs in participle form are followed by the relevant aspectual or passive auxiliary, as shown in (29)b and (29)c.[5]

(29)   a.   Ek weet dat die man die huis (sal) verf.

                I know that the man the house (will) paint.

                I know that the man will paint the house.

      b.   Ek weet dat die man die huis geverf het.

                I know that the man the house painted has

                "I know that the man has painted the house"

      c.   Ek vermoed dat die huis geverf moet word

                I suspect that the house painted must get

                "I suspect that the house must get painted"

The linear positions of main and auxiliary verbs in subordinate clauses that are introduced by an overt complementiser, as shown in (30), also hold for Afrikaans relative clauses. This is illustrated by the following examples:

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[5] The phenomenon illustrated in note 4 is also found with subordinate clauses that are introduced by an overt complementiser.

(30)   a.   Ek ken die man [**wat** die huis (wou) verf].

                I know the man that the house (wanted-to) paint

                "I know the man that wanted to paint the house"

        b.   Die man [**wat** die huis geverf het] woon hier naby.

                the man that the house painted has lives here nearby

                "The man that painted the house lives nearby here"

        c.   Die huis [**wat** onlangs geverf is] is te koop.

                the house that recently painted was is to sale

                "The house that was recently painted is for sale"

Returning to the relative pronouns, in Afrikaans these pronouns do not show different case-forms, in contrast to personal pronouns which generally take different forms in subject or object positions (e.g. nominative *hy* ("he"*)* vs. accusative *hom* ("*him*"), and possessive and reflexive pronouns (e.g. genitive s*y* ("*his*") and accusative *himself* ("*himself*"), respectively). Sentences (31) and (32) below illustrate the relative pronoun *wat* representing the subject and the direct object of the relative clause, respectively, in both case unmarked for case.

(31)   Die man [**wat** daar bly] loop vreemd.

        the man who there lives walks strangely

        "The man who lives there walks strangely"

(32)   Hulle ken die man [**wat** daar bly].

        they know the man who there lives

        "They know the man who lives there"

Sentences (33) and (34) illustrate the possessive use of *wie se* ("whose"); again, the relative pronoun does not show any case marking, irrespective of the grammatical function of the nominal expression of which it forms part in the relative clause:

(33)   Die man [**wie** se hond blaf] bly daar.

the man who-POSS dog barks lives there

"The man whose dog is barking lives there"

(34)   Almal ken die man [**wie** se hond jy geskop het].

all know the man who-POSS dog you kicked have

"Everyone knows the man whose dog you kicked"

Donaldson (1994:493-494) observes that since *wat* is indeclinable, there is often a resultant ambiguity. This is because of the lack of verbal morphology in Afrikaans; that is, there are no affixes to indicate past or present tense, progressive aspect, or person and number, as is the case in English. Another reason is the surface Subject-Object-Verb word order in Afrikaans subordinate clauses introduced by an overt complementiser. The ambiguity stems from the fact that it is often not possible to discern whether the relative pronoun *wat* functions as the subject or object of a relative clause without taking into account contextual information. Consider the following example, where it is not clear whether it is *Jan* who admires the man or the man who admires *Jan*. We return to this phenomenon towards the end of section 4.4.

(35)   Ek ken die man$_i$ wat$_{i/j}$ Jan$_j$ bewonder.

I know the man who Jan admire

"I know the man who admires Jan / who Jan admires"

The relative pronoun *wie* ("who") is used in cases where its antecedent refers to an animate entity and where it is used in conjunction with a preposition, as illustrated in (36) and (37) below:

(36)   Sy is die kandidaat [vir **wie** ek stem].

she is the candidate for who I vote.

"She is the contestant for whom I vote"

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(37)   Julle ken die meisie [met **wie** ek gesels].

you know the girl with who I chat

"You know the girl with whom I am chatting"

When a relative pronoun takes as its antecedent an expression that refers to an inanimate entity such as a place, instrument or prepositional object, a morphologically complex relative pronoun is standardly used. In such cases, the relative pronoun comprises the pronominal prefix *waar-* followed by a varying form of the preposition. For instance, *wat…na* ("what…to") is expressed as *waarna* when referring to a location, *wat…met* ("what…with") as *waarmee* when referring to an instrument, *wat…oor* ("what…over/about") as *waaroor* and *wat…van* ("what…of") as *waarvan* as prepositional objects, and so on. Sentences (38) and (39) illustrate the use of the complex relative pronouns *waarvan* ("(of) which") and *waarin* ("in which"):

(38)   Dis dié huis [**waarvan** hy hou].

it-is this house which-of he likes

"It's this house which he likes"

(39)   Die boom [**waarin** die uil sit] is baie oud.

the tree where-in the owl sits is very old

"The tree in which the owl sits is very old"

Although not standard, *waar+preposition* is often found in colloquial Afrikaans with personal antecedents, as in (40); in this case, the standard expression would be *van wie* ("of whom").

(40)   Die meisie [**waarvan** ek praat] is blond.

the girl whom-of I talk is blonde

"The girl of whom I am talking is blonde"

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Donaldson (1993:146) observes that *wie* ("who") is increasingly also used without a preposition and in place of *wat* in cases where the antecedent refers to a personal entity, as shown in (41) below; this non-standard use of the relative pronoun *wie* can most likely be ascribed to the influence of English.

(41)   Dis Jan [**wie** daar staan].

it-is Jan who there stands

"It's Jan who is standing there"

Preposition stranding can occur in relative clauses containing the complex *waar+preposition* relative pronoun, leaving the preposition stranded in front of the main verb. The use of this construction is less common in standard Afrikaans, however, with *wat* being the preferred relative pronoun in clauses containing a stranded preposition:

(42)   Die meisie [**waar**/**wat** ek van praat] is blond.

the girl whom I of talk is blonde

"The girl whom I am talking of is blonde"

In relative clauses expressing a possessor-possession relationship, the possessive relative pronoun expression *wie se* is used where the antecedent refers to a person or other animate entity as illustrated in sentence (43) below, while *waarvan* ("which-of"/"what-of"/"where-of") is standardly used where the antecedent refers to an inanimate entity, as illustrated in sentence (44):

(43)   Die man [**wie se** pruik afgeval het] sit daar.

the man whose wig off-fallen has sits there

"The man whose wig has fallen off is sitting there"

(44)   Die pruik [**waarvan** ek praat] lyk soos 'n verestoffer.

the wig which-of I speak looks like a feather-duster

"The wig that I am talking of looks like a feather duster"

In non-standard varieties of Afrikaans, the possessive relative pronoun expression *wat se* is used in place of *waarvan* where the antecedent refers to an inanimate entity, as shown in (45); the standard equivalent is given in (46).

(45)   Dis die kar [**wat** se wiel pap is].

       this-is the car whose tyre flat is

       "This is the car of which the tyre is flat"

(46)   Dis die kar [**waarvan** die wiel pap is].

       this-is the car which-of the tyre flat is

   "This is the car of which the tyre is flat"

The next section describes the analysis of the restrictive relative clause construction (specifically in English) as set out in Radford (2009); for convenience, this will be referred to as "the conventional analysis" of restrictive relative clauses. This is followed by a section in which an attempt is made to develop an analysis of restrictive relative clauses in Afrikaans within the broad Nominal Shell Analysis framework proposed by Oosthuizen (2013).

4.3   The conventional analysis of restrictive relative clauses (Radford 2009)

In terms of the analysis set out in Radford (2009:183-226), restrictive relative clauses are derived by means of Wh-movement, which involves a series of copy-merge-delete operations. According to Radford (2009), Wh-movement brings about raising of a Wh-phrase (i.e. the maximal projection of a phrase containing a Wh-head) from its initial position, e.g. as the complement of a verb, to the specifier position of the immediately containing complementiser phrase CP, that is [spec, C]. The occurrence of a specifier position under the CP is taken to be triggered by an edge-feature of the C. Note that the edge feature of a complementiser differs from the EPP feature of a Tense (T) constituent in that it does not depend on agreement, and can therefore attract any type of constituent to the specifier position of the CP (Radford 2009:194). Clauses are identified as interrogative by virtue of containing an interrogative

element as a head or specifier; the C's edge feature necessitates an interrogative specifier in order for it to be interpreted as a question. As a consequence, it attracts a Wh-phrase that can satisfy the edge feature. The effect of Wh-movement in the derivation of a sentence such as (47) is illustrated with the simplified structure in (48), adapted from Radford (2009:194-195).

(47)   When will you come?

(48)
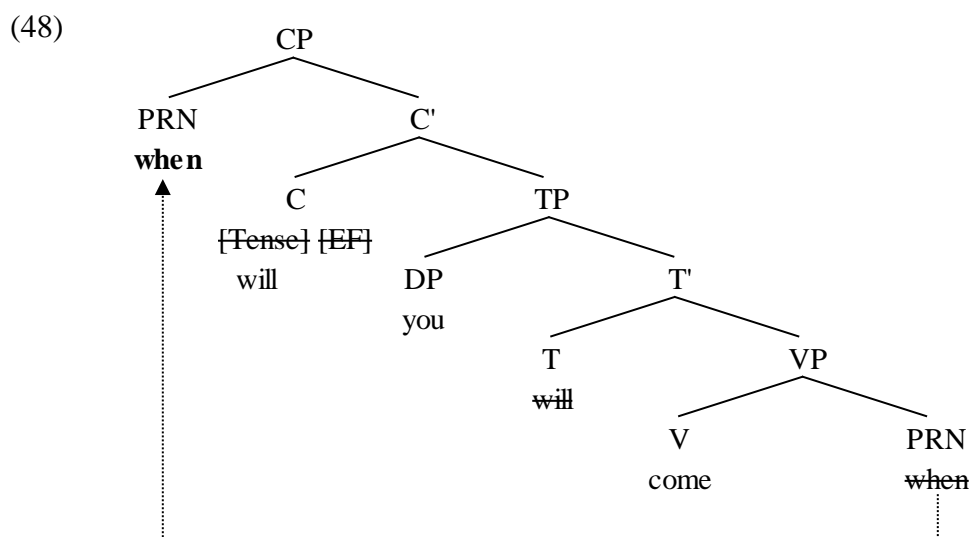
In the derivation of (47), auxiliary inversion also has to take place, that is, the (finite) modal auxiliary has to be raised to the C-head, an operation that is taken to be triggered by a tense feature on the C (Radford 2009:195).

In terms of the analysis set out in Radford (2009:193-197), relative clauses are also derived via the application of Wh-Movement. However, in such constructions the C is claimed to lack a tense feature, which means that auxiliary inversion does not take place. The derivation of the relative clause in the sentence in (49) would then be along the lines in (50).

(49) I know the man who you will invite.

(50) (I know) [the man [CP who [C ø EF] [TP you [T will] [VP [V invite] who]]]]

The Chain Uniformity Condition (Radford 2009:199) states that when a Wh-element is moved into [spec, C], all the constituents that it c-commands will be moved along with it. This condition ensures that the uniformity in phrasal categories is preserved between the

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starting and landing positions of the moved phrase. For instance, if a phrase is headed by a Wh-word, all copies created during the movement operation must also be headed by that Wh-word.

The Impenetrability Condition (Radford 2009:204) furthermore prevents heads within the domains of complementisers or prepositions from being attracted by higher-up heads that c-command them. The next largest maximal projection is attracted as a consequence. In addition, the Impenetrability Condition requires Wh-movement to be a local operation, with Wh-phrases moving through one clause at a time. When long-distance movements (i.e. movement of lower-clause Wh-phrases to higher-clause specifier positions) take place, these movements occur cyclically as a series of smaller movement operations. Moving directly across potential intermediate landing sites would violate the Impenetrability Condition. Hence a Wh-element is first moved to the specifier position of its immediately containing CP, then (cyclically) to the next CP, and so on until it reaches its final landing place.

In the structure in (50), the C position is phonetically empty (indicated by ø). If this position is filled by an over complementiser such as *that*, the Complementiser Condition specifies that, at least in standard varieties of English, either the relative pronoun or the complementiser, or both must have a phonetically null spell-out, thereby barring the occurrence of an overt complementiser with a relative pronoun (Radford 2009:185).

In short, in the analysis described for English in Radford (2009), the occurrence of the relative pronoun in the clause-initial position in relative clause constructions can be accounted for in terms of Wh-Movement. However, this analysis does not address the issue of how the coreferential relationship between the relative pronoun and its antecedent is established. This issue is central to the Nominal Shell Analysis of restrictive relative clauses that will be put forward in the next section.

4.4   A Nominal Shell Analysis of restrictive relative clause constructions

As noted in section 2.3, Oosthuizen (2013) identifies a number of light nouns that could head the nominal shells containing the DPs, NPs, etc. that make up various types of nominal expressions.   These include an identity-focus light noun (2013:32-113), a possessor-focus light noun (2013:114-123), a quantity-focus light noun (2013:130-138), a presentational-focus light noun (2013:138-144) and a contrastive-focus light noun (2013:118-120).   The different light nouns are briefly characterized below.

The identity-focus light noun serves to place emphasis on the relationship of coreferentiality between a reflexive pronoun and its antecedent expression:

(51) Hy_i haat $homself_i$.

           he_i hates $himself_i$

           "He hates himself"

The possessor-focus light noun serves to draw attention to the possessor in the relationship between possessor and what is possessed:

(52)   Die $meisie_i$ het $haar_i$ oë geknip.

           the $girl_i$ has her_i eyes blinked

           "The girl blinked her eyes"

The quantity-focus light noun serves to place emphasis on the quantity of a set of entities.   For example, in (53) the number of entities in the set quantified by *almal* ("all") is more than two:

(53)   Die $kinders_i$ lag $almal_i$ vir die onderwyser.

           the $children_i$ laugh all_i for the teacher

           "The children are all laughing at the teacher"

The presentational-focus light noun occurs in constructions that are used to introduce new entities into the discourse context, as is the case with expletive constructions:

(54)   Daar_i is [iemand wat vir jou wag]_i.

there is someone that for you wait

"There is someone waiting for you"

Oosthuizen's (2013) Nominal Shell Analysis was initially proposed to account for the obligatory coreferential relationship between a reflexive pronoun and its antecedent in Afrikaans. Since a relative pronoun also enters into an obligatory coreferential relationship with an antecedent in a relative clause construction, the question arises whether the general assumptions and devices of the Nominal Shell Analysis put forward for reflexive constructions can be adopted as a framework to account for the facts of Afrikaans reflexive constructions as well. More specifically, in attempting to develop such an analysis, the main objective of this section, a key issue that needs to be resolved concerns the specific type of light noun that is involved in the establishment of the coreferential relationship between the relative pronoun and its antecedent in a sentence containing a restrictive relative clause such as the [bracketed] one in (55). This issue will be addressed shortly.

(55)   Pieter sien die huis_i [**wat**_i Jan bou].

Pieter sees the house which Jan builds

"Pieter sees the house that Jan is building"

In this example, the relative pronoun *wat* cannot be used on its own, that is, on the basis of its intrinsic meaning, to pick out a referent. Rather, it is referentially dependent on the expression *die huis* ("the house"). In other words, *wat* enters into an obligatory coreferential relationship with *die huis*, its antecedent. The manner in which such a relationship is established is the main issue that is addressed in Oosthuizen's (2013) Nominal Shell Analysis of reflexive constructions.

Adopting the general ideas underlying this framework, the analysis of restrictive relative constructions would be along the following lines. Firstly, the relative pronoun *wat* ("which",

"that") in (55) enters the derivation through merger with a category-neutral lexical root √PRON and a D-constituent resulting in an expanded category D, as shown in (56). The D-constituent's φ- and θ-features are unvalued, as is its case feature. At this stage, the lack of case and φ-feature values means that it is not yet possible to determine whether the pronoun will be spelled-out as, for instance, *wie* ("who") or *wat* ("which", "that"). (In the structures that follow, unvalued features are indicated by [u] and valued features by [v].)

(56)

```
              D
           ／    ＼
         D          √PRON
       [u.φ]
       [u.case]
```
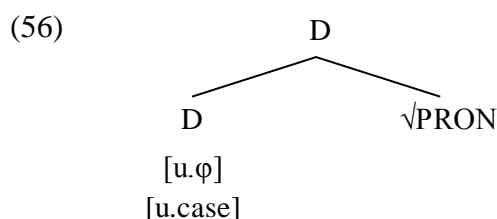
The D in (56) is next merged with a functional head category X, with the D representing the complement of X. In the case of reflexive constructions, this functional category X is claimed to be an identity-focus light noun (Oosthuizen 2013:41), since the function of a reflexive construction is to draw attention to the relationship of referential identity between the antecedent (e.g. the subject) and the constituent represented by the reflexive pronoun (e.g. the syntactic object of the verb), as illustrated in (51). However, an analysis in terms of an identity-focus light noun cannot be employed in the case of relative constructions. In such constructions, the relative clause serves to modify the antecedent; in other words, the relative pronoun is not used to emphasise a relationship of referential identity, but is rather used to introduce a clause that serves to identify or emphasise one entity from a set of (explicitly stated or contextually implied) alternatives for which a proposition holds true. For example, in (55) the relative clause *wat Jan bou* ("that Jan is building") serves to identify one house from a set of potential referents, that is, to (implicitly) draw a contrast between the house that Jan is building and those that are being built by others. Hence, as a working hypothesis, based on the proposals made by Oosthuizen (2013:114-123), the D representing the relative pronoun in (56) is taken to be merged with a contrastive-focus light noun head, n_1, projecting
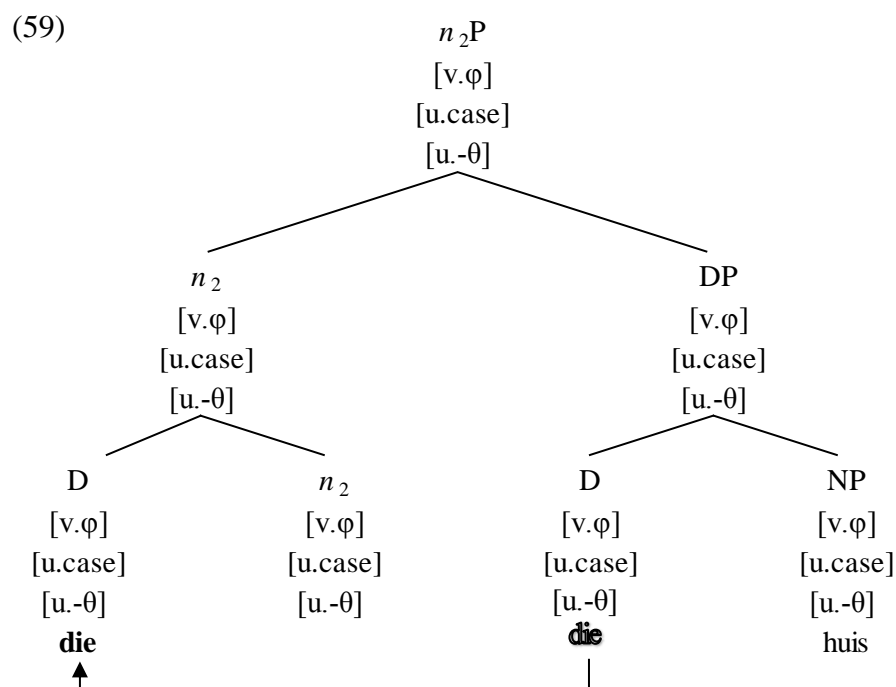
to an n_1P^1 as shown in (57), with the light noun's nature expressed by the contrastive-focus feature [con-focus]. In short, then, although a reflexive pronoun and a relative pronoun both represent anaphors (i.e. they are referentially dependent elements), they are selected by distinct light nouns.
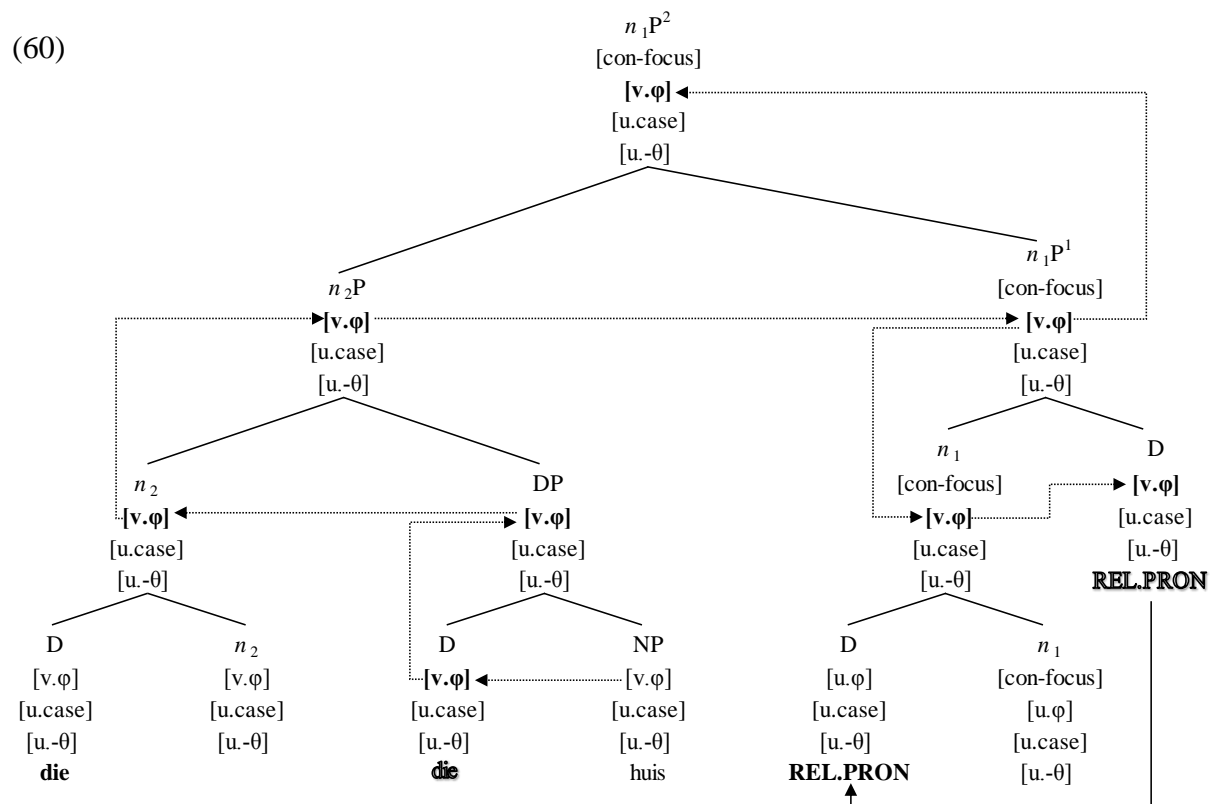
(57)

n_1P^1
[con-focus]
[u.φ]
[u.case]
[u.-θ]

n_1
[con-focus]
[u.φ]
[u.-θ]

D

D
[u.φ]
[u.case]
[u.-θ]
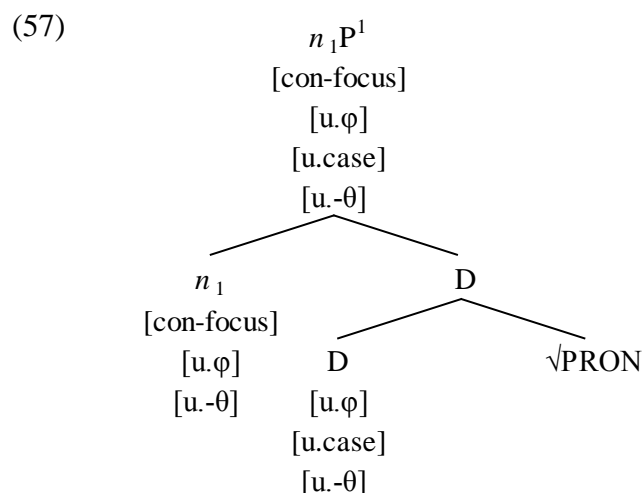
√PRON

Following the merge of n_1 with the relative pronoun D, the (maximal) D is next copied and merged with the n_1 head, an instance of head raising (Oosthuizen (2013:38-39), as illustrated in (58) below. Note that no feature valuation can take place between the light noun and the relative pronoun when they are merged since the features of both are (initially) unvalued. The antecedent of the relative pronoun in (55), that is, the nominal expression *die huis*, is next merged in the specifier position of the n_1. As shown in (58), this expression is itself contained in a nominal shell n_2P, which is headed by another light noun, n_2.

(58)

n_1P^2

n_2P

Die huis

n_1P^1

n_1

D
REL. PRON

D
REL. PRON

n_1

55
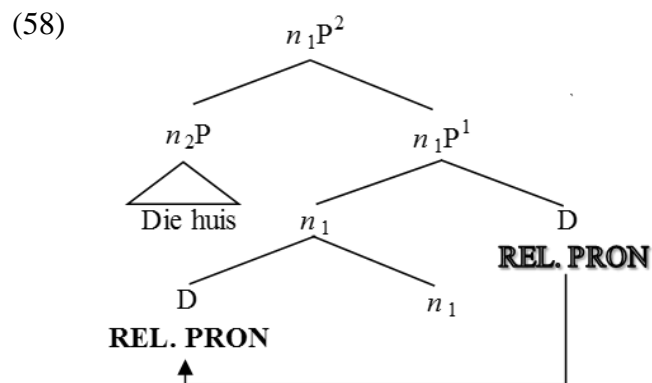
The n_2P in (58) comprises a noun *huis* ("house")*,* itself maximally an NP, which is merged with the determiner *die* ("the") resulting in the DP *die huis*; this DP is in turn merged as the complement of the light noun n_2 to project the n_2P. In this case, however, the light noun does not carry a contrastive-focus feature and it has unvalued φ-, θ- and case features. The D likewise has unvalued φ-, θ- and case features, whereas the noun has unvalued case and θ-features, but valued φ-features (third person, singular, neuter). Merger of the D and the N brings about a probe-goal configuration in which the N's φ-features value those of the D. When the DP *die huis* merges with the light noun n_2 to project a light noun phrase n_2P, the φ-features supplied by the noun within the DP value those of the light noun head; these values percolate to the projected n_2P. Following Oosthuizen (2013:43-45), it is assumed that the D is raised to the light noun n_2. The various operations are illustrated in the structure in (59) below. (Here, and in the structures that follow, solid arrows indicate copy-merge operations, outline and bold fonts indicate the initial and derived positions of constituents, respectively, and dotted arrows along with bold fonts indicate feature valuation).

(59)

n_2P
[v.φ]
[u.case]
[u.-θ]

n_2
[v.φ]
[u.case]
[u.-θ]

DP
[v.φ]
[u.case]
[u.-θ]

D
[v.φ]
[u.case]
[u.-θ]
die

n_2
[v.φ]
[u.case]
[u.-θ]

D
[v.φ]
[u.case]
[u.-θ]
die

NP
[v.φ]
[u.case]
[u.-θ]
huis

As shown in (58), the structure in (59) is merged into the specifier position of the contrastive-focus light noun phrase n_1P^2. In this configuration, the valued φ-features of the NP *huis* serve to value the corresponding features of its containing DP and the n_2P, and the latter values the φ-features of the n_1 and its projections, as shown in (60).

(60)

n_1P^2
[con-focus]
[v.φ]
[u.case]
[u.-θ]

n_2P
▶**[v.φ]**
[u.case]
[u.-θ]

n_1P^1
[con-focus]
▶**[v.φ]**
[u.case]
[u.-θ]

n_2
[v.φ]◀
[u.case]
[u.-θ]

DP
▶**[v.φ]**
[u.case]
[u.-θ]

n_1
[con-focus]
▶**[v.φ]**
[u.case]
[u.-θ]

D
▶**[v.φ]**
[u.case]
[u.-θ]
REL.PRON

D
[v.φ]
[u.case]
[u.-θ]
die

n_2
[v.φ]
[u.case]
[u.-θ]

D
[v.φ]◀
[u.case]
[u.-θ]
~~die~~

NP
[v.φ]
[u.case]
[u.-θ]
huis

D
[u.φ]
[u.case]
[u.-θ]
REL.PRON

n_1
[con-focus]
[u.φ]
[u.case]
[u.-θ]

In short, then, the n_2P *die huis* in (60) supplies values to the unvalued φ-features of the n_1 head and its projections, and the n_1 in turn supplies these same values to its complement D, the relative pronoun. In other words, the nominal expression *die huis* indirectly φ-values the relative pronoun *wat*, with the contrastive focus light noun n_1 acting as intermediary.

One of the core hypotheses of Oosthuizen's Nominal Shell Analysis – presented as Hypothesis H (2013:45) – states that a D that is initially merged as the complement of an identity-focus light noun n_1, and that is φ-valued by a nominal expression n_2P in the specifier position of this light noun, "is semantically interpreted as a (reflexive) anaphor and the n_2P as its antecedent; that is, the D is interpreted as obligatorily coreferential with the n_2P". The configuration in question is clearly the same as that illustrated in (60), the only difference

being that the n_1P^2 in (60) is headed by a contrastive-focus light noun. Adapting Oosthuizen's Hypothesis H to reflect this difference, it is claimed here that "the semantic device that is responsible for providing the coreferential (or anaphoric) interpretation (2013:45)" of a relative pronoun takes the following form:

(61)   The φ-valued D in the configuration in (60) is semantically interpreted as a relative pronoun anaphor and the n_2P as its antecedent; that is, the D is interpreted as obligatorily coreferential with the n_2P.

Notice that the semantic device in (61) does not "know" that the φ-features of the relative pronoun were (indirectly, via the [con-focus] light noun) valued by its antecedent in the course of deriving the nominal shell structure headed by this light noun. In effect, the only necessary and sufficient condition for the coreferential relationship to be established, is that the relative pronoun and its antecedent occur in the configuration in (60).

Continuing with the derivation of the relative clause *wat Jan bou* ("that Jan is building") in (55), the V *bou* c-selects the n_1P^2 in (60) as its complement. The V *bou* contains a θ-feature with a theme value, which serves to value the θ-feature of the n_1P^2 and, by implication, also those of the n_1P^1 and the n_1-head. Note that the n_2P *die huis* ("the house") in the specifier position of the n_1P^2 is not θ-valued at this stage since it does not form part of the n_1's "projection spine". The resulting VP next merges with a light verb that carries the categorial feature [+V], an unvalued tense feature, a case feature with an accusative value and a θ-feature with an agent value; in addition, the *v* has a set of unvalued φ-features that is associated with a movement diacritic ^. The merger of the light verb and the VP gives rise to several operations. Firstly, the V *bou* is merged with the light verb via V-to-*v* Raising (cf. Oosthuizen 2013:48-49). Secondly, the light verb values the case feature of the n_1P^2 in its c-command domain as accusative. Note that the n_2P *die huis* in the specifier position of the n_1P^2 remains unvalued for case since it does not form part of the projection spine of the contrastive-focus light noun n_1. Thirdly, the n_1P^2 values the φ-features of the light verb. In

the process, the movement diacritic appended to the v's φ-features triggers raising of the n_1P^2; this is a pied-piping operation, which means that not only the n_1P^2 but also the VP containing it ends up in [spec, v]. Following these operations, the subject of the relative clause – i.e. the expression *Jan* in (55) – is merged into the second specifier position of the light verb, where it receives the agent θ-value from the light verb. Being a nominal expression, *Jan* also represents a light noun phrase, one headed by a light noun, n_3, that is distinct from those associated with the expressions *die huis* and *wat*. The derivation up to this point is shown in (62) below.

(62)
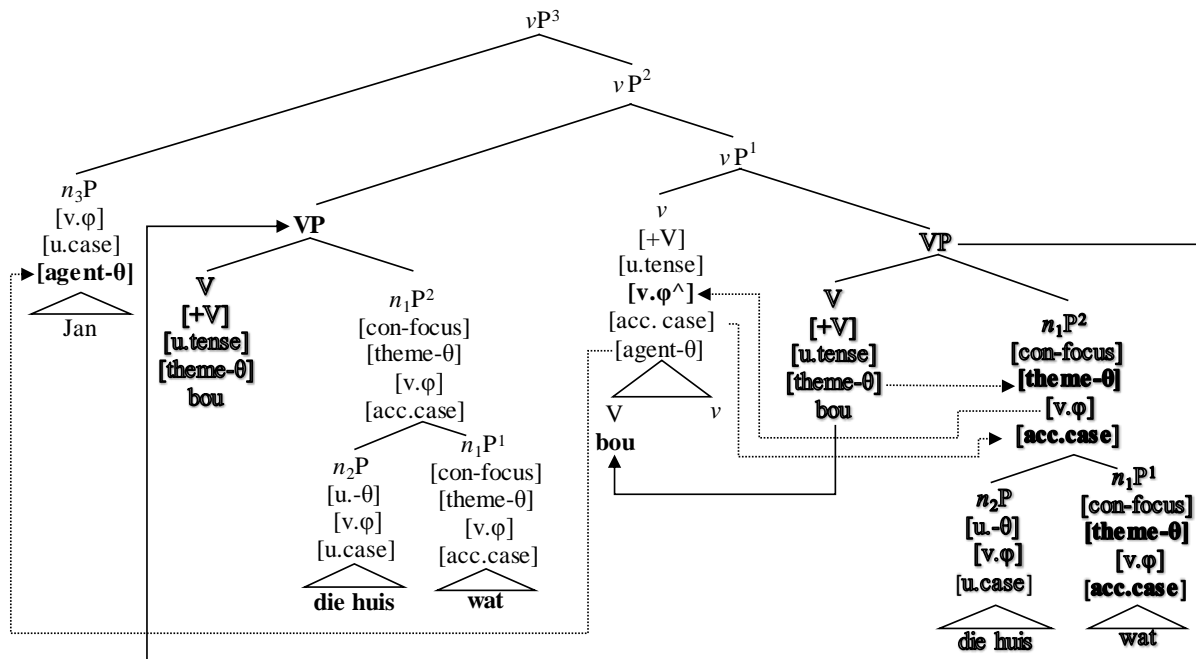
Next, the vP^3 in (62) merges with a T-head with an unvalued categorial feature, tense and case features valued as present and nominative, respectively, and a set of unvalued φ-features carrying a movement diacritic. This merger brings about the following operations: (i) the V/v receives its present tense value from the T-head and in turn supplies the T with a [+V] categorial value; (ii) the T values the case feature of the n_3P *Jan* in the [spec, v] position as nominative; and (iii) this nP supplies the T's φ-features with the values [third person,

singular, masculine]. As a consequence of the φ-relationship that is established between the T and the n_3P *Jan*, the movement diacritic carried by the T's φ-features triggers raising of the n_3P, a pied-piping operation that results in the entire vP[3] containing the n_3P ending up in the [spec, T] position. The various operations are illustrated in the simplified structure in (63).

(63)
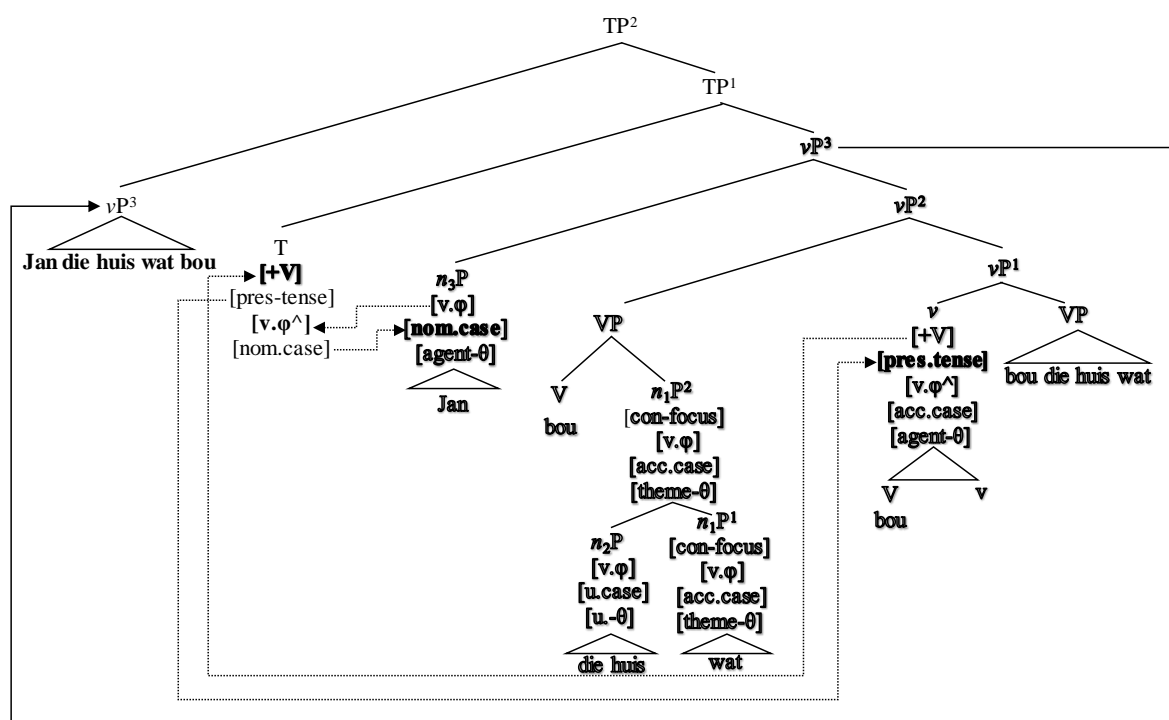
The TP[2] in (63) next merges with a functional head associated with the complementiser (C) domain defining the left-periphery of the clause. A detailed analysis of the C-domain in Afrikaans falls outside the scope of this thesis.[6] However, as working hypotheses, four assumptions will be made here in order to account for the surface word order [relative pronoun-subject-finite verb] reflected in a restrictive relative clause such as *wat Jan bou* ("that Jan is building") in the sentence in (55). The first, general, assumption concerns the internal structure of the C-domain. Based largely on the proposals put forward by Botha and Oosthuizen (2009:32-43), it is assumed here that the C-domain comprises three distinct functional heads in the case of relative clauses of the type at hand, namely a Finiteness head (Fin; cf. Rizzi 1997; Botha and Oosthuizen 2009:43-45), an Informative Focus head

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[6] For such an analysis, cf. Botha and Oosthuizen (2009).

(Inf.Focus) and a Contrastive Focus head (Con.Focus; cf. Botha and Oosthuizen 2009:32-43), with Fin being the lowest and Con.Focus the highest head.[7] Secondly, it is assumed that the Fin-head contains a V-related feature carrying a movement diacritic (with likely candidates being a categorial feature or a tense feature).[8] This feature is taken to trigger raising of the V/v *bou* ("build") in the vP[3] occupying the [spec, T] position to the C. The third assumption is that the Inf.Focus-head contains a discourse-related topic feature with a movement diacritic that triggers raising of the subject n_3P *Jan* into [spec, Inf.Focus] position.[9] Finally, it is assumed that the Con.Focus-head contains a feature (perhaps in the form of a Wh-feature) that triggers raising of the contrastive-focus n_1P[2] into the [spec, Con.Focus] position, resulting in the correct linear order *die huis wat Jan bou*. The effect of the various assumptions just outlined and the operations associated with them are illustrated in the highly simplified structure in (64).

(64)

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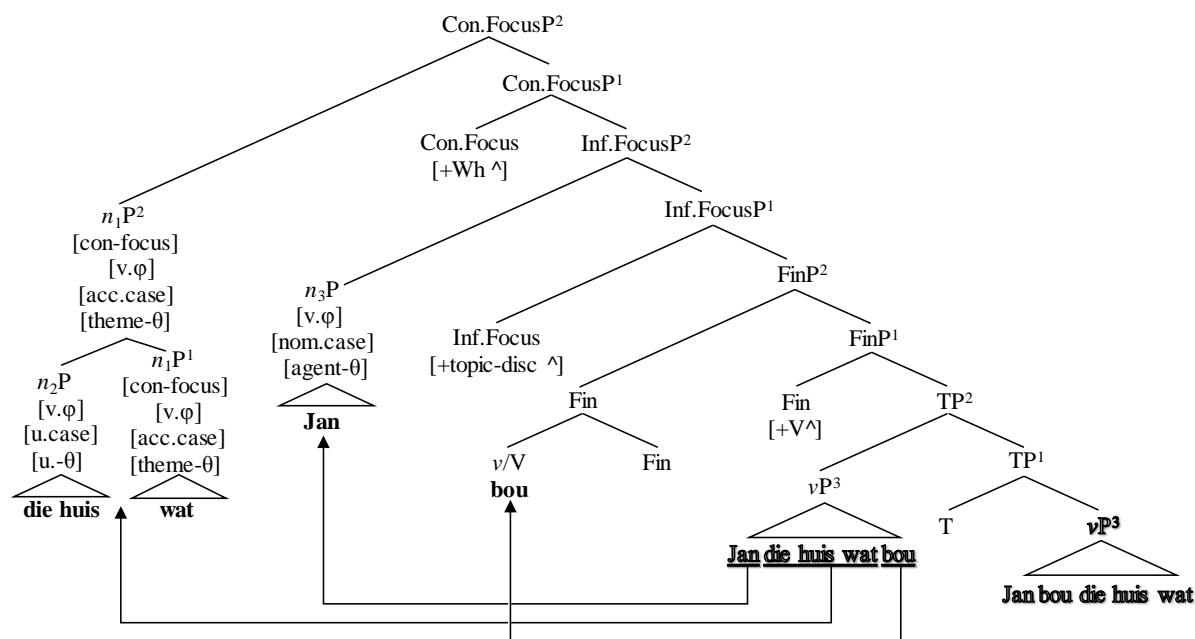
[7] Botha and Oosthuizen's (2009) discussion of the Informative Focus and Contrastive Focus heads is based on the proposals put forward by Benincà & Poletto (2004). Gundel & Fretheim (2004:180) charcterise these two types as follows: "One of these is relational – the information predicated about the topic [= Informative Focus - JJM]; the other is referential – material that the speaker calls to the addressee's attention, thereby often evoking a contrast with other entities that might fill the same position [= Contrastive Focus - JJM]."

[8] Although Oosthuizen does not address the internal structure of the C-domain in Afrikaans, he (2013:54-55) presents these same possibilities regarding the feature make-up of the C-head in an analysis employing CP as defining the left-periphery of the clause.

[9] For a similar proposal, cf. Oosthuizen (2013:53-54). On such an analysis, it seems plausible that the n_3P *Jan* itself also contains some sort of topic feature, one that would distinguish it from the contrastive focus n_1P[3] *wat*.

The sequence *die huis wat Jan bou* ("the house that Jan builds") in (64) reflects the correct surface linear order illustrated in the example in (55). Note that this entire sequence functions as a nominal expression in (55), specifically, as the object argument of the verb *sien* ("see").[10] However, in terms of the analysis in (64), the sequence *die huis wat Jan bou* represents a clausal structure, specifically, a Con-FocusP. In order to account for the nominal nature of this sequence, it is claimed here that the Con.FocusP in (64) is merged as the complement of a further light noun, n_4, projecting the nominal phrase n_4P and thus accounting for the nominal nature of the sequence *die huis wat Jan bou*. The light noun n_4 is taken to carry at least a θ-feature, a case feature and a set of φ-features, all of them unvalued. Note that the Con-FocusP in (64) incorporates three distinct nominal expressions: the contrastive-focus n_1P^2 containing the relative pronoun *wat*, the n_2P *die huis*, and the subject n_3P *Jan*. Of these *n*Ps, only the n_2P *die huis* is still active from a feature-valuation perspective, since it is the only one containing unvalued features (namely case and θ-features). Being grammatically active, this n_2P can enter into a feature-valuation relationship with the n_4, supplying the latter with φ-values. However, at this stage both the n_2P and the n_4 (and by implication the projection n_4P) remain unvalued with regard to theta role and case. The merge and feature-valuation operations outlined above are illustrated in the simplified structure in (65).[11]

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[10] The claim that the sequence *die huis wat Jan bou* functions as a nominal argument in (55) is supported by the fact that it can be substituted by a Wh-phrase such as *watter huis* ("which house") and can also undergo what is generally referred to as DP-Raising, as shown in (i)a. Further support comes from "the coordination test, a standard constituency diagnostic which holds that two or more expressions can only be coordinated if they belong to the same constituent type (Oosthuizen 2013:104)." That the sequence in question can be coordinated with another nominal expression, is illustrated by the example in (i)b. The conjuncts are given in [square brackets].

(i)   a.   Watter huis sien Pieter?
            which house sees Pieter
            "Which house does Pieter see?"
      b.   Pieter sien [die huis wat   Jan bou]   en [die Te Koop-bordjie]
            Pieter sees the house which Jan builds and the to buy   sign
            "Pieter sees the house that Jan is building and the For Sale-sign"

[11] Note that the n_2P *die huis* stays in the specifier postion of the n_1P^2 occupying the Con.Focus specifier position in (65). A question that arises is whether this n_2P should undergo raising into the specifier position of the n_4, perhaps triggered by a movement diacritic appended to the n_4's φ-features. In view of the restricted scope of the current study, the possibility of such a raising operation is left as a topic for further investigation.

(65)
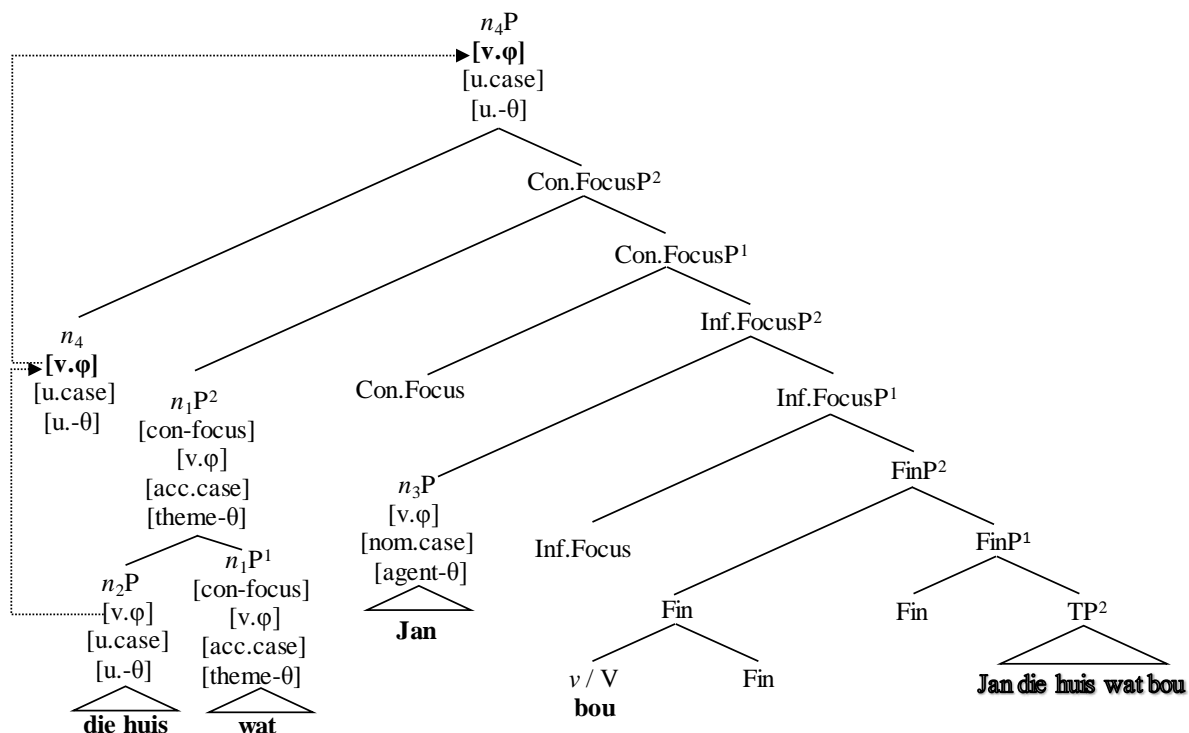
The next step in the derivation of the sentence in (55) involves merging the n_4P in (65) with

the V *sien* ("see"). The V contains a θ-feature valued as theme. This feature serves to value

the corresponding feature of the n_4P, with the n_4-head in turn providing the same value to the

n_2P *die huis* occurring in the specifier position of the n_1P^2 in [spec, Con.Focus]. The two *n*Ps

in question, i.e. the n_4P and the n_2P, thus both contain only one further feature that needs to be

valued, namely the case-feature. The VP derived through the merger of the V and the n_4P is

subsequently merged with an experiencer light verb, triggering V-to-*v* raising. The light verb

contains the categorial feature [+V] as well as the features [u-tense], [u-φ^], [exp-θ] and

[acc.case]. In this *v*P configuration, the light verb values the case feature of the n_4P as

accusative, and the n_4 in turn provides this value to the case feature of the n_2P *die huis*. In

addition, the n_4P provides the relevant φ-values to the *v* (third person, singular, neuter); the

movement diacritic associated with the *v*'s φ-features consequently triggers raising of the n_4P,

a pied-piping operation that results in the entire VP being merged into the specifier position of

the *v*. At this point, both the n_4P and the n_2P are inactive from a feature-valuation perspective,

having had all their features valued in the course of the derivation. The final step in the derivation of the main clause vP of the sentence in (55) involves merger of the subject *Pieter* into the second specifier position of the light verb associated with the lexical verb *sien*. Like all nominal expressions, the subject is analysed as forming part of phrase headed by a light noun, here indicated as n_5 to distinguish it from the other light nouns occurring in the structure at hand. The subject n_5P contains, at least, unvalued case- and θ-features as well as a set of valued φ-features (third person, singular, masculine). The light verb provides the experiencer value to the n_5P's θ-feature. The various operations outlined above are shown in the following simplified structure:

(66)
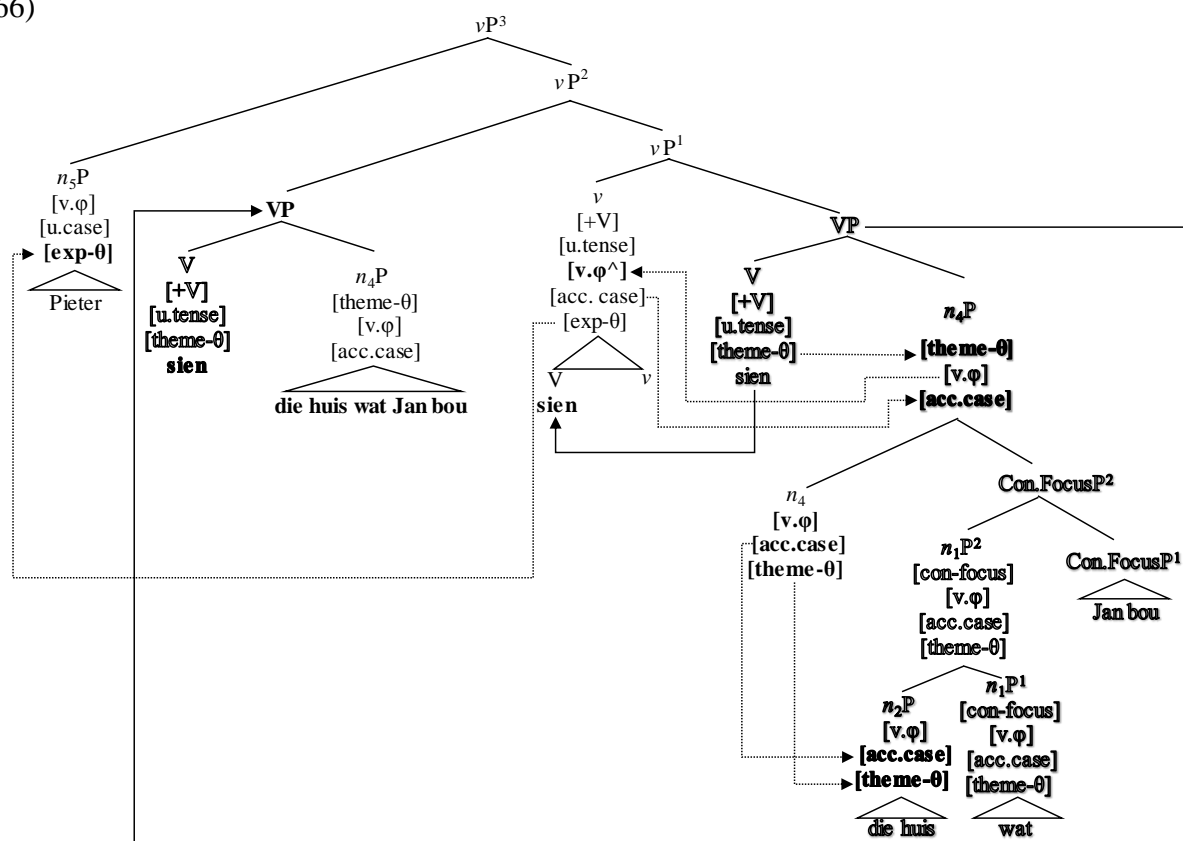
The vP^3 in (66) is subsequently merged with a T-head containing the valued features [pres.tense] and [nom.case], as well as an unvalued categorial feature and a set of unvalued φ-features with an appended movement diacritic. This gives rise to the following operations: (i) the T supplies the present tense value to the V/v and the latter values the T's categorial feature as [+V]; (ii) the T supplies the nominative value to the case feature of the

n_5P in the higher specifier position of the v; (iii) this nP in turn values the φ-features of the T and, as a consequence, the movement diacritic carried by the T's φ-features triggers raising of the n_5P into [spec, T] with the containing vP[3] pied-piped along. The various operations are illustrated in (67).

(67)
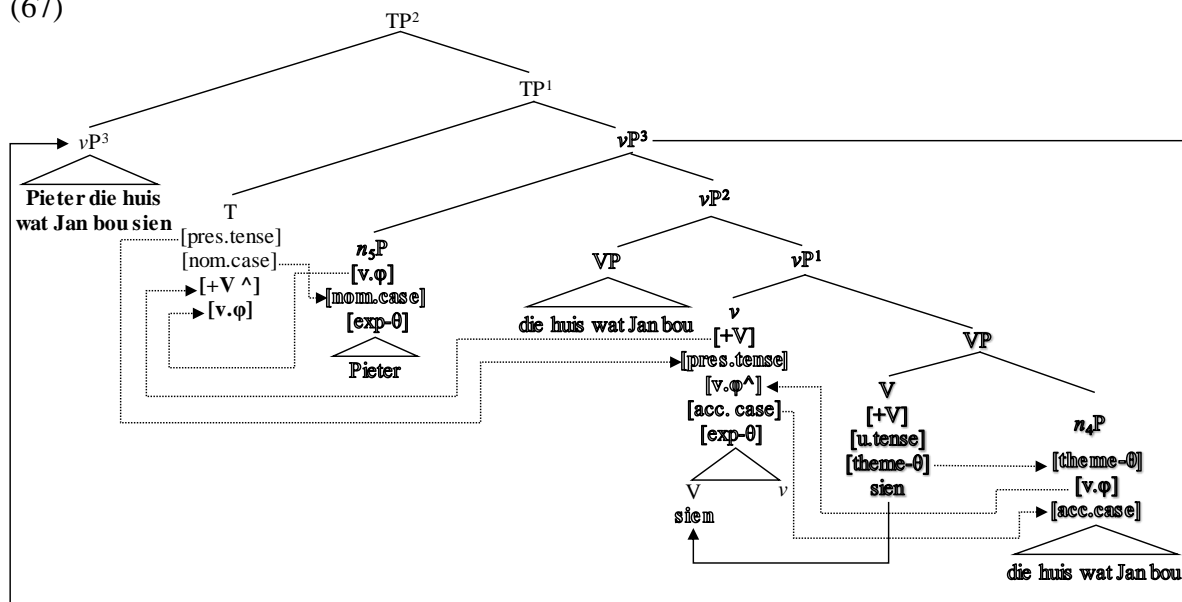
The linear order reflected in (67) is *Pieter die huis wat Jan bou sien*. To derive the surface linear order of (55) *Pieter sien die huis wat Jan bou*, the finite V/*v sien* clearly has to be moved into the clause-second position, with the subject n_5P *Pieter* occupying the clause-initial position.[12] In this regard, consider again the proposals made above concerning the derivation of the linear ordering in the relative clause in (55) (see the discussion of the structure in (64)). It seems plausible that two of those proposals also hold for the derivation of the surface linear order in the sentence in (55), namely that (i) the finite V/*v sien* is raised to the Fin-head and (ii) the subject n_5P is raised into the specifier position of the Inf.Focus-

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[12] Note that the order in (67) corresponds to the surface linear order that obtains when the sentence in (55) is used as a subordinate clause that is introduced by an overt complementiser such as *dat*, as shown in (i). In standard varieties of Afrikaans, the finite verb in such clauses is not fronted into second position.

(i)   Ek weet [dat Pieter die huis   wat Jan bou sien]
        I   know that Pieter the house which Jan builds sees
        "I know that Pieter sees the house that Jan is building"

head.[13] Adopting these proposals as working hypotheses, the resulting structure would take

the simplified form in (68).

(68)
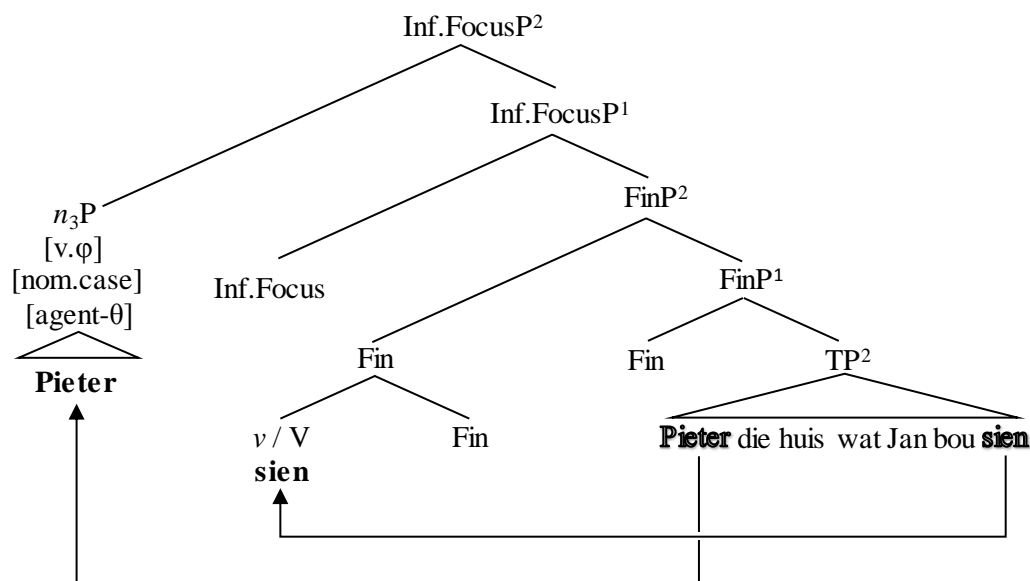
This concludes the discussion of the underlying assumptions and core devices of the proposed

Nominal Shell analysis of restrictive relative clauses in Afrikaans. Before ending this section,

however, a few remarks are in order about the phenomenon of relative pronoun ambiguity

noted in section 4.2. Consider again the example in (35), repeated here as (69).

(69)   Ek ken die man$_i$ wat$_{i/j}$ Jan$_j$ bewonder.

I know the man who Jan admire

"I know the man who admires Jan / who Jan admires"

As indicated by the subscripts (and also reflected by the English translation), the relative

pronoun *wat* in (69) can be interpreted coreferentially either with the expression *Jan* or with

the expression *die man*. This ambiguity can be accounted for as follows in terms of the

proposed analysis of relative clause constructions. Firstly, on the interpretation where *wat*

takes the expression *Jan* as its antecedent, it would be this expression (analysed as an *n*P) that

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[13] See the discussion around the structure in (64), as well as notes 7-9, for some ideas as to what could serve as grammatical triggers for these two operations. As noted, an investigation of the merits of these proposals falls outside the scope of the present study.

occupies the specifier position of the contrastive-focus light noun in the general structure in (58) (and in the expanded version in (60), suitably adapted to reflect the internal structure of the expression *Jan*); as proposed, the relative pronoun would represent the complement of the light noun. In this configuration, the coreferential relationship between *Jan* and *wat* is established through the semantic device presented in (61) above, with the expression *die man* functioning as the subject of the relative clause. Secondly, if *wat* is interpreted as taking *die man* as its antecedent, this expression is the one that would occur in the [spec, con-focus *n*] position, with *wat* again representing the complement of the light noun. In this configuration, the semantic device in (61) establishes a coreferential relationship between *wat* and *die man*, with the expression *Jan* functioning as the subject of the relative clause.

The sentence in (69) is two-way ambiguous from a grammatical point of view: the relative pronoun cannot be used to refer on its own, but must take either *Jan* or *die man* as its antecedent, depending on which of these two constituents occupies the specifier position of the contrastive-focus light noun in the structure (58)/(60). Notice, however, that the sentence in (69) lacks any information on the basis of which a choice can be made between these two interpretations (and, by implication, between the two structures underlying these interpretations) in a particular discourse context. Such a choice, in the words of Sperber and Wilson (1995:10), involves "an interaction between linguistic structure and non-linguistic information, only the former being dealt with by the grammar."[14]

4.5   Summary

Chapter 4 was organised around three main issues. Firstly, in section 4.2 a description was given of some of the main facts that have to be accounted for by an adequate analysis of restrictive relative clauses in Afrikaans. Secondly, a brief overview was given in section 4.3 of what seems to be the conventional analysis of reflexive constructions in recent generative

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[14] For a similar approach regarding the choice of antecedent for a reflexive pronoun in ambiguous reflexive constructions in Afrikaans, cf. Oosthuizen (2013:79-82).

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studies, based specifically on the analysis of such constructions in English as described by Radford (2009). As pointed out, although this analysis seems to be able to account for the syntactic positions occupied by relative pronouns in terms of a Wh-Movement operation, it does not address the question of how the (obligatory) coreferential relationship between the relative pronoun and its antecedent is established. Thirdly, section 4.4 addressed the question whether the general assumptions and mechanisms of the Nominal Shell Analysis of obligatory reflexivity developed for Afrikaans by Oosthuizen (2013) and subsequently extended to Chichewa by Msaka (2014) can provide an adequate framework for the analysis of restrictive relative clauses in Afrikaans. In view of the limited scope of this study, the attempt to develop such an analysis was confined to restrictive relative clauses (i) that are associated with a nominal expression that functions as the direct object argument of a verb and (ii) that are introduced by a morphologically simplex relative pronoun such as *wat* ("who", "which"). It was argued that the proposed analysis can provide an adequate account of the relevant facts in terms of a nominal shell headed by a contrastive-focus light noun that takes the relative pronoun as its complement and the antecedent of this pronoun as its specifier. More specifically, such an analysis can account for the obligatory coreferential relationship between the relative pronoun and some other expression in the sentence without requiring theoretical assumptions and devices that are either completely new or incompatible with those provided within the broad minimalist framework.

Chapter 5

SUMMARY AND CONCLUSION

This study focused on a largely unexamined aspect of Afrikaans grammar, namely restrictive relative clauses. An example of such a clause is given in (70). In this construction, the bracketed relative clause is semantically linked to the object argument of the main clause, *die huis* ("the house") by means of the relative pronoun *wat* ("which"). The relative clause is *restrictive* in the sense that it serves to contrast the entity representing the antecedent of the relative pronoun with other entities; in other words, the relative clause restricts selection from a set of possible referent entities to a particular one.

(70)   Pieter sien die huis$_i$ [**wat**$_i$ Jan bou].

         Pieter sees the house which Jan builds

         "Pieter sees the house that Jan is building"

The primary aim of the study was to examine whether the general assumptions and devices of Oosthuizen's (2013) Nominal Shell Analysis of reflexive constructions, which was developed within the broad theoretical framework of Minimalist Syntax, can be extended to provide an adequate account of restrictive relative clause constructions in Afrikaans. The guiding consideration in taking the relevant ideas underlying Oosthuizen's Nominal Shell Analysis as point of departure concerns the fact that an obligatory reflexive construction and a restrictive relative clause construction both contain a pronominal element that is referentially dependent on some other expression in the sentence. That is, both a reflexive pronoun and a relative pronoun have to enter into a coreferential relationship with an antecedent expression. Given this common characteristic, the question arises whether the Nominal Shell account of this relationship in reflexive constructions can be extended to account for the coreferential

relationship between a relative pronoun and its antecedent in restrictive relative clause constructions such as the one in (70).

As stated in Chapter 1, the study had three main objectives. The first was to describe the relevant core concepts and devices of Minimalist Syntax, and also those of the Nominal Shell Analysis as a model presented within the broad minimalist framework. This was the topic of Chapter 2. The second main objective was addressed in Chapter 3, namely to give a brief overview of previous analyses of relative clause constructions within the minimalist framework and its precursor, Government and Binding Theory. The third objective was dealt with in Chapter 4. This was to develop a Nominal Shell Analysis of restrictive relative clauses in Afrikaans within the general framework of assumptions and devices proposed by Oosthuizen (2013). In the course of the discussion, particular attention was given to the question whether such an analysis can provide an adequate account of the coreferential relationship between a relative pronoun and its antecedent. As background to the analysis, Chapter 4 also provided a brief non-formalistic description of the relevant facts of restrictive relative clauses in Afrikaans.

Adopting the basic idea underlying Oosthuizen's (2013) Nominal Shell Analysis of obligatory reflexivity in Afrikaans, it is claimed in terms of the analysis of restrictive relative clauses put forward in Chapter 4 that the relative pronoun and its antecedent are initially merged into a nominal shell structure headed by a contrastive-focus light noun n, where this light noun "belongs to a natural class of identificational (or quantificational) elements" which also includes an identity-focus light noun, a possessor-focus light noun, a quantity-focus light noun and a presentational-focus light noun (Oosthuizen 2013:126-144). More specifically, the contrastive-focus n selects a relative pronoun as its complement, with the latter carrying unvalued φ-features. This pronoun is subsequently raised to the contrastive-focus n. The next step involves merging the antecedent expression into the specifier of the light noun, resulting in a probe-goal configuration where the antecedent can value the φ-features of the relative

pronoun, with the *n* serving as mediator. In this configuration, the φ-valued relative pronoun is semantically interpreted as an anaphor and the nominal expression in the specifier position of the *n*P as its antecedent; that is, the pronoun is interpreted as obligatorily coreferential with this nominal expression. The semantic device responsible for establishing this interpretation was formulated as (61) in Chapter 4.

In short, it was argued in section 4.4 that the proposed Nominal Shell Analysis of restrictive relative clauses in Afrikaans can account for the relevant facts. In particular, in contrast to previous analyses of this construction, for example the conventional analysis described by Radford (2009), the proposed analysis can provide an account of the obligatory coreferential relationship between the relative pronoun and its antecedent. Moreover, this account does not require any theoretical assumptions and devices that are either completely new or incompatible with those provided within the broad minimalist framework. The general conclusion, then, is that the underlying assumptions and core devices of Oosthuizen's (2013) Nominal Shell Analysis of reflexive constructions provides an adequate framework for the analysis of Afrikaans restrictive relative clause constructions as well.

This does not imply, however, that the proposed analysis, and the grammar in which it is embedded, is without potential flaws. For instance, in discussing the derivation of a relatively simple sentence such as the one in (70) numerous assumptions had to be made because of the dearth of grammatical studies on Afrikaans, specifically within the minimalist framework. The merit of these assumptions, and the implications for the proposed analysis should they turn out to be untenable, remain to be investigated. The very limited empirical scope of the study should also be kept in mind. The analysis put forward in Chapter 4 was developed with reference to only one type of restrictive relative clause construction, namely one where the restrictive relative clause forms part of a nominal expression functioning as the direct object argument of the matrix verb and where the relative pronoun likewise represents the object of the relative clause verb, as in (70). However, the containing expression can also occur as, for

example, the subject or a prepositional object, as illustrated in (71) and (72) respectively; this is true also of the relative pronoun, as shown in (73) and (74). It remains to be determined whether the proposed analysis can account for such constructions as well:

(71)   Die man_i [**wat**_i jy soek] het vertrek.

the man   who you seek has left

"The "man that you are looking for has left

(72)   Hy gesels met die meisie_i [**wat**_i jy ken].

he talks   with the girl   who you know

"He is talking to the girl that you know"

(73)   Ek ken die man_i [**wat**_i haar gesoek het].

I know the man who her seeked has

"I know the man who was looking for her"

(74)   Ek ken die meisie_i [met **wie**_i hy gepraat het].

I know the girl   with whom he talked has

"I know the girl whom he talked with"

Recall that the discussion in section 4.4 only paid attention to the relative pronoun *wat* ("who", "which"). As was pointed out in section 4.2, however, Afrikaans contains several other relative pronouns, including *waar* ("where"), *wanneer* ("when"), *waarom/hoekom* ("why"), *hoe* ("how") and *toe* ("when"). Also, no attention was given to, among others, constructions with relative pronouns that occur with the possessive element *se* (e.g. *wie se* ("whose")), or that form a morphologically complex expression together with a prepositional element (e.g. *by wie* ("with whom") and *waarop* ("on which"), respectively). The analysis of relative clauses containing such pronouns and pronominal expressions clearly require further investigation. Finally, the Nominal Shell Analysis was proposed in an attempt to account for the relevant facts of restrictive relative clauses in Afrikaans. Whether such an analysis could

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be extended to other languages, including those that do not belong to the West-Germanic family, also remains as a topic for future research..

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