The Nanosyntactic Structure
of the
Afrikaans Passive Participle

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Thesis presented in partial fulfilment of the requirements for the degree of
MA in Linguistics for the Language Professions

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December 2011
Declaration

By submitting this thesis, I declare that the entirety of the work contained herein is my own, original work, that I am the owner of the copyright thereof and that I have not previously, in its entirety or in part, submitted it for obtaining any qualification.

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December 2011
Abstract

This study focuses on the internal structure of the passive participle in Afrikaans from within the framework of Nanosyntax. The ternary mode of classification, adopted by Caha (2007), Embick (2003;2004) and Kratzer (2000), is taken as background for the analysis of the Afrikaans passive participle; the analysis is done according to the nanosyntactic account of verb event structure which was first proposed by Ramchand (2008), and adopted by Lundquist (2008) in his study of the passive participle in Swedish. The aim of the study is to determine whether the ternary classification of passive participles and the general nanosyntactic structure proposed by Lundquist for the passive participle in Swedish provide an adequate framework for the analysis of such participles in Afrikaans. Two alternative proposals, namely for a binary and a quaternary classification of passive participles, are also critically examined. The morphological difference between predicative and attributive passive participles in Afrikaans suggests that, if both the ternary classification and Lundquist’s proposal for the internal structure of passive participles are to be maintained, a structural account for this difference should be provided from within the Nanosyntactic framework. In this regard, a possible structure is suggested and discussed in Chapter 4.
Opsomming

Hierdie studie fokus op die interne struktuur van die passiewe deelwoord in Afrikaans binne die raamwerk van Nanosintaksis. Die drieledige klasifikasie, wat gevolg word deur Caha (2007), Embick (2003; 2004) en Kratzer (2000), dien as agtergrond vir die analise van die Afrikaanse passiewe deelwoord. Die analise is gebaseer op Ramchand (2008) se voorstelle oor die nanosintaktiese struktuur van werkwoorde; hierdie voorstelle word ook gevolg deur Lundquist (2008) in sy analise van die passiewe deelwoord in Sweeds. Die hoofoogmerk van hierdie studie is om te bepaal of die drieledige klasifikasie van passiewe deelwoorde en die algemene nanosintaktiese struktuur wat deur Lundquist voorgestel word, ’n toereikende raamwerk bied vir die analise van die verskillende Afrikaanse passiewe deelwoorde. Twee alternatiewe voorstelle, naamlik ’n tweeledige en vierledige klasifikasie, word ook krities ondersoek. Die morfologiese verskil tussen predikatiewe en attributiewe passiewe deelwoorde in Afrikaans dui daarop dat, indien beide die drieledige klasifikasie en Lundquist se voorstel vir die interne struktuur van passiewe deelwoorde gehandhaaf sou word, ’n strukturele verklaring van hierdie verskil gebied moet word binne die Nanosintaktiese raamwerk. In dié verband word ’n moontlike struktuur voorgestel en bespreek in Hoofstuk 4.
Acknowledgements

I must acknowledge J.R.R. Tolkien, for having written and having thus awoken in me an appetite for Linguistics – *that* is how all of this was begun.

My greatest thanks to Johan Oosthuizen, for teaching by example what pleasure there’s to be derived from the pursuit of knowledge.

I would like to thank Prof Tarald Taraldsen for his guidance concerning Nanosyntax: for his availability, correspondence and kindness.

Furthermore, I’d like to thank Kate and Simone, for passing the tissues and providing the metaphorical halfway-house. Special thanks to my loving mother who brought me tea everyday as I worked through the holidays.

Finally, to Helgard, thank you for all your support and reassurance. Here’s one more adventure that we’ve had together.

This material is based on work financially supported by The National Research Foundation (NRF). Any opinion, findings, conclusions or recommendations expressed in this material are those of the authors and therefore the NRF does not accept any liability in regard thereto.
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Chapter 1
Introduction

Human language, rule-bound and systematic as researchers have found it to be, also shows a tendency towards erratic and unpredictable behaviour. Any proper theory of grammar has to provide an account of the various patterns and systems found in (a) language. Often, however, it is the apparent irregularities of a language that seem to go beyond a theory’s explanatory power. Attempts at explaining such phenomena often lead to new frameworks. One such recent framework is Nanosyntax (NS).

Nanosyntax is a theoretical approach to grammatical inquiry that is intended to be more “fine-grained” than conventional Minimalist Syntax (MS), and claims to provide a method of analysis that can account for the behaviour of linguistic elements which often appear to be erratic and unpredictable. According to Starke (2009:1), the need for such a fine-grained analysis stems from the fact that, over the past two decades, researchers working in the broad field of MS have been making empirical observations that do not seem to be compatible with the widespread assumption that one terminal node in a syntactic tree corresponds with one lexical item. Lundquist (2008) documents such empirical observations concerning nominalisations and participles in Swedish. Consider the following examples:

(1)  
(a) Jag ska springa/jogga fem kilometer idag.  
I will run / jog five kilometers today  
“I’m going to run/jog five kilometers today”
(b) det var en hel del spring/*jogg i skogen idag.  
it was a whole part run/jog in forest.DEF today  
“There was a whole lot of run/jog in the woods today” (Lundquist 2008:28)

The Swedish words *springa* (“run”) and *jogga* (“jog”) are both unergative verbs that “show more or less identical behaviour” (Lundquist 2008:28). In (1a) they are interchangeable with
no consequence to the grammaticality of the sentence. In (1b) however, we find that springa
has undergone nominalisation with a grammatical result, while the same is not true for jogga.
This difference in behaviour cannot be attributed to syntactic or semantic selectional
information (i.e., verb class or 0-role selection, respectively), factors that have traditionally
been thought responsible; in fact, springa and jogga possess the same selectional properties
on both grounds (Ramchand 2008:18-19). Thus we observe that, in a seemingly unpredictable
way, certain verbs may occur only within a very limited domain while other verbs are more
“flexible”, occurring in domains where others may not (Lundquist 2008:28).

Lundquist (2008:29) moreover points out that the Swedish nominalising suffixes –a/e-nde
and –(n)ing also show a seemingly unpredictable distribution. There are, for example, certain
verbs to which both suffixes may attach (as in (2a)), neither suffix may attach (2b), and only
–(n)ing may attach (2c):

(2) (a) springa (“run”) spring-ning spring-ande
(b) likna (“resemble”) *likn-ing ³likn-ande
(c) omge (“surround”) omgiv-ning *omgiv-ande (Lundquist 2008:29)

On the basis of these observations, and those following from studies of similar phenomena in
other languages – e.g., Starke’s (2002; 2005) work on the English suffix –ed, Svenonius’
(2008) work on the prepositional system of English, Caha’s (2009) work on case, and
Taraldsen’s (2010a) work on Nguni noun class prefixes and concords – attempts have been
made to state generalisations about the behaviour of linguistic elements below the level of the
word (henceforth, sub-word level), alluding to the notion of analysable and predictable
structures at this level. These structures are argued to be composed of “syntactico-semantic”
features that are taken from a universal set, and built up into morphemes in the course of the
syntactic derivation (Lundquist 2008:35)1. The seeming unpredictability is therefore shown to
be a result of a sub-word level system that, once analysed as such, yields the correct
predictions about the data.

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1 These features are referred to as “atomic linguistic features” by e.g. Starke (2009) and Caha (2009). Following
Lundquist the term “syntactico-semantic features” will be used in this study since it provides a more transparent
description of the nature of these features; I shall return to this point in the following chapter.
Observations like those mentioned above have had significant consequences in linguistic research on, amongst others, morphosyntax, the syntax-lexicon interface, the syntax-semantics interface, as well as for the investigation of morphological phenomena such as syncretism and allomorphy (Starke 2009:4). The aim of Chapter 2 of this study is to set out the assumptions, devices and consequences of one approach to the analysis of syntactico-semantic features at the sub-word level, namely that proposed within the nanosyntactic framework. The exposition of this framework will be based on, amongst others, Caha (2007; 2009), Lundquist (2008), Ramchand (2008), Starke (2009), and seminars by Taraldsen (2010b).

This study aims to determine whether the NS approach provides an adequate framework for the description of the sub-word level structure of the Afrikaans passive participle. Chapter 3 provides an overview, firstly, of analyses of the passive participle in English and German which have been proposed by researchers working outside the NS framework. This overview will be largely based on Embick (2003; 2004) and Kratzer (2000), who argue for a ternary classification of passive participles, namely the classes of the eventive passive, the R-state and the T-state. Secondly, attention is given to the work that has been done on passive participles from within the NS framework, based mainly on Caha (2007), Lundquist (2008) and Ramchand (2008). These researchers all adopt a nanosyntactic structure for passive participles that incorporates the syntactico-semantic features \[\text{Init} \] \[\text{Proc} \] \[\text{Res} \], in one form or the other.

In Chapter 4 the sub-word level structure of the Afrikaans passive participle is described against the background of the various approaches set out in Chapter 3. The Afrikaans participle, and in particular the passive participle, has received very little attention in both traditional grammars and the generative literature. Chapter 4 begins with a non-formalistic description of the form of the Afrikaans passive participle, and its possible variations and alternations; this description is based on, amongst others, Combrink (1969), Conradie (1979), Hauptfleisch (1953) and Menkveld (1978). This is followed by a sub-word level analysis of

\[2\] The term “nanosyntax” seems to have been coined by Starke during seminars at Tromsø University (cf. Caha 2009: 1).
the Afrikaans passive participle against the background of the discussion in Chapter 3. Among the topics that are addressed in the analysis of the Afrikaans data are the interaction of the passive participle with the passive auxiliary, and the morphological change that is shown by the “passive participle-like” adjective occurring in attributive position (henceforth, and simply for ease of reference, the “deverbal adjective”). This last point holds particular interest for this study as it engages with a topic that has not yet been addressed by other researchers working on passive participles in NS. Towards the end of Chapter 4, a new syntactic structure is proposed in an attempt to account for the morphological change that is exhibited by deverbal adjectives, without assuming a distinct nanosyntactic structure for this participle.
Chapter 2
The Nanosyntactic Framework

2.1 Introduction

Nanosyntax is not presented as an approach to linguistic inquiry that falls outside of the broad framework of MS; it does not attempt to posit representations and devices that are incompatible with those of MS. The generalisations drawn from the empirical data suggest the same systematicity and recursion attributed to the tradition of generative linguistic inquiry that has lead to MS (Ramchand 2008:38). Structure at the sub-word level is represented as constituting binary syntactic trees that are put together by Merge (Caha 2009:52). These sub-word level structures “ought to undergo all sorts of operations that are the bread-and-butter of minimalist syntax. And so they do” (Caha 2009:25). Furthermore, movement in one form or the other remains part of this framework, although there has been recent debate about the nature of “movement” (Caha 2009:26). The concept of head movement, in particular, is problematic for the nanosyntactic approach in view of the claim that terminal nodes that are conventionally associated with lexical items (e.g. N, V, etc.) are not grammatical primitives but rather sequences of sub-word level features that can be lexicalised (i.e., spelled-out) as “words” at various points.

2.2 Core Assumptions and Devices

2.2.1 Terminal Nodes and Syntactico-Semantic Features

A major difference between nanosyntax and conventional MS is that the ingredients of syntactic trees are no longer whole morphemes that are selected as such from the lexicon, but syntactico-semantic features that are fed into the syntax from a universal set, entirely pre-lexicon. In the conventional view, one morpheme corresponds with one terminal node. In nanosyntax, by contrast, one feature corresponds with one terminal node, and a sequence of features (i.e., a syntactic subtree) is spelled out by one morpheme (Starke 2009:2).
As an illustration of the nanosyntactic approach to terminal nodes and features, consider Ramchand’s (2008) analysis of the decomposition of verbal predicates. Ramchand proposes that verbal predicates are composed of three syntactico-semantic features, namely a causation element [Init(iation)], an element expressing change [Proc(ess)], and an element expressing a final state [Res(ult)]. In Ramchand’s analysis, [Init] and [Res] are not obligatory elements and one or both may be missing from the structure of verbal predicates. In fact, Ramchand classifies verbal predicates according to the presence or absence of these features, pointing to systematic differences in their behaviour on the basis of this inclusion or omission (Ramchand 2008:108). It should be noted that Ramchand consistently avoids the term “verb”, working from the premise that the syntactico-semantic features forming the verbal predicate’s sub-word level structure are not exclusively “verb features”: they may also form part of the sub-word level structure of, for example, nouns and adjectives (Lundquist 2008:31). This is an important point with regards to the constructionalist view of processes at the sub-word level taken within nanosyntax (Ramchand 2008:1) and an important step in the elimination of the lexicon as a module of the language faculty, as argued for within nanosyntax. This will be discussed in greater detail later in this section.

Consider Ramchand’s (2008:75) representation of the sub-word level structure of a word like break:

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3 Similar claims are made by Caha (2008) in his study of the features forming the sub-word level structure of case: features that are present in the accusative structure are also present in the nominative structure; features that are present in the genitive structure are also present in the accusative structure, and so forth.

4 The form break occurs in three different positions in (3). This could create the impression that break is initially merged in the lowest position under [Res], and subsequently copied and merged under [Proc] and again under [Init]. Lundquist (2008:32) uses what seems to be a notational variant of Ramchand’s representation of verb event structure, one which does not create the impression of movement:

![Diagram of verb event structure](image)

Note that the predicates arrive and break fall under different classifications, according to Ramchand. In the structure of a predicate like arrive, the same DP comprises the INITIATOR, UNDERGOER and RESULTEE. In the structure of a predicate like break, the same DP comprises the UNDERGOER and RESULTEE, but a different DP comprises the INITIATOR. For more on this classification, cf. Ramchand (2008: 63-108) and Lundquist (2008: 31-33).
In Ramchand’s analysis, (3) represents the generic structure for predicates such as break, which contain all three the features [Init], [Proc] and [Res]. The DPs represent arguments of the predicate, with the subscript “j” indicating that the argument in question fills the specifier position of more than one phrase. The DP filling the specifier position of the [Init] projection is known as the INITIATOR and acts as the external argument or subject of the predicate. The DP filling the specifier position of the [Proc] projection is known as the UNDERGOER, and the DP filling the specifier position of the [Res] projection is known as the RESULTEE. With predicates such as break, the DP UNDERGOER is also the RESULTEE and acts as the internal argument or object of the predicate. XP represents an (optional) modifying complement of the [Res] head and may take the form of DP, PP, AP, etc.

Ramchand (2008:23-35) provides the following characterisation of the primitive features [Init], [Proc] and [Res]. Firstly, [Proc] identifies the actual change, or the dynamic process, implied by verbal predicates. Although Ramchand gives little attention to defining [Proc]5,

5 This is most likely because it is widely accepted that verbal predicates, by nature, define some sort of dynamic process and that this property, expressed by [Proc], need not be explained in great detail in the decomposition (cf. Radford 2009:3 and Crystal 2003: 490). It must however be noted that this notion has often been criticised on the grounds that many verbs, such as seem and be, do not overtly express actions (Crystal 2003: 490).
this feature is never absent from the decomposition and is thus considered the “nucleus” of the verbal decomposition.

Secondly, Ramchand (2008:24) states that [Init] identifies “the existence of a causing subevent, which has a DP role associated with it via syntax”. This DP role is the INITIATOR, which Ramchand (2008:24) defines as “an entity whose properties/behaviour are responsible for the eventuality, [the dynamic process – EK] coming into existence”. Ramchand follows Baker (1988), Hale and Keyser (1993), Ritter and Rosen (1998) and Rappaport, Hovav and Levin (2000) in distinguishing the causing element from the dynamic process of the verbal predicate. It is crucial to note that it is not the DP role of INITIATOR that provides the verbal predicate with its causative attribute; causation is not determined by the presence of an external argument. Rather, by virtue of the feature [Init], causation is an element of the predicate itself, this element providing the predicate with the option of selecting a DP INITIATOR\(^6\). Ramchand (2008:24) argues that by analysing causation as a consequence of the [Init] feature, it is possible to account for all types of causation, regardless of the presence of an agentive force. Consider the examples in (4) that demonstrate different types of causation:

(4)   (a) The water spewed.
(a) The water flooded the house.
(c) Silas flooded the house.

Ramchand draws the distinction between “instrumental subjects” (4a,b), which are “entities whose facilitating properties are presented as initiating the event because they allow them to happen”, and “volitional agents” (4c), which “have intentions and desires that lead them to initiate dynamic events” (Ramchand 2008:24).

Lastly, Ramchand follows Tenny (1987), Kiparsky (1998), Van Hout (1996), Ritter and Rosen (1998), and Borer (1998) in identifying result (or telicity) as another sub-word level element that is separate from the dynamic process. In a mirror image of causation, [Res] identifies the existence of a state resulting from the dynamic process and has a DP role

\(^6\) As support for the claim that DP roles cannot be responsible for assigning a causative attribute to the verbal predicate, consider firstly unergative verbs, which take external arguments but do not always causativise. For example, the unergative verb *spew* can take an external argument, but this argument does not play an initiating role: *Water spewed from the sink; *I spewed water from the sink* (cf. Ramchand 2008:22-25 for more details).
associated with it. This DP role is the RESULTEE. It is important to note that the dynamic process does not imply telicity (Ramchand 2008:28), nor is telicity necessarily determined by the presence of the RESULTEE. In other words, it is not necessarily the internal argument that provides the verbal predicate with telicity. Ramchand distinguishes between predicates that are telic by virtue of the feature [Res] and predicates that gain telicity by virtue of an XP path. Consider the examples in (5):

(5)  
(a) Silas broke the stick.  
(b) Silas drank the coffee.

In (5a), telicity is an element [Res] of the predicate itself, providing the predicate with the opportunity of selecting the DP RESULTEE the stick. In (5b), no [Res] is present and telicity arises from the DP path the coffee, which is the complement of [Proc]. In this sense, drink is not inherently telic and only becomes telic when [Proc] is merges with the path the coffee. According to Ramchand (2008:66), the sub-word level structure of a word like drink can be represented as follows:

(6)

Some researchers have claimed that telicity arises from a verbal predicate being combined with a quantized internal argument (cf. Krifka 1987;1992, Kratzer 2004, Borer 2005, and Van Hout (2000a). Ramchand (2008:25) opposes this claim, arguing that a sentence such as John stood up in a second possesses no internal argument and yet is clearly telic, whereas a sentence such as They found gold in three hours possesses no quantized argument and is still telic.

Ramchand (2008:46) claims that the DP or PP path does not create its own subevent but “acts as a further modifier or descriptor” of [Proc] in order to describe certain properties of this event. For an introduction to the notion ‘paths’, cf. Gehrke (2007), Stringer (2006), Talmy (2000).
The sequence of nodes [Init], [Proc] and [Res] in (3) corresponds to the word *break*, and the sequence [Init] and [Proc] in (6) corresponds to the word *drink*. The fact that *break* and *drink* both correspond with more than one node, could create the impression of head movement. However, Ramchand (2008:59) rejects the notion of head movement in her analysis, claiming such an operation would violate the nanosyntactic premise that one lexical item is not inserted under a single terminal node and that this initial position is not “somehow privileged”.9 Starke (2001) claims that spellout of non-terminal nodes offers a solution other than head movement to account for the claim that a form like *break* in (3) and *drink* in (6) correspond with three and two terminal nodes, respectively. Caha (2009:64-80) argues that in order to explain the systematic patterns below word level, either the conventional view of movement or the conventional view of lexical insertion must be enriched. It is clear from the literature that nanosyntax opts for enriching lexical insertion by allowing the spellout of non-terminal nodes (e.g. Caha 2009; Starke 2001, 2009; Ramchand 2008). This makes it possible to use the same movement technology as in conventional MS, as stated in (7):

(7) Rules of movement

(a) Movement is only to the left.

(b) Move only constituents containing the head-noun.

(Cinque 2005)

Caha (2009:57-63) moreover argues that the spellout of non-terminal nodes allows the elimination of operations such as Fission and Fusion in Distributed Morphology (DM), both of which are necessary in a framework that deals with sub-word level structure but that does not allow spellout of non-terminal nodes.10 Such eliminations could contribute to making the nanosyntactic framework more parsimonious and economical.

9 Ramchand (2008:59) proposes the concept ‘Remerge’ in place of head movement. However, neither Taraldsen (2010b) nor Caha (2010) regards this concept as differing in any significant way from head movement.

10 For an introduction to the DM framework, cf. Halle and Marantz (1994) and Marantz (1997). The operation Fission is characterised as follows by Harley and Noyer (1999:18): “Fission was originally proposed in Noyer (1997) to account for situations in which a single [node] may correspond to more than one [lexical item]. In the normal situation, only one [lexical item] may be inserted into any given [node]. But where Fission occurs,
Next, consider Caha’s (2009:27) representation of the sub-word level derivation of grammatical case that is expressed as a suffix in a given language:

Caha (2009) argues that case is not a primitive feature in itself, but is derived from a sub-word level structure that consists of an invariant sequence of syntactico-semantic case features. Based on patterns of case syncretism in various languages, he (2009:5-22) proposes the Universal Case Contiguity hypothesis, according to which there is an invariant sequence of cases shown in (8). The hypothesis is stated in (9).

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[lexical] insertion does not stop after a single [lexical item] is inserted. Rather, [lexical items] accrete on the sister of the fissioned [node] until all the [lexical items] which can be inserted have been, or all features of the [node] have been discharged. A feature is said to be discharged when the insertion of a [lexical item] is conditioned by the presence of that feature”.

The operation Fusion is characterised as follows by Halle and Marantz (1993:116): “Fusion takes two terminal nodes that are sisters under a single category node and fuses them into a single terminal node. Only one [lexical item] may now be inserted…”

Caha (2009:57-63) raises several objections to these operations and offers simpler devices from within nanosyntax to account for the observations initially dealt with by Fission and Fusion.
Universal Case Contiguity:

(a) Non-accidental case syncretism targets contiguous regions in sequence invariant across languages.


In (8), the NP* is base-generated below the case features, and the numbers 1-6 denote the possible “landing sites” for NP*. Caha (2009:27) states that “1 is the landing site which turns the nominative into a suffix. 2 represents the same position for the accusative and so on.”

All features to the right of the NP* will be spelled out as a case suffix, while the features to the left of the NP* are spelled out as a functional prefix. Various languages differ in terms of how far along the case sequence NP* is able to move. For example, in languages that do not express the comitative and instrumental cases as suffixes, the NP* is never allowed to move higher than 4. In such a language, the comitative and instrumental cases are expressed by functional prepositions. Consider Caha’s (2009:65) representation of the comitative phrase, with the dog, in German:

(10) mit dem Hund
    with the.DAT dog
    “with the dog”

For this reason, if no further operations apply, case marking will be prefixal (Caha 2009:26). NP* stands for a constituent that is minimally an NP but which may be bigger (Caha 2009:27).
The sequence of nodes [A], [B], [C] and [D] corresponds with the dative case of the NP* dem Hund, and the sequence of nodes [E] and [F] corresponds with the functional preposition mit\textsuperscript{12}.

2.2.2 Syntax is Everywhere

A second major difference between nanosyntax and conventional MS concerns the nanosyntactic claim that syntax is responsible for combining syntactico-semantic features to build up morphemes. This challenges the widespread assumption that the lexicon precedes the syntactic component of the grammar. In the nanosyntactic framework, syntax is preceded only by a universal set of syntactico-semantic features; these features are fed into the syntax which builds them into structures that correspond with matching structures encoded on lexical items in the lexicon. Lexical insertion accordingly represents a process during which a structure built up by the syntax is “read” by the relevant devices of the lexicon and matched with the correct phonological form and conceptual information (Caha 2009:53). According to this view of insertion, lexical entries must contain (at least) the following information: <phonological form; conceptual information; syntactic subtree> (Starke 2009:2; Caha

\textsuperscript{12} It should be noted that, unlike Ramchand (2008), Caha’s (2009) representation of sub-word level structure does not include head movement of any sort, while it does include phrase movement of the NP*. Although Caha’s and Ramchand’s structures deal with different phenomena (case and verb event structure, respectively) they do seem to be notational variants, in the relevant respects, of sub-word level structure. See also footnote 4 for Lunquist’s (2008) notational variant of verb event structure.
In this sense, the lexicon is no longer an opaque module containing bundles of preassembled features that are selected in a numeration and then arranged by the syntax. Lundquist (2008:35) points out that the conventional view of the lexicon assumed in MS does not account for how these bundles come to exist. In the nanosyntactic framework, by contrast, it is the syntax that builds sub-word level structures from syntactico-semantic features; lexical insertion involves matching the structures to units of phonological-and-conceptual information via corresponding syntactic (sub)trees on lexical entries in the lexicon. To illustrate, suppose (11) is a structure produced by the syntax. Ignoring for the moment the conceptual component of the lexical entry, (12) represents the lexical item *mit* (“with”) that will be inserted in the syntactic structure to spell out the sequence [E] and [F]\(^{13}\):

\[
\begin{array}{c}
\text{Comitative} \\
\text{mit} \\
\text{F} & \text{Instrumental} \\
\text{E}
\end{array}
\]

(Caha 2009:67)

Nanosyntax does not reject the notion of “listedness” of lexical entries (Ramchand 2008:1). Given the arbitrary relationship between the phonological form, the conceptual information, and to an extent the syntactic subtree, it cannot be denied that there is a sense in which entries in the lexicon must be listed. Yet, systematic patterns which would conventionally be dealt with in morphology and formal semantics, are argued to be of such a nature that they can be attributed to the syntax. In other words, while nanosyntax does not deny that lexical entries are bundles of phonological form, conceptual information and syntactic structure must be stored in the lexicon, properties associated with traditional morphology and formal semantics

\[^{13}\text{At this stage, the relation between the syntactic structure produced by the syntax and the syntactic subtree on the matching lexical item may not be perfectly clear. This is explained in more detail later in this chapter with the introduction of the Superset Principle, the Elsewhere Condition and Caha’s (2009) condition on Matching. For now, (12) serves merely as a diagrammatic representation of the conceptualisation of lexical items in the lexicon.}\]
are no longer attributed to operations within the lexicon – which are inaccessible to the syntax – but rather to the syntax itself. As a consequence, the lexicon would be transparent and free of morphological and, to an extent, formal semantic operations. Caha (2009:52) makes the following remark on how patterns that would traditionally be dealt with in the domain of semantics, can be accounted for by the syntax within the proposed framework:

(13) The end-product of syntax can be a collection of features which says that “a discourse salient plurality of animate individuals caused a certain amount of a mass individual to undergo a process as a result of which the mass individual changed location… (E.g., The guys poured some water out.)”

As Caha (2009:52) mentions, all that is missing in terms of meaning from a structure like that in (13), is the lexical-encyclopedic information that will be provided by the conceptual component of the lexical entry which matches the subtree. Starke (2009:6) goes as far as to suggest that there is a sense in which the syntax is “language-free”. This notion is illustrated by Caha’s remark in (13): syntax is able to produce a structure with generic “meaning” before lexical insertion has taken place at all. For this reason, I follow Lundquist (2008) in calling the primitive elements of syntax “syntactico-semantic features”, a term which describes the nature of these features more adequately than the alternative “atomic features”.

2.2.3 Matching: The Superset Principle and The Elsewhere Condition

Let us now consider how matching lexical items to structures produced by the syntax occurs. It is a reasonable question whether the syntactic tree encoded on a lexical entry must be an exact match for a structure produced by the syntax if it is to qualify for insertion. There are two possibilities with regards to this question: the first is what Caha (2009:66) calls “rigid matching”; the second requires that the rigid notion of matching is somewhat relaxed.

In the case of rigid matching, the relation between the form and the syntactic structure (where syntactic structure can be translated into function) is one-to-one, with certain forms being coincidentally the same. Consider the distribution of are in the paradigm in (14):
<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1\textsuperscript{st} Person</td>
<td>am</td>
<td>are</td>
</tr>
<tr>
<td>2\textsuperscript{nd} Person</td>
<td>are</td>
<td>are</td>
</tr>
<tr>
<td>3\textsuperscript{rd} Person</td>
<td>is</td>
<td>are</td>
</tr>
</tbody>
</table>

(Caha 2007:2)

Under the view that form and function are in a one-to-one relationship, each form of *are* in (14) is a separate entry in the lexicon, and each is encoded with its own unique syntactic structure. The syntactic structure encoded on the relevant lexical item must be an exact match for the structure produced by the syntax if it is to qualify for insertion. Caha (2009:65-66) points out that, if we accept the notion of rigid matching, the lexical item (12) *mit* ("with") does not qualify for insertion into the structure in (11) as it is not identical to the whole structure: in addition to the nodes [E] and [F], with which (12) is associated, (11) contains an NP* and the dative case, which (12) does not.\(^{14}\)

There seems to be a stronger possibility that the occurrence of *are* in the various contexts in (14) is really a case of different instantiations of the same lexical entry: that there exists only one lexical entry with the form *are* and that the different instantiations are not as erratically distributed as they may initially seem. In fact, there seems to be an underlying pattern regulating the distribution. Since one form fulfills various functions in (14), it must be that the same lexical entry qualifies to spell out the various syntactic structures underlying the various functions. It should be clear that, under this view, exact matching between the syntactic structure encoded on a lexical item and a structure produced by the syntax is a problematic notion. However, to account for the idea that one lexical item (with one form and one syntactic structure) can be inserted into various structures produced by the syntax, certain adjustments need to be made to the nanosyntactic framework as it currently stands. The first adjustment is to posit a condition that relaxes the requirements on matching so that it is

\(^{14}\) There is another possible analysis of (11), based on remnant movement, that allows (12) to spell out the nodes [E] and [F] in (11), without making adjustments to the notion of rigid matching. However, there are several problems with this analysis, as discussed by Caha (2009:65-66).
possible for one lexical item to spell out a number of different structures. In DM, this condition takes the form of the Subset Principle.

(15) The Subset Principle

The phonological exponent of a lexical item is inserted to spell out a sequence of syntactico-semantic features if the item matches all or a subset of the features specified in the syntactic structure. Insertion does not take place if the lexical item contains features that are not present in the syntactic structure. Where several lexical items meet the conditions for insertion, the item matching the greatest number of features specified in the syntactic structure must be chosen. (Adapted from Halle 1997, in Caha 2007:2)

According to (15), the syntactic structure encoded on a lexical item need no longer be an exact match to qualify for insertion: a given lexical item can qualify for insertion even if it only contains a subpart of the structure produced by the syntax. This is known as “underspecification”. Under this analysis, the same lexical item qualifies for insertion in a number of contexts, provided there exists no lexical item which is more specified for the structure produced by the syntax. Caha (2007:3) gives the following (possible) sequence of syntactico-semantic features of the structures encoded on the lexical items in (14):

(16) /am/ ⇔ [pres, speaker, singular]
    /is/  ⇔ [pres, participant, singular]
    /are/ ⇔ [pres]

Notice that the entry are is the least specified and can therefore, according to the Subset Principle, be inserted into any sequence that contains at least the feature [pres].
An alternative to the Subset Principle has been proposed by Starke (2002, in Caha 2007:3). It delivers the same result in that the condition on matching is relaxed; however, in terms of how matching is relaxed, it states exactly the opposite:

(17) The Superset Principle

The phonological exponent of a lexical item is inserted to spell out a sequence of syntactico-semantic features if the item matches all or a superset of the features specified in the syntactic structure. Insertion does not take place if the lexical item does not contain all features present in the syntactic structure. Where several lexical items meet the conditions for insertion, the item containing less features unspecified in the syntactic structure must be chosen.

(Adapted from Starke 2002, in Caha 2007:3)

Like (15), (17) allows that one lexical item can be inserted in a number of different structures provided by the syntax. In contrast to (15) however, (17) states that a given lexical entry qualifies for insertion if it contains all the features present in the structure provided by the syntax. A qualifying lexical entry may contain features that are not specified by the syntax. This is known as “overspecification”. Features that are not specified by the syntax will simply be “underassociated” (i.e., ignored) during lexical insertion (Ramchand 2008:98). It is important to note that, when two lexical entries qualify for insertion, the one containing fewer unused features will win over the other. Adopting the Superset Principle, Caha (2007:4) gives the following (possible) sequence of syntactico-semantic features of the syntactic structures encoded on the lexical items in (14):

(18) /am/ ⇔ [pres, participant, speaker]
    /is/ ⇔ [pres]
    /are/ ⇔ [pres, participant, speaker, addressee, group]
The lexical entry *are* is now the most specific entry in the paradigm. This means that it does not qualify for insertion in structures that contain any fewer features than those specified in the lexical entry, i.e. *am* or *is*. According to the Superset Principle, if the lexical item *are* is to be inserted into a sequence produced by the syntax, that sequence must contain at least the features [pres, participant, speaker, addressee, group]; though it may contain features in addition to these, it may not contain any fewer. The structures in (19) express the essential difference between the Subset and Superset Principles:

(19) (a) The Subset Principle

(b) The Superset Principle

In the diagrams (19a) and (19b), both of the lexical entries (ii) and (iii) are matches for the structure produced by the syntax in (i). They will compete for insertion. In both cases, (ii) is the winner and (iii) is the closest match for (i) in the absence of (ii). Since the feature [E] in (19b)(ii) and the features [E] and [F] in (19b)(iii) do not have corresponding nodes on the structure (i), these features are underassociated during insertion.
Caha (2007:8-31) makes a convincing argument in favour of the Superset Principle, pointing out several shortcomings with regards to the Subset Principle. In his study, he makes use of two sets of data, namely the Czech nominal declension (Caha 2007:8-23) and English irregular verbs (Caha 2007: 23-31). In each case, Caha first establishes hierarchical relations between elements in the relevant paradigms, pointing out consistent patterns in the distribution of forms that arise in the paradigms as a result. He then shows that the Superset Principle makes the correct predictions with regards to these distributions in terms of lexical insertion, whereas the Subset Principle requires additional devices in order to yield the same predictions. Caha thus shows that the application of the Superset Principle requires fewer theoretical devices than the Subset Principle in order to account for these observations, and that it is therefore a more viable candidate for utility in the nanosyntactic framework.

The Superset Principle as stated in (17) can be decomposed into two parts: The Elsewhere Condition (cf. Kiparsky 1973), and what Caha (2007:5) refers to as the “Minimised Superset Principle”. I will take the latter to be the revised version of the principle and will henceforth refer to it simply as the Superset Principle:

(20) The Elsewhere Condition

Let $R_1$ and $R_2$ be competing rules that have $D_1$ and $D_2$ as their respective domains of application. If $D_1$ is a proper subset of $D_2$, $R_1$ blocks the application of $R_2$ in $D_1$.

(Neeleman and Szendröi 2007:28)

From a nanosyntactic perspective, the Elsewhere Condition states that, where two competing lexical items both qualify for insertion, the item with fewer unused features will be the winner. The Elsewhere Condition allows us to simplify the Superset Principle as follows:

\[ \text{Superset Principle} \]

15 The resulting hierarchy for the Czech nominal declension is a simplified version of (9), containing only the nominative, accusative and instrumental cases (Caha 2007:11-21); the resulting hierarchy for English irregular verbs is [Past [Perfect [Passive [Resultant State [Target State] ] ] ] ] (Caha 2007:27).
(21) The Superset Principle
A lexical item applies if it specifies a superset of the features of a structure produced by the syntax. (Adapted from Caha 2007:5)

Given the Superset Principle and the Elsewhere Condition, it is however still unclear how (12) qualifies for insertion into the structure in (11), since the Superset Principle states that an item qualifying for insertion must be a superset of the structure it is to spell out. (12) is not a superset of the structure in (11) since it does not contain the nodes [A], [B], [C], [D] and [NP*]. Assuming that spellout is cyclic and occurs from the bottom up, and that there is a spellout attempt after every merge operation with each successful spellout overriding the former (Starke 2009:4), it is possible to state the following condition on matching:

(22) Match
A lexical item matches a structure produced by the syntax if it is identical to that structure, ignoring traces and spelled out constituents. (Adapted from Caha 2009:67)

The combination of the Superset Principle, the Elsewhere Condition and the condition on Match in (22), makes it possible for (12) to spell out nodes [E] and [F] in (11) with spellout proceeding as follows: NP* is moved away from its initial merge position as the complement of [A] during the syntactic derivation, and is thus ignored for the purpose of spellout; because of the cyclic nature of spellout and the fact that each successful spellout overrides the former, the sequence [A], [B], [C] and [D] successfully spells out the dative case and may now be ignored for the purpose of further spellout; NP* successfully spells out *dem Hund* and may now also be ignored; finally, the lexical entry *mit* matches the remaining sequence [E], [F] and is inserted to complete the expression *mit dem Hund.*
2.3 Conclusion

This chapter has outlined the basic assumptions and devices of the nanosyntactic framework. Nanosyntax is one approach to grammatical inquiry that falls within the large framework of MS and attempts, as far as possible, to make use of the conventional devices of MS. That is to say, it retains the syntactic representation of the binary branching tree that is put together by Merge. In addition, movement operations are kept as simple as possible, with some researchers, such as Caha (2009), adhering to restrictions on movement so that it is reserved only for constituents containing the head.

A crucial point on which nanosyntax differs from conventional MS is its assumption that terminal nodes do not represent whole morphemes, but syntactico-semantic features that are smaller than morphemes. This assumption, together with the maintained devices of conventional MS, forces nanosyntax to enrich the concept of insertion and revise the conventional notion of the lexicon. Accordingly, lexical items are conceptualised as comprising bundles of conceptual, phonological and syntactic information according to which they can be identified for insertion. One lexical item no longer corresponds with one terminal node, but with a sequence of nodes; more specifically, a lexical item corresponds with a syntactic subtree that matches the structure encoded on it.

The idea that a syntactic structure must correspond with the same sequence encoded on a lexical entry raises questions on just how matching occurs. The combination of the Superset Principle, the Elsewhere Condition and Match provides the framework with useful tools for constraining and guiding insertion.
Chapter 3
Classification and Structure of the Passive Participle

3.1 Introduction

This chapter deals with the structure of passive participles within the nanosyntactic framework set out in Chapter 2. A first task in constructing a representation of the sub-word level structure of passive participles, is to identify the various categories into which they may be divided on the basis of their syntactic distribution and functions. In traditional categorisations, passive participles are divided into two main categories: verbal passives and adjectival passives. According to Embick (2004:355), part of this distinction is based on the assumption that various lexical items in their different forms are derived in different modules of the grammar. More specifically, on this view, adjectival passives are taken to be derived in the lexicon, whereas verbal passives are derived in the syntax. Lieber (1980:229-230) and Bresnan (1982), for example, claim that adjectival passives are derived from verbal passives (Embick 2003:147). However, in the nanosyntactic framework, this claim cannot be maintained since the syntactic component of the grammar is conceived of as preceding the lexicon proper. In addition, nanosyntax claims that each lexical item is built up in the syntax, as opposed to the traditional claim that some lexical items are derived in the lexicon whereas others are derived in the syntax. Embick (2004:355) moreover states that the distinction between verbal and adjectival passives is simply not fine enough.

Parsons (1990:234-235) is one of the first researchers to suggest that adjectival passives should be divided into two further categories, giving rise to the “ternary” categorisation of passive participles. The three classes in this ternary classification are (i) the target state passive participle, (ii) the resultant state passive participle, and (iii) the eventive passive participle. Henceforth, these categories are referred to as the T-state, the R-state and the eventive passive, respectively (cf. Caha 2007; Embick 2003; 2004; Kratzer 2000). In terms of the ternary distinction mentioned above, the T-state and the R-state together are equivalent to the adjectival passive, and the eventive passive is equivalent to the verbal passive. The diagram in (1) below illustrates the difference between the traditional categorisation and the
ternary categorisation, and (2) provides an example of each type of passive participle, according to the ternary categorisation.

(1)

\[
\text{Passive Participles}
\]

\[
\begin{align*}
\text{Eventive Passives} & \quad \text{Adjectival Passives} & \quad \text{Traditional categorisation} \\
\text{Resultant State} & \quad \text{Target State} & \quad \text{Ternary categorisation}
\end{align*}
\]

(2)  
(a) **T-State Passive:** The dustbin is empty.
(b) **R-State Passive:** The dustbin is emptied.
(c) **Eventive Passive:** The dustbin was emptied by Silas.

(Adapted from Embick 2003:148)

The three categories of passive participles provided in the ternary categorisation can be briefly described as follows (a more detailed description is given in Section 2). Firstly, the T-state describes the state of the internal object, without alluding to a dynamic process that gave rise to this state. For example, the T-state in (2a) describes that the dustbin is in an empty state, without providing information about the process that gave rise to the dustbin being empty. According to Embick (2003:355) and Lundquist (2008:147-148), of the three passive participles, the T-state is the most like a “true” adjective, in both form and function. Secondly, the R-state describes the state of the internal object, and also provides information about the dynamic process that gave rise to this state. For example, the R-state in (2b) not only describes that the dustbin is in an empty state, but also that this state came about through some action of emptying. Thirdly, unlike the T-state and R-state passives, the eventive passive does not describe a state, but the dynamic process itself. For example, the eventive
passive in (2c) describes the emptying of the dustbin. As will be shown later, eventive passives necessarily provide information about the cause of the dynamic process, whether this is expressed overtly by means of an agentive expression or not. Lundquist (2008:141) states that of the three passive participles, the eventive passive is the most like an active verb.

Various researchers working within the nanosyntactic framework make the basic assumption that different types of passive participles that exhibit different functional and/or distributional properties have different nanosyntactic structures. In other words, the T-state, R-state and eventive passives are taken to have different nanosyntactic structures if they systematically display different functional and/or distributional properties. The ternary categorisation of passive participles will be adopted in Section 2, and the functional and distributional properties of each will be described in order to arrive at an independent nanosyntactic representation of each.

Lundquist (2008), however, maintains that the distinction between the eventive passive and the R-state as structurally independent parts of speech cannot be convincingly argued for. Although he accepts the idea that the eventive passive possesses an R-state interpretation in certain linguistic environments, he nevertheless claims that the R-state possesses the same structure as the eventive passive and that it should therefore be eliminated as a structurally independent category. Since Lundquist’s proposal eliminates one of the distinctions in the ternary categorisation of passive participles, the system that he uses in his analysis will henceforth be referred to as the “binary” categorisation. It is important not to confuse Lundquist’s binary categorisation, which groups the R-state and the eventive passive together on the basis that they have the same nanosyntactic structure, with the traditional categorisation according to which the T-state and the R-state are grouped together as “adjectival” passives. When working with Lundquist’s binary categorisation, the term “R-state” will be used to refer exclusively to an interpretative variant of the eventive passive structure. According to Lundquist’s argument for binary categorisation, it is only the eventive passive and the T-state that are really structurally different. Section 3 deals more extensively with Lundquist’s argument and also addresses its merits and shortcomings.
Sleeman (2011), by contrast, maintains that neither a binary nor a ternary categorisation is able to give an adequate account of the functional and distributional properties of the passive participle. She proposes a quaternary categorisation, in which a fourth class is identified, namely the eventive passive occurring in attributive (i.e., pre-nominal) position. Sleeman’s argument is based on her observations of the use of such passive participles in English and Dutch. Section 4 examines how Sleeman’s categorisation proposal can be of use in arriving at a representation of the nanosyntactic structure of the passive participle.

Finally, it must be noted that most recent studies of the passive participle have been done within the broad generative framework. For example, Embick (2003; 2004) and Sleeman (2011) do so from the viewpoint of Distributed Morphology (DM), whereas Caha (2007), Lundquist (2008) and Ramchand (2008) all work within the broad nanosyntactic framework. The various theoretical frameworks should not, however, have a significant effect on the observations about the properties and behaviour of passive participles. Moreover, the structures that have been proposed to account for these observations seem to be reconcilable with the concepts – specifically, the syntactico-semantic features [Init], [Proc] and [Res] – that Ramchand (2008) introduces for the decomposition of verbal event structure\textsuperscript{16}. As the present study is conducted within the nanosyntactic framework, Ramchand’s terminology is adopted throughout for the representation of passive participle structures.

### 3.2 Arguments for the Ternary Categorisation

The ternary categorisation of passive participles is based on the observation that the “adjectival” passives, as described in the traditional approach, do not seem to form a homogenous group: while one type of adjectival passive seems to describe a state of the internal object resulting from a dynamic process, another type seems to describe a more general state resulting simply from the dynamic process itself. The two core concepts of the ternary approach, ‘T-state’ and ‘R-state’, were introduced by Parsons (1990):

---

\textsuperscript{16} Ramchand’s (2008) decomposition of verbal event structure was discussed in Chapter 2, Section 2.1.
(3) **T-State**  
For a large number of verbs, there is a “typical” independently identifiable state that its object is in after the verb is true of it. If the state is transitory, then we come to use the adjective form of the past participle to stand for the transitory state instead of for the permanent resultant state. For example, anything that is cracked and then not repaired is in a state that is easy to identify. (p. 235)

(4) **R-State**  
For every event e that culminates, there is a corresponding state that holds forever after. This is “the state of e’s having culminated”, which I call the “Resultant state of e” or “e’s R-state”. If Mary eats lunch, then there is a state that holds forever after: The state of Mary’s having eaten lunch. (p. 234)

The T-state therefore describes a state in which the internal argument of a dynamic process has gained a certain quality as a result of that process. Kratzer (2000:2) claims that the T-state is “in principle, reversible”, and hence that the quality gained by the internal object “can be transitory”. For example, a jar that has become cracked can be mended, and a present that has been hidden can be found. As Parsons points out in (3) above, the T-state usually takes the form of an “underived” adjective – i.e., one which does not display morphology that is typically associated with verbs – when such a form is available. This provides one useful way of distinguishing it from the R-state and the eventive passive. The table in (5), which is adapted from Embick (2003:152), provides the forms of various T-states, R-states and eventive passives, for comparison.

(5)  
<table>
<thead>
<tr>
<th>Root</th>
<th>T-state</th>
<th>R-state</th>
<th>Eventive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bless</td>
<td>blessèd</td>
<td>blessed</td>
<td>blessed</td>
</tr>
<tr>
<td>Rot</td>
<td>rotten</td>
<td>rotted</td>
<td>rotted</td>
</tr>
<tr>
<td>Sink</td>
<td>sunken</td>
<td>sunk</td>
<td>sunk</td>
</tr>
<tr>
<td>Shave</td>
<td>(clean-) shaven</td>
<td>shaved</td>
<td>shaved</td>
</tr>
<tr>
<td>Open</td>
<td>open</td>
<td>opened</td>
<td>opened</td>
</tr>
<tr>
<td>Empty</td>
<td>empty</td>
<td>emptied</td>
<td>emptied</td>
</tr>
<tr>
<td>Dry</td>
<td>dry</td>
<td>dried</td>
<td>dried</td>
</tr>
<tr>
<td>Close</td>
<td>closed</td>
<td>closed</td>
<td>closed</td>
</tr>
</tbody>
</table>
The R-state describes a state that is true simply because an event has occurred. According to Kratzer (2000:4), Embick (2004:361) and Caha (2007:26), R-states can be interpreted as having a “job done”, or a “that’s over” sort of interpretation. Because of the temporally bound quality of R-states, they are not reversible. For example, if a ball is thrown onto the roof, the ball might be retrieved, but the action of throwing the ball onto the roof can never be undone: the state corresponding to the ball having been thrown will hold forever after. Besides the fact that the R-state takes a different form to the T-state, several other diagnostic tests for distinguishing between the T-state and the R-state will be discussed in Section 3.2.1.

Comparatively little attention has been given in the literature on the distinction between the R-state and the eventive passive. This is possibly due to the fact that the difference between the R-state and the eventive passive has always been assumed to be more obvious than the difference between the T-state and the R-state, since both denote a type of state. The eventive passive, however, does not denote a state, but a dynamic process. Specifically, it contains information about the cause or agent, which may be realised in the form of an agentive by-phrase or may remain covert. In such cases, the eventive passive construction is synchronous with that of the R-state. This often makes distinguishing them from one another difficult. Section 3.2.2 provides an argument from the literature for the distinction between the structures of the R-state and the eventive passive.

3.2.1 Diagnostic Tests for Distinguishing T-state from R-state

It is important to note that no diagnostic for distinguishing the T-state from the R-state seems to be perfectly reliable. For Kratzer (2000:1) and Lundquist (2008:147) the most reliable way of telling these two states apart is the ability or inability of each to be modified by still (or its counterparts in other languages), an element which may be described as an “adverb of continuity”. The T-state allows this modification, while the R-state resists it, as illustrated in

17 A distinction must be made between two functions of still, since each creates a difference in meaning, and one is always grammatical with adjectival passives, while the other is only grammatical with T-states. The first is the adverb still, which is used to test for T-states. The meaning associated with this function of still is that a certain state or condition remains true at the time of speaking. The second function of still is the disjunct, which expresses the speaker’s attitude towards what s/he is saying. The meaning associated with this function of still is roughly that the speaker wishes to place emphasis on her/his statement, that s/he feels strongly about this statement. This second still can be replaced with indeed without much consequence to the meaning of the utterance. The disjunct still is grammatical with all passive participles and must therefore not be confused with the adverb still when testing for T-states.
(6) and (7) respectively. In light of Kratzer’s claim that the state described by the T-state is transitory, it is reasonable that the T-state should allow modification by still, since it implies that the transitory state which is described continues to hold at the time of speaking. Conversely, since the R-state describes a state that is temporally bound and cannot be reversed, it is makes little sense to say that such a state still holds.

(6) (a) The door is still open.
(b) The jar is still cracked.
(c) The prisoners are still guarded.

(7) (a) The theory is (*still) proven.
(b) The ball is (*still) thrown.
(c) The dustbin is (*still) emptied.

Kratzer (2000:3) claims that, when dealing with the still-modification test, a construction that seems to be ungrammatical could turn out to be acceptable if an imaginary or extra-linguistic context is supplied. For example, The potatoes are still cooked could be judged ungrammatical; however, when one imagines that it is uttered in a situation in which cooked potatoes turn raw again if left for a while, the construction becomes grammatical (Kratzer 2000:3). Kratzer’s argument is that, should this extra-linguistic context make the construction acceptable, then the passive participle may plausibly be classified as a T-state. Kratzer provides (8) as an example of a passive participle that, in her view, is never grammatical with still-modification, even if an extra-linguistic context is applied to the utterance.

(8) * The feast is still over.

However, in the following extra-linguistic context, (8) seems to be just as acceptable as The potatoes are still cooked, if not more so: suppose that a king hosts a large feast that lasts for days. The king eventually runs out of meat and wine to offer his guests. The feast is declared “over” and the guests all sigh with disappointment. Suddenly, a servant, having discovered a hidden barrel of wine in the cellar runs out to the king and suggests that the feast might go on. But the king shakes his head and says “Alas, we still have no meat. The feast is still over”.

29
It is possible to imagine an extra-linguistic situation for each ungrammatical utterance in (7) which would render them acceptable.\(^{18}\) It seems that imagined, extra-linguistic contexts have a negative effect on this testing process for two reasons: (a) the results they produce are inconsistent because the ability to imagine an extra-linguistic context for an utterance differs from one researcher to the next, as illustrated by the discrepancy on the grammaticality of (8); and (b) if an extra-linguistic situation can be imagined for every passive participle that yields an ungrammatical result in the *still*-modification test, the test becomes ineffective since there will be no distributional difference with regards to the ability of the T-state and the R-state to be modified by *still*. Sperber & Wilson (1995:10) claim that interpretation “involves an interaction between linguistic structure and non-linguistic information, only the former being dealt with by the grammar”.\(^{19}\) It is therefore suggested here that the application of such extra-linguistic contexts be omitted from this testing procedure, which seeks to deal strictly with grammaticality, and not acceptability, which has to do with extra-linguistic contexts.

A second diagnostic test that has been used to identify the T-state concerns gradability and degree modification. The T-state, like the underived adjective, is subject to gradability and degree modification (Kratzer 2000:10). It is for this reason that T-state passive participles are often referred to as “true” adjectives. Consider the examples in (9). The sentences in (i), which have been adapted from Lundquist (2008:175-176), each show a T-state that is supported as such by the *still*-modification test. The sentences in (ii) show the T-state of (i) being modified by a degree adverb. The sentences in (iii) show an underived adjective being modified by the same degree adverb as in (ii).

\[(9)\]
\[
\begin{align*}
(a) & \quad (i) \quad \text{Ivan is still passed out.} \\
(ii) & \quad \text{Ivan is completely passed-out.} \\
(iii) & \quad \text{Ivan is completely red-faced.}
\end{align*}
\]

\(^{18}\) Time-travel is an example of an imaginary, extra-linguistic situation in which (7a-c) could become grammatical: a secret agent time-travels to the past to attempt to prevent a theory that has been proven from being proven, or a ball that has been thrown from being thrown, or a dustbin that has been emptied from being emptied. He fails in his mission and reports back to his commander that “the theory is still proven” or “the ball is still thrown” or “the dustbin is still emptied”.

\(^{19}\) cf. Culicover & Jackendoff (2005:ch. 10 & 11) for more information on this topic.
(b) (i) The vase is still cracked.
    (ii) The vase is slightly cracked.
    (iii) The vase is slightly dusty.

Kratzer (2000:5) discusses a third diagnostic that relates to verbs in German. According to her, verbs that can be modified by für (“for”) -PPs can also form T-states. Conversely, verbs that cannot be modified by für-PPs, cannot form T-states. Consider (10):

(10) (a) Die Mutter hat das Geiβlein für ein paar Stunden versteckt.
    the mother has the little-goat for a few hours hidden
    “The mother hid the little goat for a few hours”
(b) Das Geiβlein ist immer noch versteckt.
    the little-goat is still hidden
    “The little goat is still hidden”
(c) *Du kannst die Gäste für eine Stunde begrüssen.
    you can the guests for one hour greet
    “*You can greet the guests for an hour”
(d) *Die Gäste sind immer noch begrüssen.
    the guests are still greeted
    “*The guests are still greeted”

Contrary to Kratzer’s assertion, however, it can be argued that für-PP modification is acceptable only with verbs that denote a non-instantaneous event, specifically, an event or process that takes place over a period of time. The sentence in (11) illustrates this point.20 The ungrammaticality of (11) could be ascribed to the fact that gestochen (“stab”) describes an instantaneous action, one which cannot take more than a moment to complete. It is clearly implausible to suggest that such an action could have taken three minutes to complete.

(11) *Simon hat den Mann für drei Minuten gestochen.
    Simon has the man for three minutes stabbed
    “*Simon stabbed the man for three minutes”

20 Sentences such as the one in (11), in which an instantaneous action is modified by a für-PP, can receive two interpretations. The first, which would be acceptable in an appropriate communication context, entails that Simon stabbed the man repeatedly for a duration of three minutes. The second interpretation is that one stabbing action, performed by Simon, lasted for three minutes; this interpretation is unacceptable in any context.
Whether a verb can be modified by a für-PP or not, does not seem to have a direct correlation with its ability to form a T-state. As illustrated in (12), verbs that can be modified by für-PPs, as in (12a)(i) and (12b)(i), do not necessarily form T-states, as shown by the ungrammaticality of the corresponding sentences in (ii)²¹.

(12) (a) (i) Simon hat sein Abendessen für eine Stunde gegessen.
Simon has his dinner for one hour ate
“Simon ate his dinner for an hour”
(ii) *Das Abendessen ist immer noch gegessen.
the dinner is still eaten
“*The dinner is still eaten”

(b) (i) Simon hat ein Loch für zehn Stunden gegraben.
Simon has one hole for ten hours dug
“Simon dug a hole for ten hours”
(ii) *Das Loch ist immer noch gegraben.
the hole is still dug
“*The hole is still dug”

The grammaticality of the sentence in (12a)(i) is likely due to the fact that it is possible for Simon to spend an hour eating his dinner²². Although gegessen can be modified by a für-PP, it does not seem to be able to form a T-state passive, as is illustrated in (12a)(ii), since it yields an ungrammatical result when subjected to the immer noch (“still”)-modification test. The same argument holds for the sentence pair in (12b).

Embick (2004:357-360) provides several other diagnostic tests. The first specifies that the R-state can be modified by manner adverbs, whereas the T-state cannot. Consider (13):

²¹ Each ungrammatical sentence in (12) can be made acceptable by imagining an appropriate communication context. As has been discussed above, such extra-linguistic information prompts inconsistent results from these diagnostics, as the ability to imagine an appropriate situation for a particular utterance differs from one researcher to another. Therefore, for the purposes of this study, the use of extra-linguistic information when applying a particular diagnostic will be avoided.

²² Note that this does not necessarily mean that Simon finished his dinner, i.e. that he has eaten all the food on his plate; all that is certain from the example in (12a)(i) is that Simon ate at his dinner for a period of an hour.
(13)  
(a)  
(i)  The towels were hastily dried.  
(ii) *The towels were hastily dry.  

(b)  
(i)  The paper boat was carelessly sunk.  
(ii) *The paper boat was carelessly sunken.  

The second diagnostic provided by Embick states that the T-state can occur in the complement of verbs of creation such as *build, create and make, while the R-state cannot:

(14)  
(a)  
(i)  The door was built open.  
(ii) *The door was built opened.  

(b)  
(i)  Easter eggs are made hollow.  
(ii) *Easter eggs are made hollowed.  

The prediction made by this diagnostic is however not borne out by the sentence pair in (15). According to Embick (2003:152; 2004:358), the T-state of the root bless is the form blessèd, which contains the stress-bearing morpheme –èd; the R-state is the form blessed, which contains the unstressed morpheme –ed. Contrary to the prediction of the diagnostic, the R-state blessed is grammatical with the verb of creation create, whereas the T-state blessèd is ungrammatical.

(15)  
(a)  Man was created blessed.  
(b)  *Man was created blessèd.  

The third diagnostic provided by Embick states that the T-state can occur as a resultative secondary predicate, while the R-state cannot:

(16)  
(a)  
(i)  The door is kicked open.  
(ii) *The door is kicked opened.  

(b)  
(i)  The metal is hammered flat.  
(ii) *The metal is hammered flattened.
(c) (i) The door is kicked closed.
(that is, “The door has been kicked into a state of being closed”)
(ii) *The door is kicked closed.
(that is, “*The door has been kicked into a state that resulted from a process of becoming closed”)

It seems that, when the T-state and the R-state of a certain verb are syncretic, as is the case in (16c), the T-state interpretation is the more natural one; presumably, this is because the R-state interpretation is associated with an ungrammatical sentence, as in (16c)(ii). However, this diagnostic appears to be very limited since it yields ungrammatical results for many T-states that are supported by the still-modification test. In (17), for example, the sentences in (i) represent the T-state in terms of the still-diagnostic; as shown by the sentences in (ii), the very same T-states lead to ungrammaticality when used as secondary resultative predicates.

(17) (a) (i) The window is still broken.
(ii) *The window is kicked broken.

(b) (i) The vase is still cracked.
(ii) *The vase is kicked cracked.

The last diagnostic provided by Embick states that the R-state can occur with un-prefixation, whereas the T-state usually cannot, as illustrated in (18) below. This may be due to the fact that the R-state describes a state resulting from a previous action or event, in which case the prefix un- negates that action or event which has lead up to the state. As a consequence, the negated R-state describes a state that receives a “not done” type of interpretation, which is the opposite of the state described by the R-state. Since the T-state describes a state which does not include information about the dynamic process that brought it into being, the only “entity” available for negation by un- is the state itself. With such an interpretation the sentence would be ungrammatical since the T-state is essentially described only in terms of a property that it does not possess without conveying any further meaning. Rather, in such cases, a (morphologically) simple adjectival antonym could be used to convey a meaning equivalent to the “opposite of the T-state” meaning, as illustrated in (19).
Note that R-states with un-prefixation are able to co-occur with the verb remain, whereas the absence of un-results in ungrammaticality in such cases:

(20) (a) The apples were left on the counter for weeks and remained unrotted/*rotted.
(b) Every man that had not paid his tithe remained unblessed/*blessed.
(c) It was the day after Christmas and the present remained unopened/*opened.

It should be clear from the above discussion that there are several salient differences between T-state and R-state passive participles, although none of the diagnostics for distinguishing between them is completely reliable. As shown by its gradability and ability to undergo modification by degree adverbs, the T-state behaves most like an underived adjective; it moreover contains no information about the dynamic process that brought it about. By contrast, the R-state does contain such information, as shown by its inability to act as a resultative secondary predicate. What remains to be clarified is how the R-state differs from the eventive passive, since the eventive passive also contains information about a type of dynamic process.

### 3.2.2 A Diagnostic Test for Distinguishing R-state from Eventive Passive

The case for the T-state’s autonomy is supported by the fact that it usually appears in a form that differs from that of the R-state (cf. the table provided in (5)). However, the R-state and the eventive passive always appear in the same form (Lundquist 2008:147). Thus, if the
structural distinction between the R-state and the eventive passive is to be maintained, it is important to present evidence for the R-state’s autonomy from the eventive passive. Embick (2004:364) provides what seems to be the only currently available diagnostic for making this distinction; he claims that “one of the primary differences between the eventive passive and the [R-state] is agentivity”\(^{23}\). Consider the following sentences ((a) is adapted from Embick 2004:354):

\[(21) \quad \begin{align*}
  \text{(a)} & \quad \text{The metal is hammered.} \\
  \text{(b)} & \quad \text{The song is sung.} \\
  \text{(c)} & \quad \text{The little girl’s hair is combed.}
\end{align*}\]

Each of the sentences in (21) is ambiguous. The first interpretation is that the internal argument – the metal, the song and the little girl’s hair – is currently in a state of having been hammered, sung and combed, respectively. In each case, this is the R-state reading of the participle, for it denotes a state that the internal object is in as a result of the process it has undergone. The second interpretation is that the internal arguments – the metal, the song and the little girl’s hair – are habitually hammered, sung and combed, respectively, by an agent who performs the relevant action. This is the eventive reading of the participle, for it does not denote a state but a fully dynamic process. Note that no information regarding the agent is available for the R-state interpretation, and conversely no information regarding the state of the internal argument is available for the eventive interpretation. In the case of the eventive interpretation of (21a), for example, it is not possible to know in what state (i.e. how flat, how shaped, etc.) the metal is once the hammering process is over. It is only clear that the metal undergoes a process of being hammered. It follows that, although information about the agent is covert in each sentence in (21), eventive passives should be able to include explicit information regarding the cause or the agent of the dynamic process, whereas the R-states should not. Thus, the diagnostic provided by Embick predicts that the eventive passive can be modified by an agentive by-phrase, while the R-state cannot\(^{24}\). In (22) below, (a) represents the ungrammatical R-state interpretation and (b) the grammatical, eventive interpretation:

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\(^{23}\) Embick (2004: 364) does not, however, specify what the other “primary differences” are.

\(^{24}\) Caha (2007:26, fn. 15) notes an observation by Starke (2006) that “some by-phrases can occur in adjectival passives, but in order for them to do so, they need to be generic”, as in *This thing is untouched by human hands*\(^{\#}\)by John. Lundquist (2008:151) points out that, in Swedish, agentive by-phrases can co-occur with T-states and underived adjectives in the complement of an eventive copula:
(22) (a) (i) *The metal is hammered by John.
(that is, “*The metal is in a state of having been hammered by John”)

(ii) *The song is sung by the choir.
(that is, “*The song is in a state of having been sung by the choir”)

(iii) *The little girl’s hair is combed by her mother.
(that is, “*The little girl’s hair is in a state of having been combed by her mother”)

(b) (i) The metal is hammered by John.
(that is, “The metal is hammered regularly by John”)

(ii) The song is sung by the choir.
(that is, “The song is sung regularly by the choir”)

(iii) The little girl’s hair is combed by her mother.
(that is, “The little girl’s hair is combed regularly by her mother”)

The sentences in (22a) are ungrammatical: habitual interpretations are not possible for R-states because a habitual reading implies a dynamic process rather than a state. A sentence like *The metal is hammered by John* cannot have a “that’s over” interpretation – which is the required interpretation for the R-state – but only a habitual interpretation. Moreover, it does not seem plausible that the internal argument of a dynamic process can be left in a state of having undergone the dynamic process by a specific cause or agent. In (22a)(i), for example, it makes little sense to suggest that, if Simon and John had hammered the same metal, and if they had hammered the metal in precisely the same way, the metal would be in a different resultant state, simply because Simon instead of John did the hammering. By contrast, when dealing with the eventive interpretation, whether it is John or Simon who hammers the metal on a regular basis makes a significant difference to the interpretation; hence this represents vital information for the eventive passive. Accordingly, it can be concluded that the R-state does not contain information about the agent or cause of the dynamic process, whereas this information is crucial for the eventive passive.

(a) Jag blev glad av filmen.
I bli.PAST happy by movie.DEF
“The movie got me happy”
3.2.3 The Nanosyntactic Structures of T-state, R-state and Eventive Passives

Sections 3.2.1 and 3.2.2 examined the claim that each type of passive participle has its own nanosyntactic structure. In the course of the discussion attention was given to various arguments from the literature for the autonomy of the T-state, R-state, and eventive passive. Ramchand’s (2008) decomposition of verbal predicates, which was set out in Chapter 2, forms the framework for the discussion in the rest of Chapter 3. Specifically, an attempt will be made to describe the nanosyntactic structure of the three types of passive participle identified by the ternary categorisation. The various properties of the T-state, R-state and eventive passive seem “cumulative” (i.e., the T-state contains the least information, while the eventive passive contains the most information, including information of both the T-state and the R-state plus additional information). Based on this cumulative approach to the relevant properties, Caha (2007:24) follows a proposal by Starke (2006) in claiming that the three passive participles are all subsets of one another: the T-state is a subset of the R-state, which in turn is a subset of the eventive passive:

(23) (a) T-state [Res]
    (b) R-State [Proc[Res]]
    (c) Eventive [Init[Proc[Res]]]

Much like an underived adjective (such as happy, clever, bright, etc.), the T-state expresses a simple state, denoted by the syntactico-semantic feature [Res]. Since the T-state is essentially deverbal (derived from a verbal stem), it must contain a remnant of the verbal structure from which it is derived. Recall from the discussion of Ramchand’s (2008) decomposition in Chapter 2, that [Res] describes an endpoint, a resultant state that comes into being as a consequence of a dynamic process, [Proc]. However, since the T-state does not include information about this dynamic process, it is claimed to have the following simple nanosyntactic structure:

25 Caha does not list this source in his bibliography.
26 Caha (2007) makes use of the terms “Voice”, “Cause” and “State”, instead of Ramchand’s (2008) terminology “Init”, “Proc” and “Res”, respectively. He does, however, state that Voice, Cause and State are the equivalent of Ramchand’s Init, Proc and Res (Caha 2007: fn. 12). For the sake of consistency in the present study, Ramchand’s terms are used throughout (cf. Chapter 2, Section 2.1).
The specifier position of [Res] is filled by the DP RESULTEE. In active verbs, this is the position filled by the internal argument which is affected by the result of the dynamic process. Similarly, in the structure of the T-state, this position is filled by the DP of which the T-state describes a certain quality.

Since the R-state contains information about the dynamic process that brought about the resultant state, in addition to containing information about the resultant state itself, it must possess a more complex structure than that of the T-state. Therefore, in order to form the structure of the R-state, the syntactico-semantic feature [Proc] is attached above [Res], thereby encoding information about the dynamic process into the structure of the R-state:

The specifier position of [Proc] is filled by the DP UNDERGOER, which in the structure of the R-state must always be the same as the DP RESULTEE. This is because the R-state does not carry information about the agent or cause of the dynamic process, and takes only an internal argument.

The structure of the eventive passive is the most complex of the three. Lundquist (2008:141) claims that the eventive passive contains precisely the same syntactico-semantic features as the first phase of their active counterparts. [Init] is the syntactico-semantic feature that introduces the cause of the dynamic process; in active verbs, it is also responsible for
introducing the external argument. For passive participles, however, it is “commonly assumed that the semantics of the agent position survives, but is never expressed as a DP argument” (Lundquist 2008:144). Thus, “in the case of the [eventive] passive participle, the INITIATOR is not present, and must be ‘inaccessible’ in this sense. However, the fact that the init head and its co-indexing properties are present, means that even the [eventive] passive participle contains information about the argument structure of the full verb” (Lundquist 2008:144). Lundquist accordingly proposes that eventive passives contain the feature [Init^0], with a non-filled specifier position, as shown in (26):

(26)

\[
\text{InitP} \quad e \quad \text{Init'} \quad \text{ProcP} \quad \text{DP} \quad \text{Proc'} \quad \text{ResP} \quad \text{DP} \quad \text{Res}
\]

In the structure of the eventive passive given in (26), an agentive by-phrase could form the complement of [Res] in the form of a modifying PP. Depending on the type of verbal predicate involved, the co-indexing properties of the syntactico-semantic features would differ. For example, in the active construction *Silas wrote the book*, the DP INITIATOR and the DP UNDERGOER are co-indexed as forming the external argument, while in *Silas snapped the twig*, the DP UNDERGOER and the DP RESULTEE are co-indexed as forming the internal argument. 27 However, in light of the above claims about the role of co-indexation relations in the organisation of DP arguments in active constructions, it is not clear how such

\[27\text{It is not clear from the NS literature exactly which operations and/or devices are involved in co-indexation. This issue remains as a topic for future research.}\]
relations should be represented in passive constructions. In a passive sentence like *The book is written by Silas* it is possible that both [Init] and [Proc] have empty specifier positions, while the agent *Silas* forms part of the PP complement of [Res]; conversely, in *The twig is snapped by Silas*, it is possible that only [Init] has an empty specifier position, while *Silas* forms part of the PP complement of [Res]. The diagram in (27a) represents the active constructions *Silas wrote the book* and *Silas snapped the twig*, while (27b) represents the respective passive constructions.

(27) (a)  
```
      InitP
     /     /
DPi   Init'
   /     /
Silas write /
   /
DPi Init snap
   /
Silas
   /
DPj the twig
   /
ProcP Proc'
   /
DPi write /
   /
Silas
   /
DPj Proc snap
   /
the twig
   /
ResP Res write /
   /
DPj write /
   /
the book
   /
Res snap
```
3.3 An Argument for a Binary Categorisation

The ternary distinction between the T-state, the R-state and the eventive passive was set out in Section 3.2. The present section focuses on Lundquist’s (2008) claim that, from a nanosyntactic perspective, there is no structural difference between the R-state and the eventive passive. Lundquist bases this claim on two observations. The first is that the R-state and the eventive passive never surface in different forms, but are syncretic (Lundquist 2008:147; cf. the table in (5) above). Although this is not necessarily an indication of a shared nanosyntactic structure, it could provide support for such a possibility. The second observation concerns the fact that the R-state and the eventive passive are used with different passive auxiliaries in a language like German. According to Lundquist (2008:148-9) and Kratzer (2000:1), the R-state is always used with the auxiliary *sein* (“be”) and the eventive passive with *werden* (“become”, “get”).

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28 Neither Kratzer nor Lundquist provides German data to illustrate this phenomenon.
29 As regards to co-occurrence with passive auxiliaries (“copulas” in Lundquist’s terms), Lundquist (2008:149) states that “In English, the resultative/resultant state reading is triggered most saliently when a passive participle...
If Lundquist’s claim about a shared structure between the R-state and the eventive passive proves to be correct, it would imply that the R-state can be eliminated as a distinct class of passive participle with an independent nanosyntactic structure; as a consequence, the ternary categorisation would be rejected in favour of the binary categorisation of passive participles (cf. Section 3.1).

The ambiguity of sentences such as those in (21), repeated in (28) below, was pointed out in Section 3.2. The question arises whether one interpretation, either the R-state or the eventive reading, is favoured by hearers, in the absence of an extra-linguistic context.

(28) (a) The metal is hammered.
(b) The song is sung.
(c) The little girl’s hair is combed.

It is unlikely that any of the sentences in (28), spoken within a particular context, will remain ambiguous: the intended meaning will be clear from the context. However, out of context, various hearers are likely to favour one interpretation over another, based on their experience of the world. For example, one hearer might judge that The metal is hammered bears a predominantly eventive meaning and that this interpretation seems more “natural”. However, when addressed to a blacksmith, it is likely that the hearer will favour the R-state reading as his everyday circumstances prime him for such an interpretation. Even so, it cannot be said that either of the readings is the predominant interpretation for the majority of English speakers: the sentences in (28) seem to remain ambiguous until some form of extra-linguistic information is added. It is when the nanosyntactic structure of the R-state and the eventive passive is the same that the syntactic component will be unable to distinguish between the two readings, which means that pragmatic considerations will be required to determine the intended interpretation. Barring any extra-linguistic information, it seems that all utterances which contain an R-state without an agentive by-phrase (see below) are systematically ambiguous between an R-state interpretation and an eventive interpretation. This provides

of an accomplishment or achievement verb appears in the present tense of a stative copula. In Swedish, the reading is triggered when the stative copula vara is used instead of the usual ‘eventive’ copula bli. A ‘perfective’ or ‘perfect’ reading is triggered in these contexts, and we call the type of perfect/perfective passive a resultative passive.
further support for the claim that there is no difference in the nanosyntactic structures of the R-state and the eventive passive.

We now turn to Lundquist’s second observation regarding the claim that there is no nanosyntactic difference between the R-state and the eventive passive, which concerns the type of passive auxiliary with which these passives can occur. Kratzer (2000:3;12) and Lundquist (2008:149) claim that the R-state possesses perfect aspectual properties and that the passive auxiliary must share these aspectual properties in order to give rise to an R-state interpretation. Note that the passive auxiliary is in the R-state construction in (29) can be replaced by the perfect passive construction, without affecting the aspectual properties of the sentence as a whole:

(29) (a) (i) The theory is proven.
    (ii) The theory had been proven.
    (b) (i) The children are washed.
    (ii) The children have been washed.      (Kratzer 2000:3)

Kratzer argues against Lundquist’s claim that this phenomenon provides evidence for the R-state simply representing an eventive passive in perfect form. She (2000:3-4) states that there is a subtle difference in overall meaning between the R-state passive construction in (29b)(i) and the perfect construction in (29b)(ii): the perfect construction is compatible with an interpretation in which the children have been washed by someone other than themselves, but it is not compatible with an interpretation in which the children have washed themselves. By contrast, the R-state construction is compatible with both these interpretations. Within Lundquist’s system this difference in overall meaning could be accounted for in terms of his analysis of verbs that show reflexive/non-reflexive alternation, as in (30a), and unaccusative verbs which are derived from transitive verbs (or vice versa) that show causative/inchoative alternation, as in (30b). For such verbs, Lundquist proposes lexical entries in which the INITIATOR is underspecified so that it is either co-indexed to be the same argument as the UNDERGOER and the RESULTEE, or is marked as a separate argument from the UNDERGOER and the RESULTEE. This type of lexical entry is given in (31a), and the structure associated with such an entry is represented in (31b):
(30)  (a)  (i)  Judah shaved (himself) / Judah shaved his convalescent father.
        (ii)  Marcus dressed (himself) / Marcus dressed his children.
        (iii)  Dominic prepared (himself) / Dominic prepared his lecture.

        (b)  (i)  The ship sank / The kraken sank the ship.
        (ii)  The news spread / The chatty girls spread the news.
        (iii)  The twig snapped / The big bird snapped the twig.

(31)  (a)  (i)  shave <Init$_i$; Proc$_j$; Res$_j$>
        (ii)  sink <Init$_i$; Proc$_j$; Res$_j$>

(b)  

The meaning alternation displayed by the sentences in (29b) is not found with the sentences in (28a): it is not possible for the theory to have proven itself. It can therefore be concluded that wash, like the verbs in (30a), is a verb whose INITIATOR is underspecified in the lexical
entry, making a reflexive/non-reflexive alternation possible for that particular verb. It seems the difference in meaning between sentences like those in (29b) is due to co-indexation of the arguments in the lexical entry of certain verbs, and does not necessarily point to a difference in the nanosyntactic structure of R-states and eventive passives.

On the premise that the R-state and the eventive passive have the same nanosyntactic structure, Lundquist claims that a particular reading is made salient by the interaction of the participle with the passive auxiliary. In English, the R-state reading is triggered by the combination of the present tense stative passive auxiliary be and the passive participle of an accomplishment verb (Lundquist 2008:148).  

Lundquist (2008:148) points out that the R-state reading is made salient in German by the combination of the participle and the stative passive auxiliary sein, while the eventive reading is made salient by the combination of the participle and the eventive passive auxiliary werden. Kratzer (2000:1) makes the same point, but includes the T-state under readings that become salient when sein is used in conjunction with the participle. In other words, Kratzer does not employ the use of the stative and eventive passive auxiliary as a means for distinguishing between the R-state and the eventive reading, but only to distinguish between “adjectival” and eventive passives.

In Swedish, the R-state reading is triggered by the combination of the participle and the stative passive auxiliary vara, whereas the eventive reading is triggered by the combination of the participle with the eventive passive auxiliary bli (Lundquist 2008:148-149):

30 In this study the term “passive auxiliary” is used for what both Lundquist (2008) and Kratzer (2000) refer to as a stative or eventive “copula”. The reason for using the term “passive auxiliary” is that all the data deal with passive constructions. Accordingly, every type of copula which appears in the data of this study is necessarily a “passive auxiliary”.
31 There is no true distinction between the stative and eventive passive auxiliaries in English. Where the English equivalent of the stative passive auxiliary is is/are, the closest equivalent to the eventive passive auxiliary are the verbs get or become.
32 As mentioned above, neither Lundquist nor Kratzer provides German data to illustrate this phenomenon.
(32) (a) Han är utslängd (*av vakten).
    He vara.PRES out-thrown (*by guard.DEF)
    “He is thrown out”

(b) Jag blev utslängd av vakten.
    I bli.PAST out-thrown by guard.DEF
    “I was thrown out by the guard”  (Adapted from Lundquist 2008:149)

The R-state construction can be distinguished from the eventive one by the fact that it cannot be used with past tense adverbials modifying event time, as illustrated in (33) below. It could be argued that the ungrammaticality of (33) is due to the fact that, since the R-state describes states that are non-reversible, it is implausible to suggest that a state, which still holds at the time of speaking, occurred yesterday; conversely, since eventive passives describe events and not states, it is implausible to suggest, with the use of the present passive auxiliary *is, that an event that occurred yesterday is currently still holding. The fact that the R-state construction cannot be used with past tense adverbials modifying event time also holds in cases where “an active past participle is embedded under present tense auxiliary *have”  (Lundquist 2008:149), as illustrated in (34).

(33)  He is thrown out (*yesterday).

(34)  The guard has thrown him out.  (Adapted from Lundquist 2008:149)

The sentence in (33) would be grammatical if the present passive auxiliary *is is substituted with the past passive auxiliary *was, as in (35). The use of *was suggests that (35) describes an event that no longer holds at the time of speaking, since it has already passed. The R-state interpretation is not available for sentences such as the one in (35).

(35)  He was thrown out (by the guard) (yesterday).
Based on the similarity in the behaviour of the R-state and the perfect construction illustrated above, Lundquist (2008:152) concludes that the inability of the R-state to be modified by past tense adverbials is a feature of the interaction of the participle with the auxiliary, rather than a distinguishing feature of the structure of the R-state and the eventive passive. This provides further evidence for Lundquist’s proposal that the R-state and the eventive passive have the same nanosyntactic structure. The structure that Lundquist proposes for the R-state/eventive passive is the one represented in (26); this structure contains all the syntactico-semantic features that are present in active verbs, and is also the structure proposed in terms of the ternary categorisation for the eventive passive (cf. Section 3.2).

If the two passives under discussion do indeed share the same nanosyntactic structure, it is to be expected that the R-state, like the eventive passive, can be modified by an agentive by-phrase. Adopting the ternary classification, Embick (2004:364) argues that there is no AG (agent) feature present in the structure of the R-state, and that it contains an inchoative feature instead. In nanosyntactic terms, this is roughly equivalent to the absence of [Init] in the structure of the R-state, which would be in line with the approach followed by Caha (2007), Embick (2004) and Kratzer (2000) according to which a distinction is drawn between the structures of the R-state and the eventive passive, as discussed in Section 3.2. By contrast, Lundquist (2008:151) states that R-states have a “clearly transitive/causative flavour”. He accordingly argues that (36a) corresponds to (36b) rather than to (36c).

(36)  (a) The surface is flattened now!
(b) We flattened the surface.
(c) The surface flattened.

Lundquist thus suggests that a sentence like (36c) [which seems only marginally acceptable – EK] does not have a “causative/transitive flavour”. This sentence can be considered to be an unaccusative construction, similar to *The ship sank*. Lundquist (2008:146) claims that *The ship sank* can receive an interpretation equivalent to “the ship was in such a state that it caused itself to sink”, which shows a clear “causative/transitive flavour”, although it is
syntactically intransitive. It would seem that the correspondence of (36a) to (36b) and not to (36c) is more due to the fact that *flatten* cannot undergo causative/inchoative alternation, rather than to the notion that all R-states have a “causative/transitive flavour”. The examples in (37) illustrate that verbs such as *sink* and *dry* that can undergo causative/inchoative alternation, correspond naturally to both interpretations:

(37) (a) (i) The ship is sunk now!
    (ii) We sunk the ship.
    (iii) The ship sunk.

(b) (i) The laundry is dry now!
    (ii) We dried the laundry.
    (iii) The laundry dried.

It is suggested here that Lundquist’s argument that R-states have a causative/transitive reading does not provide convincing grounds for the claim that all R-states carry implicit information about the cause or agent of the dynamic process. Furthermore, Lundquist does not make it clear why, within his conception of the R-state/eventive passive structure, certain constructions with an R-state interpretation cannot be modified by agentive *by*-phrases. He does, however, claim that agentive *by*-phrases are possible with R-state constructions from which it is clear who the agent is, such as with verbs of creation, as shown by the following Swedish sentence:

(38) Den här tavlan är målad av Picasso.

*It here painting.DEF is paint-DE*\(^{33}\) by Picasso

“This painting is painted by Picasso”\(^{34}\)  \(\text{(Lundquist 2008:150)}\)

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\(^{33}\) The suffix –*de* is one of the passive participle markers in Swedish.
On closer examination, however, it seems that a sentence like the one in (38) is the exception rather than the rule: a sentence like *This painting is painted by my son*, for example, is ungrammatical. Apparently, in order for an R-state construction to yield a grammatical result with an agentive *by*-phrase, the agent must be well-known or famous. Consider the pairs in (39). In each case, (i) is acceptable because the agent is well-known or famous, while (ii) is not because the agent is an ordinary person. The respective sentences in (ii) would be grammatical if *is* is substituted with *was*, in which case the interpretation would necessarily be eventive.  

(39)  

(a) (i) Man is created by God.  
(ii) This figurine *is/was created by my daughter.*  

(b) (i) This movie is produced by Steven Spielberg.  
(ii) This movie *is/was produced by my neighbour.*  

(c) (i) This cake is baked by Melissa’s Cake Shop.  
(ii) This cake *is/was baked by my mother.*  

3.4 An Argument for a Quaternary Categorisation  

Up until this point, no consideration has been given to the passive participle occurring in the attributive position. Embick (2004:fn.1) claims that it is generally assumed that only participles with an “adjectival” quality, in other words the R-state and the T-state, can occur  

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34 In Lundquist’s data, the English equivalent of (38) is *This painting was painted by Picasso.* This English translation seems to create a more salient eventive reading; hence, for the purposes of this study, the translation is given in the present tense.  
35 Note that it is possible to imagine a context in which the ungrammatical sentences in (39)(ii) are acceptable: suppose there is a birthday party and the host, who is showing around the guests, tells them “This is the cake, it is baked by my mother”. The utterance seems acceptable in this situation. However, for the reasons mentioned in Section 3.2, the addition of such extra-linguistic information seems to be problematic when testing for grammaticality.
in attributive position; accordingly, the eventive passive cannot occur in this position. This section examines Sleeman’s (2011) response to Embick’s claim. Sleeman claims that the eventive passive can indeed occur in attributive position, and accordingly argues that this passive represents a separate class of passive participle with its own distinct structure. Sleeman’s reasoning takes place in two steps. First, she attempts to show that the passive participle in attributive position is not always an R-state. She does this by first showing that constructions containing the suspected passive participle result in ungrammaticality with certain diagnostic tests for the R-state, whereas they are grammatical with a diagnostic test for the eventive passive. She also shows that a passive participle occurring in attributive position can be assigned an R-state or an eventive interpretation, depending on whether it is morphologically bound to a preceding adverb or not. As a second step in the reasoning, Sleeman argues that the eventive passive in attributive position is not the same type of eventive passive as that in predicative position. Firstly, she claims that only participles in predicative position which form part of a reduced clause can be replaced by full clauses. Secondly, she claims that there is a morphological difference in Dutch between the eventive passive occurring in attributive position and the eventive passive occurring in predicative position: participles occurring in attributive position show adjectival agreement, whereas those in predicative position do not. These claims are addressed below.

According to Embick (2004:fn.1) the eventive passive cannot occur in attributive position, and cannot be modified by manner adverbs. Since the participle opened in (40) below occurs in attributive position and is modified by the manner adverb recently, the participle opened therefore cannot be an eventive passive, but must be an R-state. Sleeman (2011:4), however, argues that Embick’s interpretation of (40) is not necessarily the only possible interpretation. Sleeman claims that (40) may “simply express an event that took place recently”, and not necessarily only “the result of an event that took place recently”, which is the interpretation put forward by Embick. Sleeman employs two diagnostic tests for the R-state to demonstrate that the participle opened in (40) is, in the very least, not an R-state. These diagnostic tests are provided in the examples in (41a-b).

36 Sleeman’s focus is on the distinction between the R-state and the eventive passive in attributive position, rather than on the T-state and the eventive passive, because the T-state normally occurs in a form that differs from the R-state and the eventive passive, and is thus recognised more easily as a participle other than the eventive.
37 This participle cannot be a T-state since the form of the T-state for the root open is open, and not opened.
(40) The recently opened door

(41) (a) *The door remained recently opened.

(b) *The door was recently unopened.

In the ungrammatical sentence in (41a), the participle *opened, which is modified by the manner adverb *recently, co-occurs with *remained. It seems plausible that the ungrammaticality arises from the fact that *remained cannot co-occur with an eventive passive, since it refers to the state of the internal object after it has undergone a certain process. Thus, *opened in (41a) must be an R-state participle. Recall, however, that the R-state has both a stative quality by virtue of the syntactico-semantic feature [Res], and an eventive quality by virtue of the syntactico-semantic feature [Proc]. The participle’s co-occurrence with *remained emphasises its stative quality, whereas modification by the manner adverb *recently emphasises the participle’s eventive quality. It is suggested here that, in any given sentence, if either the stative or the eventive quality of the R-state is emphasised in this way, only one of them can receive emphasis in that sentence; otherwise the result is ungrammatical, as seen in (41a). In this case, Sleeman (2011:4) claims that a participle which is modified by *recently “cannot function as a predicate”, and thus that it is not an R-state. However, in light of the discussion above, it does not seem that (41a) best demonstrates this claim, as the ungrammaticality of (41a) can be attributed to the participle’s co-occurrence with both *remained and *recently, rather than necessarily alluding to the notion that *opened is not an R-state.

The ungrammatical sentence in (41b) illustrates that the participle *opened cannot be modified by the manner adverb *recently and receive un-prefixation in the same sentence. According to Sleeman, this suggests that the participle *unopened in (41b) is not an R-state. It seems, however, that the same argument for the ungrammaticality of (41a) can be applied in the case of (41b). That is, it can be argued that un-prefixation emphasises the participle’s stative quality,38 while modification by the manner adverb *recently emphasises the participle’s eventive quality.

38 For a more detailed discussion regarding the properties of un-prefixation, see Section 3.2.1.
Sleeman also seems to suggest that, when a construction containing a particular participle turns out to be ungrammatical with a diagnostic for the R-state, this is evidence that the participle is actually an eventive passive. As was illustrated in the discussion above, this is not necessarily the case, and other considerations (e.g. semantic considerations) may offer an explanation for the ungrammaticality.

Sleeman (2011:6) provides another diagnostic in support of her argument that eventive passives can occur in attributive position. She claims that in Germanic languages with an subject-object-verb (SOV) word order, such as Dutch, it is possible for participles in attributive position to be modified by an agentive by-phrase, a diagnostic for the eventive passive that was discussed in Section 3.2.2. Consider the example in (42).

(42) De door Jan geopende brief

the by John opened letter

“The letter opened by John”

The phenomenon illustrated in (42) is also found in Afrikaans, although many younger native speakers find this type of construction somewhat “strange” and “dated”. Consider the sentence in (43), for example:

(43) Die deur Jan geverfde potte

the by John painted pots

“The pots painted by John”

The fact that the participle geopende in (42) and geverfde in (43) can be modified by an agentive by-phrase, thus provides support for the claim that they represent eventive passives. Further support for this claim comes from the fact that participles with un-prefixation cannot
co-occur with agentive by-phrases, because such prefixation is typically associated with R-states. Consider the example in (44) below, which is grammatical without the agentive by-phrase, but ungrammatical when it is present. Once again, the same phenomenon can be observed in Afrikaans, as is illustrated in (45).

\[(44)\] De (*door Jan) ongeopende brief

the (by John) unopened letter

“*The letter that is unopened by John”

\[(45)\] Die (*deur Jan) ongeverfde potte

the (by John) unpainted pots

“*The pots that are unpainted by John”

In addition to the above, Sleeman (2011:5) argues that the morphological relationship between the adverb pas (“recently”) and the participle (whether compounded or free-standing), determines whether the participle is an R-state or an eventive passive. When pas is free-standing and functions as an adverb, the participle which it modifies must be an eventive passive. Conversely, when pas is morphologically compounded to the participle, the participle must be an R-state passive.\(^{39}\) This is not only the case with Dutch, as illustrated in (46) below, but also with Afrikaans, as shown in (47). In each case, (a-b) shows the eventive passive and (c-d) shows the R-state.

\[(44)\] (a) Het pas getrouwde paar

the just married couple

“The recently married couple”

\(^{39}\) Sleeman (2011:5) explains that this difference is evident in speech by the fact that the adverb, which is used with the eventive passive, can be stressed in a way that the morpheme, which attaches to the R-state, cannot.
(b) Het paar is pas getrouwd.
the couple is just married

“The couple is recently married”

(c) Het pasgetrouwde paar
The just-married couple

“The newlywed couple”

(d) Het paar is pasgetrouwd.
the couple is just-married

“The couple is newlywed”

(47) (a) Die pas gebore baba
the just born baby

“The recently born baby”

(b) Die baba is pas gebore.
the baby is just born

“The baby is new-born”

(c) Die pasgebore baba
the just-born baby

“The newborn baby”

(b) Die baba is pasgebore.
the baby is just-born

“The baby is new-born”
Based on the above arguments, it seems reasonable to conclude that it is possible for the eventive passive to occur in attributive position in Dutch and in Afrikaans. Sleeman subsequently considers the differences between the eventive passive occurring in attributive position, and the eventive passive occurring in predicative position. Firstly, when the eventive passive in predicative position is contained in a reduced clause, it is possible to replace the reduced clause with a full clause. By contrast, when the eventive passive in attributive position is contained in a reduced clause, it is not possible to replace the reduced clause with a full one. These observations are illustrated by the following examples (Sleeman 2011:6):

(48) (a) A book recently published
     (b) A book that has recently been published

(49) (a) A recently published book
     (b) * A that has recently been published book

Secondly, Sleeman points out that there is a morphological difference in Dutch between eventive passives occurring in attributive position, and eventive passives occurring in predicative position: whereas the former show adjectival agreement with the suffix –e(n), the latter do not, as illustrated in (50):

(50) (a) De omzet van bij amazon.com gekochte boeken
       the turnover of at amazon.com bought books
       “The turnover of books bought at amazon.com”
     (b) De omzet van boeken gekocht bij amazon.com
       the turnover of books bought at amazon.com
       “The turnover of books bought at amazon.com”
In Afrikaans, there is also a morphological difference between participles occurring in attributive position and those occurring in predicative position: the participle occurring in attributive position takes the suffix –te/-de/-e.40 Consider the sentences in (51), for example:

\[(51) \begin{align*}
(a) & \quad \text{Die prys van ingevoerde skoene} \\
& \quad \text{the price of imported shoes} \\
& \quad \text{“The price of imported shoes”} \\
(b) & \quad \text{Die prys van skoene wat ingevoer is} \\
& \quad \text{the price of shoes which imported are} \\
& \quad \text{“The price of shoes which have been imported”}
\end{align*}\]

In Afrikaans, however, it is not only the eventive passive that undergoes this morphological change when it occurs in the attributive position: the R-state, too, is subject to such a change when it occurs in this position. The sentences in (52) illustrate the R-state undergoing the same morphological change illustrated in (51). In each case, the R-state is diagnosed by the un-prefixation. In the sentences in (52a-b), the participle in attributive position is shown in (i), and the participle in predicative position in (ii).

\[(52) \begin{align*}
(a) \quad \text{(i) Die ongeverfde potte} \\
& \quad \text{the unpainted pots} \\
& \quad \text{“The unpainted pots”} \\
& \quad \text{(ii) Die potte is ongeverf.} \\
& \quad \text{the pots are unpainted} \\
& \quad \text{“The pots are unpainted”}
\end{align*}\]

\[40\text{The variable forms of the Afrikaans passive participle are discussed in Chapter 4, Sections 4.2 and 4.3.}\]
Sleeman (2011:7-10) proposes a structure for the attributive eventive passive that is smaller than the structure she proposes for the predicative eventive passive, yet still larger than the structure of the R-state. Thus, she maps four types of passive participle on a continuum ranging from the T-state on the left, to the R-state, to the attributive eventive passive, and finally to the predicative eventive passive on the right. For the purposes of the present study, however, the structures that Sleeman proposes will not be examined further since they are presented within the framework of Distributed Morphology.

The phenomenon illustrated in (52) above suggests that the morphological difference which is found with the R-state and the eventive passive when they occur in attributive position in Afrikaans, as opposed to when they occur in predicative position, is a feature that should be associated with the attributive position, rather than with the internal structure of the passive participle itself. For this reason, Sleeman’s quaternary classification is not adopted in this study; instead, the ternary classification, which recognises the T-state, the R-state and the eventive passive as categories of passive participles which possess distinct internal structures, will be adopted in Chapter 4. In that chapter, attention is given from the nanosyntactic perspective to the morphological change displayed by the Afrikaans participle in attributive position.
3.5 Conclusion

This chapter dealt with the identification and classification of passive participles in various analyses within the broad minimalist approach, focussing predominantly on, and relating various proposals back to, the nanosyntactic framework. Section 3.2 examined the ternary categorisation approach according to which three types of passive participle are identified, namely the T-state, the R-state and the eventive passive; the discussion focused mainly on the distinction between the T-state and the R-state. In Section 3.2 attention was also given to the three structures that have been proposed for the T-state, R-state and eventive passive participles within the ternary approach.

Section 3.3 focused on a recent proposal by Lundquist (2008) that the R-state and the eventive passive share the same nanosyntactic structure. On this view, the distinction between these two participles is largely a matter of interpretation that is elicited by certain linguistic environments, rather than a structural distinction. His argument was found to have some merit because it provides a more parsimonious and economical account of the structures of these participles. Furthermore, a shared structure could be helpful in explaining similarities between the R-state and the eventive passive, especially as far as ambiguity in interpretation is concerned.

Attention was subsequently given to several arguments for and against a shared structure for the R-state and the eventive passive, and it was found that there is evidence for and against alternative analyses. Most notably, Lundquist suggests that the R-state interpretation of a construction is elicited by the aspectual properties of auxiliary verbs that carry perfect aspect, whereas the eventive interpretation is elicited by other types of aspect. However, other properties besides the aspectual, such as the R-state’s inability to be modified by an agentive by-phrase, seem to prove a bigger challenge to uniting the structures of the R-state and the eventive passive. It is concluded that more research into Lundquist’s proposal for the shared structure of the R-state and the eventive passive is required to determine its merit as a viable alternative for the ternary model. For this reason, the ternary distinction will be maintained in the rest of this study, although the plausibility of Lundquist’s proposal is acknowledged.
In Section 3.4, another recent proposal by Sleeman (2011) for a quaternary categorisation of the passive participle was set out. This proposal is based on the occurrence of the eventive passive in attributive versus predicative position. Sleeman first argues, with the aid of several diagnostic tests for the R-state and the eventive passive discussed in Sections 3.2 and 3.3, that it is possible for the eventive passive to occur in attributive position. She then argues that the eventive passive in attributive position should be structurally distinguished from the eventive passive in predicative position for two main reasons: Firstly, a reduced clause containing an eventive passive in predicative position may be replaced by a full clause, whereas this is not possible in the case of an eventive passive in attributive position. Secondly, in Dutch the eventive passive in attributive position shows morphological adjectival agreement, while the eventive passive in predicative position does not display such a morphological marker.

In Section 3.4, it was examined whether Sleeman’s proposal holds for the analysis of passive participles in Afrikaans. It was concluded that the eventive passive in Afrikaans may occur in attributive position. As regards morphological adjectival agreement, however, the Afrikaans data does not support Sleeman’s claim: it was argued that the R-state as well as the eventive passive occurring in attributive position bear the same morphological agreement. This suggests that the morphological properties of the R-state and the eventive passive in attributive position are determined by the position of the participle, rather than the internal structure of the participle itself. For this reason, the ternary distinction will be adopted in the rest of this study. An account of Sleeman’s observations will be proposed in Chapter 4 from within the nanosyntactic framework.
Chapter 4

A Nanosyntactic Analysis of Afrikaans Passive Participles

4.1 Introduction

This chapter is divided into three main parts. Section 4.2 gives a description of the various forms of passive participles in Afrikaans. A first, major distinction is drawn between the forms of regular and irregular passive participles; in addition, there is a distinction in form between regular participles which occur in predicative position and attributive position. Before each of the forms is discussed in any detail, some consideration is given in section 4.2.1 to historical factors that may have affected the form. Against this background, the form of the regular passive participle is discussed in section 4.2.2, and that of the irregular passive participle in section 4.2.3.

Section 4.3 is presented against the background of Chapter 3, which focused on various proposals regarding the categorisation of passive participles. One of these, the ternary approach, is taken as the framework for categorising passive participles in Afrikaans. The main aim of Section 4.3 is to determine whether an analysis of Afrikaans passive participles can contribute to the wider theoretical discussion that currently surrounds the categorisation of such participles. Particular attention is also given to the interaction between the passive participle and the passive auxiliary, which Lundquist (2008) claims is a determining factor for the distribution of certain types of passive participle.

The internal structure of Afrikaans passive participles is analysed within the nanosyntactic framework in Section 4.4. In the course of the discussion, attention is given to Sleeman’s (2011) analysis (outlined in Section 3.4) of the systematically differing forms of the passive participle in attributive and predicative position in Dutch. Sleeman concludes that this difference indicates a difference in underlying structure between the two types of participle, and accordingly proposes that a fourth type of passive participle be added to the current ternary categorisation. Sleeman’s proposal is relevant to this study because Afrikaans passive participles also exhibit this systematic difference in form. The findings of this chapter, specifically those pertaining to the possible nanosyntactic structures of passive participles in Afrikaans, are discussed at the end of Section 4.4.
4.2 The Morphological Form of the Passive Participle

The “typical” morphological form of the passive participle is that displayed by the regular participle. This morphology differs systematically according to whether the participle occurs in predicative or attributive position. In predicative position the prefix ge- is attached to the verb stem to form the passive participle; in attributive position, the prefix ge- and the suffix –te/-de/-e are attached to the verb stem to form the passive participle. The sentences in (1a,b) below illustrate the use of a regular passive participle in predicative and attributive position, respectively. The form of the irregular participle can be traced to the Dutch passive participle forms. In this case, three morphological operations can be identified: firstly, the verb stem always undergoes ablaut change during which a vowel in its centre is replaced by a different vowel; secondly, the prefix ge- is attached to the verb stem; and thirdly, the suffix –e is attached to the verb stem in attributive position. It should be noted, though, that irregular participles normally do not occur in attributive position; utterances containing them in this position are generally judged to be “archaic”. An example of an irregular passive participle is given in (1c). Since the prefix ge- appears with all passive participles, it is henceforth referred to as “the passive prefix (GE-)

(1) (a) Die hond is geroep deur Hermine.
the dog is GE-call by Hermine
“The dog was called by Hermine”

(b) ’n Geroerte hond kyk altyd rond.
a GE-call-TE dog looks always around
“A called dog always looks around”

(c) Daar wag duister dinge agter geslote deure.
there waits dark things behind GE-lock-E doors
“Dark things wait behind locked doors”
Most variations and alternations regarding the form of the regular passive participle can be ascribed to phonological factors, such as phonetic environment and stress patterns. Some researchers (cf. Conradie 1979; Hauptfleisch 1953) have also investigated a possible correlation between form variation and alternation, and semantic factors such as literal and figurative meaning.

4.2.1 Historical Considerations

For the greater part of the 19th century, a strong sense of prescriptivism within the Afrikaans-speaking community caused the idealisation of Dutch as a template for Afrikaans. Certain Afrikaans forms were regarded as “plat” (“unsophisticated”) and certain usages were

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The form of the regular passive participle occurring in predicative position and the past participle are syncretic and usually show exactly the same behaviour. Consider the examples below. In each case, (i) shows the past participle, and (ii) shows the passive participle (the examples in (ii) are adapted from Menkveld 1978:33):

(a) (i) Mnr. Szucs het hom talle kere gewaarsku.
Mr. Szucs has him several times GE-warn
“Mr. Szucs has warned him several times”

(ii) Hy is talle kere deur Mnr. Szucs gewaarsku.
he was several times by Mr. Szucs GE-warn
“He was warned several times by Mr. Szucs”

(b) (i) Hy het sy been tot op die been oopgekloof.
he has his leg until on the bone open-GE-cleave
“He cleaved open his leg right to the bone”

(ii) Sy been is tot op die been oopgekloof.
his leg was until on the bone open-GE-cleave
“His leg is cleaved open right to the bone”

The studies cited in this section mainly focus on the past participle. In view of the similarity in form and distribution between past participles and regular passive participles, it is maintained that the observations in these studies are also relevant for the current investigation of the passive participle, provided that the generalised observations do not implicate the functions of these two types of participles.
considered as resulting from “slap” (“sloppy”) articulation (Hauptfleisch 1953:86, 96). Forms carrying negative connotations included regularised participles (irregular forms made regular). Written data was also preferred over spoken data for linguistic studies (cf. Conradie 1979; Hauptfleisch 1953; Menkveld 1978), and prescriptive rules regarding spelling affected how speakers used the language. The tension between these prescriptive factors and the language’s natural tendency to evolve grew apparent in the inconsistencies in the data and the discrepancies between forms that were prescribed and forms that were actually used.

An influential prescriptive text, used and consulted by Afrikaans speakers since the beginning of the 20th century, is Die Afrikaanse Woordelys en Spelreëls (Afrikaans Word List and Spelling Rules). Combrink (1969:94-5) points out that one of the criteria used in regulating the use of Afrikaans was keeping spelling as close as possible to that of Dutch. Combrink observes that there was a large discrepancy between the prescribed rules of spelling and actual spelling, as Afrikaans-speakers tended to write in such a way that their spelling reflected their pronunciation.

One such case is reported by Combrink (1969) when he observes there was little agreement over the use of the suffixes –te and –de. In his study, Combrink (1969:93-94) collected information via a survey of 50 matric students and their teachers regarding the use of –te versus –de in the words gekroeste (“frizzed”), gefronsde (“frowned”), verslonsde (“neglect because of carelessness”) and gekruiste (“crossed”), and found that only about 17% of them were sure about the spelling of these words. Indeed, of four Afrikaans dictionaries that Combrink consulted, the only word spelled in the same way in all four was gekruiste; the spelling of the other three words differed between the dictionaries.

From the results of another study, Combrink (1969:95-110) concluded that Afrikaans seems to be changing in the following way: stems that end with voiceless consonants tend to receive the suffix –te; stems that end with voiced consonants, vowels and diphthongs tend to receive

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42 Die Afrikaanse Woordelys en Spelreëls is dedicated to the regulation and standardisation of Afrikaans. It is compiled and regularly up-dated by Die Taalkommissie (“Language Commission”); it was founded in 1909 as part of the Suid-Afrikaanse Akademie vir Wetenskap en Kuns (“South African Academy of Science and Art”).
the suffix –de. In Combrink’s opinion, these changes were not yet pervasive at the time of conducting the study, but would take place over several years. The prescriptive rules put forward by the likes of Die Taalkommissie were hindering this change as they were not based on the actual use of the language, and generally caused confusion among speakers. He recommended that the future editions of the Afrikaanse Woordelys en Spelreëls provide speakers with the freedom to use participles with either the suffix –te or –de in cases where the stem ends on –b, -f, -g, -k, -p, and –s, maintaining that such freedom would allow speakers to use Afrikaans more naturally, allowing linguists to discover the “true” nature and uses of –te and –de in Afrikaans.

One area in which Dutch had a direct influence on Afrikaans is with participles that exhibit irregular-regular form alternation. Participles which were borrowed into Afrikaans since the 17th century in their original Dutch forms, eventually became regularised, that is, they received the participle morphology of the regular participle in Afrikaans. For a time, both the original Dutch form and the regularised Afrikaans form remained in use, resulting in irregular-regular form alternation. The time during which both forms remain in use is referred to as an “intermediate phase”, one which follows the exclusive use of the irregular form, and one which precedes the (possible) exclusive use of the regularised form (Hauptfleisch 1953:37-39). Irregular forms such as gestole goedere (“stolen goods”), and gekogte klere (“bought clothes”), which used to be interchangeable with gesteelde klere and gekoopte klere, were much more seldom used in later texts, while the regularised forms remained in everyday use. Consider the examples in (2): (2a) shows the verb stem in its non-finite form; (2b) shows the regular passive participle and (2c) the irregular passive participle.

(2)  
(a) ’n Goeie mens behoort ’n weeskind aan te neem.
    a good person ought an orphan on to take
    “A good person ought to adopt an orphan”

(b) Die aangeneemde kind is altyd soet.
    the on-GE-take-DE child is always sweet
    “The adopted child is always well-behaved”
Use of the regularised form where the irregular form was available, e.g., *gebreekte glas* instead of *gebroke glas* (“broken glass”), was considered unsophisticated (Le Roux, in Hauptfleisch 1953:96). According to Hauptfleisch, however, this negative assessment of the regularised form is no longer valid. Still, it is possible that the initial negative attitude towards regularised forms could have prevented a more pervasive use of such forms.

Many irregular forms have since fallen into disuse, save perhaps in the speech of older generations, and will for this reason not be considered in this study. Such forms include those in A in the table below; the forms which have largely replaced them are given in B. (Note that *gedrage, bedolwe, geklonke, verskene* in A have not received regularised forms.)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>gekogte (“bought”)</td>
<td>gekoopte (“bought”)</td>
</tr>
<tr>
<td>geslepe (“polished”)</td>
<td>geslypte (“polished”)</td>
</tr>
<tr>
<td>gedrage (“carried”)</td>
<td>-</td>
</tr>
<tr>
<td>beklonke (“sounded”)</td>
<td>-</td>
</tr>
<tr>
<td>getroffe (“hit”)</td>
<td>getrefde (“hit”)</td>
</tr>
<tr>
<td>verskene (“appeared”)</td>
<td>-</td>
</tr>
<tr>
<td>verdwene (“disappeared”)</td>
<td>verdwynde (“disappeared”)</td>
</tr>
<tr>
<td>bedolwe (“dug up”)</td>
<td>-</td>
</tr>
<tr>
<td>georwe (“inherited”)</td>
<td>geërfde (“inherited”)</td>
</tr>
<tr>
<td>geskolde (“scolded”)</td>
<td>geskelde (“scolded”)</td>
</tr>
<tr>
<td>geskonke (“donated”)</td>
<td>geskenkte (“donated”)</td>
</tr>
<tr>
<td>gesoge (“suckled”)</td>
<td>gesoogde (“suckled”)</td>
</tr>
<tr>
<td>gewasse (“washed”)</td>
<td>gewasde (“washed”)</td>
</tr>
<tr>
<td>verworwe (“obtained”)</td>
<td>verwerfde (“obtained”)</td>
</tr>
</tbody>
</table>
4.2.2 The Regular Passive Participle

In comparison to other West-Germanic languages, Afrikaans has a relatively impoverished morphological system as far as inflection is concerned: most person and number markers have disappeared, and irregular verb forms need not be semantically different from regular verb forms (Hauptfleisch 1953:1). In the case of verbs, productive inflectional morphology in Afrikaans is limited mainly to the use of the prefix ge– that is found with active and passive participles, and which can be used with both main verbs and auxiliaries (Conradie 1979:6; Ponelis: 1979:190):

(3) Ek was gespot gewees.

I was GE-tease GE-be

“I was teased”

According to Hauptfleisch (1953:12), the passive prefix ge– can combine with various types of main verb stems, namely (i) morphologically simplex verbs, (ii) verbs that were derived by other prefixes and/or suffixes, and (iii) compound verbs. A general morphological rule in Afrikaans states that participles must bear a stress contrast in which the word-initial syllable is unstressed and is followed by a stress-bearing syllable. When the first syllable of the verb stem is already unstressed, the passive prefix may be absent from the participle. In the case of morphologically simplex verbs, verb stems which are bisyllabic and in which the second syllable is stress-bearing need not take the passive prefix. Consider (4), for example:

(4) (a) Daar word baklei tussen die verskillende partye.

there is fight between the different parties

“There is fighting between the different parties”

(b) Louis is kasty deur sy pa.

Louis is chastise by his father

“Louis is chastised by his father”
In the case of verbs that were derived by other prefixes and/or suffixes, there are several prefixes which may attach to a verb stem in order to derive a new verb. These include on- (equivalent to un- in English); be- (roughly equivalent to “having the characteristic of…”, “very…”, or “like…” (Perold 1990:112; 135-140)); oor- (equivalent to over, as in overdo); ver- (roughly equivalent to “cause that… becomes…”, or “behave like a… towards…” (Perold 1990:113-119)); and her- (equivalent to re-, as in redo (Conradie 1979:8; Menkveld 1978:6)). According to the stress-contrast rule mentioned above, the passive prefix may be absent when the word-initial syllable of a bi- or polysyllabic verb is unstressed, as is generally the case with words that are derived by the addition of the above prefixes (Conradie 1979:7; Hauptfleisch 1953:16-18; Perold 1990:134-135; Ponelis 1979:191-192). Examples of the derivational prefixes mentioned above are given in (5).

(5) (a)  Sy swaarkry is onverdiend.

his suffering is ON-deserve

“He’s suffering is undeserved”

(b)  Die twee is lankal bevriend.

the two are long-already BE-friend

“The two have been friends for some time”

(c)  Die kwota is oorskry.

the quota is OOR-exceed

“The quota has been exceeded”

(d)  Jacques is verbonde aan die universiteit.

Jacques is VER-tie to the university

“Jacques is affiliated with the university”

(e)  Die draaiboek word heeltemal herskryf.

the film-script becomes completely HER-write

“The film script is being completely rewritten”
In non-standard varieties of Afrikaans, the passive prefix is sometimes present in participles that have been derived with the prefixes mentioned above. For example, gebegin (“begun”); geherinner (“reminded”); ge-erken (“recognised”); ge-ontken (“denied”); geverniel (“ruined”) (Menkveld 1978:6). This is often as a result of overgeneralisation or hypercorrection, or because of the wide scope of the passive prefix.

The passive prefix is commonly used with words that (seem to) have been derived by means of derivational suffixes, a well-known exception being –eer, as in arresteer (“arrested”), probeer (“tried”), waardeer (“appreciated”), hanteer (“handled”), regeer (“governed”) (Menkveld 1978:24). Menkveld (1978:5;28) claims that, because –eer is a stress-bearing suffix, it is likely that the syllables preceding it are usually unstressed. In such cases, absence of the passive prefix is explained by the stress-contrast rule. It should be noted, though, that many verbs with the suffix –eer show alternation, with the passive prefix sometimes absent and sometimes present with the same participle, as in e.g. regeer/geregeer and arresteer/gearresteer. Few researchers have suggested an adequate explanation for this behaviour (Hauptfleisch 1953:19).

In the case of compound verbs, the stress may be placed on either the first or the second element of the word. Where the first element is stressed, the verb is classified as a “separable compound verb”, because the passive prefix occurs between the two elements of the word. An “inseparable compound verb” is one where the stress falls on the second element; in such cases the two elements are not separated by the passive prefix, which is absent from the passive participle (Hauptfleisch 1953:20; Menkveld 1978:7). Examples of separable and inseparable compound verbs are given in (6) and (7), respectively.

(6) (a) Die branders het die boot omgestoot.

the waves have the boat over-GE-push

“The waves capsized the boat”
Some exceptions to the above are gewaarsku (“warned”), geflikflooi (“cajoled”), geinnegaap (“idled”), in which the stress falls on the first part of the compound, and geopenbaar, in which stress falls on the second part. Some compound verbs show alternation with regards to the presence or absence of the passive prefix, as in e.g. oorgekom/oorkom (“overcame”), voorgekom/voorkom (“occurred”), deurgetrek/deurtrek (“pulled through”) (Hauptfleisch 1953: 20).

The suffixes –te and –de occur only with regular passive participles in attributive position. Combrink (1969:95) claims that there “are no semantic [or syntactic – EK] complications” regarding the use of –te and –de, meaning that whether one or the other occurs with a certain participle is not determined by semantic or syntactic factors. He claims that they perform the
same syntactic function, regulating how the words in a sentence interact with one another, presumably indicating the relationship of the participle with the nominal expression that it modifies.

According to Conradie (1979:350) and Hauptfleisch (1953:42-43), words that end on the sounds /r/, /l/, /m/, /n/, /ŋ/, /b/, /d/, vowels and diphthongs take the suffix –de, whereas words that end on /t/, /p/, /k/ take the suffix –te. Combrink (1969:109) and Hauptfleisch (1953:84) note that there seems to be uncertainty surrounding verb stems that end on /s/, /x/, and /f/: in prescriptive terms, they ought to take –te, since they are all voiceless sounds, as with verfoeste (“ruined”), which is cited up until the fifth print in 1951 in Kritzinger et al.’s Groot Woordeboek (Hauptfleisch 1953: 85); however, it seems a more common practice for verb stems ending in these sounds to take the suffix –de in participle form, as with gevlegde (“weaved”, “braided”), gewensde (“wished for”), beheersde (“controlled”) and gekruisde (“crossed”). Conradie (1979:350), on the one hand, suggests that the participle form will take the suffix –te when the word-final /s/, /x/ or /f/ is preceded by a short vowel; conversely, should the word-final /s/, /x/ or /f/ be preceded by any other sound, the participle form will take the suffix –de, as in gestyfde (“starched”), verliefde (“in-love”), geploegde (“plowed”). Combrink (1969:109), on the other hand, suggests that verb stems which end on /s/, /x/, and /f/ will always take the suffix –de, noting that these sounds themselves seem to become their voiced counterparts in words such as liefde (“love”), vreugde (“joy”) and Dinsdag (“Tuesday”). He thus hypothesises that, because the relevant sounds are normally preceded by a vowel, a process of assimilation takes place in which these sounds themselves become voiced, giving rise to a participial form in which the suffix –de is used.

In conclusion, it seems that the presence or absence of the passive prefix is determined by the stress patterns in the verb stem to which it is attached. Furthermore, it seems that the use of –tel–de is determined by the phonetic environment in which this suffix occurs (Perold 1990:134, fn.1). Thus, the variation and alternation of the participle’s form in these cases will not be considered as indicative of an underlying difference in nanosyntactic structure.
4.2.3 The Irregular Passive Participle

This section discusses the environments in which the irregular participle may occur, the phonetic changes that it undergoes when the suffix \(-e\) attaches to it, and the various ablaut changes to which the irregular participle is subject. Finally, the proposals of Hauptfleisch (1953) and Conradie (1979) regarding the connection between the use of irregular/regularised participles and semantic factors are described.

Unlike the regular passive participle which occurs in both predicative and attributive environments, many irregular passive participles occur only in attributive position, such as those in (8), whereas others participles show a tendency to become regularised in predicative position, as illustrated by the sentence pairs in (9) (in each case, (i) represents the irregular participle in attributive position, and (ii) represents the same participle, in regularised form, in predicative position). Hauptfleisch (1953:1-2) lists the sentences in (10), which are taken from the Afrikaans *Psalm- en Gesangboek* (“Psalm- and Songbook”), as exceptions of irregular participles that occur predicatively. He claims that the sentences in (10) seem “forced”, out of consideration for the poetic metre, and were probably prompted by the religious domain in which they are used.

(8)  
(a) Die verrese mummie laat die toeriste skrik.
   the VER-rise-E mummy makes the tourists frightened
   “The risen mummy scares the tourists”
(b) Die aangekome/gevalle vliegtuig is van Duitsland af.
   the to-GE-come/E/GE-fall-E aircraft is from Germany of
   “The arrived/fallen aircraft is from Germany”
(c) Die nabygeleë plaas het die beste wyn.
   the close-GE-place-E farm has the best wine
   “The nearby farm has the best wine”

(Conradie 1979:285)
(9)  (a)  (i)  Die ontbonde maatskappy het groot verliese gely.

the un-tied-E company has great losses suffered

“The disbanding company suffered great losses”

(ii)  Die maatskappy is ontbind.

the company is un-tied

“The company is disbanded”

(b)  (i)  Die geswolle hand moet met ys behandel word.

the GE-swell-E hand must with ice treated be

“The swollen hand must be treated with ice”

(ii)  Sy hand is geswel.

his hand is GE-swel

“His hand is swollen”  (Adapted from Conradi 1979:285)

(10)  (a)  My tong … in juigtoon word ontbonde.

My tongue in praise becomes un-bind-E

“My tongue, in praise, becomes unbound”

(b)  Deur U is vir my sonde rantsoen by God gevonde.

through you is for my sins ransom by God GE-find-E

“With You, ransom for my sins has been found in God”

(c)  Waar al ons werk … in u weegskaal word gewoe.

where all our work in your scale becomes GE-weigh-E

“Where all our work is weighed in Your scale”
When the stem of an irregular verb ends on /x/, it falls away when the suffix –e is added during participle formation, as with the following words: weeg becomes (be)woë* ("weighed"); bedrieg becomes bedroë ("deceived"); vlieg becomes (ver)vloë* (gone-by); buig becomes (ge)boë ("bent") (Hauptfleisch 1953:45). When the verb stem ends on /l/, it becomes voiced with the addition of the suffix –e, as with the following: delf becomes (ge)dolwe ("dug"), and bederf becomes bedorwe ("spoilt"). When the verb stem ends on the voiceless stops /p/ and /k/, these stops change into the fricative /x/ when the suffix –e is attached, with /l/ occurring between /x/ and -e: for example, soek becomes (ge)sogte ("sought") and koop becomes (ge)kogte* ("bought"). With some stems ending on a vowel, particularly the diphthong /əi/, the voiced fricative /v/ is inserted between the stem and the suffix –e: agterbly becomes agtergeblewe ("stay-behind"); in other such cases, /d/ is inserted: sny becomes (ge)snyde ("cut"), and afstry becomes afgestrede ("fought-off"). Finally, some verbs need not take a suffix, such as drink, which becomes dronk ("drunk"), an alternate of the form gedrinkte (Hauptfleisch 1953:45-47).

The ablaut change exhibited by any given participle depends on the original vowel sound in the verb stem, which Hauptfleisch (1953) calls the “inlaut”. The various ablaut changes are illustrated below (adapted from Hauptfleisch 1953:27-31).

(11)  Verb stems with the inlaut /a:/ take the ablaut form /uə/:

    (a)  Sy baar 'n kind.

        she bear.ACTive a child

        “She bears a child”

    (b)  Haar kind is gebore.

        her child was GE-bear-E

        “Her child was born”

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43 When “*” is indicated after a word, that form is no longer in common use.

44 This abbreviation is used to indicate an active verb, as opposed to a passive verb, to which the morphemes ge- and –e, -te, or –de may be attached.
(12) **Verb stems with the inlaut /æ/ take the ablaut /ɔ/:**

(a) Sy bederf die kind.

she spoil.ACT the child

“She spoils the child”

(b) Die bedorwe kind gedra hom sleg.

the BE-spoil-E child behaves him badly

“The spoilt child behaves badly”

(13) **Verb stems with the inlaut /ɛ/ take the ablaut /a/:**

(a) Die kunstenaar skep ’n beeld van homself.

the artist create.ACT a sculpture of himself

“The artist creates a sculpture of himself”

(b) Die ouers is trots op hulle welgeskape kind.

the parents are proud on their well-GE-create-E child

“The parents are proud of their beautiful child”

(14) **Verb stems with the inlaut /iə/ take the ablaut /uə/:**

(a) Die apteker beveel die nuwe medisyne aan.

the pharmacist recommend.ACT the new medicine to

“The pharmacist recommends the new medicine”

(b) Die aanbevole medisyne is baie duur.

the to-BE-recommend-E medicine is very expensive

“The recommended medicine is very expensive”

(15) **Verb stems with the inlaut /ə/ take the ablaut /ʌ/:**

(a) Die onderwyser het nie sy plan goed deurdink nie.

the teacher has not his plan well through-think.ACT not

“The teacher has not thought his plan through properly”
(b) Die onderwyser se ondeurdagte plan werk nie uit nie.

the teacher POS. NEG-through-GE-thought-E plan works not out not

“The teacher’s poorly thought-through plan is failing”

(16) **Verb stems with the inlaut /ɔ/ take the ablaut /uə/:**

(a) Hulle sal môre aankom.

they will tomorrow to-come.ACT

“They will arrive tomorrow”

(b) Die aangekome mense is baie moeg.

the to-GE-come-E people are very tired

“The arrivals are very tired”

(17) **Verb stems with the inlaut /i/ take the ablaut form /uə/:**

(a) Hulle kies vandag die nuwe komitee.

they elect.ACT today the new committee

“They are electing the new committee today”

(b) Hulle ondersteun die gekose lede.

they support the GE-choose-E members

“They support the elected members”

(18) **Verb stems with the inlaut /ʊ/ take that ablaut /oː/:**

(a) Almal soek haar.

everyone search-for.ACT her

“Everyone is looking for her”

(b) Sy is ’n gesogte aktrise.

she is a GE-want-E actress

“She is a sought-after actress”
Verbs with the inlaut /œi/ take the ablaut /œə/:

(a) Die man buig sy hoof in gebed.

the man bow.ACT his head in prayer

“The man bows his head in prayer”

(b) Die man sit daar met ’n geboë hoof.

the man sit there with a GE-bow-E head”

“The bent branch hangs close to the ground”

Verbs with the inlaut /œi/ take the ablaut /iœə/:

(a) Die meisie skryf al haar verjaarsdagkaartjies uit.

the girl write.ACT all her birthday-cards out

“The girl writes out all her birthday cards”

(b) Geskrewe kaartjies is baie meer persoonlik.

GE-write-E cards are very more personal

“Written cards are much more personal”

Hauptfleisch (1953) and Conradie (1979) claim that, for participles which are subject to irregular-regular form alternation, there may be semantic factors that determine when the participle takes its irregular form and when it becomes regularised. They claim is that the irregular form shows a closer affiliation with the participle’s figurative meaning. An irregular form such as gebroke (“broken”), for example, has undergone a semantic “narrowing” in that it is normally only used in a figurative, or poetic, sense, as illustrated in (21a). By contrast, its regular counterpart, gebreekte (“broken”), is used with a more literal meaning, as in (21b).

(21) (a) Elmie is ’n meisie met ’n gebroke hart.

Elmie is a girl with a GE-break-E heart

“Elmie is a girl with a broken heart”
(b) Daar is die kar met die gebreekte venster.

there is the car with the GE-break-TE window

“There is the car with the broken window”

It is however not always clear whether a given participle denotes a process that is intended literally or figuratively. According to Hauptfleisch (1953:92-93) a participle can be taken to express a literal meaning when its normal interpretation describes a process or action that can be perceived by the senses. Still, some participles have a figurative and a literal interpretation that are equally common. Consider (22) in which (i) expresses the literal meaning and (ii) the figurative meaning (Hauptfleisch 1953:93-95):

(22) (a) ’n Onbesproke lewe

a NEG-BE-speak-E life

(i) “A life that is not discussed by others”

(ii) “An exceptionally good life”

(b) Geswore vriende

GE-swear-E friends

(i) “Two that have sworn to be friends forever”

(ii) “Two that are bosom buddies”

(c) Die mees gesogte prinses

the most GE-seek-TE princess

(i) “A princess that is sought after more than other princesses”

(ii) “A princess that is especially sought after”
In examples like those in (22), emphasis usually plays a disambiguating role. For example, in *Die mees gesogte prinses*, where the emphasis falls on *mees*, the interpretation in (24c)(i) is evoked; in *Die mees gesogte prinses*, where the emphasis falls on *gesogte*, the interpretation in (24c)(ii) is evoked.

Hauptfleisch (1953:99-102) provides a list of his findings regarding the frequencies with which irregular and regularised forms used literally and figuratively. However, as he points out, there does not seem to be any pattern that shows a direct correlation between the literal/figurative semantic factor and the occurrence of the participle in irregular/regularised form.

Conradie (1979:278) suggests that participles which express a psychological state are more likely to take an irregular form than a participle which does not express such a state. Consider (23) for example:

(23) (a) Ek het nog nooit só ’n *vasberade* meisie geken nie.

I have yet never such a determine-E girl known not

“I have never known such a determined girl”

(b) Die klein seuntjie is baie *opgewonde*.

the little boy is very up-wind-E

“The little boy is very excited”

(c) Hy is ’n *teruggetrokke* persoon.

he is a back-GE-pull-E person

“He is an aloof person”
In all his data, Conradie finds only one example of a regularised participle which expresses a psychological state: *verskrikte* (“frightened”). In support of Conradie’s claim, consider again the participle *gebroke/gebreekte* (“broken”). Above, it was claimed that the irregular participle *gebroke* is today used only to express a figurative “brokenness”, such as a state of trauma or despondence, whereas *gebreekte* is used to express the more literal meaning of an inanimate object being in a state of disrepair. This can also be applied to Conradie’s claim that the irregular form is used to express a psychological state, rather than a physical state of affairs, and vice versa. Consider the following sentences in this regard.

(24)  
(a)  ’n Gebreekte glas is niks werd nie.  
a GE-break-TE glass is nothing worth not  
“A broken glass is worth nothing”  

(b)  * ’n Gebreekte meisie is niks werd nie.  
a GE-break-TE girl is nothing worth not  
“*A broken girl is worth nothing”  

(25)  
(a)  *Daar is ’n gebroke glas op die stoep.  
there is a GE-break-E glass on the porch  
“*There is a (psychologically) broken glass on the porch”  

(b)  Daar is ’n gebroke meisie op die stoep.  
there is a GE-break-E girl on the porch  
“There is a broken-hearted girl on the porch”  

It was mentioned earlier that irregular participles seldom occur in predicative position; however, the sentences in (24a) and (25b) do illustrate this phenomenon. It seems to be the case that these participles have lost the semantic connection with the original parts of the verb.
The word opgewonde (“excited”), which is derived from the verb stem wen (“wind”). The derived verb opwen, “to wind up”, is the stem for the irregular participle opgewonde, with the literal meaning “to be wound up” or “to be tightly wound”. In contemporary Afrikaans, opgewonde has lost its semantic connection to the base parts of its stem, and speakers no longer associate the (figurative) meaning of the word opgewonde with the (literal) sum of its original parts op and wen.

4.3 The Passive Auxiliary

As noted in Section 3.3 of the previous chapter, there are two main types of passive auxiliary in languages like Swedish and German: the eventive passive auxiliary, and the stative passive auxiliary. These two types are also found in Afrikaans. The stative passive auxiliary surfaces as wees (“be”), or one of its tense-inflected forms: present tense is (“is”), simple past tense was (“was”), and past perfect was (“had been”); the eventive passive auxiliary surfaces as present tense werd (“is being, becomes”), and past tense geword (“has/had been, became”). Examples of the stative passive auxiliary are given in (26); (27) is an example of the eventive passive auxiliary (adapted from Menkveld 1987:20).

(26) (a) Hy is geslaan.

he is GE-hit

“He is (now in the state of having been) hit”

(b) Hy was geslaan.

he was GE-hit

“He was (then in the state of having been) hit”

(c) Hy is geslaan gewees.

he was GE-hit GE-be

“He was (then in the state of having been) hit”
(27)  
(a)  Hy word geslaan.
he becomes GE-hit
“He is being hit”

(b)  Hy is geslaan.
he was GE-hit
“He was (subjected to the process of being) hit”

(c)  Hy was geslaan.
he was GE-hit
“He had been (subjected to the process of being) hit”

This section focuses on the co-occurrence relationship between the passive auxiliary and the passive participle. Two main questions are addressed: Do elements of tense and aspect affect the form of the passive auxiliary? Do elements of tense and aspect determine the type of passive participle (eventive, R-state or T-state) that may co-occur with the (eventive or stative) passive auxiliary? Lundquist (2008:148-149) proposes that, in Swedish, the eventive passive participle occurs with the eventive passive auxiliary, and the R-state and T-state passive participles occur with the stative passive auxiliary. It will be argued below that these claims about Swedish do not hold for Afrikaans; specifically, in Afrikaans the eventive passive auxiliary may occur with the R-state and the T-state, and the stative passive auxiliary may occur with the eventive passive. As regards the type of passive auxiliary that is used (i.e., stative or eventive), it is suggested that the choice is determined by the combination of sentential aspect and tense rather than by the passive participle which co-occurs with the passive auxiliary.

Menkveld (1978:17-18) claims that aspect and tense are the two variables that are involved in determining which passive auxiliary will surface in a given construction. The term “aspect” is used in regard to the (in)completeness of a process, formally indicated by the feature [± perf(ect)]; the term “tense” is used to indicate when a process took place relative to the time of speaking, indicated by the feature [± past].
Menkveld claims that a passive construction incorporating the feature [-perf] surfaces with the eventive passive auxiliary, whereas one incorporating [+perf] surfaces with the stative passive auxiliary. On the one hand, a process which is incomplete, regardless of the time at which it is being referred to, will therefore be described using the eventive passive auxiliary; on the other hand, a process which is complete, regardless of the time at which it is being referred to, will be described using the stative passive auxiliary. These claims are summarised in (28), and illustrated by the corresponding examples in (29) (Menkveld 1978:20-21; examples slightly adapted.).

\[
\begin{align*}
(28) & \quad (a) \quad [\text{PASS} (- \text{perf})] \quad \rightarrow \quad \text{word ge-} \\
& \quad (b) \quad [\text{PASS} (+ \text{perf})] \quad \rightarrow \quad \text{was/is ge-}
\end{align*}
\]

\[
\begin{align*}
(29) & \quad (a) \quad (i) \quad \text{Die gewese hondemeester word vandag deur die polisie gesoek.} \\
& \quad \quad \quad \quad \text{the former dog-handler becomes today by} \quad \text{the police GE-seek} \\
& \quad \quad \quad \quad \quad \quad \text{“The former dog-handler are being sought by the police today”} \\
& \quad (ii) \quad \text{Die gewese hondemeester word môre deur die polisie gesoek.} \\
& \quad \quad \quad \quad \text{the former dog-handler becomes tomorrow by the police GE-seek} \\
& \quad \quad \quad \quad \quad \quad \text{“The former dog-handler will be sought by the police tomorrow”} \\
& \quad (iii) \quad \text{*Die gewese hondemeester word gister deur die polisie gesoek.} \\
& \quad \quad \quad \quad \text{the former dog-handler becomes yesterday by the police GE-seek} \\
& \quad \quad \quad \quad \quad \quad \text{“*The former dog-handler is sought by the police yesterday”}
\end{align*}
\]

\[
\begin{align*}
(29) & \quad (b) \quad (i) \quad \text{Hy is nou gevang.} \\
& \quad \quad \quad \quad \text{he is now GE-catch} \\
& \quad \quad \quad \quad \quad \quad \text{“He is caught now”} \\
& \quad (ii) \quad \text{Hy is/was gister gevang.} \\
& \quad \quad \quad \quad \text{he was yesterday GE-catch} \\
& \quad \quad \quad \quad \quad \quad \text{“He was caught yesterday”}
\end{align*}
\]
(iii) *Hy is/was môre gevang.

He is tomorrow GE-catch

“He is caught tomorrow”

The sentence in (29a)(iii) is ungrammatical because the eventive passive auxiliary, which can only be used to describe a process that cannot yet have been completed, is used to describe a process which must have been completed yesterday. The sentence in (29b)(iii) is ungrammatical because the stative passive auxiliary, which can only be used to describe a process that has already been completed, is used to describe a process that will only take place tomorrow. The sentences in (29) also illustrate that passive constructions which can be described as [+ perf, - past] surface with the stative passive auxiliary *is*, whereas those which are [+ perf, + past] surface with the stative passive auxiliary *was*. Menkveld (1978:21-22) summarises this tense-related difference between the use of *is* and *was* as in (31), and provides the illustrative examples in (32).

(31)  
(a) [PASS (+ perf) (- past)]  
     ➔ *is ge-

(b) [PASS (+perf), (+past)]  
     ➔ *was ge-

(32)  
(a) ’n Waarskuwingskoot is geskiet.
     a warning-shot is GE-fire
     “(There now exists a state in which) a warning shot is fired”

(b) ’n Waarskuwingskoot was geskiet.
     a warning-shot was GE-fire
     “(There existed a state in which) a warning shot was fired”

According to (31), the stative passive auxiliary *is* is used to describe a state that holds at the time of speaking, whereas *was* is used to describe a state that no longer holds at the time of speaking. However, sentences such as those in (33) illustrate that both *is* and *was* can be used to describe a process in the past tense:
(33) (a) Hy is op skool gespot.

he was on school GE-tease

“He was teased at school”

(b) Hy was op skool gespot.

he was on school GE-tease

“He had been teased at school”

The difference between the two sentences in (33) is that gespot in (33a) is a participle in the R-state, whereas gespot in (33b) is an eventive participle. (33a) describes a state that has resulted from a teasing action that was completed in the past, yet that still holds at the time of speaking. For this reason, it is possible to use the present tense stative passive auxiliary *is* for describing this state. (33b), by contrast, describes a teasing action that took place, and was completed, in the past; however, since it does not describe a state, it cannot be said to hold at the time of speaking, and thus the past tense stative passive auxiliary *was* is used to describe this process.

It should be noted that the sentence in (33a) is itself ambiguous because the participle gespot can be either an R-state or an eventive passive. Recall from Chapter 3 the ambiguity found with English sentences such as those in (34) below, which can likewise be ascribed to the synchronous form of the R-state and the eventive passive:

(34) (a) The metal is hammered.

(b) The song is sung.

(c) The little girl’s hair is combed.

Kraak and Klooster (1968:86-7) point out the same ambiguity in Dutch in their discussion of what they call (i) the participle, (ii) the deverbal adjective and (iii) the true adjective; in the
terminology used in this study, these categories correspond to the eventive passive, the R-
state and the T-state, respectively. Kraak and Klooster (1968:93-94) provide the examples in
(35) to illustrate the ambiguity between the eventive passive and the R-state;\(^{45}\) the Afrikaans
counterparts of the Dutch examples are given in (36).

(35) (a) Eventive passive: Wanneer is het zwembad gesloten (geworden)?
when is the swimming-pool \textit{GE}-lock (\textit{GE}-become)
“When was the swimming pool locked?”

(b) R-state: Wanneer is het zwembad gesloten (= dicht)?
when is the swimming-pool \textit{GE}-lock (= closed)?
“When is the swimming pool locked?”

(36) (a) Eventive passive: Wanneer is die swembad gesluit?
when is the swimming-pool \textit{GE}-lock
“When was the swimming pool locked?”

(b) R-state: Wanneer is die swembad gesluit (= toe)?
when is the swimming-pool \textit{GE}-lock (= closed)
“When is the swimming pool locked?”

In the sentences in (a), the question relates to \textit{when} the process of locking the swimming pool
took place; in (b) the question relates to the time when the swimming pool will be in a locked
(or closed) \textit{state}. Focusing on the Afrikaans examples, the participle \textit{gesluit} in (36a) is an
eventive passive according to the diagnostic which was introduced in Chapter 3 – that is, it
can be modified by the agentive \textit{deur} (“by”)-phrase, as illustrated in (37a) below. Moreover,

\(^{45}\) The ambiguity shown by the eventive passive \textit{gesloten} in (35a) and the R-state \textit{gesloten} in (35b) is also found
with the T-state \textit{gesloten} in (i) below (Kraak and Klooster (1968:94):

(i) Wanneer is een jongen gesloten?
when is a boy \textit{GE}-lock
“When is a boy shy/aloof?”
the sentence in (37a) can be paraphrased by the sentence in (37b), which makes use of the eventive passive auxiliary, rather than the stative passive auxiliary. By contrast, the participle gesluit in (36b) represents an R-state because it cannot be modified by an agentive phrase, as illustrated in (38).46

(37) (a) Wanneer is die swembad deur die opsigter gesluit?

    when was the swimming-pool by the caretaker GE-lock

    “When was the swimming pool locked by the caretaker?”

(b) Wanneer word die swembad deur die opsigter gesluit?

    when becomes the swimming-pool by the caretaker GE-lock?

    “When is the swimming pool locked by the caretaker?”

(38) *Wanneer is die swembad deur die opsigter gesluit?

    when is the swimming-pool by the caretaker GE-lock

    (that is, “When is the swimming pool in a state of being locked by the caretaker?”)?47

In Afrikaans, as in English, the R-state and the eventive passive normally share the same form, whereas the T-state usually occurs in a different form. The table in (39) provides the forms of various T-states, R-states and eventive passives, for comparison.

(39)

<table>
<thead>
<tr>
<th>Root</th>
<th>T-state</th>
<th>R-state</th>
<th>Eventive</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Oop (open)</em></td>
<td>oop</td>
<td>oopgemaak</td>
<td>oopgemaak</td>
</tr>
<tr>
<td><em>Droog (dry)</em></td>
<td>droog</td>
<td>drooggemaak</td>
<td>drooggemaak</td>
</tr>
<tr>
<td><em>Leeg (empty)</em></td>
<td>leeg</td>
<td>leeggemaak</td>
<td>leeggemaak</td>
</tr>
</tbody>
</table>

46 This phenomenon is discussed in Section 3.2.2.
47 Cf. Section 3.2.2 for a discussion on the ungrammaticality of sentences such as those in (38).
A large number of compound verbs in Afrikaans are derived from an adjective + *maak* (“make”), with the meaning “cause… to be [ADJECTIVE]”; see the examples with the root *oop*, *droog* and *leeg* in the above table. In these cases the form of the T-state is clearly distinguishable from that of the eventive passive and the R-state, with the T-state bearing exactly the same form as the true adjective. With other verbs, the T-state takes exactly the same form as both the eventive passive and the R-state, as illustrated in the table by the verbs derived from the roots *sluit*, *dra* and *breek*, although it should be noted that certain verbs (like *spot* and *slaan* in the table) cannot form a T-state at all. As in English, the state described by the T-state in Afrikaans is not transitory and cannot be reversed. Thus, it can be distinguished from the eventive passive and the R-state by the *nog altyd* - (“still-”) modification test (Ponelis 1979:412; cf. Section 3.2.1), as shown by the examples in (40):

(40)  (a) Twee spelers is nog altyd beseer.

    two players are still BE-injure

    “Two players are still injured”

(b) Die krag is nog altyd afgesny.

    the power is still off-GE-cut

    “The power is still cut off”

(c) Die handdoeke is nog altyd droog.

    the towels are still dry

    “The towels are still dry”
In Lundquist’s analysis, it does not seem possible for a T-state to occur with an eventive passive auxiliary. It is common in Afrikaans, however, for the T-state to co-occur with the eventive passive auxiliary word, as shown in (41). The difference in meaning between the sentences in (40) and those in (41) can be ascribed to a difference in aspect: the sentences in (40) all incorporate the feature [+ perf], and those in (41) the feature [-perf].

(41)  
(a) Die wynkraffie word leeg.
the decanter becomes empty
“The decanter is becoming empty”

(b) Die vleis word gaar.
the meat becomes cooked
“The meat is becoming cooked”

(c) Die sement word droog.
the cement become dry
“The cement is becoming dry”

The participles in (41) cannot undergo modification by the adverb nog altyd (“still”), which is the most reliable test for the T-state. Moreover, due to the fact that the eventive passive auxiliary word in (41) is inherently dynamic, the participles in these examples do not seem to adhere to the criterion that the T-state may not contain information about the process that brought it into being. Hence it might be claimed that the participles in (41) are not actually T-states, but eventive passives or R-states. There are at least two arguments against such a claim, however. Firstly, it can plausibly be argued that the participle itself does not contain any information about a process. Instead, the “process” can be fully ascribed to the eventive passive auxiliary word, which does not describe the way in which the state is being brought about, but rather indicates that the state has not yet reached completion. The only dynamic information conveyed by (41a), for example, is that the decanter is becoming increasingly more empty, in other words, an intensification of a simple state. Contrast this with the R-state
\textit{gesluit} in (36b) \textit{Wanneer is die swembad gesluit?}, which conveys information about some sort of closing action which leads to the closed state. Secondly, the phenomenon illustrated in (41), in which the T-state is conceived of as becoming more intensive with time, seems to hold for true adjectives as well, where such adjectives are interpreted as describing states which become more intensive, or more complete, over time. This similarity in the behaviour of participles and true adjectives is clear from a comparison between the examples in (41) and (42).

(42) (a) Die wynkraffie word vuil.

the decanter becomes dirty

“The decanter is becoming dirty”

(b) Die vleis word taai.

the meat becomes tough

“The meat is becoming tough”

(c) Die sement word hard.

the cement become hard

“The cement becomes hard”

It is thus maintained that it is possible for the T-state in Afrikaans to co-occur with the eventive passive auxiliary \textit{word}. In such instances, however, the T-state cannot be modified by the adverb \textit{nog altyd} (“still”) because a state of increasing intensity cannot “still” hold true. In other words, to reiterate Menkveld’s earlier claims about the aspect and tense of each passive auxiliary, the eventive passive auxiliary occurs in sentences containing the feature [-perf], while the stative passive auxiliary occurs in sentences containing the feature [+perf]. That \textit{nog altyd} can modify only participles occurring in constructions that are [+perf] seems to be a semantic issue rather than one relating to co-occurrence restrictions.
At this stage, it is important to note that the occurrence of any passive participle is not subject to its co-occurrence with a particular type of passive auxiliary: the eventive passive participle has been shown to co-occur with both the stative passive auxiliary and the eventive passive auxiliary; the T-state passive has likewise been shown to co-occur with both these types of auxiliary. It seems, instead, that the selection of a particular passive auxiliary is determined by the aspect and tense of a construction, and that these factors are not strongly correlated with the type of passive participle which surfaces in a construction. Thus, Lundquist’s (2008) claim of a correlation between the passive participle and the passive auxiliary cannot be maintained, and will accordingly not be adopted in the remainder of this study.

4.4 The Structure of the Passive Participle

Chapter 3 dealt with the classification of the various types of passive participle. Three proposals were examined, namely (i) the ternary classification, followed by researchers such as Kratzer (2000) and Embick (2003; 2004); (ii) Lundquist’s (2008) binary classification; and (iii) Sleeman’s (2011) quaternary classification. The arguments for each were critically examined, and it was concluded that the most convincing evidence is provided for the ternary categorisation.

Sections 4.2 and 4.3 focused on the form of the passive participle in Afrikaans, and particular attention was given to possible variations and alternations. Against this background, the present section gives a description of the underlying structure of the T-state, the R-state and the eventive passive in Afrikaans. Although the quaternary classification of the passive participle proposed by Sleeman (2011) is not adopted in this study, her observations concerning the difference in form between the Dutch attributive and predicative eventive passive are of particular interest for this study. This difference in form is observed in Afrikaans as well, but it will shown below that the R-state (and to some extent, the T-state) also displays this change in form between predicative and attributive position. It will be argued that Sleeman’s claim about a distinct structure for the attributive eventive passive
cannot be maintained for Afrikaans, and an alternative explanation for the difference in form is put forward in this regard. The rest of this section is organised as follows. First, the Afrikaans passive participles are analysed in terms of the structures for the T-state, R-state and eventive passive that were discussed in Chapter 3. Second, a possible nanosyntactic analysis is proposed to account for the difference between the attributive and predicative passive participle in Afrikaans.

Lundquist (2008:147) claims that the R-state and the eventive passive normally take the same form, whereas the T-state takes a different form. This claim seems to hold for Afrikaans as well, although there are many instances in which the T-state, too, is syncretic with both the R-state and the eventive passive. As illustrated in the table in (39) above, there is usually a difference in form between the T-state, on the one hand, and the R-state and eventive passive, on the other hand, when the R-state and eventive passive take the form \[\text{ADJECTIVE} + \text{ge-} + maak\]. In such cases, the T-state takes the form of an underived or true adjective with \text{ge-} usually absent.

It was found in Chapter 3 that the most reliable diagnostic for telling the T-state apart from the R-state is the \textit{still}-modification test: the T-state allows this kind of modification, whereas the R-state does not. In Afrikaans, this diagnostic involves modification by the adverb of continuity \textit{nog altyd} (or \textit{nog steeds}; “still”). Recall that the T-state describes a state which is transitory, whereas the R-state describes one which is temporally bound. Thus, it is reasonable to claim that the transitory T-state “still” holds at the time of speaking; conversely, such a claim about the R-state amounts to redundancy: an occurrence that is temporally bound clearly cannot become undone, that is, it necessarily “continues to hold” at the time of speaking. The sentences in (43) and (44), respectively, illustrate that the T-state is grammatical and the R-state ungrammatical with \textit{nog altyd}-modification.

\begin{itemize}
  \item (43) (a) Die deur is nog altyd oop.
  
  \begin{quote}
  the door is still always open
  \end{quote}

  “The door is still open”
\end{itemize}
(b) Die venster is nog altyd gekraak.
the window is still always GE-crack
“The window is still cracked”

(c) Die hek word nog altyd bewaak.
the gate becomes still BE-guard
“The gate is still guarded”

(44) (a) *Die teorie is nog altyd bewys.
the theory is still always BE-prove
“*The theory is still proven”

(b) *Die bal is nog altyd gegooi.
the ball is still GE-throw
“*The ball is still thrown”

(c) *Die drom is nog altyd leeggemaak.
the dustbin is still empty-GE-made
“*The dustbin is still emptied.”

A second diagnostic that was discussed in Chapter 3 concerns the T-state’s ability to be modified by degree adverbs. The T-state’s behaviour in this regard is mirrored by true adjectives, which are also compatible with this type of modification. Consider (45), where the examples in (i) illustrate a T-state that is modified by a degree adverb, and those in (ii) illustrate an underived adjective displaying the same modification.
Like the underived adjective, the T-state does not contain information about the dynamic process that brought it into being. Instead, it describes a simple state, which is represented by the syntactico-semantic feature [Res]. The generic structure for the T-state in Afrikaans is thus proposed to be the same as the structure for the T-state which was given in Chapter 3 as (24), repeated here as (46). The passive participle in (47a) is thus proposed to have the structure represented in (47b) below.

![Diagram of (46)](http://scholar.sun.ac.za)
(47)  (a)  Willem se handdoeke is almal droog.

Willem’s towels are all dry

“Willem’s towels are all dry”

(b)  ResP

     DP  Res

     Willem se handdoeke  droog

Contrary to the T-state, the R-state contains information about the dynamic process that brought the state into being. Consider R-states that take the compound form [ADJECTIVE + ge- + maak], as in oopgemaak (“opened”), drooggemaak (“dried”), leeggemaak (“emptied”), and toegemaak (“closed”). The form of these R-states includes the true adjective (oop, droog, leeg and toe, respectively), in combination with the passive prefix ge- and the verb maak, with the latter representing the process part of the compound. In other words, information about the process is evident from the form of these R-state compounds. As discussed in the previous chapter, the R-state can be distinguished from the T-state by the un-prefixation diagnostic in English. This is also true of the R-state in Afrikaans, as illustrated by on- (“un-”) prefixation in (48). In these examples, (i) represents the ungrammatical T-state and (ii) the grammatical R-state.

(48)  (a)  (i)  Die geskenk is nog *onoop/toe.

the present is still UN-open/closed

“The present is still wrapped”

48 The un-prefixation diagnostic does not seem to work equally well with all compound R-state participles: whereas onoopgemaak (“unopened”) is acceptable, ondrooggemaak (“undried”), onleeggemaak (“unemptied”) and ontoegemaak (“unclosed”) are not acceptable forms in Afrikaans. Since it seems that the R-state which is formed by compounding [ADJECTIVE] + maak is the only R-state form that consistently differs from the T-state form, the on-prefixation test illustrated in (48) is carried out using some participles which exhibit syncretic T-state and R-state forms.
(ii) Die geskenk is onoopgemaak.
the present is UN-open-GE-make
“The present is unopened”

(b) (i) Die brood is nog *onmuf/vars
the bread is still UN-musty/fresh
“The bread is still fresh”

(ii) Die brood bly ongemuf.
the bread remains UN-GE-mould
“The bread remains unmoulded”

(c) (i) Die beskuit is nog *ondroog/nat.
the rusks are still UN-dry/wet
“The rusks are still moist”

(ii) Die beskuit is ongedroog.
the rusks are UN-GE-dry
“The rusks are undried”

In order to account for the dynamic process in the structure of the R-state, the syntactico-
semantic feature [Proc] is attached above [Res], thereby encoding information about this
process into the structure of the R-state. The generic structure for the R-state in Afrikaans is
thus proposed to be the same as the structure which was proposed in Chapter 3 as (25),
repeated here as (49). It is accordingly proposed that the passive participle in (50a) has the
structure represented in (50b) below.
It was found in Section 3.2.2 that the most reliable diagnostic test for distinguishing the R-state from the eventive passive relates to the fact that the eventive passive can be modified by an agentive *by*-phrase, whereas the R-state cannot. This also holds true for Afrikaans, as illustrated by the sentences in (51a-c)(i) below, which all allow agentive *deur*-phrase modification. In contrast, the R-states in (51a-c)(ii) do not allow this type of modification. As pointed out in Section 3.2.2, the ungrammaticality of the sentences in (51a-c)(ii) can be ascribed to a semantic constraint on the R-state: a state which came into being as a result of a dynamic process cannot differ on grounds of agentivity from another state with the same internal object and the same dynamic process. Thus, when the intended meaning of a construction such as the one illustrated in (51) concerns a state rather than a dynamic process, the sentence will be ungrammatical.

(51) (a) (i) Die venster is deur Marius gebreek.

the window is by Marius break

“The window was broken by Marius”
(ii) *Die venster is deur Marius gebreek.

the window is by Marius GE-break

(that is, “The window is in a state of having been broken by Marius”)

(b) (i) Die meisie se hare is deur haar ma gekam.

the girl POS hair was by her mother GE-comb

“The girl’s hair was combed by her mother”

(ii) *Die meisie se hare is deur haar ma gekam.

the girl POS hair is by her mother GE-comb

(that is, “The girl’s hair is in a state of having been combed by her mother”)

(c) (i) Die boom is deur Gerhard afgekap.

the tree was by Gerard off-GE-chop

“The tree was chopped down by Gerard”

(ii) *Die boom is deur Gerhard afgekap.

the tree is by Gerard off-GE-chop

(that is, “The tree is in a state of having been chopped down by Gerard”)

Because the eventive passive necessarily contains information about the initiator of the dynamic process, the syntactico-semantic feature [Init] is attached above [Proc], thereby encoding information about the cause of the dynamic process into the structure of the eventive passive. The generic structure for the eventive passive in Afrikaans is thus claimed to be the same as the structure which was proposed in Chapter 3 as (26), repeated here as (52). It is therefore proposed that the passive participle in (53a) has the structure represented in (53b) below.
(a) Die tafel is deur Kristian omgegooi.
the table is by Kristian over-GE-throw
“The table was overturned by Kristian”

(b) InitP

\[
\begin{array}{c}
\text{DP}_i \\
\text{e} \\
\text{Init’} \\
\text{Init omgegooi} \\
\text{ProcP} \\
\text{DP}_f \text{ tafel} \\
\text{Proc’} \\
\text{Proc omgegooi} \\
\text{ResP} \\
\text{DP}_f \text{ tafel} \\
\text{Res’} \\
\text{Res omgegooi} \\
P \text{ deur} \\
\text{DP}_i \text{ Kristian}
\end{array}
\]
Recall that the co-indexing relations between the DPs in a structure like (53b) are verb-specific: with a verb like omgegooi (“overthrown”), the UNDERGOER is the same as the RESULTEE because it “experiences” the result of the dynamic process. With verbs like eet (“eat”) and drink (“drink”), however, the UNDERGOER is the same as the INITIATOR because it initiates and undergoes the dynamic process. Recall also that the INITIATOR position in the passive participle’s structure is obligatorily empty, and that this position is co-indexed with the semantic initiator, which provides additional information and is attached as the complement of [Res].

We now turn to the passive participle occurring in attributive position, focusing specifically on the morphological form that it displays in that position. In the course of the discussion, an alternative will be proposed to Sleeman’s claim that two different kinds of eventive passive have to be distinguished, one predicative and one attributive, each with its own structure.

Consider the morphological difference between the predicative and attributive passive participle. As was pointed out at the start of this section, the eventive passive and the R-state both display a morphological change in attributive position. This was illustrated in Section 3.4 with the examples in (52), repeated here as (54). It must be noted that the R-states in (54) are diagnosed by on-prefixation: these participles cannot be eventive as they are ungrammatical with agentive deur-phrase modification.

(54) (a) (i) Die (*deur Jan) ongeverfde potte

the (by Jan) UN-GE-paint-DE pots

“The unpainted pots”

(ii) Die potte is ongeverf (*deur Jan).

the pots are UN-GE-paint (by Jan)

“The pots are unpainted”
Although the morphological change illustrated in (54) is not compulsory with the T-state, some T-states and true adjectives do undergo such a change when they occur in the attributive position; specifically, in such cases the suffix \(-e\) is attached to the T-state and the adjective as shown in (55). The sentences in (55a-b) contain true adjectives, and those in (55c-d) contain T-states.

(55)  

(a)  

(i)  Die water is stil en die grond is diep.
the water is still and the ground is deep
“The water is still and the ground is deep”

(ii)  Stille water, diepe grond
Still-E water deep-E ground
“Still water, deep ground”

(b)  

(i)  Die nag is heilig.
the night is holy
“The night is holy”

(ii)  Heilige nag
Holy-E night
“Holy night”

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In short, as shown by the examples in (54) and (55), the T-state, R-state and eventive passive all display morphological change when occurring in the attributive position. This suggests that the morphological change should be ascribed to the participle’s occurrence in attributive position, rather than to a difference in the internal structure of the participle itself. On the assumption that each type of passive participle has the same internal structure in both the attributive and the predicative position, then the morphological change displayed by a particular participle in the attributive position must be structurally accounted for in another way. It may be suggested that, in each case, the participle originates in the predicative

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49 It is likely that the form leë (“empty”) from leeg + -e, like droë (“dry”) from droog + -e and hoë (“high”) from hoog + -e, is due to a phonological process of simplification in which word-final [x] is deleted when it combines with [ə].
position and undergoes movement to the attributive position. On this analysis, the morpheme that is associated with the participle in position, originates in that position and is attached to the participle when the latter undergoes movement. A potential problem with this analysis, however, lies in the fact that Ramchand’s (2008) model for the event structure of verbal predicates does not allow movement in the sense of conventional MS. Ramchand’s model includes what she has termed “remerge”, in which a syntactico-semantic feature that has been merged into a syntactic tree may be merged again in a higher position in the same tree. The intention behind Ramchand’s conception of remerge seems to be that all the instances of the same syntactic-semantic feature in one tree together comprise the structure that will match that of a given lexical item. This results in a notion of “cumulative coding”, or sequencing, in which the sum of a given number of nodes in a syntactic tree codes for one lexical item, and in which no individual node can be said to correspond with the whole lexical item.

If Ramchand’s system is adhered to, the question arises as to how the sequence of syntactico-semantic features in the structure of the attributive passive participle can be accounted for without conventional movement. Working only with the internal structure of verb-like elements (that is, with no linguistic elements larger than a lexical item) and not at all with the relation between two or more lexical items, neither Ramchand (2008) nor Lundquist (2008) has proposed an account of word order and subsequent morphological changes of verbs. Therefore, some sort of structure is required to make provision for the attributive passive participle. Since the premise here is that the passive participle has the same sub-word level structure irrespective of whether it occurs in attributive or predicative position, the structure that is needed for the attributive passive participle, has to make provision for both morphological forms of the participle. In this regard, consider first the predicative eventive passive oopgemaak in (56a); the diagram in (56b) could be proposed as a possible representation of the structure of this passive.

51 Passive participles, especially those occurring in attributive position, can be argued to be “less verb-like” than active verbs. However, because the focus of this study is mainly on verbal event structure, these participles are considered in terms of their verbal properties, since even the most “adjective-like” passive (the T-state) possesses some verbal properties (i.e., [Res]). Because the participle occurring in the attributive position is argued to have the same structure as its counterpart in the predicative position, this participle is also examined here in terms of its verbal properties.

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(56) (a) Die deur is (deur Johan) oopgemaak.

the door was (by Johan) open-GE-made

“The door was opened (by Johan)”

(b) Bearing in mind the notion of cumulative coding mentioned above, the co-indexing relations in (56b) must be interpreted as follows: the DP\textsubscript{i}, which fills the specifier position under the TP (i.e., the position that is conventionally associated with the derived syntactic subject in MS), is equal to the sub-word level parts (DP\textsubscript{j}+DP\textsubscript{k}). On Ramchand’s (2008) analysis, the subject DP \textit{die deur} is not moved out of the sub-word level constituent InitP. In other words, this DP is independently generated in [spec, TP] and not raised there from a base position in
The relationship between the word-level DP *die deur* and the sub-word level occurrences of this DP in InitP is established via some sort of coindexing mechanism, the nature of which is unclear at this point.

Consider next the attributive eventive passive *oopgemaakte* in (57a), with (57b) representing the possible structure of this passive.

(57) (a) Die oopgemaakte deur

the open-GE-make-TE door

“The opened door”

(b)
In terms of cumulative coding, the co-indexing relations in (57b) are expressed as follows: the DP, which fills the specifier position of the PassP, is equal to the sub-word level parts (DP + DP ). The V is equal to the sub-word level parts (Init + Proc + Res). Note that, in (57b), the word level D die undergoes the type of head-to-head movement that is found in conventional MS, whereas all the syntactico-semantic features occurring on sub-word level are subject rather to remerge. This combination of heterogeneous operations and constituents in the diagrams in (56b) and (57b) – i.e., some on word-level and some on sub-word-level – is most likely not ideal for the representation of syntactic structures in NS. Ideally, the entire structure should consist of only sub-word level features which are co-indexed as a way of indicating that they correspond with word level lexical items. As far as could be ascertained, however, there are currently no proposals within NS for phrasal structures in which all the constituents take the form of sub-word level syntactico-semantic features. For example, an understanding of the attributive passive participle’s sub-word level structure would benefit from a nanosyntactic analysis of the A suffix –te in the tree diagram in (57).52 In the same way, a nanosyntactic analysis of the passive auxiliary is required in order to determine the sequence of syntactico-semantic features that code for this constituent before it can be adequately represented on sub-word level. These issues fall outside the scope of this study. It should therefore be emphasised that the proposed combination of sub-word level and word level elements into a single structure, as in (56b) and (57b), is presented here as no more than a tentative suggestion – that is, in the absence of existing proposals, as a step towards gaining a better understanding of how the predicative and attributive passive participles relate to other constituents in word level phrase structure.

It should be clear from the above discussion that the sub-word level structure of the eventive passive remains constant, whether it occurs in the attributive or the predicative position: [Res] merges with the DP RESULTEE to form [ResP]; [ResP] merges with [Proc] to form [Proc’]; [Proc’] merges with the DP UNDERGOER to form [ProcP]; [ProcP] merges with [Init] to form [Init’]; [Init’] merges with the DP INITIATOR to form [InitP]53. In both the tree diagrams in (56b) and (57b), the sub-word level syntactico-semantic features [Init], [Proc] and [Res] stand in relation to the conventional MS constituents that occur on word level (that is, above sub-
word level). It is therefore arguable that a light-verb phrase (vP) should be introduced to the structures above [InitP] to mark the boundary between word level and sub-word level. Since the concept of light verbs does not seem to form part of the NS framework as presented in the literature, it is not incorporated into the relevant representations in this study. It is important to note, though, that [InitP] marks the end of the sub-word level; it is therefore likely that Pass(ive)P (or vP, if such a category is assumed) marks the beginning of the word level in the structure.

The general structures proposed for the eventive passive in the predicative and the attributive positions can also be applied to the R-state and the T-state. The diagrams in (58b) and (59b) below represent the structure of the predicative R-state in (58a) and the attributive R-state in (59a), respectively.

(58) (a) Die venster is gebreek.

the window is GE-break

“The window is broken.”

(59) (a) Die gebreekte venster

the GE-break-TE window

“The broken window”

(58b)
As regards the T-state, (60b) represents the structure of the predicative T-state in (60a) and (61b) that of the attributive T-state in (61a).

(60)  (a)  Die drom is leeg.

the dustbin is empty

“The dustbin is empty”

(61)  (a)  Die leë drom

the empty-E dustbin

“The empty dustbin”

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In the structures in (58b) and (59b), the DP is equal to (DP + DP), and the V is equal only to (Proc + Res); in the diagrams (60b) and (61b), the DP is co-indexed with the DP, RESULTEE, which forms the complement of [Res], and in (61b) the V is co-indexed with the syntactico-semantic feature [Res].
It is important to note that the sub-word level structures proposed for the passive participles occurring in the attributive position, whether eventive, R-state or T-state, do not differ from the sub-word level structures proposed for each participle’s predicative counterpart. Thus, the difference in form between the passive participle occurring in the predicative and in the attributive position can be accounted for within the NS framework – maintaining Ramchand’s notion of remerge, as well as the spellout of non-terminal nodes – without adding a fourth category to the most commonly accepted ternary classification of passive participles. The structures proposed in (56-61) above may provide a more parsimonious and economical structural account for the difference in form observed between the Afrikaans (and possibly the Dutch) passive participles occurring in the attributive and in the predicative position, than the solution proposed by Sleeman (2011) from within the DM framework.

4.5 Conclusion

This chapter described the Afrikaans passive participle, focusing on possible factors that affect its form. In this regard, attention was given to the prescriptive influence of Dutch on Afrikaans, and various syntactic and semantic properties of verb stems.

The Afrikaans passive participle was subsequently analysed against the background of the ternary classification that was set out in Chapter 3. It was shown that this classification holds for the Afrikaans data, with the relevant parts of speech being diagnosable by the same tests that Embick (2003; 2004) and Kratzer (2000) have applied to English and German.

Finally, the quaternary classification of passive participles put forward by Sleeman (2011) was critically examined in light of the Afrikaans data. It was shown that most passive participles, regardless of category, exhibit a change in form in the attributive position from the predicative position. It was argued that, contrary to Sleeman’s claim, the change in form is not the result of a distinct internal structure of the eventive passive participle in the attributive position; rather, this change in form represents a morphological property associated with the attributive position itself; the change therefore affects the eventive
passive, the R-state as well as the T-state. A structural account was subsequently proposed in which the sub-word level structure of the eventive passive, the R-state and the T-state remains consistent irrespective of whether the participle occurs in attributive or predicative position. The difference in form between the attributive and predicative passive was argued to occur on the word level, that is, outside the sub-word level structure, and is effected after the internal structure of each participle has already been put into place. Although it remains to be clarified whether there is any merit to this proposal, it does seem to provide a more parsimonious and economical account, from within the NS framework, of empirical observations regarding the form and behaviour of passive participles in Afrikaans.
Chapter 5
Summary and Conclusion

This study examined the structure of the Afrikaans passive participle from within the framework of Nanosyntax. A first aim was to provide an exposition of this framework, focusing on the core concepts and devices of NS. Secondly, the study aimed to provide an account from the literature of the classification and nature of various passive participles. Following Caha (2007), Lundquist (2008) and Ramchand (2008), a description was given of the nanosyntactic structure of each class of passive participle. The third aim of the study was to provide a description of the form of the Afrikaans passive participle, including its variations and alternations. To this end, it was investigated whether the categories proposed in the literature provide an adequate framework for the classification of the Afrikaans passive participle. Finally, an analysis was proposed of the structures of the various types of Afrikaans passive participle within the NS framework. It was found in the course of the discussion that the Afrikaans passive participle, as is the case in Dutch, differs in form according to whether it occurs in the predicative or in the attributive position. As far as could be ascertained, no structural account of this phenomenon has yet been proposed within NS. Hence a possible analysis of this phenomenon in Afrikaans was proposed, although the merit of this proposal remains a topic for further research.

The exposition of the NS framework in Chapter 2 was presented upon the premise that it falls within the generative approach to grammatical inquiry, specifically the approach represented by conventional Minimalist Syntax. For example, the structures proposed for various lexical items within NS all incorporate the principle of binary branching and are the result of the general operation Merge, which is as fundamental to NS as it is to conventional MS. Furthermore, in the framework proposed by Ramchand (2008), the elements of nanosyntactic structures are subject to the operation Remerge, which allows the same element to be merged several times in a syntactic tree, similar to the MS notion of Copy-Merge. One crucial point on which NS differs from conventional MS, however, concerns the spellout of non-terminal nodes. Unlike as in MS, a particular node on a syntactic tree is not conceived of as representing a particular morpheme; rather, a sequence of nodes is conceived of as representing a morpheme. Another major point of difference is the idea that the lexicon does
not precede the syntactic component of the grammar as is conventionally assumed. Instead, within NS the syntax is responsible for merging syntactico-semantic features selected from a universal pool to form syntactic trees that will be used as a template for lexical insertion in the course of the syntactic derivation. Finally, NS incorporates the Superset Principle and the Elsewhere Condition, which guide and constrain the insertion of lexical items. The Superset Principle states that a structure produced by the syntax must be a superset of the structure of the lexical item that will be inserted. Thus, in order to qualify for insertion, the structure of a lexical item must contain all the syntactico-semantic features that are present in the structure produced by the syntax, and may even contain extra features which are not present in such a structure. The lexical item may not, however, contain fewer syntactico-semantic features than are present in the structure derived by the syntax. Constraining the Superset Principle, however, the Elsewhere Condition states that the lexical item containing the least redundant features will win the competition for insertion.

From the discussion of the classification of passive participles in Chapter 3, it became evident that most researchers (e.g. Embick 2003, 2004; Kratzer 2000; Caha 2007) adopt a ternary classification comprising the eventive passive, the R-state and the T-state. These classes can be thought of as forming discrete parts of a continuum on which the eventive passive is the most verb-like and the T-state is the most adjective-like constituent. A description was then given of the specific nanosyntactic structure of each class of passive participle, with the T-state possessing the simplest and the eventive passive possessing the most complex structure.

Instead of opting for the ternary categorisation, some researchers have argued in favour of either a binary or a quaternary categorisation. Lundquist (2008), on the one hand, proposes a system in which the eventive passive and the R-state are not viewed as belonging to different classes, but are grouped together simply as the “eventive passive”, giving rise to the binary system of classification. Sleeman (2011), on the other hand, argues that the eventive passive should be sub-divided into the attributive eventive passive and the predicative eventive passive, giving rise to the quaternary classification system. Lundquist’s proposal is based largely on the fact that the eventive passive and the R-state are synchronous, whereas Sleeman’s proposal is based mainly on the observation that the Dutch eventive passive in the attributive position undergoes a morphological change, a phenomenon that is also found in
Afrikaans. Lundquist’s binary system of classification was not adopted in this study for the seeming lack of convincing evidence that the eventive passive and the R-state share the same functional properties and therefore the same structure. With regards to Sleeman’s quaternary system, it was shown that the eventive passive occurring in the attributive position is not the only class of passive participle that undergoes the relevant morphological change; in fact, in Afrikaans, all three the classes – eventive passive, R-state and T-state – display a similar change. Based on this observation, it was suggested that an account in which the morphological change is attributed to the relevant position of the passive participle, and not to a distinct internal structure, might be theoretically more economical and parsimonious.

The various forms of the Afrikaans participle were analysed in Chapter 4, with particular attention given to the morphological difference between the attributive and predicative passive participle. In the proposed analyses, the sub-word level structure of each class of passive participle does not differ between the predicative and attributive position; rather, the morphological change of the passive participle relative to its position is taken to be a feature of the position itself. As a consequence, Sleeman’s empirical observations can be accounted for while maintaining the more parsimonious ternary classification system.

Various issues meriting further research were identified in the course of the discussion. To end, two of these are briefly outlined below. First, although Lundquist’s (2008) binary categorisation system for passive participles was not adopted in this study, it was acknowledged that such a system does merit further investigation. One of the main points in Lundquist’s proposal is that the eventive passive and the R-state occur with different passive auxiliaries in languages like German and Swedish. It was shown in Section 4.3, however, that this is not the case in Afrikaans, in which the eventive passive and the R-state can occur with both the stative and the eventive passive auxiliary. Despite potential problems surrounding the co-occurrence of the various passive participles and auxiliaries, the merit of the binary classification system remains an interesting topic for further research.

Second, the structures that were suggested in Section 4.4 to account for the difference in form between the attributive and predicative passive participle in Afrikaans, comprise both sub-
word level and word level elements. This was done for the lack of a more fully developed nanosyntactic account of the various elements that appear in the syntactic representation of sentential and phrasal constituents in conventional MS. Ideally, each word-level element in such a representation should be “broken down” into its sub-word components, as is done by means of the syntactico-semantic features [Init], [Proc] and [Res] in the case of passive participles. This is especially important in order to provide a more adequate account of the differences between the passive participle in the predicative position and in the attributive position. It should be possible to give a full nanosyntactic representation of any element occurring at word level. For example, in order to account for the differences in form and behaviour between an attributive passive participle and its predicative counterpart, it could be argued that the word level attributive position itself should be decomposed into specific nanosyntactic elements. Such an enterprise – which could be extended to, among others, passive auxiliaries, and prepositional and nominal expressions – requires much further research, however. Although the structures suggested in Section 4.4 are merely intended as a possible starting point in this regard, they do seem to indicate, contrary to what is proposed by Sleeman (2011), that an analysis of attributive passive participles does not necessarily require positing a distinct fourth category with its own unique internal structure.
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